



CMR Engineering College

Affiliated to JNTU, Hyderabad and Approved by AICTE-New Delhi

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

LABORATORY IMPROVEMENT FOR FUTURE TRENDS (LIFT) - - -II

A Guide for execution of Lab Courses

VISION OF THE INSTITUTE:

To be recognized as a premier institution in offering value based and futuristic quality technical education to meet the technological needs of the society.

MISSION OF THE INSTITUTE:

- To impart value based quality technical education through innovative teaching and learning methods.
- To continuously produce employable technical graduates with advanced skills to meet the current and future technological needs of the society.
- To prepare the graduates for higher learning with emphasis on academic and industrial research.

DEPARTMENT OF COMPUTER SCIENCE AND **ENGINEERING**

VISION:

To produce globally competent and industry ready graduates in Computer Science & Engineering by imparting quality education with a know-how of cutting edge technology and holistic personality

MISSION:

- To offer high quality education in Computer Science & Engineering in order to build core competence for the graduates by laying solid foundation in Applied Mathematics, and program framework with a focus on concept building
- The department promotes excellence in teaching, research, and collaborative activities to prepare graduates for professional career or higher studies
- Creating intellectual environment for developing logical skills and problem solving strategies, thus to develop, able and proficient computer engineer to compete in the current global scenario

Program Educational Objectives (PEOs)

- Excel in professional career or higher education by acquiring knowledge in mathematical, computing and engineering principles
- To provide intellectual environment for analyzing and designing computing systems for technical needs
- Exhibit professionalism, multidisciplinary teamwork and adapt to current trends by engaging in lifelong learning and practice their profession with legal, social and ethical responsibilities

PROGRAM SPECIFIC OUTCOMES (PSO's)

1. Professional Skills and Foundations of Software development: Ability to analyze, design and develop applications by adopting the dynamic nature of Software developments
2. Applications of Computing and Research Ability: Ability to use knowledge in cutting edge technologies in identifying research gaps and to render solutions with innovative ideas

1. AIM OF THE LIFT:

The main aim of the LIFT programme is to innovate, modify the existing facilities in labs, to create awareness among the students and develop Industry –Institution interactions and reach the standards in laboratories

2. FUNCTIONS OF THE LIFT:

- I. To create better understanding concepts of LIFT and other lab related activities among the staff and lab technicians for better improvement.
- II. To Arrange LIFT Presentations from each department about the lab activities by the staff handling the labs. (Lab Planners)
- III. To Prepare GAP ANALYSIS: This involves collection of requirements from each lab of every department, information about expansion of labs, repairs and maintenance of labs etc.
- IV. To arrange Industrial Visits/ Industrial training programs in coordination with concerned lab staff and Heads of the departments.
- V. A Report on Shadow Engineering: This involves arrangement of Industrial and Practical learning, Submission of Industrial Visit report, Technical Survey reports and Market Survey of a product for development in laboratories.
- VI. Verification of all the laboratories in every department by the LIFT Team along with the Principal and the concerned HODs, to check whether the activities are going according to LIFT guidelines, to check the Record Keeping, Lab Manuals and Viva sessions etc.
- VII. Check for LEAD Experiments and its follow up.
- VIII. Submission of proposals related to R&D, Project and Consultancy from lab staff to the Principal for further approvals.

LAB IMPROVEMENT FOR FUTURE TRENDS PROGRAMME (LIFT)

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1. OBJECTIVES AND RELEVANCE:

The main objective of the LIFT concept in lab course is to provide practical hands on experience for each student by providing them with good exposure to different experiments and to uplift the knowledge levels of the student, with different applications in various fields.

2. SCOPE:

The main scope of the LIFT lab course is to cover all the experiments as per the schedule given in the prescribed week wise periods. With this, a student can better understand the concepts and operating systems so that he could get better knowledge about each lab.

3. PREREQUISITES:

The basic level idea related to each experiment should be provided to the students before conducting main lab course. Following details are to be explained related to experiment:

1. Introduction to experiment – 30 min
2. The Operating of the equipment/instrument/software
3. Record of Experimental Results.
4. Sample Calculations / Executable Programs

4. SYLLABUS AS PER JNTUH:

The lab course should be planned as per the JNTUH syllabus. In this, LEAD experiments should also be included in the cycle of experiments.

5. (A) LAB SCHEDULE:

The lab schedule should be planned once in a week. The week wise scheduled experiment should be completed.

CYCLE 1

Batches	week-1	week-2	week-3	week-4	week-5	week-6	week-7
B1	Demo	Exp.1	Exp.2	Exp.10	Exp.9	Exp.8	Test
B2	Demo	Exp.2	Exp.10	Exp.9	Exp.8	Exp.1	test
B3	Demo	Exp.10	Exp.9	Exp.8	Exp.1	Exp.2	test
B4	Demo	Exp.9	Exp.8	Exp.1	Exp.2	Exp.10	test
B5	Demo	Exp.8	Exp.1	Exp.2	Exp.10	Exp.9	test

CYCLE 2

Batches	week-1	week-2	week-3	week-4	week-5	week-6	week-7
B1	Exp.3	Exp.4	Exp.6	Exp.11	Exp.12	Exp.5	test
B2	Exp.7	Exp.6	Exp.11	Exp.12	Exp.5	Exp.4	test
B3	Exp.3	Exp.11	Exp.12	Exp.5	Exp.4	Exp.6	test
B4	Exp.10	Exp.12	Exp.5	Exp.4	Exp.6	Exp.11	test
B5	Exp.9	Exp.5	Exp.4	Exp.6	Exp.11	Exp.12	test

(B) VIVA SCHEDULE:

The viva schedule should be planned prior to the lab experiment.

ROUND - 1

Batches	week-1	week-2	week-3	week-4	week-5
B1,B2,B3	viva				
B1,B2,B3		viva			
B1,B2,B3			viva		
B1,B2,B3				viva	
B1,B2,B3					viva

ROUND - 2

Batches	week-1	week-2	week-3	week-4	week-5
SG1	viva				
SG2		viva			
SG3			viva		
SG4				viva	
SG5					viva

*SG: Selected Group with a maximum of 6 or 12 students

(C) Scheme of Evaluation:

The scheme of evaluation for internal and external exams as follows:

LAB INTERNAL:							
Day to Day Evaluation-15					Internal Exam-10		
Uniform	Observation & Record	Performance Of the Experiment	Result	Viva	Write up	Execution & Results	Viva
Marks-3	Marks-3	Marks-3	Marks-3	Marks-3	Marks-4	Marks-3	Marks-3
Total Marks-25							

LAB EXTERNAL:			
S.NO	Write up	Final Evaluation	Viva
1	1. Aim 2. Procedure 3. Program 4. Expected output.	Based on correctness of the program and Results	Based on understanding of Experiment and theoretical questions in the related subjects
Marks	20	20	10
Total Marks-50			

6. SUGGESTED BOOKS:

The suggested books should be recommended to the students as per the JNTUH syllabus prescribed.

7. WEBSITES (USEFUL LINKS):

The useful links should be provided to the students, where they can get an easy access to the knowledge of the experiment.

8. EXPERT DETAILS:

The expert details should be provided based on the experimental importance.

9. MAPPING OF LAB WITH PROJECT/CONSULTANCY/R & D:

The lab course should be designed in such a way that it should meet the requirements of research and development as well as consultancy projects. Also the Proposals of Project/R&D/Consultancy are as follows:

Proposal 1: Project Design & Execution

Proposal 2: R& D Level Project Design & Execution

Proposal 3: Consultancy Task / Project Design & Development

Proposal 1: Project Design & Execution:

A Proposal of a hobby/mini/proto/general/model/proto type project including the abstract, Block Diagram/Circuit/Flow diagram and clear references may be presented and executed.

Proposal 2: R& D Level Project Design & Execution:

1. An exact paper from a National/International journal in this entitled area/subject/area (IEEE Format)

AND/OR

2. An article/white paper from a magazine /journal/weekly/any periodical in the entitled Subject

AND/OR

3. An Advanced technology development/ proposal/article publication from any source of information.

Proposal 3: Consultancy Task / Project Design & Development:

A program/machine/product of utility may be proposed to develop for in-house usage/ Industrial requirements which may be useful for any outside agency, that can be marketable in order to generate revenue through consultancy

FUNDED/UNFUNDED PROPOSALS (if any):

The proposals for AICTE grants like (SDPs, RPS and MODROBES etc) UGC grants, DST CPRI and other funding agencies may be submitted by giving Title and Abstract/Objective OR Self Funded program proposals may be submitted for Management approvals.

10. PROPOSALS:

(WEEK WISE INDUSTRIAL VISITS IN-HOUSE OR OUTSIDE VISIT OR TRAINING PROGRAMS)

TABLE 1 : INDUSTRIAL VISITS

S.No.	Type of industry	Nature of industry	Date of visit	No. of students participated	Year/branch	Remarks

**TABLE 2: INDUSTRIAL TRAINING (Shadow Engineering)
(Career Visit Approval)**

S.No.	Name of the Course	Nature of industry	Duration of Training	Authority	Date of Training/Certificate No.	Remarks

**11. GUIDELINES FOR SHADOW ENGINEERING (VIP) AND INDUSTRIAL VISITS:
(IIP – INNOVATIVE INDUSTRIAL LEARNING PROGRAM):**

OBJECTIVES OF SHADOW ENGINEERING:

1. The program uplifts the knowledge of the students related to laboratories.
2. To improve the industry-college interactions.
3. To create industry like environment for all the students in order to make future assignment.
4. This program leads to matrixing with the students.

12. ACTIVITIES IN LIFT PROGRAM:

i. CALIBRATION/INSTALLATION AND TESTING:

Calibration: Aim of this concept is to check:

- i. whether all the equipment is functioning correctly as per the standards
- ii. To bring correctness in the errors of instrument or equipment.
- iii. To rectify the errors if any

Installation: Aim of this concept is to make and maintain installation procedure for a new equipment or already existing equipment

Testing: Aim of this concept is to test the equipment after installation whether it meets the existing standards.

The list of equipments (hardware/software):

- i. Necessity of tools for development and testing.
- ii. Equipment to be calibrated.
- iii. Installation of supporting equipment if any.

After calibration the details of equipment should be submitted in following format.

S.No.	Type of equipment	Certificate no.	Certificate issued by	Date of calibration	Date of calibration due	Remarks

Calibration, Testing and Installation details equipment wise are mentioned as follows:

Case 1: Calibration of Equipment ----- if any

Case 2: Installation of Equipment ----- if any

Case 3: Testing of Equipment ----- if any

13. PREVENTIVE MAINTENANCE SCHEDULES

Maintenance:

Maintenance and trouble shooting of each equipment in a laboratory must follow the following guidelines:

Maintenance Schedules:

(1) Preventive Maintenance Schedules of lab will be decided by lab in charge along with concerned HOD. The details of schedule should be recorded in the following format.

S.No.	Name of the Equipment	Date of Maintenance	Type of Activity	Remarks

(2) Maintenance Reports should be duly signed by in charges as well as HODs and duly approved by Principal periodically.

14.TROUBLE SHOOTING SCHEDULES:

A proposal is to be made from each lab branch wise. The proposal should carry following details related to specific equipment in lab.

S.No., Equipment Name , Type of Problem (Too much Noise, Abnormal Sound, Corrupt Software, Anti Virus Problem, Missing of Display, CRT not working, Motor is not giving signal, Digital display is

not working, Break of tools, Misalignment of machine elements, PLC is not properly working), Expected Reasons (Bearing failure, Improper alignment of machine centres, Missing of vibration pads etc) Trouble shooting exercises should be properly recorded in a separate format as mentioned below:

S.No.	Date of recording activity	Equipment Name	Type of Trouble	Remedial Activity	Remarks

NAME OF THE LABORATORIES

S.No.	YEAR-SEM	NAME OF THE LAB
1	II B.TECH-II SEM	JAVA PROGRAMMING LAB
2	II B.TECH-ISEM	DATA BASE MANAGEMENT SYSTEMS LAB
3	III B.TECH-ISEM	CASE TOOLS AND WEB TECHNOLOGIES LAB
4	III B.TECH-ISEM	ADVANCED COMMUNICATION SKILLS LAB
5	IV B.TECH-II SEM	PROJECT WORK

JAVA PROGRAMMING

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1. OBJECTIVES AND RELEVANCE

- To introduce java compiler and eclipse platform
- To impart hand on experience with java programming
- To learn the basics of java console and GUI based programming.
- Be able to use the Java SDK environment to create, debug and run simple Java programs
- Understand the use of various system libraries.
- Understand development of JAVA applets vs. JAVA applications.

2. SCOPE

Java is used in a variety of computing platforms from embedded devices and mobile phones on the low end, to enterprise servers and supercomputers on the high end. Java is nearly everywhere in mobile phones, Web servers and enterprise applications, and while less common on desktop computers; Java applets are often used to provide improved functionality while browsing the World Wide Web.

3. PREREQUISITES

- C Programming and Data Structures
- Object Oriented Programming Languages (C++ etc.)

4. JNTUH SYLLABUS

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

II Year B.Tech. CSE-II Sem L T/P/D C

JAVA PROGRAMMING LAB

NOTE :

Use Linux and MySQL for the Lab experiments. Though not mandatory, encourage the use of Eclipse platform.

The list suggests the minimum program set. Hence, the concerned staff is requested to add more problems to the list as needed

Week1:

Prerequisite: The student has to know about the platform to execute the various applications.

The student should have the knowledge of installing Eclipse and run it.

Objective: The student able to know about how to run Eclipse and knowledge about basic usage of Eclipse.

Description: The Eclipse is an IDE tool for running various applications of java.

Use Eclipse or Netbean platform and acquaint with the various menus. Create a test project,

add a test class and run it. See how you can use auto suggestions, auto fill. Try code formatter and code refactoring like renaming variables, methods and classes. Try debug step by step with a small program of about 10 to 15 lines which contains at least one if else condition and a for loop.

Week2:

Prerequisite: The student has to know about the type of Layouts and also various Layout features

Objective: The student can understand to perform the Calculator on Grid Layout.

Description: This application which shows Calculator operation feature on Grid Layout.

Write a java program that works as a simple calculator. Use a grid layout to arrange buttons for the digits and for the +, -, *, % operations. Add a text field to display the result. Handle any possible exceptions like divided by zero.

Week3:

Prerequisite: The student should have a basic knowledge about applet and it's use.

Objective: The student able to know about how to execute applet.

Description: The application which executes simple message and factorial of a number in applets.

(a) Develop an applet in java that displays a simple message.

(b) Develop an applet in java that receives an integer in one text field, and computes its factorial value and returns it in another text field, when the button named "compute" is clicked

Week 4:

Prerequisite: The student has to know about the Exceptions and also types of exceptions.

Objective: The student can understand how to handle the exceptions.

Description: The application which explains about the exception handling feature.

Write a java program that creates a user interface to perform integer divisions. The user enters two numbers in the text fields, Num1 and Num2. The division of Num1 and Num2 is displayed in the Result field when the Divide button is clicked. If Num1 or Num2 were not an integer, the program would throw a Number Format Exception. If Num2 were Zero, the program would throw an Arithmetic Exception. Display the exception in a message dialog box.

Week 5:

Prerequisite: The student has to know about the threads and their importance.

Objective: The student can understand how to implement the threads.

Description: The application which explains about the multithread feature.

Write a java program that implements a multi-thread application that has three threads. First thread generates random integer every 1 second and if the value is even, second thread computes the square of the number and prints. If the value is odd, the third thread will print the value of cube of the number.

Week 6:

Prerequisite: The student has to know about the database and also type of drivers for connection of database.

Objective: The student can understand usage of Database with java.

Description: The application which explains about the connection to the database with type of drivers for executing simple operations of SQL.

Write a java program that connects to a database using JDBC and does add, delete, modify and retrieve operations.

Week 7:

Prerequisite: The student has to know about the Swing concepts and their usage.

Objective: The student can understand how to implement the swing concepts.

Description: The application which explains about the usage swing concepts.

Write a java program that simulates a traffic light. The program lets the user select one of three lights: red, yellow, or green with radio buttons. On selecting a button, an appropriate message with “stop” or “ready” or “go” should appear above the buttons in selected color. Initially there is no message shown.

Week 8:

Prerequisite: The student has to know about the Swing concepts and their usage.

Objective: The student can understand how to implement abstract class.

Description: The application which prints the area of given shape.

Write a java program to create an abstract class named Shape that contains two integers and an empty method named print Area ().

Provide three classes named Rectangle, Triangle, and Circle such that each one of the classes extends the class Shape. Each one of the classes contains only the method print Area () that prints the area of the given shape.

Week 9:

Prerequisite: The student has to know about the Swing concepts and their usage.

Objective: The student can understand how to implement Grid Layout usage of labels.

Description: The application which explains about the usage of Grid layout with labels.

Suppose that a label named Table.txt is stored in a text file. The first line in the file is the header, and the remaining lines correspond to rows in the table. The elements are separated by commas. Write a java program to display the table using Labels in Grid Layout.

Week 10:

Prerequisite: The student has to know about the Event handling concepts and their usage.

Objective: The student can understand to implement all mouse events.

Description: The application which explains about the usage of event handling mouse events.

Write a java program that handles all mouse events and shows the event name at the center of the window when a mouse event is fired.

(Use Adapter classes)

Week 11:

Prerequisite: The student has to know about the hash table.

Objective: The student can understand how to implement how to read the data from file and prints corresponding data from file.

Description: The application which explains about the usage of hash table.

Write a java program that loads names and phone numbers from a text file where the data is organized as one line per record and each field in a record are separated by a tab (\t). It takes a name or phone number as input and prints the corresponding other value from the hash table (hint: use hash tables)

Week 12:

Prerequisite: The student has to know about the database usage

Objective: The student can understand how to implement database connection and prints corresponding data from database.

Description: The application which explains about the usage of database for printing data

Implement the above program with database instead of text file.

Week 13:

Prerequisite: The student has to know about the database usage.

Objective: The student can understand how to implement how to read the data from file and inserts them into database.

Description: The application which explains about the usage of text file to database.

Write a java program that takes tab separated data (One record per line) from a text file and inserts them into a data base.

Week 14:

Prerequisite: The student has to know about the database usage.

Objective: The student can understand how to implement how to read the data from database

Description: The application which explains about the usage of database

Write a java program that prints the meta-data of a given table.

MAIN LINKAGE OF DATA STRUCTURES THEORY WITH LAB EXPERIMENTS:

Objective: The student able to know about how to run Eclipse and knowledge about basic usage of Eclipse.

EXPERIMENT NO.1

Use Eclipse or Netbean platform and acquaint with the various menus. Create a test project, add a test class and run it. See how you can use auto suggestions, auto fill. Try code formatter and code refactoring like renaming variables, methods and classes. Try debug step by step

with a small program of about 10 to 15 lines which contains at least one if else condition and a for loop.

UNIT- V

EXPERIMENT NO.2

Objective: The student can understand to perform the Calculator on Grid Layout. The student able to know about how to execute applet.

Write a java program that works as a simple calculator. Use a grid layout to arrange buttons for the digits and for the +, -, *, % operations. Add a text field to display the result. Handle any possible exceptions like divided by zero.

(a) Develop an applet in java that displays a simple message.

(b) Develop an applet in java that receives an integer in one text field, and computes its factorial value and returns it in another text field, when the button named “compute” is clicked

EXPERIMENT NO.4

Objective: The student can understand how to handle the exceptions.

.Write a java program that creates a user interface to perform integer divisions. The user enters two numbers in the text fields, Num1 and Num2. The division of Num1 and Num2 is displayed in the Result field when the Divide button is clicked. If Num1 or Num2 were not an integer, the program would throw a Number Format Exception. If Num2 were Zero, the program would throw an Arithmetic Exception. Display the exception in a message dialog box.

UNIT- III

Objective: The student can understand how to implement the threads

EXPERIMENT NO.5

Write a java program that implements a multi-thread application that has three threads. First thread generates random integer every 1 second and if the value is even, second thread computes the square of the number and prints. If the value is odd, the third thread will print the value of cube of the number.

UNIT –IV

Objective: The student can understand usage of Database with java.

EXPERIMENT NO.6

Write a java program that connects to a database using JDBC and does add, delete, modify and retrieve operations.

Objective: The student can understand how to implement the swing concepts.

EXPERIMENT NO.7

Write a java program that simulates a traffic light. The program lets the user select one of three lights: red, yellow, or green with radio buttons. On selecting a button, an appropriate message

with “stop” or “ready” or “go” should appear above the buttons in selected color. Initially there is no message shown.

UNIT – II

Objective: The student can understand how to implement abstract class.

EXPERIMENT NO.8

Write a java program to create an abstract class named Shape that contains two integers and an empty method named printArea().

Provide three classes named Rectangle, Triangle, and Circle such that each one of the classes extends the class Shape. Each one of the classes contains only the method printArea() that prints the area of the given shape.

UNIT- IV

Objective: The student can understand how to implement Grid Layout usage of labels.

EXPERIMENT NO.9

Suppose that a label named Table.txt is stored in a text file. The first line in the file is the header, and the remaining lines correspond to rows in the table. The elements are separated by commas. Write a java program to display the table using Labels in Grid Layout.

UNIT- V

Objective: The student can understand to implement all mouse events.

EXPERIMENT NO.10

Write a java program that handles all mouse events and shows the event name at the center of the window when a mouse event is fired.

(Use Adapter classes)

UNIT- IV

Objective: The student can understand how to implement how to read the data from file and prints corresponding data from file.

EXPERIMENT NO.11

Write a java program that loads names and phone numbers from a text file where the data is organized as one line per record and each field in a record are separated by a tab(\t). It takes a name or phone number as input and prints the corresponding other value from the hash table(hint: use hash tables)

Objective: The student can understand how to implement database connection and prints corresponding data from database.

EXPERIMENT NO.12

Implement the above program with database instead of text file.

Objective: The student can understand how to implement how to read the data from file and inserts them into database.

EXPERIMENT NO.13

Write a java program that takes tab separated data(One record per line)from a text file and inserts them into a data base.

Objective: The student can understand how to implement how to read the data from database

EXPERIMENT NO.14

Write a java program that prints the meta-data of a given table.

LEAD

1.(a)Write a java program to display the score of a player when player name is given(hash table)

(b)Write a java program using string tokenizer

2 (a) write a java program to copy contents of one file to another

(b)Write a java program to print reverse the contents of file.

5(A) LAB SCHEDULE:

CYCLE 1:

Batches	week-1	week-2	week-3	week-4	week-5	week-6	week-7	week-8
B1(501-512)	Exp.1	Exp.2	Exp.3	Exp.4	Exp.5	Exp.6	Exp.7	Test
B2(513-524)	Exp.1	Exp.2	Exp.3	Exp.4	Exp.5	Exp.6	Exp.7	Test
B3(525-536)	Exp.1	Exp.2	Exp.3	Exp.4	Exp.5	Exp.6	Exp.7	Test
B4(537-548)	Exp.1	Exp.2	Exp.3	Exp.4	Exp.5	Exp.6	Exp.7	Test
B5(549-560)	Exp.1	Exp.2	Exp.3	Exp.4	Exp.5	Exp.6	Exp.7	Test

CYCLE 2

Batches	week-9	week-10	week-11	week-12	week-13	week-14	week-15	week-16
B1(501-512)	Exp.8	Exp.9	Exp.10	Exp 11	Exp 12	Exp 13	Exp 14	Test
B2(513-524)	Exp.8	Exp.9	Exp.10	Exp 11	Exp 12	Exp 13	Exp 14	Test
B3(525-536)	Exp.8	Exp.9	Exp.10	Exp11	Exp 12	Exp 13	Exp 14	Test
B4(537-548)	Exp.8	Exp.9	Exp.10	Exp 11	Exp 12	Exp 13	Exp 14	Test
B5(549- 560)	Exp.8	Exp.9	Exp.10	Exp 11	Exp 12	Exp 13	Exp 14	Test

Batches	week-1	week-2	week-3	week-4	week-5	week-6	week-7	week-8
B6(561-572)	Exp.1	Exp.2	Exp.3	Exp.4	Exp.5	Exp.6	Exp.7	Test
B7(573-584)	Exp.1	Exp.2	Exp.3	Exp.4	Exp.5	Exp.6	Exp.7	Test
B8(585-596)	Exp.1	Exp.2	Exp.3	Exp.4	Exp.5	Exp.6	Exp.7	Test
B9(597-5A8)	Exp.1	Exp.2	Exp.3	Exp.4	Exp.5	Exp.6	Exp.7	Test
B10(5A9-5C0)	Exp.1	Exp.2	Exp.3	Exp.4	Exp.5	Exp.6	Exp.7	Test

Batches	week-9	week-10	week-11	week-12	week-13	week-14	week-15	week-16
B6(561-572)	Exp.8	Exp.9	Exp.10	Exp 11	Exp 12	Exp 13	Exp 14	Test
B7(573-584)	Exp.8	Exp.9	Exp.10	Exp 11	Exp 12	Exp 13	Exp 14	Test
B8(585-596)	Exp.8	Exp.9	Exp.10	Exp11	Exp 12	Exp 13	Exp 14	Test
B9(597-5A8)	Exp.8	Exp.9	Exp.10	Exp 11	Exp 12	Exp 13	Exp 14	Test
B10(5A9-5C0)	Exp.8	Exp.9	Exp.10	Exp 11	Exp 12	Exp 13	Exp 14	Test

CYCLE 3

Batches	week-1	week-2	week-3	week-4	week-5	week-6	week-7	week-8
B11(5C1 -5 D2)	Exp.1	Exp.2	Exp.3	Exp.4	Exp.5	Exp.6	Exp.7	Test
B12(5D3 - 5E4)	Exp.1	Exp.2	Exp.3	Exp.4	Exp.5	Exp.6	Exp.7	Test
B13(5E5 - 5F6)	Exp.1	Exp.2	Exp.3	Exp.4	Exp.5	Exp.6	Exp.7	Test
B14(5F7 - 5G8)	Exp.1	Exp.2	Exp.3	Exp.4	Exp.5	Exp.6	Exp.7	Test
B15(5G9 - 5H8)	Exp.1	Exp.2	Exp.3	Exp.4	Exp.5	Exp.6	Exp.7	Test

Batches	week-9	week-10	week-11	week-12	week-13	week-14	week-15	week-16
B11(5C1 -5 D2)	Exp.8	Exp.9	Exp.10	Exp 11	Exp 12	Exp 13	Exp 14	Test
B12(5D3 - 5E4)	Exp.8	Exp.9	Exp.10	Exp 11	Exp 12	Exp 13	Exp 14	Test
B13(5E5 - 5F6)	Exp.8	Exp.9	Exp.10	Exp11	Exp 12	Exp 13	Exp 14	Test
B14(5F7 - 5G8)	Exp.8	Exp.9	Exp.10	Exp 11	Exp 12	Exp 13	Exp 14	Test
B15(5G9 - 5H8)	Exp.8	Exp.9	Exp.10	Exp 11	Exp 12	Exp 13	Exp 14	Test

B) VIVA SCHEDULE: The viva schedule should be planned prior starting to the lab experiment.

CYCLE 1:

ROUND - 1

Batches	week-1	week-2	week-3	week-4	week-5	week-6	week-7	week-8	week-9	week-10	week-11	week-12	week-13	week-14
B1,B2,B3	viva					viva					viva			
B4,B5,B1		Viva					viva					viva		
B2,B3,B4			viva					viva					viva	
B5,B1,B2				viva					viva					viva
B2,B3,B4					viva					viva				

CYCLE 2:

ROUND - 1

Batches	week-1	week-2	week-3	week-4	week-5	week-6	week-7	week-8	week-9	week-10	week-11	week-12	week-13	week-14
B6,B7,B8	viva					viva					viva			
B9,B10,B6		Viva					viva					viva		
B7,B8,B9			viva					viva					viva	
B10,B6,B7				viva					viva					viva
B8,B9,B10					viva					viva				

CYCLE 3:

ROUND - 1

Batches	week-1	week-2	week-3	week-4	week-5	week-6	week-7	week-8	week-9	week-10	week-11	week-12	week-13	week-14
B11,B12,B13	viva					viva					viva			
B14,B15,B11		viva					viva					viva		
B12,B13,B14			viva					viva					viva	
B15,B11,B12				viva					viva					viva
B13,B14,B15					viva					viva				

ROUND - 2

Batches	week-1	week-2	week-3	week-4	week-5	week-6	week-7	week-8	week-9	week-10
SG1	viva									
SG2			viva							
SG3					viva					
SG4							viva			
SG5									viva	

*SG:

*Selected Group with a maximum of 6 or 12 students

(C) Scheme of Evaluation:

The scheme of evaluation for internal and external exams as follows:

LAB INTERNAL:							
Day to Day Evaluation-15					Internal Exam-10		
Uniform	Observation & Record	Performance Of the Experiment	Result	Viva	Write up	Execution & Results	Viva
Marks-3	Marks-3	Marks-3	Marks-3	Marks-3	Marks-4	Marks-3	Marks-3
Total Marks-25							

LAB EXTERNAL:			
S.NO	Write up	Final Evaluation	Viva
1	1. Aim 2. Procedure 3. Program 4. Expected output.	Based on correctness of the program and Results	Based on understanding of Experiment and theoretical questions in the related subjects
Marks	20	20	10
Total Marks-50			

6. SUGGESTED BOOKS:

1. Java Fundamentals – A comprehensive introduction, Herbert Schildt and Dale Skrien, TMH.
2. Object Oriented Programming through Java, P. Radha Krishna,
3. Java for programmers, P.J.Deitel and H.M.Deitel, Pearson education
4. Thinking in java , Bruce Eckel, Pearson education
5. Programming in java, S.Malhotra and S.Choudhary, Oxford Univ.Press.

7. WEBSITES

<http://www.sourcecodesworld.com>

<http://www.javawithus.com>

<http://www.java2s.com>

<http://www.tutorialspoint.com>

<https://docs.oracle.com/javase/tutorial/java>

<http://www.javatpoint.com>

<http://www.srikanthtechnologies.com/books/javabook/answers.html>

http://www.homeandlearn.co.uk/java/databases_and_java_forms.html

8. EXPERT DETAILS

The Expert Details which have been mentioned below are only a few of the eminent ones known Internationally, Nationally and Locally. There are a few others known as well

INTERNATIONAL

1. Balaguru Swami
Dept.Of CSE,
The University of Texas,
Arligton.
2. Temer Ozsu,
University Of Alberte,
Edmonton, Canada.
3. Shankant B. Navathe,
College Of Texas,
Arligton.

NATIONAL

1. P.V. Kumar,
Dept. Of CSE,
O.U-Hyderabad.
2. M. Narendra Reddy
Dept. Of CSE,
O.U - Hyderabad

REGIONAL

1. R.Nageswara Rao,
Software trinee, Inetsolve,
Hyderabad.
2. B.Vijaya Bhaskar
H.O.D., Dept Of IT,
SSN-Ongole
A.P.

9. MAPPING OF LAB WITH PROJECT/CONSULTANCY/R & D:

Proposal 1: Project Design & Execution

Proposal 2: R& D Level Project Design & Execution

Proposal 3: Consultancy Task / Project Design & Development

1. An exact paper from a National/International journal in this entitled area/subject/area(IEEE Format)

AND/OR

2. An article/white paper from a magazine /journal/weekly/any periodical in the entitled

Subject

AND/OR

3. An Advanced technology development/ proposal/article publication from any source of Information

PROPOSAL 1: PROPOSAL FOR PROJECT ACTIVITY

Online Banking Project

ABSTRACT

This project is aimed at developing an Online Banking for customer. The system is an online application that can be accessed throughout the organization and outside as well with proper login provided.

The project has been planned to be having the view of distributed architecture, with centralized storage of the database. The application for the storage of the data has been planned. Using the constructs of Oracle 10g and all the user interfaces have been designed using the JAVA. The database connectivity is planned using the “Database” methodology. The standards of security and data protective mechanism have been given a big choice for proper usage. The application takes care of different modules and their associated reports, which are produced as per the applicable strategies and standards that are put forwarded by the administrative staff.

The entire project has been developed keeping in view of the distributed client server computing technology, in mind. The specification has been normalized up to 3NF to eliminate all the anomalies that may arise due to the database transaction that are executed by the general users and the organizational administration. The user interfaces are browser specific to give distributed accessibility for the overall system. The internal database has been selected as Oracle 10g. The basic constructs of table spaces, clusters and indexes have been exploited to provide higher consistency and reliability for the data storage. The Oracle 10g was a choice as it provides the constructs of high-level reliability and security. The total front end was dominated using the HTML 5. At all proper levels high care was taken to check that the system manages the data consistency with proper business rules or validations. The database connectivity was planned using the latest “ Database connection” technology provided by Oracle. The authentication and authorization was crosschecked at all the relevant stages. The user level accessibility has been restricted into two zones namely.

PROPOSAL 2 : R & D ACTIVITY:

Sample for Serial No: 1

An exact paper from a National/International journal in this entitled area/subject/area

Secure Execution of Java Applets Using a Remote Playground

Dahlia Malkhi and Michael K. Reiter

Abstract Mobile code presents a number of threats to machines that execute it. We introduce an approach for protecting machines and the resources they hold from mobile code and describe a system based on our approach for protecting host machines from Java 1.1 applets. In our approach, each Java applet downloaded to the protected domain is rerouted to a dedicated machine (or set of machines), the playground, at which it is executed. Prior to execution, the applet is transformed to use the downloading user's web browser as a graphics terminal for its input and output and so the user has the illusion that the applet is running on her own machine. In reality, however, mobile code runs only in the sanitized environment of the playground, where user files cannot be mounted and from which only limited network connections are accepted by machines in the protected domain. Our playground thus provides a second level of defense against mobile code that circumvents language-based defenses. The paper presents the design and implementation of a playground for Java 1.1 applets and discusses extensions of it for other forms of mobile code, including Java 1.2.

Proposal 3: Consultancy Task / Project Design & Development

The above project will be able to complete and it will be used as consultancy for better corporate relations environment for revenue generation.

10. Relevant IV (Industrial Visit) (VIP= Visit of Industrial Proposals)

If students are visited different software development companies like Electronic arts, Game Loft, prokarma.

S.no	Type of industry	Nature of industry	Date of visit	No. of students participated	Year/branch	remarks
1	MNC	software		60	CSE-A	
2	MNC	software		59	CSE-B	
3	Level-3	software		58	CSE-C	

11. SHADOW ENGINEERING

GUIDELINES FOR SHADOW ENGINEERING (VIP)

INDUSTRIAL VISITS (IIP – INNOVATIVE INDUSTRIAL LEARNING PROGRAM):

OBJECTIVES OF SHADOW ENGINEERING:

1. The program which uplifts the knowledge of the students related to laboratories.
2. To improve the industry-college interactions.
3. To create industry like environment for all the students in order to make future Assignment.
4. This program leads to matrixing with the students.

**TABLE 2: INDUSTRIAL TRAINING (Shadow Engg)
(Career Visit Approval)**

S.no	Name of the Course	Nature of industry	Duration of Training	Authority	Date of Training/Certificate No.	remarks
1	Data Structures	Software	1 WEEK			

12. Calibration ,Testing & inspection

Calibration

There is no need of any equipment to be calibrated.

Testing & Inspection:

Black Box Testing

The technique of testing without having any knowledge of the interior workings of the application is Black Box testing. The tester is oblivious to the system architecture and does not have access to the source code. Typically, when performing a black box test, a tester will interact with the system's user interface by providing inputs and examining outputs without knowing how and where the inputs are worked upon.

White Box Testing

White box testing is the detailed investigation of internal logic and structure of the code. White box testing is also called glass testing or open box testing. In order to perform white box testing on an application, the tester needs to possess knowledge of the internal working of the code.

The tester needs to have a look inside the source code and find out which unit/chunk of the code is behaving inappropriately.

Grey Box Testing

Grey Box testing is a technique to test the application with limited knowledge of the internal workings of an application. In software testing, the term *the more you know the better* carries a lot of weight when testing an application.

Mastering the domain of a system always gives the tester an edge over someone with limited domain knowledge. Unlike black box testing, where the tester only tests the application's user interface, in grey box testing, the tester has access to design documents and the database. Having this knowledge, the tester is able to better prepare test data and test scenarios when making the test plan.

Incase if the software is lost we follow the following procedure to install.

Installation: Aim of this concept is to make and maintain installation procedure for a new equipment or already existing equipment

Downloading and Installing the Java Development Kit (JDK)

First you need some Java development software. You can choose from several products. In fact, you may already have one of these products on your own computer. If you don't, you can download the basic software by visiting a Sun Microsystems Web site. The product that you want to download is known by a few different names. It's called the Java Development Kit (JDK), the Java Software Development Kit (SDK), and the Java Standard Edition (Java SE). You may even see an extra 2 in a name like Java 2 Standard Edition (J2SE), but the 2 doesn't mean anything. (Sun Microsystems added the 2 several years ago and then dropped the 2 in 2006.)

Applicable to the Windows platform, use the following instructions to download and install the JDK:

1. Visit java.sun.com.
2. Find a link to download the Java SE 6 (the Java Standard Edition, version 6).

If you find some other version. Just make sure that you have a version numbered 6 or higher.

3. Download the JDK, not the JRE.

To create your own Java programs, you need more than the JRE. You need the entire JDK.

4. Double-click the icon of the downloaded file and follow the wizard's instructions for installing the JDK.

You can choose to have some or all of the components installed. Just make sure that your choice includes the development tools and the JRE.

You also see the name of the directory in which the JDK is to be installed. Jot down the exact name of the directory.

At some point, the wizard asks whether you want to register your Web browser with the latest Java plug-in. It's a good idea.

5. Return to the page where you found the JDK download. Get another download — the Java SE Documentation (also known as the Java SE API Documentation).

6. Extract the zipped Java SE Documentation to your Java home directory.

After you download the Java JDK, you're ready to install the software on your computer. Of course, you can do this 900 different ways, depending on your operating system, the names of directories on your hard drive, the wind velocity, and other factors. The following steps offer some guidelines:

1. Open My Computer and find the JDK file that you downloaded.

The file has a name like `jdk-6-blah-blah.exe`. The exact name depends on the operating system you're using, the version number that Sun has reached with Java, and whatever naming conventions the people at Sun have changed since this book was written.

2. Double-click the JDK file's icon.

- If you downloaded the tiny online installation file, your computer downloads more files from the Internet and installs Java while it downloads.
- If you downloaded the huge offline installation file, your computer extracts the contents of the huge setup file and installs Java from these contents.

3. Among the features that you select to install, make sure you select Development Tools and Public Java Runtime Environment.

You can choose to have some or all of the components installed. Just make sure that your choice includes these two items. To select or un-select an item, click the icon to the left of the item's name.

4. Jot down the name of the directory in which the Java SDK is being installed and then click Next.

From one version to the next, the installation package puts Java in different directories on the computer's hard drive. Lately the package has installed Java in a directory named `C:\Program Files\Java\jdk1.6.0`. During the installation on your computer, you may see a different directory name. (One way or another, the name probably has `jdk` in it.)

Take note of this directory name when the installation package displays it. This directory is called your Java home directory.

5. Enjoy the splash screens that you see while the software is being installed.

At the end of the installation, you click the proverbial Finish button. But you're still not done with the whole kit 'n caboodle. The next step is installing the Java documentation.

6. Copy the documentation to your Java home directory.

7. Check to make sure that you unzipped the documentation correctly.

After unzipping the documentation's Zip file, you should have a subdirectory named `docs` in your Java home directory. So open My Computer and navigate to your new `jdkwhatever` folder. Directly inside that folder, you should see a new folder named `docs`. This directory is called your Javadoc directory.

When your docs are all lined up in a row, you can proceed to the next step — installing a Java development environment.

13. PREVENTIVE MAINTENANCE SCHEDULE

Maintenance:

Maintenance and trouble shooting of each equipment in a laboratory must follow the following guidelines:

Maintenance Schedules:

(1) Preventive Maintenance Schedules of lab will be decided by lab in charge along with concerned HOD. The details of schedule should be recorded in the following template of format.

S.No.	Software	Date of Maintenance	Type of Activity	Remarks
1	Operating System		software's installed	

(2) Maintenance Reports duly signed by in charges as well as HODs and duly approved by Principal periodically.

14. TROUBLE SHOOTING SCHEDULES:

A proposal is to be made from each lab branch wise. The proposal should carry following details related to specific lab.

S.No., Software Tool , Type of Problem (insufficient memory,type of version,security issues,authentication issues,Corrupt Software, proper configuration, Missing of Display, CRT not working,), Expected Reasons .Trouble shooting exercises should be properly recorded in a separate format as mentioned below:

S.No.	Date of recording activity	Software Tool	Type of Trouble	Remedial Activity	Remarks

DATA BASE MANAGEMENT SYSTEM LAB

CONTENTS:

- 1. OBJECTIVES AND RELEVANCE**
- 2. SCOPE**
- 3. PREREQUISITES**
- 4. SYLLABUS AS PER JNTUH**
- 5. LAB SCHEDULE**
- 6. SUGGESTED BOOKS**
- 7. WEBSITES (USEFUL LINKS)**
- 8. EXPERT DETAILS**
- 9. MAPPING OF LAB WITH PROJECT/CONSULTANCY/R & D**
- 10. PROPOSALS**
- 11. GUIDELINES FOR SHADOW ENGINEERING (VIP) AND INDUSTRIAL VISITS (IIP – INNOVATIVE INDUSTRIAL LEARNING PROGRAM)**
- 12. CALIBRATION, TESTING AND INSPECTION**
- 13. PREVENTIVE MAINTENANCE SCHEDULES**
- 14. TROUBLESHOOTING**

1. OBJECTIVES AND RELEVANCE

The objectives that the management should keep in mind when they design and organize their data base management systems are:

- (i) Provide for mass storage of relevant data,
- (ii) Make access to the data easy for the user,
- (iii) Provide prompt response to user requests for data,
- (iv) Make the latest modifications to the database available immediately,
- (v) Eliminate redundant data,
- (vi) Allow for multiple users to be active at one time,
- (vii) Allow for growth in the database system,
- (viii) Protect the data from physical harm and unauthorized access.

2. SCOPE

The scope of the DBMS is a microcosm of computer science in general. The issues addressed and the techniques used span a wide spectrum, including languages, object orientation and other programming paradigm, compilation, theory, parallel and distributed systems, user interfaces, expert system and artificial intelligence, statistical techniques, and management in one book, but we hope to given the reader a sense of the excitement in this rich and vibrant discipline.

3. PREREQUISITES

The student should have the basic knowledge about the data base tools usage.

4. JNTUH SYLLABUS

WEEK 1: E-R Model

WEEK 2: Concept design with E-R Model

WEEK 3: Relational Model

WEEK 4: Normalization

WEEK 5: Installation of Mysql and practicing DDL commands

WEEK 6: Practicing DML commands

WEEK 7: Querying

WEEK 8& 9: Querying (continued ...)

WEEK 10: Triggers

WEEK 11: Procedures

WEEK 12: cursors

LEAD PROGRAMS

1. Create a DATA BASE for the following schema
Sailor,reserves and boats.

MAIN LINKAGE OF DATA BASE MANAGEMENT SYSTEMS WITH LAB EXPERIMENTS:

UNIT-I

Experiment 1: Create and manipulate identified tables for the course enrollment application .

Aim : To identify the scheme for the course enrollment application and ‘CREATE’ tables in oracle database using sql and to manipulate the tables using the ‘ALTER’ command.

Experiment 2: Grant database object privileges to access the users table objects and demonstrate the use of commit and

savepoints while manipulating data in the database.

Aim : To grant user privilege to create ,alter to manipulate db objects and use commit and create savepoints to

demonstrate the rollback option.

UNIT-II

Experiment 3: Demonstrate various single line and group functions for a table.

Aim : To use character, number and date function in select statement and demonstrate conversion functions and different group functions.

Experiment 4: Create views, partitions and locks for a particular DB.

Aim: To create, alter, and drop view for given tables, add partitions while creating tables and demonstrate the use of locking of tables.

Experiment 5: Write PL/SQL procedure for an application using exception handling.

- **Aim:** To write PL/SQL block to demonstrate exception handling using different types of PL/SQL exception handlers

UNIT-V

Experiment 6: Write PL/SQL procedure for an application using cursors.

Aim: To learn and write PL/SQL procedures and to demonstrate cursors implementation.

Experiment 7: Write a PL/SQL block for transaction operations of a typical application using triggers.

Aim: To learn and write PL/SQL Triggers and to demonstrate trigger implementation.

A) LAB SCHEDULE:**CYCLE 1:**

Batches	week-1	week-2	week-3	week-4	week-5	week-6	week-7	week-8
B1(501 to 512)	Demo	Exp.1	Exp.2	Exp.3	Exp.4	Exp.5	test	Exp.6
B2(513 to 524)	Demo	Exp.1	Exp.2	Exp.3	Exp.4	Exp.5	test	Exp.6
B3(525 to 536)	Demo	Exp.1	Exp.2	Exp.3	Exp.4	Exp.5	test	Exp.6
B4(537 to 548)	Demo	Exp.1	Exp.2	Exp.3	Exp.4	Exp.5	test	Exp.6
B5(549 to 560)	Demo	Exp.1	Exp.2	Exp.3	Exp.4	Exp.5	test	Exp.6

Batches	week-9	week-10	week-11	week-12	week-13	week-14	week-15	week-16
B1(501 to 512)	Exp.7	Exp.8	Exp.9	Exp.10	Exp 11	Exp 12	LEAD1 &2	Test
B2(513 to 524)	Exp.7	Exp.8	Exp.9	Exp.10	Exp 11	Exp 12	LEAD1 &2	Test
B3(525 to 536)	Exp.7	Exp.8	Exp.9	Exp.10	Exp11	Exp 12	LEAD1 &2	Test
B4(537 to 548)	Exp.7	Exp.8	Exp.9	Exp.10	Exp 11	Exp 12	LEAD1 &2	Test
B5(549 to 560)	Exp.7	Exp.8	Exp.9	Exp.10	Exp 11	Exp 12	LEAD1 &2	Test

CYCLE 2

Batches	week-1	week-2	week-3	week-4	week-5	week-6	week-7	week-8
B6(561 to 572)	Demo	Exp.1	Exp.2	Exp.3	Exp.4	Exp.5	test	Exp.6
B7(573 to 584)	Demo	Exp.1	Exp.2	Exp.3	Exp.4	Exp.5	test	Exp.6
B8(585 to 596)	Demo	Exp.1	Exp.2	Exp.3	Exp.4	Exp.5	test	Exp.6
B9(597 to 5A8)	Demo	Exp.1	Exp.2	Exp.3	Exp.4	Exp.5	test	Exp.6
B10(5A9 to 5C0)	Demo	Exp.1	Exp.2	Exp.3	Exp.4	Exp.5	test	Exp.6

Batches	week-9	week-10	week-11	week-12	week-13	week-14	week-15	week 16
B6(561 to 572)	Exp.7	Exp.8	Exp.9	Exp.10	Exp.11	Exp 12	LEAD1 &2	test
B7(573 to 584)	Exp.7	Exp.8	Exp.9	Exp.10	Exp 11	Exp.12	LEAD1 &2	test
B8(585 to 596)	Exp.7	Exp.8	Exp.9	Exp.10	Exp 11	Exp 12	LEAD1 &2	test
B9(597 to 5A8)	Exp.7	Exp.8	Exp.9	Exp.10	Exp 11	Exp 12	LEAD1 &2	test
B10(5A9 to 5C0)	Exp.7	Exp.8	Exp.9	Exp.10	Exp 11	Exp 12	LEAD1 &2	test

(B) VIVA SCHEDULE: The viva schedule should be planned prior starting to the lab experiment.

CYCLE 1:

ROUND - 1

Batches	week-1	week-2	week-3	week-4	week-5	week-6	week-7	week-8	week-9	week-10	week-11	week-12	week-13	week-14
B1,B2,B3	viva					viva					viva			
B4,B5,B1		viva					viva					viva		
B2,B3,B4			viva					viva					viva	
B5,B1,B2				viva					viva					viva
B2,B3,B4					viva					viva				

CYCLE 2:

ROUND - 1

Batches	week-1	week-2	week-3	week-4	week-5	week-6	week-7	week-8	week-9	week-10	week-11	week-12	week-13	week-14
B6,B7,B8	viva					viva					viva			
B9,B10,B6		viva					Viva					viva		
B7,B8,B9			viva					viva					viva	
B10,B6,B7				viva					viva					viva
B8,B9,B10					viva					viva				

CYCLE 3:

ROUND - 1

Batches	week-1	week-2	week-3	week-4	week-5	week-6	week-7	week-8	week-9	week-10	week-11	week-12	week-13	week-14
B11,B12,B13	viva					viva					viva			
B14,B15,B11		viva					Viva					viva		
B12,B13,B14			viva					viva					viva	
B15,B11,B12				viva					viva					viva
B13,B14,B15					viva					viva				

ROUND - 2

Batches	week-1	week-2	week-3	week-4	week-5	week-6	week-7	week-8	week-9	week-10
SG1	viva									
SG2			viva							
SG3					Viva					
SG4							viva			
SG5									viva	

*SG: Selected Group with a maximum of 6 or 12 students

(C) Scheme of Evaluation:

The scheme of evaluation for internal and external exams as follows:

LAB INTERNAL:							
Day to Day Evaluation-15					Internal Exam-10		
Uniform	Observation & Record	Performance Of the Experiment	Result	Viva	Write up	Execution & Results	Viva
Marks-3	Marks-3	Marks-3	Marks-3	Marks-3	Marks-4	Marks-3	Marks-3
Total Marks-25							

LAB EXTERNAL:			
S.NO	Write up	Final Evaluation	Viva
1	1. Aim 2. Procedure 3. Program 4. Expected output.	Based on correctness of the program and Results	Based on understanding of Experiment and theoretical questions in the related subjects
Marks	20	20	10
Total Marks-50			

6. SUGGESTED BOOKS:

- T1. Data base Systems design, Implementation, and Management, Peter Rob & Carlos Coronel 7th Edition.
- T2. Fundamentals of Database Systems, Elmasri Navrate Pearson Education
- T3. Introduction to Database Systems, C.J. Date Pearson
- T3. Parallel Distributed Computing, R.C Agarwal, C.C. Agarwal, & V.V.V Prasad.

REFERENCE TEXT BOOKS

- R1. Transaction on Distributed Systems, D. Agarwal & A. El Abbadi.

- R2. Concurrency control and Recovery in the database, Bernstein and V. Hadzilacos
- R3. Principles of Database System, J. Chomicki

7. WEBSITES

- <http://www.c4learn.com/data-structure>
- http://www-gs.informatik.tu-cottbus.de/cs1_v06.pdf
- <http://www.users.pjwstk.edu.pl/~msyd/wyka-eng/complexity2.pdf>
- <http://www.cs.cmu.edu/~adamchik/15-121/lectures/Stacks%20and%20Queues/Stacks%20and%20Queues.html>
- <http://www.cprogramming.com/>
- ftp://ftp.awl.com/cseng/authors/gray/Graphs%20Chapter/Gray_CH13_rev.pdf
- <http://www.sanfoundry.com/c-programming-examples-searching-sorting/>
- <https://www.cs.auckland.ac.nz/software/AlgAnim/AVL.html>

8. EXPERTS DETAILS

The Expert Details which have been mentioned below are only a few of the eminent ones known Internationally, Nationally and Locally. There are a few others known as well.

INTERNATIONAL

1. "Journals of parallel & Distributing computing ", R. Agarwal, C.C. Agarwal.
2. IEEE Transaction on Knowledge & Data system Engineering, R. Agarwal, J. Shafer
3. IEEE International Conference on Database Theory, P. Bernstein, D. Shipman

NATIONAL

1. "Journals of parallel & Distributing computing ",
2. ACM Transactions on Database systems, K. Ram Mohan Rao

REGIONAL:

1. Prof. R. Sheshadri Rao,
H.O.D, Dept. of CSE, Samskruthi college of engineering & Technology,
Hyderabad.
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9. MAPPING OF LAB WITH PROJECT/CONSULTANCY/R & D:

PROPOSAL 1: A DBMS-based Medical Teleconferencing System

Abstract:

This article presents the design of a medical teleconferencing system that is integrated with a multimedia patient database and incorporates easy-to-use tools and functions to effectively support collaborative work between physicians in remote locations. The design provides a virtual workspace that allows physicians to collectively view various kinds of patient data. By integrating the teleconferencing function into this workspace, physicians are able to conduct conferences using the same interface and have real-time access to the database during conference sessions. The authors have implemented a prototype based on this design. The prototype uses a high-speed network test bed and a manually created substitute for the integrated patient database.

The meaning of telemedicine is growing to encompass a wide range of telecommunication and information technologies. Telemedicine is the interactive audiovisual communication between health care providers and their patients and among health care providers regardless of geographic distance.

In this article, we describe the design of a medical teleconferencing system (MTS) that integrates a telemedicine system and patient database to provide a “virtual workspace” for participating physicians. We briefly describe the application modules used in a prototype implementation to manage conference data and perform remote query processes for the synchronization of teleconference data.

Modules

Database Server Module

Client Application Module

Modules in the client program function as follows:

- The *data navigator* is closely related to the patient record tree shown in Figure 3. It enables users to quickly navigate any part of the patient record and gives participants an integrated view of many types of patient data. Basically, the patient record tree can be traversed either randomly or in a predetermined order, as specified in the sequence information, showing the corresponding contents dynamically at each step. To achieve such a data navigation facility, each leaf node of the patient tree has database query information that includes SQL parameters. Thus, when a user clicks on a node, related conference contents are retrieved from the database and their appropriate view instances are dynamically generated.
- The *data viewer* provides “view templates” for the six basic types of patient data. For example, the image viewer supports image-processing functions such as zooming, panning, and annotation, and the video viewer has a repeating function that can be used to observe a critical portion of a video repeatedly.
- The *session manager* provides functions to manage the conference session. It enables the participants to start, find, join, and leave a session. It automatically constructs a virtual workspace when a new session is initiated, and it stores conference conclusions and recommendations.
- The *sequence manager* manages the conference sequence and prefetches sequentially referenced conference content. To manage the conference program, a sequence editor is implemented, in which the view sequence can be defined according to the predetermined conference scenario. For prefetching, a method called “informed prefetching” was adopted.

- The *synchronization manager* synchronizes client actions through the following steps. The client PC, as an initiator, requests patient data from the database using the conference metadata in its local memory. At the same time, it sends a message to the other client PC to synchronize the request action. As soon as the other client receives the synchronization message, it requests the same patient data from the database, which simultaneously processes the identical requests from both client PCs and then forwards the resultant data to each client (Figure 6▶).

10. PROPOSALS

Relevant IV (Industrial Visit) (VIP= Visit of Industrial Proposals)

If students are visited different software development companies like Electronic arts, Game Loft, prokarma.

S.no	Type of industry	Nature of industry	Date of visit	No. of students participated	Year/branch	remarks
1	MNC	Software		60	Cse-A	
2	MNC	Software		60	Cse-B	
3	Level-3	Software		60	Cse-C	

11. SHADOW ENGINEERING

GUIDELINES FOR SHADOW ENGINEERING (VIP)

INDUSTRIAL VISITS (IIP – INNOVATIVE INDUSTRIAL LEARNING PROGRAM):

OBJECTIVES OF SHADOW ENGINEERING:

- The program which uplifts the knowledge of the students related to laboratories.
- To improve the industry-college interactions.
- To create industry like environment for all the students in order to make future Assignment.
- This program leads to matrixing with the students.

**TABLE 2: INDUSTRIAL TRAINING (Shadow Engg)
(Career Visit Approval)**

S.no	Name of the Course	Nature of industry	Duration of Training	Authority	Date of Training/Certificate No.	remarks
1	Data Structures	Software	1 WEEK			

12 CALIBRATION, TESTING & INSPECTION

Calibration: There is no Calibration needed for this lab

Installation and Testing

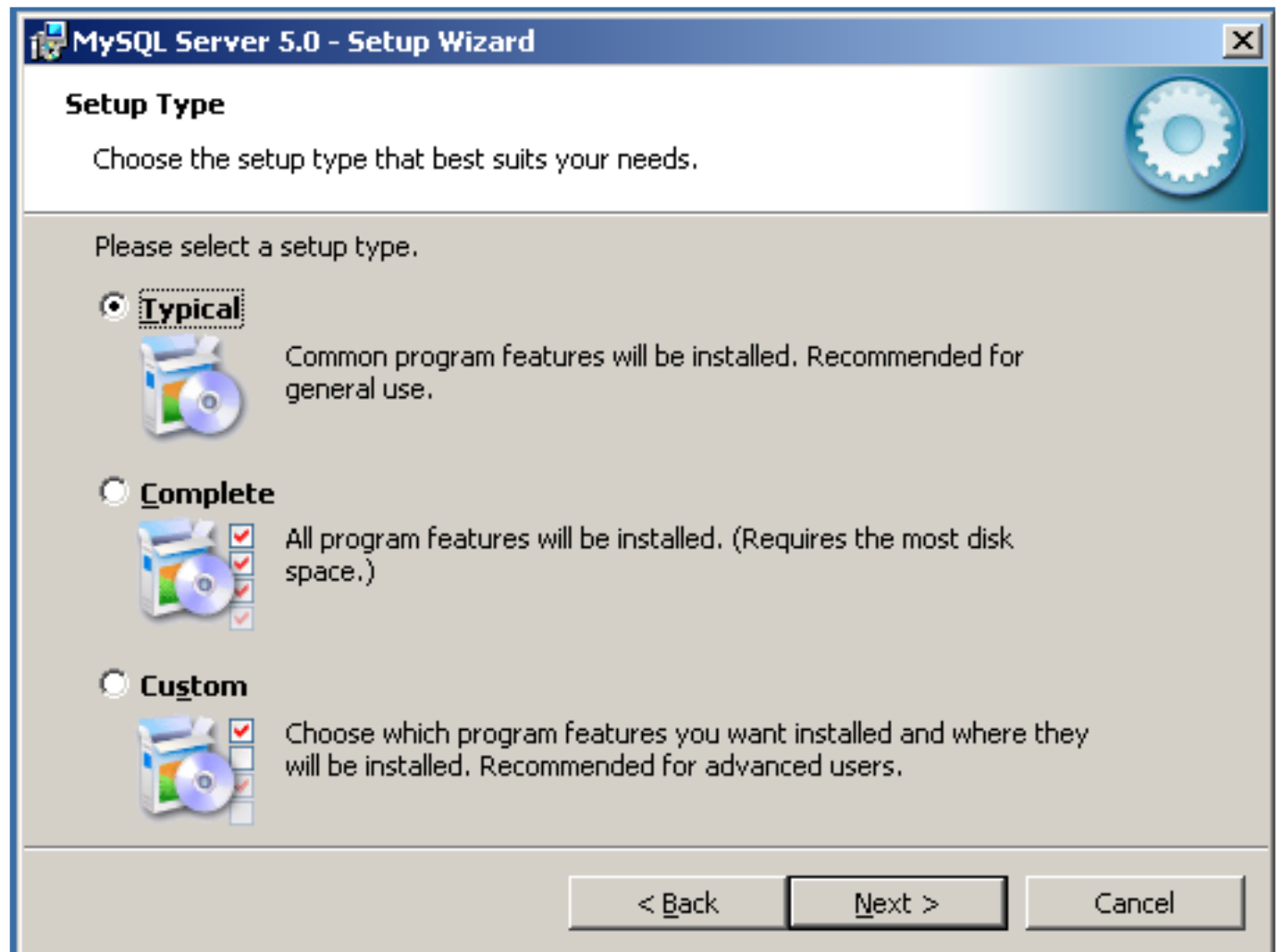
Step 1: Downloading and Starting the MySQL Installation Wizard.

The process for starting the wizard depends on the contents of the installation package you download. If there is a [setup.exe](#) file present, double-click it to start the installation process.



Step 2: Choosing an Installation Type.

There are three installation types available: **Typical**, **Complete**, and **Custom**.



The **Typical** installation type installs the MySQL server, the mysql command-line client, and the command-line utilities. The command-

line clients and utilities include mysqldump, myisamchk, and several other tools to help you manage the MySQL server.

The **Complete** installation type installs all components included in the installation package. The full installation package includes components

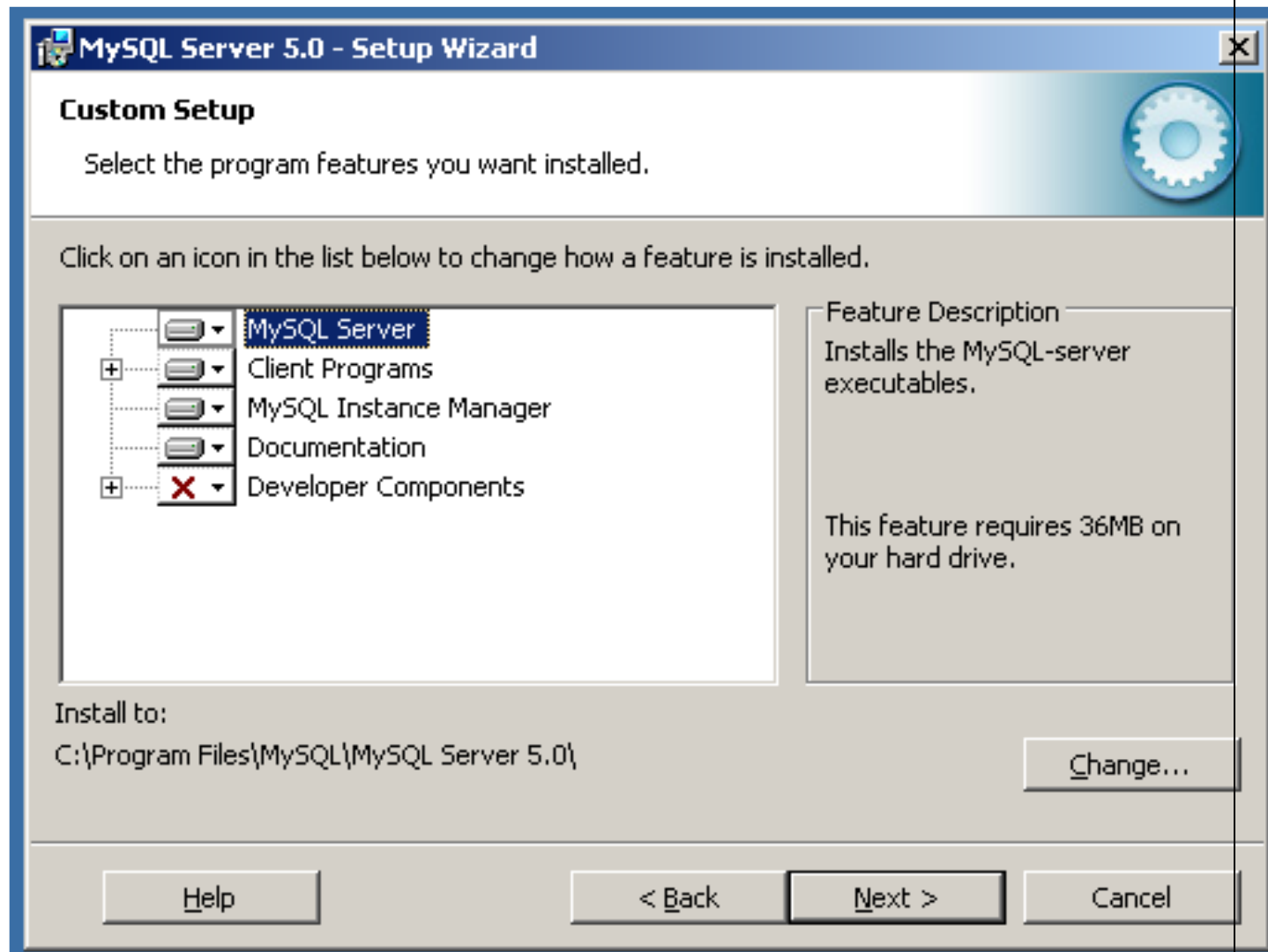
such as the embedded server library, the benchmark suite, support scripts, and documentation.

The **Custom** installation type gives you complete control over which packages you wish to install and the installation path that is used.

If you choose the **Typical** or **Complete** installation types and click the NEXT button,

Step 3: The Custom Installation Dialog.

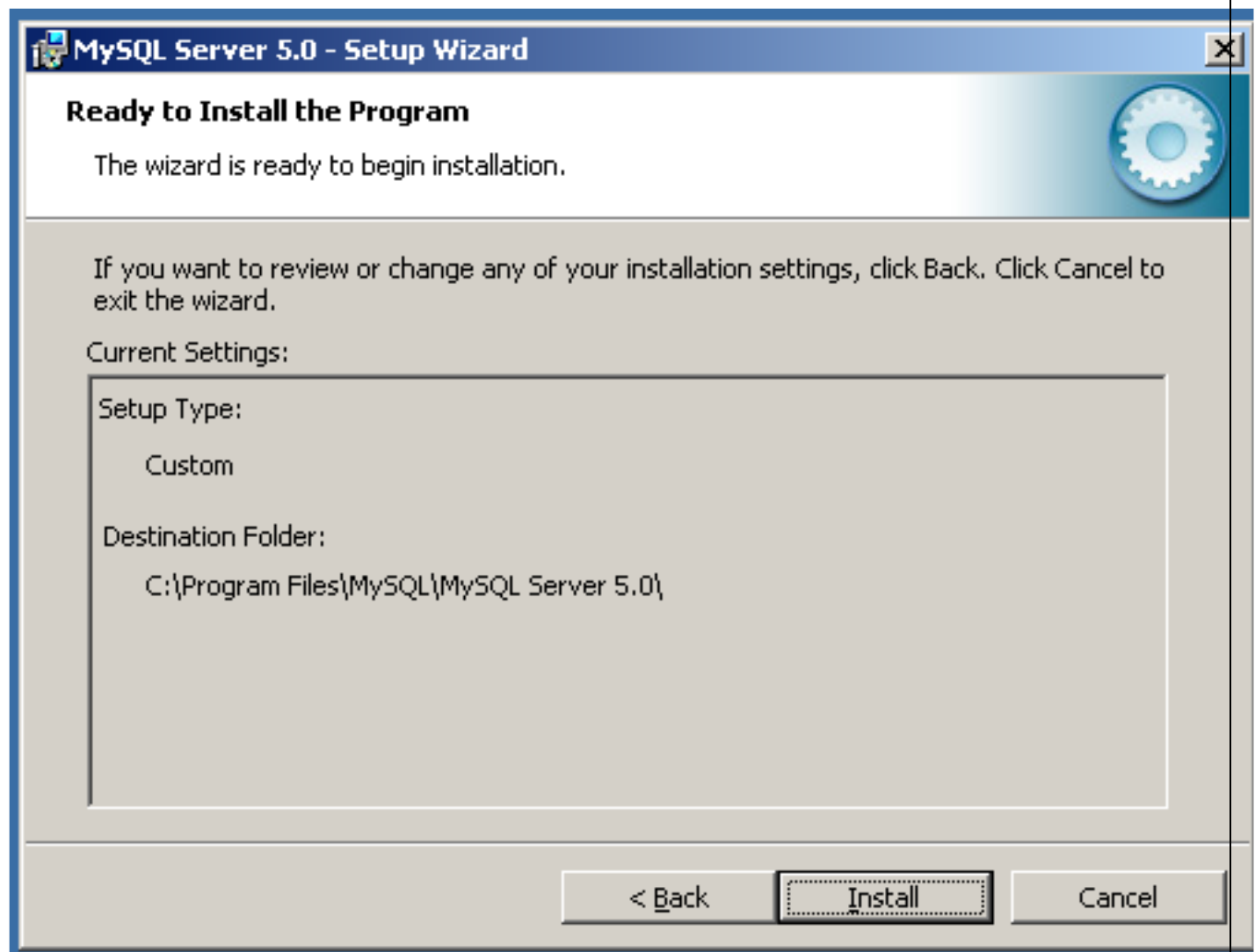
If you wish to change the installation path or the specific components that are installed by the MySQL Installation Wizard, choose the **Custom** installation type.



A tree view on the left side of the custom install dialog lists all available components. Components that are not installed have a red X icon; components that are installed have a gray icon. To change whether a component is installed, click that component's icon and choose a new option from the drop-down list that appears.

Step 4: The Confirmation Dialog.

Once you choose an installation type and optionally choose your installation components, you advance to the confirmation dialog. Your installation type and installation path are displayed for you to review.



To install MySQL if you are satisfied with your settings, click the INSTALL button. To change your settings, click the BACK button. To exit the MySQL Installation Wizard without installing MySQL, click the CANCEL button.

And MySQL will be installed into your system automatically.

13. PREVENTIVE MAINTENANCE SCHEDULE

Maintenance:

Maintenance and trouble shooting of each equipment in a laboratory must follow the following guidelines:

Maintenance Schedules:

(1) Preventive Maintenance Schedules of lab will be decided by lab in charge along with concerned HOD. The details of schedule should be recorded in the following template of format.

S.No.	Name of the Equipment	Date of Maintenance	Type of Activity	Remarks

(2) Maintenance Reports duly signed by in charges as well as HODs and duly approved by Principal periodically.

14. TROUBLE SHOOTING SCHEDULES:

A proposal is to be made from each lab branch wise. The proposal should carry following details related to specific equipment in lab.

S.No., Equipment Name , Type of Problem (Abnormal Sound, Corrupt Software, Anti Virus Problem, Missing of Display, CRT not working,), Expected Reasons . Trouble shooting exercises should be properly recorded in a separate format as mentioned below:

S.No.	Date of recording activity	Equipment Name	Type of Trouble	Remedial Activity	Remarks

CASE TOOLS AND WEB TECHNOLOGIES

WEBTECHNOLOGIES

CONTENTS:

- 1. OBJECTIVES AND RELEVANCE**
- 2. SCOPE**
- 3. PREREQUISITES**
- 4. SYLLABUS AS PER JNTUH**
- 5. LAB SCHEDULE**
- 6. SUGGESTED BOOKS**
- 7. WEBSITES (USEFUL LINKS)**
- 8. EXPERT DETAILS**
- 9. MAPPING OF LAB WITH PROJECT/CONSULTANCY/R & D**
- 10. PROPOSALS**
- 11. GUIDELINES FOR SHADOW ENGINEERING (VIP) AND INDUSTRIAL VISITS (IIP – INNOVATIVE INDUSTRIAL LEARNING PROGRAM)**
- 12. CALIBRATION, TESTING AND INSPECTION**
- 13. PREVENTIVE MAINTENANCE SCHEDULES**
- 14. TROUBLESHOOTING**

1. OBJECTIVES AND RELEVANCE

The main objective of the lab course is to gain practical knowledge of Web Technologies Using PHP, Javascript, XML, Servlets , JSP and MySQL programming

2. SCOPE

The main scope of Web Technologies is used to develop any web application with high secure manner by using Linux Environment. In addition create dynamic web pages and MySQL with LAMP SERVER. (**LINUX, APACHE, MySQL, PHP**)

3. PREREQUISITES

A working computer system with any operating system windows or Linux. A web browser either IE or Firefox, Basic HTML Commands , database either Mysql or Oracle

4. LINKING OF WEB TECHNOLOGIES SUBJECT WITH LAB EXPERIMENTS

Preamble: This lab creates static and dynamic web pages and XML programs and MySQL Connectivity with web pages. The JNTUH has given 6 & 9 sub programs.

1. Develop Web pages (using PHP) of an online Book store. The pages should Resemble: The website should consist the following pages.
2. The cart page contains the details about the book which are added to the cart. (Unit-I)
3. Write JavaScript to validate the following fields of the above

LEAD PROGRAM:

We are trying to do a Lead Experiment to Create Well Formulated Registration Page.

5(A) LAB SCHEDULE:

CYCLE 1:

Batches	week-1	week-2	week-3	week-4	week-5	week-6	week-7	week-8
B1(501 to 512)	Demo	Exp.1&2	Exp.3&4	Exp.5&6.1	Exp.6.2-6.3	Exp.6.4-6.6	test	Exp.6.7-6.9
B2(513 to 524)	Demo	Exp.1&2	Exp.3&4	Exp.5&6.1	Exp.6.2-6.3	Exp.6.4-6.6	test	Exp.6.7-6.9
B3(525 to 536)	Demo	Exp.1&2	Exp.3&4	Exp.5&6.1	Exp.6.2-6.3	Exp.6.4-6.6	test	Exp.6.7-6.9
B4(537 to 548)	Demo	Exp.1&2	Exp.3&4	Exp.5&6.1	Exp.6.2-6.3	Exp.6.4-6.6	test	Exp.6.7-6.9
B5(549 to 560)	Demo	Exp.1&2	Exp.3&4	Exp.5&6.1	Exp.6.2-6.3	Exp.6.4-6.6	test	Exp.6.7-6.9

CYCLE 2:

Batches	week-1	week-2	week-3	week-4	week-5	week-6	week-7	week-8
B6(561 to 572)	Demo	Exp.1&2	Exp.3&4	Exp.5&6.1	Exp.6.2-6.3	Exp.6.4-6.6	test	Exp.6.7-6.9
B7(573 to 584)	Demo	Exp.1&2	Exp.3&4	Exp.5&6.1	Exp.6.2-6.3	Exp.6.4-6.6	test	Exp.6.7-6.9
B8(585 to 596)	Demo	Exp.1&2	Exp.3&4	Exp.5&6.1	Exp.6.2-6.3	Exp.6.4-6.6	test	Exp.6.7-6.9
B9(597 to 5A8)	Demo	Exp.1&2	Exp.3&4	Exp.5&6.1	Exp.6.2-6.3	Exp.6.4-6.6	test	Exp.6.7-6.9
B10(5A9 to 5C0)	Demo	Exp.1&2	Exp.3&4	Exp.5&6.1	Exp.6.2-6.3	Exp.6.4-6.6	test	Exp.6.7-6.9

CYCLE 3:

Batches	week-1	week-2	week-3	week-4	week-5	week-6	week-7	week-8
B11(5C1 to 5D2)	Demo	Exp.1&2	Exp.3&4	Exp.5&6.1	Exp.6.2-6.3	Exp.6.4-6.6	test	Exp.6.7-6.9
B12(5D3 to 5E4)	Demo	Exp.1&2	Exp.3&4	Exp.5&6.1	Exp.6.2-6.3	Exp.6.4-6.6	test	Exp.6.7-6.9
B13(5E5 to 5F6)	Demo	Exp.1&2	Exp.3&4	Exp.5&6.1	Exp.6.2-6.3	Exp.6.4-6.6	test	Exp.6.7-6.9
B14(5F7 to 5G8)	Demo	Exp.1&2	Exp.3&4	Exp.5&6.1	Exp.6.2-6.3	Exp.6.4-6.6	test	Exp.6.7-6.9
B15(5G9 to 5I0)	Demo	Exp.1&2	Exp.3&4	Exp.5&6.1	Exp.6.2-6.3	Exp.6.4-6.6	test	Exp.6.7-6.9

(B) VIVA SCHEDULE: The viva schedule should be planned prior starting to the lab experiment.

CYCLE 1:**ROUND - 1**

Batches	week-1	week-2	week-3	week-4	week-5	week-6	week-7	week-8
B1,B2,B3	Viva					viva		
B4,B5,B1		viva					viva	
B2,B3,B4			viva					viva
B5,B1,B2				Viva				
B2,B3,B4					viva			

CYCLE 2:**ROUND - 1**

Batches	week-1	week-2	week-3	week-4	week-5	week-6	week-7	week-8
B6,B7,B8	viva					viva		
B9,B10,B6		viva					viva	
B7,B8,B9			viva					viva
B10,B6,B7				viva				viva
B8,B9,B10					viva		viva	

CYCLE 3:**ROUND - 1**

Batches	week-1	week-2	week-3	week-4	week-5	week-6	week-7	week-8
B11,B12,B13	viva					viva		
B14,B15,B11		viva					viva	
B12,B13,B14			viva					viva
B15,B11,B12				viva				viva
B13,B14,B15					viva		viva	

ROUND - 2

Batches	week-1	week-2	week-3	week-4	week-5	week-6	week-7	week-8
SG1	viva							
SG2			viva					
SG3					viva			
SG4							viva	
SG5								viva

*SG: Selected Group with a maximum of 6 or 12 students

(C) SCHEME OF EVALUATION

<u>Internal :</u>							
Day to Day Evaluation-15					Internal Exam-10		
Uniform	Observation & Record	Performance Of the Experiment	Result	Viva	Write up	Execution & Results	Viva
Marks-3	Marks-3	Marks-3	Marks-3	Marks-3	Marks-4	Marks-3	Marks-3
Total Marks-25							

LAB EXTERNALS:				
S.NO	Write up	Results(by skill assistant)	Final Evaluation	Viva
1	1.Aim 2.Procedure 3.Program 4.Result etc	Based on observation, How the student is executed the program	Based on correctness of the program and Results	Based on understanding of Experiment and theoretical questions in the related subjects
Marks	20	10	10	10
Total Marks-50				

6. SUGGESTED BOOKS:**TEXT BOOKS:**

T1. Web Technologies, Uttam K Roy, Oxford University Press

T2. The Complete Reference PHP – Steven Holzner, Tata McGraw-Hill

REFERENCE BOOKS:

- R1. Web Programming, building internet application, Chris Bates 2nd edition, Wiley Dreamtech .
- R2. Java Server Pages, - Hans Bergsten,SPD O'Reilly
- R3. JavaScript, D.Flanagan, O'Reilly,SPD.
- R4. Beginning Web Programming-Jon Duckett WROX
- R5. Programming world wide web, R.W.Sebesta,Fourth Edition,Pearson
- R6. Internet and World wide Web-How to program, Dietel and Nieto,Pearson.

7. WEBSITES

<http://www.w3schools.com/>

<http://www.w3schools.com/js/default.asp>

http://jwfiles.net/kqq23vq39bs0/Units_1_2_3_JWFILES.rar.html

http://jwfiles.net/022n9cqeqrpu/Web_Server_JWFILES.pdf.html

http://www.icrar.org/_data/assets/pdf_file/0010/1439686/Web-Technology.pdf

8. EXPERTS DETAILS

INTERNATIONAL

- 1. Chris Bates, WILEY Dreamtech
- 2. Sebesta,Pearson Education
- 3. Marty Hall & Larry Brown ,Pearson Education
- 4. Dietel & Nieto ,PHI/Pearson Education Asia.
- 5. Knuckles,John Wiley
- 6. Uttam K Roy, Oxford University Press

LOCAL

- 7. **G.Venkata Rami Reddy** ,Associate professor,School of Information Technology ,JNT University Hyderabad
- 8. **Dr. M. Srinivasa Rao** ,Professor,Dean(MSIT), JNT University Hyderabad

9. MAPPING OF LAB WITH PROJECT/CONSULTANCY/R & D:

The WT lab course should be designed in such a way that it should meet the requirements of research and development as well as consultancy projects. Also the Proposals of Project/R&D/Consultancy are as follows:

Proposal 1: Project Design & Execution

Proposal 2: R& D Level Project Design & Execution

Proposal 3: Consultancy Task / Project Design & Development

PROPOSAL FOR R & D ACTIVITY:

1. An exact paper from a National/International journal in this entitled area/subject/area(IEEE Format)

AND/OR

2. An article/white paper from a magazine /journal/weekly/any periodical in the entitled Subject

AND/OR

3. An Advanced technology development/ proposal/article publication from any source of Information

1. A Proposal of a hobby/mini/proto/general/model/proto type project with estended abstract, Block Diagram/Circuit/Flow diagram and clear references may be presented and executed.

ABSTRACT ON HOBBY PROJECT RELATED TO ANDROID APP

Bouncing Ball Implementation

10. Relevant IV(Industrial Visit) (VIP= Visit of Industrial Proposals)

If students are visited different software development companies like Data analytixds, Redhat Inc, fedora inc.

S.no	Type of industry	Nature of industry	Date of visit	No. of students participated	Year/branch	remarks
1	MNC	S/W ORACLE		30	III CSE	
2	MNC	S/W ORACLE		30	III CSE	
3						

11. GUIDELINES FOR SHADOW ENGINEERING (VIP)

INDUSTRIAL VISITS (IIP – INNOVATIVE INDUSTRIAL LEARNING PROGRAM):

OBJECTIVES OF SHADOW ENGINEERING:

1. The program which uplifts the knowledge of the students related to laboratories.
2. To improve the industry-college interactions.
3. To create industry like environment for all the students in order to make future Assignment.
4. This program leads to matrixing with the students.

**TABLE 2: INDUSTRIAL TRAINING (Shadow Engg)
(Career Visit Approval)**

S.no	Name of the Course	Nature of industry	Duration of Training	Authority	Date of Training/Certificate No.	remarks

12. CALIBRATION , TESTING & INSPECTION

Calibration: There is no need to calibrate any equipment for this concerned lab. **Installation:** Steps for downloading and installation of a **LAMP Server/WAMP Server**

Install Linux, Apache, MySQL, PHP (LAMP) stack on Ubuntu

About LAMP

LAMP stack is a group of open source software used to get web servers up and running. The acronym stands for Linux, Apache, MySQL, and PHP. Since the virtual private server is already running Ubuntu, the linux part is taken care of. Here is how to install the rest.

Set Up

The steps in this tutorial require the user to have root privileges on your VPS. You can see how to set that up in the [Initial Server Setup](#) in steps 3 and 4.

Step One—Install Apache

Apache is a free open source software which runs over 50% of the world's web servers.

To install apache, open terminal and type in these commands:

```
sudo apt-get update
sudo apt-get install apache2
```

That's it. To check if Apache is installed, direct your browser to your server's IP address (eg. <http://12.34.56.789>). The page should display the words "It works!" like [this](#).

How to Find your Server's IP address

You can run the following command to reveal your server's IP address.

```
ifconfig eth0 | grep inet | awk '{ print $2 }'
```

Step Two—Install MySQL

MySQL is a powerful database management system used for organizing and retrieving data

To install MySQL, open terminal and type in these commands:

```
sudo apt-get install mysql-server libapache2-mod-auth-mysql php5-mysql
```

During the installation, MySQL will ask you to set a root password. If you miss the chance to set the password while the program is installing, it is very easy to set the password later from within the MySQL shell.

Once you have installed MySQL, we should activate it with this command:

```
sudo mysql_install_db
```

Finish up by running the MySQL set up script:

```
sudo /usr/bin/mysql_secure_installation
```

The prompt will ask you for your current root password.

Type it in.

Enter current password for root (enter for none):

OK, successfully used password, moving on...

Then the prompt will ask you if you want to change the root password. Go ahead and choose N and move on to the next steps.

It's easiest just to say Yes to all the options. At the end, MySQL will reload and implement the new changes.

By default, a MySQL installation has an anonymous user, allowing anyone to log into MySQL without having to have a user account created for them. This is intended only for testing, and to make the installation go a bit smoother. You should remove them before moving into a production environment.

```
Remove anonymous users? [Y/n] y
... Success!
```

Normally, root should only be allowed to connect from 'localhost'. This ensures that someone cannot guess at the root password from the network.

```
Disallow root login remotely? [Y/n] y
... Success!
```

By default, MySQL comes with a database named 'test' that anyone can access. This is also intended only for testing, and should be removed before moving into a production environment.

```
Remove test database and access to it? [Y/n] y
- Dropping test database...
... Success!
- Removing privileges on test database...
... Success!
```

Reloading the privilege tables will ensure that all changes made so far will take effect immediately.

```
Reload privilege tables now? [Y/n] y
... Success!
```

Cleaning up...

Once you're done with that you can finish up by installing PHP.

Step Three—Install PHP

PHP is an open source web scripting language that is widely use to build dynamic webpages.

To install PHP, open terminal and type in this command.

```
sudo apt-get install php5 libapache2-mod-php5 php5-mcrypt
```

After you answer yes to the prompt twice, PHP will install itself.

It may also be useful to add php to the directory index, to serve the relevant php index files:

```
sudo nano /etc/apache2/mods-enabled/dir.conf
```

Add index.php to the beginning of index files. The page should now look like this:

```
<IfModule mod_dir.c>
    DirectoryIndex index.php index.html index.cgi index.pl index.php
```

Step Four—RESULTS: See PHP on your Server

Although LAMP is installed, we can still take a look and see the components online by creating a quick php info page

To set this up, first create a new file:

```
sudo nano /var/www/info.php
```

Add in the following line:<?php

```
phpinfo();
?>
```

Then Save and Exit.

Restart apache so that all of the changes take effect:

```
sudo service apache2 restart
```

Finish up by visiting your php info page (make sure you replace the example ip address with your correct one):

<http://12.34.56.789/info.php>

13. PREVENTIVE. MAINTAINANCE SCHEDULES

Maintenance:

Maintenance and trouble shooting of each equipment in a laboratory must follow the following guidelines:

Maintenance Schedules:

(1) Preventive Maintenance Schedules of lab will be decided by lab in charge along with concerned HOD. The details of schedule should be recorded in the following template of format.

S.No.	Name of the Equipment	Date of Maintenance	Type of Activity	Remarks
1	System with Server		Application Running.	

(2) Maintenance Reports duly signed by in charges as well as HODs and duly approved by Principal periodically.

14. TROUBLE SHOOTING SCHEDULES:

A proposal is to be made from each lab branch wise. The proposal should carry following details related to specific equipment in lab.

S/w Name. Server with PHP,APACHE, MySQL

Type of Problem (Version Compatability, Proper Accessing from UI, virus poble), Expected Reasons .Trouble shooting exercises should be properly recorded in a separate format as mentioned below:

S.No.	Date of recording activity	Equipment /Software Name	Type of Trouble	Remedial Activity	Remarks
1		LAMP/WAMP	Version Compatability	Updation	

CASE TOOLS LAB

CONTENTS:

- 1. OBJECTIVES AND RELEVANCE**
- 2. SCOPE**
- 3. PREREQUISITES**
- 4. SYLLABUS AS PER JNTUH**
- 5. LAB SCHEDULE**
- 6. SUGGESTED BOOKS**
- 7. WEBSITES (USEFUL LINKS)**
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- 12. CALIBRATION, TESTING AND INSPECTION**
- 13. PREVENTIVE MAINTENANCE SCHEDULES**
- 14. TROUBLESHOOTING**

1. OBJECTIVES AND RELEVANCE

The main objective of the lab course Documenting user requirements using the UML notation and designing the software architecture before coding for provide good quality software.

2. SCOPE

The scope of this lab is to understand the how to designing the software architectures using the UML notations.

3. PREREQUISITES

This lab require the basic knowledge about the basic building blocks of uml and uses of things and relationships in development of diagrams. Common uses of diagrams cutting operations and basics of lubrication, different types of chips and different cutting operations.

4. SYLLABUS-JNTU

i. Introduction To Case Tools.

ii).Automatic Teller Machine Uml Diagrams Description of

ATM System

The software to be designed will control a simulated automated teller machine (ATM) having a magnetic stripe reader for reading an ATM card, a customer console (keyboard and display) for interaction with the customer, a slot for depositing envelopes, a dispenser for cash , a printer for printing customer receipts, and a key-operated switch to allow an operator to start or stop the machine. The ATM will communicate with the bank's computer over an appropriate communication link. (The software on the latter is not part of the requirements for this problem.) The ATM will service one customer at a time. A customer will be required to insert an ATM card and enter a personal identification number (PIN) – both of which will be sent to the bank for validation as part of each transaction. The customer will then be able to perform one or more transactions. The card will be retained in the machine until the customer indicates that he/she desires no further transactions, at which point it will be returned – except as noted below.

The ATM must be able to provide the following services to the customer:

- A. A customer must be able to make a cash withdrawal from any suitable account linked to the card. Approval must be obtained from the bank before cash is dispensed.
- B. A customer must be able to make a deposit to any account linked to the card, consisting of cash and/or checks in an envelope. The customer will enter the amount of the deposit
- C. into the ATM, subject to manual verification when the envelope is removed from the machine by an operator. Approval must be obtained from the bank before physically accepting the envelope.

LIFT MANUAL

- D. A customer must be able to make a transfer of money between any two accounts linked to the card.
- E. A customer must be able to make a balance inquiry of any account linked to the card.
- F. A customer must be able to abort a transaction in progress by pressing the Cancel key instead of responding to a request from the machine.

The ATM will communicate each transaction to the bank and obtain verification that it was allowed by the bank. Ordinarily, a transaction will be considered complete by the bank once it has been approved. In the case of a deposit, a second message will be sent to the bank indicating that the customer has deposited the envelope. (If the customer fails to deposit the envelope within the timeout period, or presses cancel instead, no second message will be sent to the bank and the deposit will not be credited to the customer.)

If the bank determines that the customer's PIN is invalid, the customer will be required to re-enter the PIN before a transaction can proceed. If the customer is unable to successfully enter the PIN after three tries, the card will be permanently retained by the machine, and the customer will have to contact the bank to get it back.

If a transaction fails for any reason other than an invalid PIN, the ATM will display an explanation of the problem, and will then ask the customer whether he/she wants to do another transaction.

The ATM will provide the customer with a printed receipt for each successful transaction, showing the date, time, machine location, type of transaction, account(s), amount, and ending and available balance(s) of the affected account (—to|| account for transfers).

The ATM will have a key-operated switch that will allow an operator to start and stop the servicing of customers. After turning the switch to the —on|| position, the operator will be required to verify and enter the total cash on hand. The machine can only be turned off when it is not servicing a customer. When the switch is moved to the —off|| position, the machine will shut down, so that the operator may remove deposit envelopes and reload the machine with cash, blank receipts, etc.

EXPERIMENT: 1

Name of the experiment: Class diagram for ATM System

AIM: To design and implement class diagram for ATM system

Applications:

The purpose of the class diagram is to model the static view of an application

EXPERIMENT: 2

NAME OF EXPERIMENT: Use case diagram for ATM System.

AIM: To design and implement Use case diagram for ATM

System. Applications:

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The purpose of use case diagram is to capture the dynamic aspect of a system

Used to gather requirements of a system. Used to get an outside view of a system

Identify external and internal factors influencing the system. Show the interacting among the requirements are actors

EXPERIMENT : 3

Name of the experiment: Sequence diagram for ATM System

AIM: To design and implement Sequence diagram for ATM

System **Applications:**

A Sequence diagram is an interaction diagram that emphasizes the time ordering of messages.

This diagram is used to show the dynamic view of a system.

Object organization

EXPERIMENT : 4

Name of the experiment: collaboration diagram for ATM System

AIM: To design and implement collaboration diagram for ATM System

Applications:

To capture dynamic behaviour of a system.

To describe the message flow in the system

EXPERIMENT : 5

NAME OF EXPERIMENT: State chart diagram for ATM System.

AIM: To design and implement State chart diagram for ATM

System **applications:**

1. Statechart diagram is used to model dynamic nature of a system
2. They define different states of an object during its lifetime

EXPERIMENT : 6

NAME OF EXPERIMENT: Activity diagram for ATM System.

AIM: To design and implement Activity diagram for ATM

System. **Applications:**

Activity diagram is basically a flow chart to represent the flow from one activity to another

The activity can be described as an operation of the system

EXPERIMENT : 7

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NAME OF EXPERIMENT: Component diagram for ATM System.

AIM: To design and implement Component diagram for ATM System

Objectives:

Component diagrams can be described as a static implementation view of a system. Static implementation represents the organization of the components at a particular moment

EXPERIMENT : 8

NAME OF EXPERIMENT: Deployment diagram for ATM System.

AIM: To design and implement Deployment diagram for ATM System.

Applications:

Deployment diagrams are used to visualize the topology of the physical components of a system where the software components are deployed

LEAD: 1. CASE STUDY OF LIBRARY MANAGEMENT SYSTEM

5.(A) LAB SCHEDULE:

The lab schedule should be planned once in a week. The week wise scheduled experiment should be completed.

CYCLE 1

Batches	week-1	week-2	week-3	week-4	week-5	week-6
B1(501 to 512)	Demo	Exp1	Exp2	Exp3	Exp4	test
B2(513 to 524)	Demo	Exp1	Exp2	Exp3	Exp4	test
B3(525 to 536)	Demo	Exp1	Exp2	Exp3	Exp4	test
B4(537 to 548)	Demo	Exp1	Exp2	Exp3	Exp4	test
B5(549 to 560)	Demo	Exp1	Exp2	Exp3	Exp4	test

Batches	week-7	week-8	Week-9	week-10	week-11	week-12
B1(501 to 512)	Exp5	Exp6	Exp7	Exp8	test	Lead exp
B2(513 to 524)	Exp5	Exp6	Exp7	Exp8	test	Lead exp
B3(525 to 536)	Exp5	Exp6	Exp7	Exp8	test	Lead exp
B4(537 to 548)	Exp5	Exp6	Exp7	Exp8	test	Lead exp
B5(549 to 560)	Exp5	Exp6	Exp7	Exp8	test	Lead exp

CYCLE 2

Batches	week-1	week-2	week-3	week-4	week-5	week-6
B6(561 to 572)	Demo	Exp1	Exp2	Exp3	Exp4	test
B7(573 to 584)	Demo	Exp1	Exp2	Exp3	Exp4	test
B8(585 to 596)	Demo	Exp1	Exp2	Exp3	Exp4	test
B9(597 to 5A8)	Demo	Exp1	Exp2	Exp3	Exp4	test
B10(5A9 to 5C0)	Demo	Exp1	Exp2	Exp3	Exp4	test

Batches	week-7	week-8	Week-9	week-10	week-11	week-12
B6(561 to 572)	Exp5	Exp6	Exp7	Exp8	test	Lead exp
B7(573 to 584)	Exp5	Exp6	Exp7	Exp8	test	Lead exp
B8(585 to 596)	Exp5	Exp6	Exp7	Exp8	test	Lead exp
B9(597 to 5A8)	Exp5	Exp6	Exp7	Exp8	test	Lead exp
B10(5A9 to 5C0)	Exp5	Exp6	Exp7	Exp8	test	Lead exp

Batches	week-1	week-2	week-3	week-4	week-5	week-6
B11(5C1 to 5D2)	Demo	Exp1	Exp2	Exp3	Exp4	test
B12(5D3 to 5E4)	Demo	Exp1	Exp2	Exp3	Exp4	test
B13(5E5 to 5F6)	Demo	Exp1	Exp2	Exp3	Exp4	test
B14(5F7 to 5G8)	Demo	Exp1	Exp2	Exp3	Exp4	test
B15(5G9 to 5I0)	Demo	Exp1	Exp2	Exp3	Exp4	test

Batches	week-7	week-8	Week-9	week-10	week-11	week-12
B11(5C1 to 5D2)	Exp5	Exp6	Exp7	Exp8	test	Lead exp
B12(5D3 to 5E4)	Exp5	Exp6	Exp7	Exp8	test	Lead exp
B13(5E5 to 5F6)	Exp5	Exp6	Exp7	Exp8	test	Lead exp
B14(5F7 to 5G8)	Exp5	Exp6	Exp7	Exp8	test	Lead exp
B15(5G9 to 5I0)	Exp5	Exp6	Exp7	Exp8	test	Lead exp

(c) SCHEME OF EVALUATION OF LABS:

The scheme of evaluation for the lab internal and lab external as follows

<u>LAB INTERNAL:</u>							
Day to Day Evaluation-15					Internal Exam-10		
Uniform	Observation & Record	Performance Of the Experiment	Result	Viva	Write up	Execution & Results	Viva
Marks-3	Marks-3	Marks-3	Marks-3	Marks-3	Marks-4	Marks-3	Marks-3
Total Marks-25							

<u>LAB EXTERNAL:</u>			
S.NO	Write up	Final Evaluation	Viva
1	1. Aim 2. Procedure 3. Program 4. Expected output	Based on correctness of the program and Results	Based on understanding of Experiment and theoretical questions in the related subjects
Marks	20	20	10
Total Marks-50			

6. SUGGESTED BOOKS:

- a. Object-Oriented Analysis and Design with Applications (3rd Edition) [Kindle Edition] Grady Booch (Author), Robert A. Maksimchuk (Author)

7. WEB SITES(USEFUL LINKS):

1. <http://jntuhome.com/wp-content/uploads/2011/07/R09-CSE-Lab-3-4.pdf>
2. <http://forum.jntuworld.com/showthread.php?22468 -Case-Tools-and-Software-Testing-Lab-Manual>

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3. <http://www.scribd.com/doc/188516982/CT-and-ST-LAB-Manual>
4. <http://forum.jntuworld.com/showthread.php?20471-Lab-Manuals-For-JNTUH-JNTUK-amp-JNTUA-%28For-All-Courses-All-Branches-amp-All-Regulations%29>
5. <http://www.mamse.co.in/study/cse/7sem/CS1311.pdf>
6. <http://sourcecodesonline.blogspot.in/2010/12/atm-system-using-case-tools.html>

8. EXPERTS' DETAILS

The expert details which have been mentioned below are only a few of the eminent ones known Internationally, Nationally and Locally.

INTERNATIONAL

- a. Grady Booch ,IBM
Fellow gbooch@us.ibm.com +1- 720- 299
8292

- b. Ivar Jacobson

REGIONAL

1. Dr. Govardhan Reddy Head of the Department, kottam tulasi reddy college,kurnool
2. Mr. D.Kondaiah, Assoc Professor , Srinidhi Institute of Science and Technology ,Hyderabad.

9. MAPPING OF LAB WITH PROJECT/CONSULTANCY/R&D:

The case tools lab course should be designed in such a way that it should meet the requirements of research and development as well as consultancy projects. Also the Proposals of Project/R&D/Consultancy are as follows:

❖ **Measuring the Quality of Software through Analytical Design by OOAD Metrics**

ABSTRACT

Software plays an important role in today's computerized world. The programmer can use different languages to develop the software. In order to develop software, it needs several phases such as Analysis, Design, Implementation, Testing and Maintenance. Of these several phases, the analysis and design becomes essential, since these are the most essential feature in the development of the software.

❖ An article/white paper from a magazine /journal/weekly/any periodical in the entitled Subject

In this article, we are going to learn about how to identify and design conceptual classes and different architectural classes from the application domain. This knowledge would help you in designing architectural classes during early construction stages of your application.

Introduction

Understanding the various entities from the problem domain, their relationships, and their interactions is a useful starting point of analysis, and is commonly known as domain modeling. Domain modeling helps in subsequent design of the systems.

A domain model consists of conceptual classes from the application domain. The conceptual classes may represent people, organizations, things, events, or even ideas - virtually anything that exists in the application domain which is of some interest to the system. In this article, we are going to learn about how to identify and design conceptual classes and different architectural classes from the application domain. The use case model generated during Requirements Determination stage becomes the basis of the analysis and subsequently design and implementation activities. A common starting point of analysis is to identify analysis classes that focus on handling functional requirements of the system.

The analysis classes identified in this stage represent an early conceptual model of the system. These classes are likely to be significantly refined as we proceed with further analysis and design, and evolve into a final mode of the system. The analysis classes would morph or evolve into design classes with more concrete structures. The design classes would then be implemented through source code, resulting in an executable release of the system.

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Since the analysis classes are likely to change and evolve during subsequent stages, you should find the right balance of formal documentation of the same. In the earlier stages, it may be adequate to just identify these classes, name them, and make a brief description in a few sentences.

Small Classes

A single class doing too many things makes it harder to understand, modify and extend. If a class is doing too many things, it is better to split it into multiple classes. In general, it is better to have a large number of small classes than a small number of large classes. A large class knows too much of the system's behaviour is difficult to modify and may carry extra baggage in case of reuse. In general, it is better to have a large number of small classes than a small number of large classes. A large class knows too much of the system's behaviour is difficult to modify and may carry extra baggage in case of reuse. On the other hand, a small class encapsulates small level of system's behaviour, is easy to understand and modify, and easy to reuse without extra baggage.

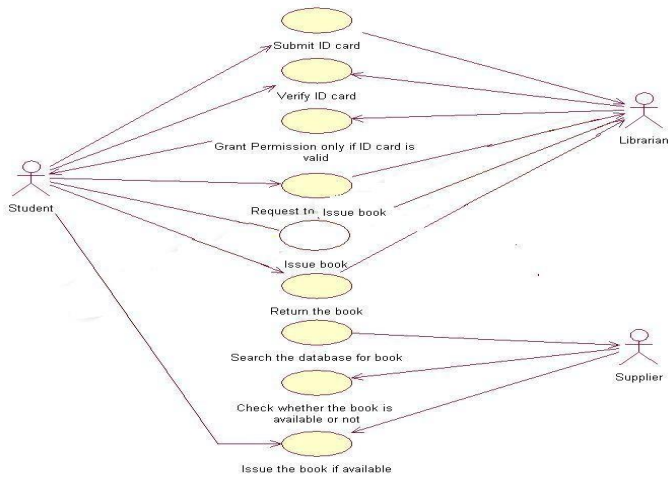
Steps in Class Design

You should not jump to designing the full structure of a class straightaway. The correct approach should be as follows:

❖ **Proposal for project activity:**

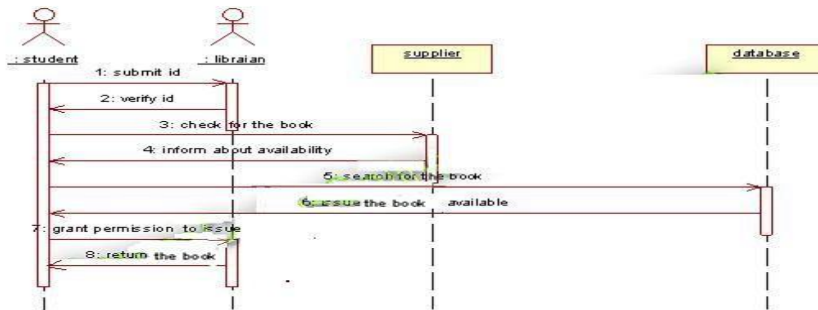
AIM: To model the "Library Management System" using the software Rational Rose with various UML (Unified Modeling Language) diagrams.

UML DIAGRAMS:

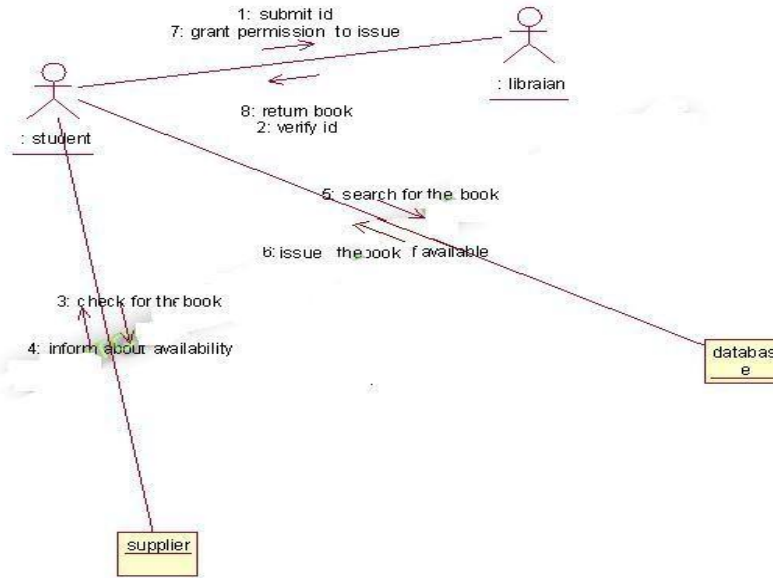


Use Case Diagram:

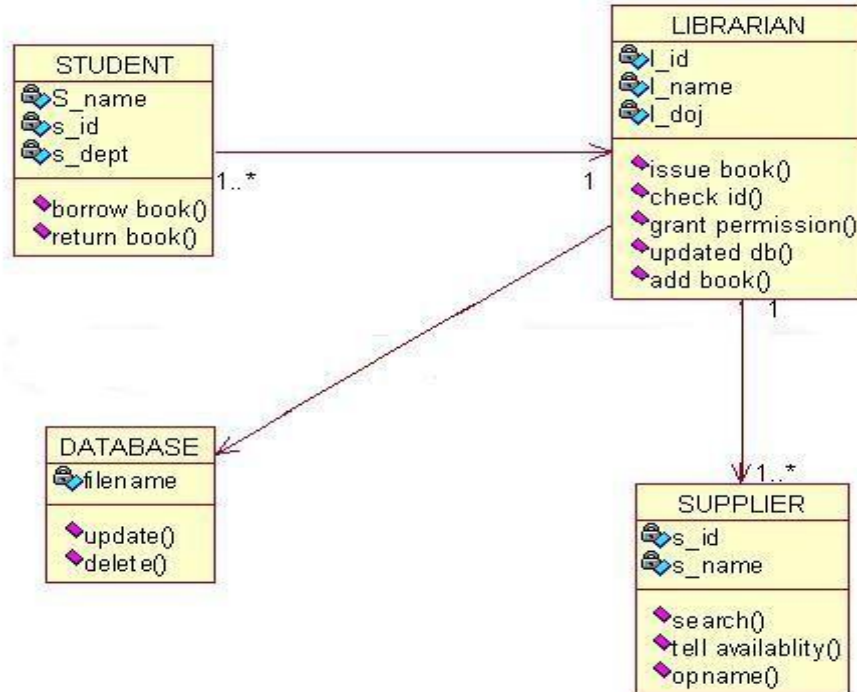
SEQUENCE DIAGRAM:



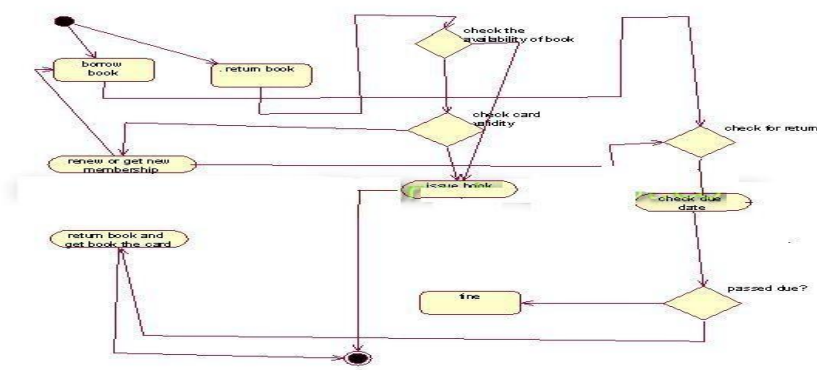
COLLABORATION DIAGRAM:



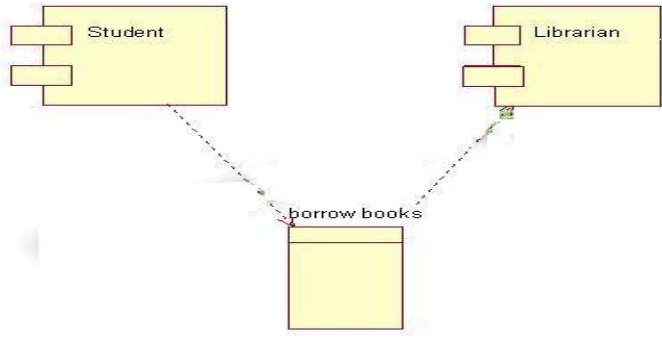
CLASS DIAGRAM:



ACTIVITY DIAGRAM:



COMPONENT DIAGRAM:



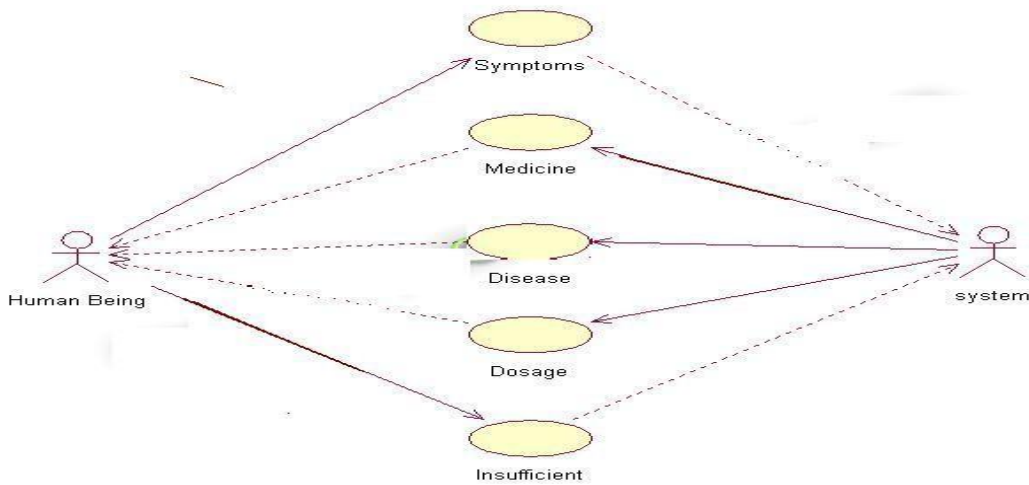
PROPOSAL FOR CONSULTANCY:

AIM:

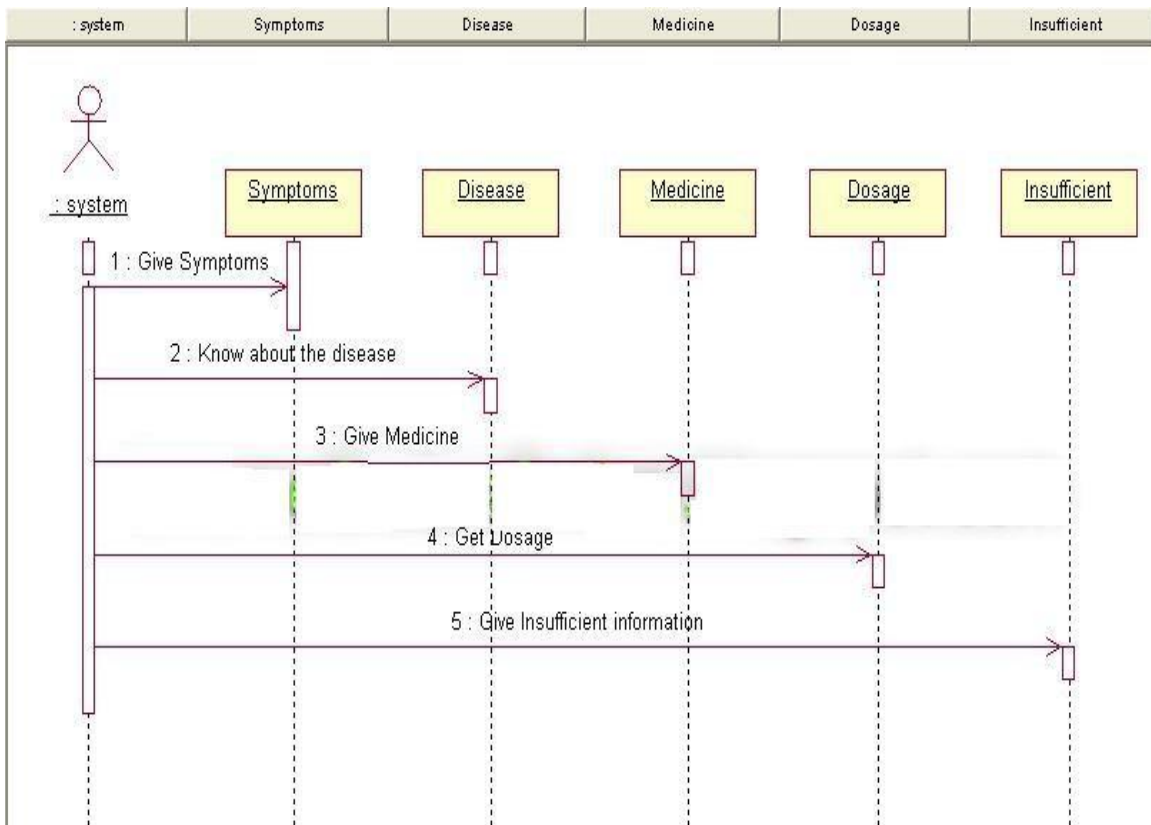
To model the "**Medical Expert System**" using the software Rational Rose with various UML (Unified Modeling Language) diagrams.

LIFT MANUAL

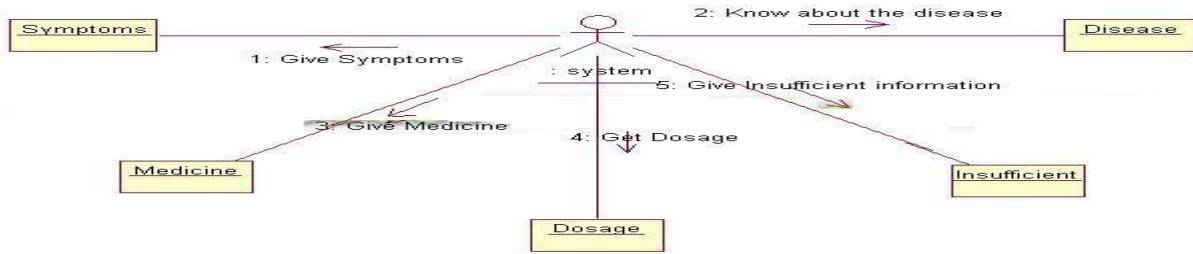
Use Case Diagram For Medical Expert System



Sequence Diagram For Medical Expert System



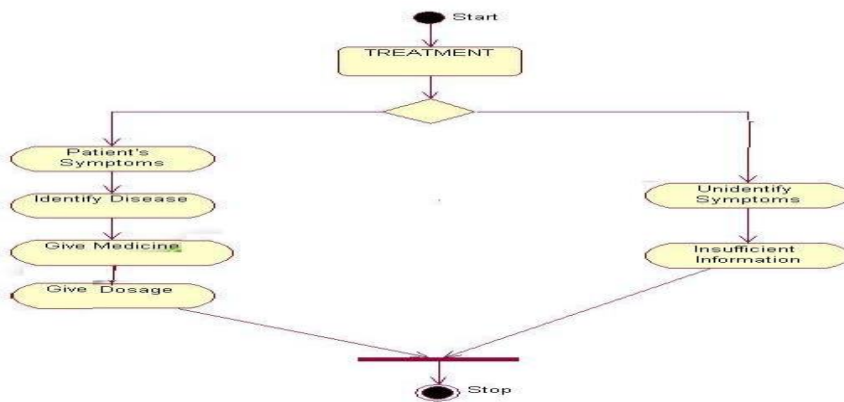
Collaboration Diagram For Medical Expert System



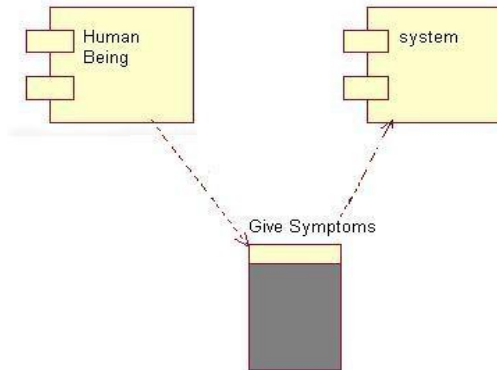
Class Diagram For Medical Expert System:



Activity Diagram For Medical Expert System:



Component Diagram For Medical Expert System



FUNDED/UNFUNDED PROPOSALS (if any):

1. There is no any funded programs or unfunded programs concerned for this lab

10. PROPOSALS

INDUSTRIAL VISITS

Industry proposals (week wise industrial visits)(in house or outside visit)/training programmes:

TABLE 1 : INDUSTRIAL VISITS

S.no	Type of industry	Nature of industry	Date of visit	No. of students participated	Year/branch	Remarks

11.GUIDELINES FOR SHADOW ENGINEERING (VIP)

INDUSTRIAL VISITS (IIP – INNOVATIVE INDUSTRIAL LEARNING PROGRAM):

SHADOW ENGINEERING:

Objectives of shadow engineering:

- a. The program which uplifts the knowledge of the students related to laboratories.
- b. To improve the industry-college interactions.
- c. To create industry like environment for all the students in order to make future Assignment.
- d. This program leads to matrixing with the students.

TABLE 2: INDUSTRIAL TRAINING (Shadow Engg)
(Career Visit Approval)

S.no	Name of the Course	Nature of industry	Duration of Training	Authority	Date of Training/Certificate No.	remarks

11. ACTIVITES CALIBRATION/INSTALLATION AND TESTING:

Calibration: There is no any equipment to be calibrated for concerning to this lab.

Installation: Aim of this concept is to make and maintain installation procedure for a Rational rose software in existing equipment

- a. Enter the following URL into your web browser:

<http://www.ibm.com/developerWorks/toolbox/download.html>

You should now be at the page below. Click on the –Enterprise Levelll hyperlink

- b. Click on —Rationalll then —IBM Rational Rose Enterprise V2003.06.12 for Windows Evaluationll.

- c. The page that you are directed to contains further instructions for installing Rational

Rose. You should print this page. There are two download methods discussed at the bottom of the page. The installation file is approximately 360 MB in size. These instructions will demonstrate using the Download Director link, which offers additional features, including the capability of continuing after a broken connection.

After selecting a download method, you will be directed to the software license agreement page below (background). After reading the agreement, select **I agree** and a username/password prompt will appear (foreground). Enter **csfullerton** in the username field and **titan_fullerton** in the password field then click on **ok**.

- d. If you have either a Java Runtime or Java SDK installed, the security warning message shown below will appear. If the security warning message did not appear, proceed to instruction 4a. Click on yes if you would to continue.

Then select a download directory and click on OK to continue

After which, the Download Director progress applet shown below will appear

You can click on launch to begin installing Rational Rose Enterprise edition now, or you can install it later using the **C57CJML.exe** file that is located in the download directory you specified previously (click on details if you have forgotten the location).

- e. This screen explains how to use the Download Director software. If you do not have a Java runtime environment (a Java virtual machine), we encourage you to install the Java SDK available from <http://java.sun.com> (directions for installing the SDK are available there). You will need to install the Java SDK at some point since many MSE projects will be implemented in Java. If you're not sure whether you have either a Java SDK or JRE installed on your machine, you can test this at <http://www.java.com> by clicking on the **Get It Now** link. If either the SDK or JRE are installed, a screen will notify you that you have **Java Software Installed**. Next Click on continue downloading

Select an install directory Click next.

Select Rational Rose Enterprise Edition from the Rational Products folder below (see the blue highlighted file below) and click NEXT.

Click on UPDATE to continue.

- f. As the installation instruction says, you also need to download and save the license key file - **C53A1NA.upd** to run the Rational Software

For source

mse.ecs.fullerton.edu/docs/how2install-Eval-Rational%20Rose.doc

http://share.auditory.ru/2010/Timofey.Kovalev/laba/rational_rose/install.pdf

Testing : Aim of this concept is to test the equipment after installation whether it Meets the existing standards.

12. PREVENTIVE MAINTAINANCE SCHEDULE

Maintenance and trouble shooting of each equipment in a laboratory must follow the following guidelines:

Maintenance Schedules:

(1) Preventive Maintenance Schedules of lab will be decided by lab in charge along with concerned HOD. The details of schedule should be recorded in the following template of format.

S.No.	No. of. Systems installed with the software	Date of Maintenance	Type of Activity	Remarks
1	60	30/06/2014	For casetools lab	

(2) Maintenance Reports duly signed by in charges as well as HODs and duly approved by Principal periodically.

TROUBLE SHOOTING SCHEDULES:

A proposal is to be made from each lab branch wise. The proposal should carry following details related to specific equipment in lab.

S.No., Equipment Name , Type of Problem (Too much Noise, Abnormal Sound, Corrupt Software, Anti Virus Problem, Missing of Display, CRT not working, Motor is not giving signal, Digital display is not working, Break of tools, Mis alignment of machine elements, PLC is not properly working), Expected Reasons (Bearing failure, Improper alignment of machine centres, Missing of vibration pads etc)

Trouble shooting exercises should be properly recorded in a separate format as mentioned below:

S.No.	Date of recording activity	Equipment Name	Type of Trouble	Remedial Activity	Remarks

ADVANCED COMMUNICATION SKILLS LAB

CONTENTS

1. OBJECTIVES AND RELEVANCE

2. SCOPE

3. PREREQUISITES

4. COURSE OUTCOMES

5. ACS SYLLABUS

6. LAB SCHEDULE

7. SUGGESTED BOOKS

8. SUGGESTED SOFTWARE

9. WEBSITES

10. EXPERTS' DETAILS

11. ASSESSMENT AND ACCREDITATION PROCEDURE AS PER NABL

1. OBJECTIVES & RELEVANCE

This Lab focuses on using computer-aided multimedia instruction for language development to meet the following targets:

- To improve the students' fluency in English, through a well-developed vocabulary and enable them to listen to English spoken at normal conversational speed by educated English speakers and respond appropriately in different socio-cultural and professional contexts.
- Further, they would be required to communicate their ideas relevantly and coherently in writing.
- To prepare all the students for their placements.

2.SCOPE

The introduction of the Advanced Communication Skills Lab is considered essential at 3rd year level. At this stage, the students need to prepare themselves for their careers which may require them to listen to, read, speak and write in English both for their professional and interpersonal communication in the globalised context.

The proposed course should be a laboratory course to enable students to use 'good' English and perform the following:

- Gathering ideas and information to organize ideas relevantly and coherently.
- Engaging in debates.
- Participating in group discussions.
- Facing interviews.
- Writing project/research reports/technical reports.
- Making oral presentations.
- Writing formal letters.
- Transferring information from non-verbal to verbal texts and vice versa.
- Taking part in social and professional communication.

3. PREREQUISITES

- Basic knowledge of English grammar
- Use of Parts of speech, basic sentence pattern and tense forms
- Basic understanding of English vocabulary
- Ability to write simple and good English
- Have interest to learn the language

4. COURSE OUTCOMES

- Accomplishment of sound vocabulary and its proper use contextually
- Flair in Writing and felicity in written expression
- Enhance job prospects
- Effective Speaking Abilities

LSRW OBJECTIVES

LISTENING SKILLS

Objectives:

To enable students to develop their listening skill so that they may appreciate its role in the LSRW skills approach to language and improve their pronunciation

To equip students with necessary training in listening so that can comprehend the speech of people of different backgrounds and regions

SPEAKING SKILLS

Objectives:

To make students aware of the role of speaking in English and its contribution to their success

To enable students to express themselves fluently and appropriately in social and professional contexts

READING SKILLS

Objectives:

To develop an awareness in the students about the significance of silent reading and comprehension

To develop the ability of students to guess the meanings of words from context and grasp the overall message of the text, draw inferences etc

WRITING SKILLS

Objectives:

To develop awareness in the students about writing as an exact and formal skill.

To equip them with the components of different forms of writing, beginning with the lower order ones

5. SYLLABUS

The following course content to conduct the activities is prescribed for the Advanced Communication Skills (ACS) Lab:

UNIT – I

Activities on Fundamentals of Inter-personal Communication and Building Vocabulary

Starting a conversation - responding appropriately and relevantly - using the right body language - Role Play in different situations & Discourse Skills- using visuals - Synonyms and antonyms, word roots, one-word substitutes, prefixes and suffixes, study of word origin, business vocabulary, analogy, idioms and phrases, collocations & usage of vocabulary.

UNIT – II

Activities on Reading Comprehension

General Vs Local comprehension, reading for facts, guessing meanings from context, scanning, skimming, inferring meaning, critical reading & effective googling.

UNIT – III

Activities on Writing Skills

Structure and presentation of different types of writing - letter writing/ Resume writing/ e-correspondence/ Technical report writing/ Portfolio writing - planning for writing - improving one's writing.

UNIT – IV

Activities on Presentation Skills

Oral presentations (Individual and Group) through JAM Sessions/Seminars/PPTs and Written presentations through Posters/ Projects/ Reports/ E-mails/ Assignments etc.

UNIT – V

Activities on Group Discussion and Interview Skills

Dynamics of Group Discussion, intervention, summarizing, modulation of voice, body language, relevance, fluency and organization of ideas and rubrics for evaluation- Concept and process, pre-interview planning, opening strategies, answering strategies, interview through tele-conference & video-conference and Mock Interviews.

LEAD EXPERIMENT:

MINI PROJECT: As a part of Internal Evaluation

1. Seminar / Professional Presentation
2. A Report on the same has to be prepared and presented.

Not more than two students to work on each Mini Project

Students may be assessed by their performance both in oral presentation and written report.

ACS LAB – 1 (COMPUTER AIDED LANGUAGE LEARNING)

List of experiments:

Interpersonal Communication:

Vocabulary Building: Synonyms, Antonyms, Word Roots, One-Word Substitutes, Prefixes, Suffixes, Word Origin, Business Vocabulary, Analogy, Idioms And Phrases, Collocations & Usage Of Vocabulary

3. **Exercises on Reading Comprehension.**
4. **Activities on Writing Skills** – Sample letters, Cover letter, Resume writing
5. **Activities on Writing Skills** – E- Correspondence, Report Writing, Portfolio Writing
6. **Oral Presentations**
7. **Written Presentations**
8. **Dynamics of Group Discussion**
9. **Group Discussion Sessions**
10. **Interview Skills and Mock Interview**

ACS LAB – 2 (INTERACTIVE COMMUNICATION)

List of experiments:

1. **Conversational Techniques**
2. **Role Play**
3. **Understanding Reading Comprehension**
4. **Tips for Improving Writing Skills**

5. Writing Cover Letter, CV, e mails and Reports
6. Activities on Oral Presentation Skills
7. Discussing Different types of Written Presentations
8. Dynamics of Group Discussion, GD Session
9. Interview Planning and Preparation

2. Mock Interview

6. LAB SCHEDULE

BATCH	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10
B1	Demo	UNIT-1	UNIT-2	UNIT-3	UNIT-3	UNIT -4	TEST	LEAD	UNIT -V	UNIT -V

Each batch contains 30 students.

Viva Schedule

BATCH	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10
B1	Viva		Viva		Viva		Viva		Viva
B2		Viva		Viva		Viva		Viva	

Each batch contains 30 students.

Practical Oriented Questions for Practice and Viva:

Role Play Topics

Conversation between:

- a Doctor & a patient
- Principal & a Student
- Customer & a Shopkeeper
- a Customer & a hotel receptionist
- two strangers traveling in a train
- a Customer & a salesman in a medical shop
- two friends at a party
- a passenger and the railway station master
- An officer and his sub-ordinate.
- A dialogue between the librarian and a student
- A dialogue between two friends in a marriage function.

TOPICS FOR ORAL PRESENTATION (EXTEMPORE)

1. Fresher's Parties

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2. Pollution
3. Co-education
4. Indian Films
5. Importance of Hard work
6. Fests in Colleges
7. Influence of TV on kids
8. Role of engineers in the society
9. Importance of Communication Skills
10. Illiteracy in India
11. Corruption
12. The Importance of games and sports
13. TV Serials
14. Harmful effects of plastic
15. Agriculture in India
16. Libraries and their usefulness
17. Reality Shows
18. Social networking sites
19. Time Management
20. Student Life

TOPICS FOR JAM SESSION

1. If I were the CM.....
2. Language Labs: Are they useful?
3. Drunk driving
4. Rash driving
5. Using mobiles while driving
6. Smoking in public places

LIFT MANUAL

7. My role model
8. My childhood days
9. If I had wings to fly
10. The most memorable incident in my life
11. If animals could talk
12. Summer Vacation
13. A place I visited
14. Bald head
15. Teenage: Enjoyment
16. Explain the rules of your favorite game
17. A rainy day
18. If I could meet God....
19. If not an Engineer, I would be.....
20. Some people I like

INTERVIEW QUESTIONS

1. Tell me something about yourself.
2. What are your strengths and weaknesses?
3. Why do you want to work at our company?
4. What is the difference between confidence and over confidence?
5. What is the difference between hard work and smart work?
6. How do you feel about working nights and weekends?
7. Can you work under pressure?
8. Are you willing to relocate or travel?
9. Where do you see yourself five years from now?
10. Give me an example of your creativity.
11. How long would you expect to work for us if hired?
12. Are not you overqualified for this position?

LIFT MANUAL

13. Describe your ideal company, location and job.
14. What are your career options right now?
15. Explain how would be an asset to this organization?
16. What are your outside interests?
17. Would you lie for the company?
18. Who has inspired you in your life and why?
19. What was the toughest decision you ever had to make?
20. Have you considered starting your own business?
21. How do you define success and how do you measure up to your own definition?
22. If you won \$10 million lottery, would you still work?
23. Tell me something about our company.
24. How much salary do you expect?
25. Where do you see yourself five years from now?

TOPICS FOR GROUP DISCUSSION

1. Is our Political System Reason for our Backwardness?
2. Retirement Age for Politicians
3. Brain-Drain has to be stopped
4. Flexi Timings or Fixed Timings - Which is better at Work?
5. Corruption is a Necessary Evil for Success in Any Sphere
6. Capital Punishment should be Banned or Allowed?
7. Is Dependence on Computers a Good Thing?
8. Effects of Television on Youth
9. Love Marriages Vs Arranged Marriages
10. Are beauty contests degrading womanhood?
11. Morals & Human Values among Indians is Degenerating

12. Foreign Television Channels are Destroying Our Culture
13. Women Empowerment - A Cause for Increasing Divorce Rate in India
14. Showing Violence and Crimes should not be allowed in films and on television.
15. Influence of Online Social Networks on our Youth
16. We are not serious about saving Wildlife/Environment
17. Our education system needs serious reforms
18. Are Leaders Born or are they made in Business Schools?
19. Should GD be Part of Campus Placements?
20. Whether Hard-Working or Smart-Working is Desirable?
21. Do we really Need Education to be Successful?
22. Private Educational Institutions: Good or Bad
23. Multinational Corporations: Are they Devils in Disguise?
24. Advertising is a Waste of Resources
25. Cricket as a National Obsession is a Detriment to Other Sports

8. SUGGESTED BOOKS

Practical Lab Manual: A book titled: **A Course Book of Advanced Communication Skills (ACS) Lab** published by University Press, Hyderabad.

1. Technical Communication by Meenakshi Raman & Sangeeta Sharma, Oxford University Press 2009.
2. Advanced Communication Skills Laboratory Manual by Sudha Rani, D, Pearson Education 2011.
3. Technical Communication by Paul V. Anderson. 2007. Cengage Learning Pvt. Ltd New Delhi.
4. Business and Professional Communication: Keys for Workplace Excellence. Kelly M. Quintanilla & Shawn T. Wahl. Sage South Asia Edition. Sage Publications. 2011.
5. The Basics of Communication: A Relational Perspective. Steve Duck & David T. McMahan. Sage South Asia Edition. Sage Publications. 2012.
6. English Vocabulary in Use series, Cambridge University Press 2008.
7. Management Shapers Series by Universities Press(India) Pvt Ltd., Himayatnagar, Hyderabad 2008.
8. Handbook for Technical Communication by David A. McMurrey & Joanne Buckley. 2012. Cengage Learning.
9. Communication Skills by Leena Sen, PHI Learning Pvt Ltd., New Delhi, 2009.
10. Handbook for Technical Writing by David A. McMurrey & Joanne Buckley Cengage Learning 2008.

11. Job Hunting by Colm Downes, Cambridge University Press 2008.
12. Master Public Speaking by Anne Nicholls, JAICO Publishing House, 2006.
13. English for Technical Communication for Engineering Students, Aysha Vishwamohan, Tata Mc Graw-Hill 2009.
14. Books on TOEFL/GRE/GMAT/CAT/IELTS by Barron's /DELTA/ Cambridge University Press.
15. International English for Call Centres by Barry Tomalin and Suhasini Thomas, Macmillan Publishers, 2009.

9. SUGGESTED SOFTWARE

The Software consisting of the prescribed topics elaborated above should be procured and used.

- Oxford Advanced Learner's Compass, 7th Edition
- DELTA's key to the Next Generation TOEFL Test: Advanced Skill Practice.
- Lingua TOEFL CBT Insider, by Dreamtech
- TOEFL & GRE(KAPLAN,AARCO & BARRONS, USA, Cracking GRE by CLIFFS)
- The following software from 'train2success.com'
 - Preparing for being interviewed
 - Positive Thinking
 - Interviewing Skills
 - Telephone Skills
 - Time Management

10. WEB SITES:

Listening

- [Randall's ESL Cyber Listening Lab \(http://www.esl-lab.com\)](http://www.esl-lab.com)
- [The English Listening Lounge \(http://www.englishlistening.com\)](http://www.englishlistening.com)
- [The Academy of American Poets Listening Booth \(http://www.poets.org/booth/booth.cfm/\)](http://www.poets.org/booth/booth.cfm/)
- [Speech Accent Archive: American accents](http://accent.gmu.edu/browse_maps/namerica.php) (*Listen to regional differences in American English.*
)
(http://accent.gmu.edu/browse_maps/namerica.php)
- [English Listening Lab Online \(http://www.ello.org/\)](http://www.ello.org/)

- [The Bob and Rob Show](http://www.thebobandrobshow.com/website/index.php) (*podcast discussion and variety show on culture, language, vocabulary*)
(<http://www.thebobandrobshow.com/website/index.php>)

Speaking

- [ELEaston Pronunciation](http://evaeaston.com/) (<http://evaeaston.com/>)
- [10 Tips for Successful Public Speaking from Toastmasters](http://www.toastmasters.org/MainMenuCategories/FreeResources/NeedHelpGivingaSpeech/TipsTechniques/10TipsforPublicSpeaking.aspx)
(<http://www.toastmasters.org/MainMenuCategories/FreeResources/NeedHelpGivingaSpeech/TipsTechniques/10TipsforPublicSpeaking.aspx>)
- [Allyn&Bacon Public Speaking Website](http://wps.ablongman.com/ab_public_speaking_2/) (http://wps.ablongman.com/ab_public_speaking_2/)
- [McGraw-Hill Public Speaking Website](http://www.mhhe.com/socscience/comm/pubspeak_cmk_071307/)
(http://www.mhhe.com/socscience/comm/pubspeak_cmk_071307/)
- [McGraw-Hill Public Speaking Tutorial](http://www.mhhe.com/socscience/comm/new-home/tutorial/tutorial.htm) (<http://www.mhhe.com/socscience/comm/new-home/tutorial/tutorial.htm>)
- [Presentations and Public Speaking in English](http://www.englishclub.com/speaking/presentations.htm)
(<http://www.englishclub.com/speaking/presentations.htm>)

Reading

- [Bartleby.com](http://www.bartleby.com/) (<http://www.bartleby.com/>)
- [The Magazine Rack](http://www.magatopia.com/) (<http://www.magatopia.com/>)
- [Reader's Digest Magazine Articles](http://www.rd.com/) (<http://www.rd.com/>)
- [Reading Skills](http://vclass.mtsac.edu/amla-51/Skills%20Exercises/homework.htm) (*Using a Dictionary, Finding Main Ideas, Drawing Inferences, more from the AmLa Department of Mt. San Antonio College*)
(<http://vclass.mtsac.edu/amla-51/Skills%20Exercises/homework.htm>)
- [Tips on Reading a Newspaper](http://www.bangkokpost.com/education/rdtips.html) (*from the Bangkok Post*)
(<http://www.bangkokpost.com/education/rdtips.html>)
- [ELC Study Zone](http://web2.uvcs.uvic.ca/elc/studyzone/index.htm) (<http://web2.uvcs.uvic.ca/elc/studyzone/index.htm>)

Writing

- [Writing Tips: Sentence Builder](http://www2.actden.com/writ_den/tips/sentence/index.htm) (http://www2.actden.com/writ_den/tips/sentence/index.htm)
- [Writing Tips: Paragraphs](http://www2.actden.com/writ_den/tips/paragrap/index.htm) (http://www2.actden.com/writ_den/tips/paragrap/index.htm)
- [Writing Tips: Essays](http://www2.actden.com/writ_den/tips/essay/index.htm) (http://www2.actden.com/writ_den/tips/essay/index.htm)
- [Letter Writing Desk](http://jobsearchtech.about.com/library/bl-business-letters.htm) (*examples, samples, tips, formats*)
(<http://jobsearchtech.about.com/library/bl-business-letters.htm>)

- [Advanced Composition for Non-Native Speakers of English](http://www.eslbee.com/) (<http://www.eslbee.com/>)

11. SUBJECT EXPERTS:

Kummaravadivelu

Professor in Applied Linguistics
San Jose State University, U.S.A

Penny Ur

Professor in English Language Education
Oranim Academic college of education
Israel

National experts:

Prof. Paul Gunashekar
Dean School of English Language Education
EFL University-Hyderabad.

Regional experts:

A. Rama Krishna Rao
Professor in English
JNTUH.

Inhouse experts:

S. Ranga Raju
Assistant Prof. in English
CMREC.

V. Sreedevi
Assistant Prof. in English
CMREC.