



# CSE291 - Introduction To Software Engineering - Lab (FALL 2022)

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Week 1

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# Lab Objectives

The Software Engineering Lab has been developed by keeping in mind the following objectives:

1. To impart state-of-the-art knowledge on Software Engineering and UML
2. Present case studies to demonstrate practical applications of different concepts.
3. Provide a scope to students where they can solve small, real life problems.

# Lab Tasks / Course Outline

- Assigning SE projects to students
- Introduction to MS Project Tool
- Task division using Gantt Chart
- Write Project Proposal according to the CS FYP Template
- Create prototypes of Project by using BalSamiq tool
- Develop requirements specification for a given problem  
(The requirements specification should include both functional and non-functional requirements) by using Case Complete tool.

# Lab Tasks / Course Outline

- Introduction to MS Professional Visio
- Draw Context and Activity Diagrams of the assigned projects using MS Professional Visio
- Develop UML Use case model for a problem.
- Draw Sequence Diagrams of the assigned projects
- Draw State Transition and Collaboration Diagrams
- Develop DFD Model (Level 0, Level 1 & 2 DFD )
- Develop Class diagrams.
- Project Presentation

# Google Classroom

- Course Handbook
- Deadlines & Important Information
- Course Material (Lecture Notes and reference material)
- Assignments

# Course Assessment/Grading

Component	Weightage
Midterm	25 %
Terminal	50 %
Assignments	25 %

- Submit all assignments.
- No credit for copied or late submissions or hand written Assignments.
- No relaxation for students found cheating in exam.
- At least 80% attendance is mandatory.
- To get good grade you must attend all lectures and perform good in all course assessments.

# Rules

- Mobile phones – Silent or switch off
- Arrive on time in class
- If you do not understand a point, raise your hand and ask me to explain or contact during office hours
- No disturbance!!!! No Misconduct!!!!
- REMEMBER: Your first priority must be your studies



# Lab Task 1

Choose any of one Projects

1. Online Doctor Consultation System
2. Online Event Management System
3. Online Learning System like Google Class room
4. Transport hiring System like Uber
5. Online Employee Management System

# Lab task1/Assignment 1:

Write different features/modules of assigned projects

## Example: University Management System

### Introduction:

University Management will automate and simplify all the operational requirements of a university. University Management Information System provides a complete set of tools and applications that let you plan, execute, and analyze at both strategic and tactical levels as well as administering all university procedure as a mechanized system.

# **Example: University Management System**

## **Modules of University Management System**

### **Admin And User Module:**

The User Management grants authorized users the rights to use the various services by dividing them in to groups and defining their privileges.

### **Registration:**

This module is used in the university management system to register student's examination, semesters and programs. This module manages the academic years, the pre-requisites for various degrees and the programs and subjects to be offered in semester or the annual terms

# **Example: University Management System**

## **Modules of University Management System**

### **Fee Handling:**

The Fee management is an important UMS module this particular module is responsible for handling the process of Fee collection from the students as well as the fee for all sorts of admission test and interview.

### **Scheduling:**

The Schedule Management Module helps in managing the semester timetable and the management to different classes of a semester.

### **Meeting Section:**

The Meeting section in the UMS provides the management for various committees that the university formulates. The module also helps the management to generate the reports for these meeting sessions.

# **Example: University Management System**

## **Modules of University Management System**

### **Library:**

The Library Management Module is all about the library and its functions. Library racks records are managed. The administration manages the authors, publishers, and editor's records along with the circulation and requisitions processes.

### **Transport:**

The Transport Management helps the management to administer all the university transportation. It includes the vehicle management, fuel and maintenance, vehicle visit, its sales and depreciation.

### **Events:**

The Event Management allows the administrator to manage all the university events. It includes different activities, member's profiles, organizing bodies of events, planning the event, news related to events, and customized reports.