Course Code: **CSE 3100**	Course Title: **Software Development Project I**
50 Marks, 1 credits, 2 Hours/week, Lectures: 28, Exam time: 2 hours	
Pre-requisite courses:	**CSE 1101: Structured Programming Language**
Rationale of the Course	To design and develop a project from their knowledge they have acquired from Structured programming Language C.

1. **Course Learning Outcomes:** at the end of the Course, the Student will be able to –

Course Learning Outcomes (CLO) Statements	**Domain Level**	**CLO-PLO Mapping**
CLO-1: Analyze the previous works done by others in relevant field and choose the specific real world topic.	Cognitive/ Analyze	**PLO-2, PLO-4**
CLO-2: Design a real-world project based on their acquired knowledge.	Cognitive/ Create	**PLO-3, PLO-5**
CLO-3: Develop complete real world software solution by group or team works.	Psychomotor/ Manipulate	**PLO-3, PLO-5, PLO-9**

2. Course Contents: Based on the previous related courses.

3. **Learning Materials**

Text Books	
1. Robert C. Martin	Clean Code: A Handbook of Agile Software Craftsmanship
2. Steve McConnell	Code Complete: A Practical Handbook of Software Construction
References Books	
3. Herbert Schildt	C: The Complete Reference (4th Edition)

4. **Course plan specifying content, CLOs, teaching learning and assessment strategy mapped with CLOs:**

Week	Topic/Experiment	Teaching Learning Strategy	Assessment Strategy	Corresponding CLOs
1.	Orientation & Project Topic Selection	• Lecture Note • Case Studies • Web Material	•Participation • Topic Proposal	CLO 1
2.	Literature Review & Related Works	• Lecture Note • Journal Articles • Online Resources	• Literature Review Report • Viva	CLO 1
3.	Requirement Collection and Analysis	• Group Discussion • SRS Template • Lecture Note	• SRS Document • Viva	CLO 1
4.	Project Planning & Timeline Design (Gantt Chart)	• Project Management Tools • Lecture Note	• Timeline Submission •Participation	CLO 2
5.	System Design – Use Case & Architecture	• UML Diagrams • Design Templates • Lecture Note	• Design Document •Presentation	CLO 2
6.	Database Design and ER Diagram	• Practical Session • Design Tools • Sessional Manual	• ER Diagram Submission • Viva	CLO 2
7.	Frontend UI/UX Design	• Workshop • Audio/Video • Web Resources	• UI Mockup Submission • Team Feedback	CLO 2, 3
8.	Backend Development & API Planning	• Live Coding • Source Code Review • Lecture Note	• Code Submission •Participation	CLO 3
9.	Midterm Project Progress Presentation	• Slide Deck • Group Discussion	• Presentation • Project Demo • Viva	CLO 1,2,3
10.	Implementation Phase – Group Coding	• Lab Work • Pair Programming • Instructor Feedback	• Progress Review • Git Commits Review	CLO 3
11.	Testing and Debugging	• Unit Test Guide • QA Best Practices • Tools Demo	• Bug Report • Test Plan	CLO 3
12.	Final Project Submission and Documentation	• Final Code Review • Report Writing Guide	• Final Report • Codebase Submission	CLO 2,3

13.	Final analysis and review	• Presentation Guide • Public Speaking Tips	• Final Demo • Presentation • Viva	CLO 3
14.	Final Presentation & Viva	• Presentation Guide • Public Speaking Tips	• Final Demo •Presentation Final exam • Viva	CLO 1,3

5. **Assessment and Evaluation:**

1) Assessment Strategy:

Assessment Method	**Marks Distribution (%)**
Lab Attendance & Performance	10%
Continuous Assessment (Sessional Attendance & Performance, Sessional Tests, Quiz, Viva, Assignments, Presentation & Mid-Term Exam)	**40%**
Final exam	**50%**

2) Marks Distribution:

a. Continuous Assessment:**50%**
b. Final exam:**50%**

3) Make-up Procedures: Re-take Exam

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