

Mini-Project: (15 hours)

The students have to form a team of 4 members and choose a problem. They need to prepare UML Diagrams for the same and use Architecture and Design Principles and Patterns to develop a solution for the chosen problem. And implement the same using java /C++.

(i) Mini Project Evaluation Policy:

- 1: Presentation of the project will be team-based.
- 2: Each student will be evaluated individually.

(ii) Marks Distribution:

Analysis and Design Models	3 marks
Use of MVC Architecture Pattern	1 marks
Use of Design Principles and Patterns (at least 1each per team member)	4 marks
Presentation/ Demo/ Explaining the code	2 marks
Total	10 marks

Note: * - Any 4 Design patterns and any 4 design principles in total for the project for a 4 member team

(iii) Complexity of the project:

- A typical team size of 4 members would be required to implement at least 4 major features/use cases and 4 minor features/use cases (1 of each type per team member).
- There should be equal participation of each student in a team.

(iv) Important Aspects to be followed:

- The implementation should be done using any JAVA/C++ technologies that must include an MVC framework (like Java Spring Framework,CROW Framework) along with optional Frontend frameworks. However, only Desktop and Web applications are accepted. **Mobile applications are not accepted.**
- Each student should own a use case completely and implement it (that is, avoid situations where a team member will own only UI, another will own Backend etc.)
- The implemented use cases should be merged into a single application. The data related to the project should be persisted in any database of your choice.

(v) Submission: - Report document (PDF) containing

- Title page with course details, project title, and team member details - PESU template to be used.

- Problem statement (synopsis etc.)
- Models (Use Case and Class Models)
- Architecture Patterns, Design Principles and Design Patterns used along with a short description which elaborates how that is applied to your problem domain.
- Github link to the Codebase (Repository should be public and accessible to all)
- Individual contributions of the team members
- Screenshots with input values populated and output shown (Use white background screens)