

**III/IV B. TECH. SECOND SEMESTER
UML AND DESIGN PATTERNS LAB(Required)**

Course Code: CS 6L2

Credits: 2

Lab Hours: 3 periods/ week

Internal assessment: 25 Marks

Semester end examination: 50 Marks

Prerequisite: UML And Design Patterns

Course Objectives:

- Construct UML diagrams for static view and dynamic view of the system.
- Generate creational patterns by applicable patterns for given context.
- Create refined model for given Scenario using structural patterns.
- Construct behavioral patterns for given applications.

Course Outcomes:

CO1) Understand the Case studies and design the Model..

CO2) Understand how design patterns solve design problems.

CO3) Develop design solutions using creational patterns.

CO4)Construct design solutions by using structural and behavioural patterns

Exercises:

1. To create a UML diagram of ATM APPLICATION
2. To create a UML diagram of LIBRARY MANAGEMENT SYSTEM
3. Design Abstract factory Design pattern.
4. Design Builder Design pattern.
5. Design Facade Design pattern.
6. Design Bridge Design pattern.
7. Design Decorator Design pattern.

8. User gives a print command from a word document. Design to represent this chain of responsibility design pattern.
9. Design Visitor Design pattern.
10. Design Iterator Design pattern.
11. To design a Document Editor.

Learning Resources

Text Books

1. Grady Booch , James Rumbaugh , Ivar Jacobson : The Unified Modeling Language User Guide, Pearson Education.
2. Design Patterns By Erich Gamma, Pearson Education
3. Meta Patterns designed by Wolfgang , Pearson.

References

1. Design Patterns Explained By Alan Shalloway, Pearson Education..
2. Head First Design Patterns By Eric Freeman - Oreilly-spd.
3. JAVA Enterprise Design Patterns Vol-III By Mark Grand , Wiley Dreamtech.
4. Pattern's in JAVA Vol-I By Mark Grand ,Wiley Dreamtech.
5. Pattern's in JAVA Vol-II By Mark Grand ,Wiley Dreamtech.