UNIT I

Syllabus :

Introduction to software design, design methods-procedural / structural and object oriented, Requirement Vs Analysis Vs Architecture Vs Design Vs Development 4+1 Architecture, case study of transferring requirement to design, UP, COMET use case based software life cycle, Introduction to UML -Basic building blocks, Reusability, Use case modelling, Use case template Case study – Transferring requirements into design using advanced tool.

UNIT II

Syllabus :

Analysis Vs Design, Class diagram- Analysis - Object and classes finding analysis and Design-design classes, refining analysis relationships, Inheritance and polymorphism, Object diagram, Component diagram-Interfaces and components, deployment diagram, Package diagram

UNIT III

Syllabus :

Interaction and Interaction overview diagram, sequence diagram, Timing diagram, Communication diagram, Advanced state machine diagram, Activity diagram.

UNIT IV

Syllabus :

Introduction to Architectural design, overview of software architecture, Object oriented software architecture, Client server Architecture, Service oriented Architecture, Component based Architecture, Real time software Architecture.

UNIT V

Syllabus :

Introduction to Creational design pattern – singleton, Factory, Structural design pattern- Proxy design pattern, Adapter design pattern, Behavioral – Iterator design pattern, Observer design pattern.

UNIT VI

Syllabus :

Introduction to testing, Error, Faults, Failures, verification and validation, Whit Box Testing, Black Box Testing, Unit testing, Integration testing, GUI testing, User acceptance Validation testing, integration testing, scenario testing, performance testing. Test cases and test plan. Case studies expected for developing usability test plans and test cases.

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