

Unit 1

Scrum, agile, func and non func requirements With ex., sprint cycle

Structure

Extreme programming/ release cycle

Tabular and natural specification

Agile software dev. Methods

Requirement elicitation using case study like patient management software.

Prototyping techniques.

Unit 2.

State machine model with real time example.

Object oriented design process.

Case scenario given, design class, object oriented diagrams, state diagrams, sequence diagrams and all.

Unit 3

Devops lifecycle (Both diagrams)

RAG models,

Serverless, micro-services

Devops tools.

Architectural styles

Micro serv. And api

Best practices in serverless architecture.

Waterfall models

Spiral model

Things to define a well structured architecture.

Unit 4

Cypress architectures tools

Selenium and junit, Components of selenium

Static and dynamic testing techniques (with diff)

NOvem- testing tool (added in lms)

Levels of testing

AI-Driven testing

Models based testing

Performance testing using AI

Unit 5

Scalability testing

Performance testing principles with test

Volume test

Scalability in distributed systems

Key metrics in scalability testing

Diff btw load and stress

Shift left and shift right strategies in the cloud.

Penetration testing.

KPI's in Performance Testing