

SYLLABUS OF SOFTWARE TESTING

Unit 1	Fundamentals of Testing
Software Development Life Cycle	Software Development Life Cycle (SDLC), SDLC Models (Waterfall Model, V Model, Agile Model, Rapid Application Development), Impact of software bugs, Objective of testing, Testing principles
Software Testing Life Cycle	Software Testing Life Cycle, establishing test policy, test factors and eleven steps of software testing process, Testing Documentation using IEEE829, Test plan and Test Report, test Matrices, Traceability Matrix
Test Levels	Role & Responsibilities of Quality Assurance Engineering, Test Levels (Unit, Component, Module, Integration, System, Acceptance, Generic), Software Testing Pyramid.
Unit 2	Different approaches to Testing
Static Testing	Static Testing: Structured Group Examinations, Static Analysis, Control flow & Data flow, Determining Metrics
Dynamic Testing	Dynamic Testing: Black Box Testing (Equivalence Class Partitioning, Boundary Value Analysis, Cause Effect Graphing and Decision Table Technique)
White Box testing	White Box Testing (Statement Coverage, Branch Coverage, Test of Conditions, Path Coverage), Gray Box Testing, Intuitive and Experience, Based Testing, Alpha, Beta, Performance. Load and Stress Testing, Key Performance Indicator (KPI's) of software testing
SELF STUDY TOPIC	Exploratory testing and Planned testing
Unit 3	Test Management using JIRA
Introduction To JIRA	Introduction To JIRA, Test Management In JIRA, Advanced Search and Introduction to JQL (JIRA Query Language), different types of issues in JIRA (sub-task, bug, epic, improvement, new feature, story, task), Jira Dashboards, Different methods for creating issue
Defect and Bug	Difference between Defect and Bug, Defect Life Cycle. Defect Tracking Tools, create a Bug Report. Severity & Priority
Different types report	Work Flows, plug-ins in JIRA, Use of Clone and Link in JIRA, Export and import data in Jira with different formats, Different types reports (Agile, Issue Analysis, Forecast & Management, etc.),
SELF STUDY TOPIC	JIRA Agile

Self-study topics for Advance learners: How to establish testing policy, TSO and IEEE standards for quality of products models, Exploratory testing and Planned testing, JIRA Agile,