

SOFTWARE TESTING



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MANUAL TESTING SYLLABUS

1. INTRODUCTION OF SOFTWARE TESTING

What is software testing?
Why is testing necessary?
Testing Principles
Best Practices in Testing
Skills for Testing
Various Task Involved In Testing
Difference between Verification & Validation
Difference between QA & QC

2. DEVELOPMENT OF SOFTWARE APPLICATION

Introduction of Software Process
Phases in SDLC
Waterfall Model
Phases of Waterfall Model
Advantages & Disadvantages
Spiral Model
Phases of Spiral Model
Spiral Model Strengths & Weaknesses
When should you use Spiral Model
Prototype Model
Phases
Advantages & Disadvantages
Agile Model
Scrum methodology
Sprints in Scrum
Scrum Roles
Scrum Artifacts & Ceremonies
V-shaped Model
Steps in the V-shaped Model
V-shaped Strengths & Weaknesses
Challenges Regarding To Each Development Phases



3. LEVELS OF SOFTWARE TESTING

- Unit Testing
- Integration Testing
- Various Approaches Of Integration Testing
- System Testing
- Acceptance Testing

4. TESTING METHODOLOGIES

- Black Box Testing
- Advantages & Disadvantages
- White Box Testing
- Statement Coverage
- Decision Coverage

5. TYPES OF NON FUNCTIONAL TESTS

- Security Testing
- Recovery Testing
- Configuration testing
- Compatibility Testing
- Installation Testing
- Performance Testing
- Parallel Testing
- Volume Testing
- Internationalization Testing
- Localization Testing

6. TYPES OF FUNCTIONAL TESTS

- Other Types Of Testing

7. PROCESS OF TESTING

- Test Planning
- Test Analysis
- Test Design
- Construction and verification
- Testing Cycles
- Final Testing and Implementation
- Post Implementation



8. TEST DESIGN FOR FUNCTIONAL TESTING

- Introduction To Test Design
- Inputs For Test Design Activity
- Test scenarios
- Test Cases
- Test Case Management
- Best Practices Of Test Cases
- Test Data
- Black Box Test Technique
- Requirement Traceability Matrix(RTM)

9. TEST EXECUTION

- Test Execution Cycle
- Entry Criteria For Test Execution
- Smoke /Sanity Testing
- Test Execution
- Retesting And Regression Testing
- Ending The Test Execution Activity
- Test Closure Activities

10. DEFECT MANAGEMENT

- Defect /Bug
- Causes For Defect
- Defect Reporting
- Defect Attributes
- Severity And Priority
- Defect Life Cycle
- Advantages Of Defect Tracking

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11. QUALITY AND PROCESS IMPROVEMENT

Define What Is Quality
Application Of Concept Of Quality To Software Application
Quality Assurance
Quality Control
Testers Contribution To Quality Of Software Application
Software Testing Metrics

12. GETTING EQUIPPED TO START

Challenges In Testing
Best Practices In Test
Skills Required For A Tester
Career Path Of A Tester
How To Keep Updated

13. CASE STUDY

14. INTERVIEW PREPARATION.



AUTOMATION TESTING SYLLABUS

1. Benefits Of Automation Testing
2. What And When To Automate
3. Introduction To Automation Tools
4. Comparison with other tools like QTP/ UFT , RFT

SELENIUM

1. Introduction Of Selenium

Explanation of selenium and its advantages
Differences between selenium and QTP

2. Components Of Selenium

Selenium IDE
Selenium RC
Selenium Grid
Selenium WebDriver

3. Selenium JAVA language

Introduction
Data types
JAVA Variables
JAVA Modifier.
Comments in JAVA
JAVA Basis
Execution of JAVA

4. Introduction Of Selenium IDE

Main Features of Selenium IDE
Installing Selenium IDE
Test with Selenium IDE



5. Selenium Webdriver

Introduction to selenium webdriver
Setting up eclipse
Downloading and configuring webdriver in eclipse

6. Selenium WebDriver Commands

Get Commands
Navigate Commands
Element Visibility Commands
Other Commands

7. Locators Of Selenium (Webdriver)

Tools to identify elements and object
Google Chrome Developer Tools
Locating elements by ID, Name, LinkText, ClassName etc.
XPath , Types in X-path

8. Advanced Features IN Selenium

Handling Pop Up / Alert Window
Drop Down Operation
Scroll Down/up
Right Click Operation

9. Concept of framework

Introduction to framework
Use of framework
Different types of framework
Different types of packages in framework

10. TestNG Framework

Introduction to TestNG
Setting up eclipse
Downloading and configuring TestNG in webdriver
Functionality provided by TestNG
Parallel Testing
Report Generation



11. Data Driven Framework

Data driven testing

Apache poi library and installation

Advantages of using Data Driven Framework

