

Manual Testing Syllabus

1) Software Testing Introduction

- > What is Software testing?
- > Importance of Software testing
- > How to conduct Software testing.
- > Basic terminology of Software testing
- > Manual Testing Process
- > Difference between Manual and Automated Testing
- > Software testing Roles and Responsibilities

2) Software Development Life Cycle and various SDLC Models Phases of Software Development Life Cycle

- i) Requirements Phase.
- ii) Analysis Phase.
- iii) Design phase.
- iv) Coding Phase.
- v) Testing phase.
- vi) Release and Maintenance Phase.

Software Development Life Cycle Models

- i) Waterfall Model.
- ii) V Model
- iii) Agile Model.
- iv) Prototype Model.
- v) Spiral Model.
- Etc...

3) Test Case Design Techniques

- i) Equivalence Partitioning
- ii) Boundary Value Analysis

4) Levels and Types of Software Testing Four Levels of Testing

- i) Unit Testing
- ii) Integration Testing
- iii) System Testing
- iv) Acceptance Testing

Types of Testing

I) Functional Testing

- Unit Testing
- Integration Testing
- System Testing
- User Acceptance Testing.
- Sanity/Smoke Testing.
- Re & Regression Testing.
- etc...

Note:

Functional Testing is a Test type, and Unit Testing, Integration Testing, System Testing and Acceptance Testing are the Test levels.

Functional Testing is conducted in all Test Levels (Unit, Integration, System, and Acceptance Testing)

Sanity and Smoke Testing are Test Execution levels of Functional Testing

Retesting and Regression are for Change related Testing.

II) Non-Functional Testing

Performance Testing. (Load, Stress, Spike and Endurance Testing) Usability Testing

Compatibility Testing

Reliability Testing Security Testing

Cookies Testing

Session Testing

Recovery Testing

Installation Testing

ad-hoc Testing.

Risk Based Testing.

I18N Testing.

L10N Testing.

Etc...

5) Software Testing Life Cycle

i) Requirements

Analysis/Design

Understand the requirements Prepare

Traceability Matrix

ii) Test Planning iii) Test

Case Design Derive Test

Scenarios

Document Test cases

Collect Test data Review

Test cases **iv) Test**

Environment Setup v) Test

Execution

Sanity Testing – Initial build acceptance testing

Comprehensive Testing – executing all possible test cases

Reporting and Tracking Defects

Regression Test Cycle 1

Sanity Testing...

Re testing Regression Testing

Reporting and Tracking Defects

Jira Tool

- 1) How to create a story
- 2) How to create a bug
- 3) How to create a defect
- 4) How to create a Test case

Unix Basic Commands

- 1) cat - display or concatenate files
- 2) cd - change directory
- 3) chmod - change the permissions on a file or directory
- 4) compress - compress a file
- 5) cp - copy a file
- 6) date - display the current date and time
- 7) diff - display differences between text files
- 8) echo - echo arguments to the standard output
- 9) file - determine the type of a file
- 10) find - find files of a specified name or type
- 11) finger - display information about a user
- 12) ftp - file transfer program
- 13) grep - searches files for a specified string or expression
- 14) kill - kill a process
- 15) lpr - print out a file
- 16) ls - list names of files in a directory
- 17) man - display an on-line manual page
- 18) mkdir - make a directory
- 19) more - scan through a text file page by page
- 20) mv - move or rename files or directories
- 21) nice - change the priority at which a job is being run
- 22) passwd - change your password
- 23) ps - list processes
- 24) pwd - display the name of your current directory
- 25) quota - disk quota and usage
- 26) rm - remove files or directories
- 27) rmdir - remove a directory
- 28) sort - sort and collate lines
- 29) talk - talk to another user
- 30) wc - display a count of lines, words and characters

Git & Git Hub

- 1) Create account on GitHub
- 2) Create a repository on GitHub
- 3) Install Git on Local machine
- 4) Local to remote communication through git using following commands
 - i) Git clone
 - ii) Git pull
 - iii) Git Status

- iv) Git Push
- v) Git Config
- vi) Git Checkout
- Etc....

SQL Syllabus

- 1) sql overview
- 2) sql data types
- 3) sql operators
- 4) sql create database
- 5) sql create table
- 6) sql select query
- 7) sql where clause
- 8) sql select distinct
- 9) sql union and union all clause
- 10) sql order by keyword
- 11) sql group by
- 12) sql having
- 13) sql like operator
- 14) sql in operator
- 15) sql between operator
- 16) sql and & or operators
- 17) sql insert
- 18) sql update
- 19) sql delete
- 20) sql alter
- 21) sql drop
- 22) sql joins
- 23) sql joins cheat sheet
- 24) sql aggregate functions
- 25) sql string functions

Core Java Syllabus

1. Why Java for Selenium
2. Installing Java
3. Installing Eclipse
4. First Eclipse Project
5. First Java program
6. Concept of class file
7. Datatypes in Java
8. String class and functions
9. Practical Examples on Strings handling Conditional Statements
10. If...else...
11. Switch case
12. Practical Examples with conditions Loops
13. While Loop
14. For Loop

15. Practical Examples with loops Arrays
16. Single Dimensional Arrays
17. Two Dimensional arrays
18. Practical usage of arrays in Selenium
19. Operators
20. What are Functions?
21. Function Input Parameters
22. Function Return Types
23. Object Oriented Programming
24. Local Variables
25. Global Variables
26. Static and Non-Static Variables
27. Static and Non-Static Functions
28. Creating Objects in Java
29. Meaning of static
30. Why is main method static?
31. Object and Object References
32. Call by reference and Value
33. Overloading and Overriding Functions
34. Access Modifiers – Public/Private/Default/Protected
35. Constructors
36. Interface Usage of Objects in Selenium
37. Inheritance Usage of Inheritance in Selenium
38. Creating Packages
39. Accessing Classes across Packages
40. Exception Handling Exception handling with try catch block
41. Importance of exception handling
42. Exception and Error
43. Throwable Class
44. Final and Finally
45. Throw and Throws
46. Different Types of Exceptions
47. Need of exception handling in Selenium framework

Automation Testing Syllabus

1. Introduction - Selenium Web Driver
2. Why Web Driver
3. End to End Automation Process with POC (Proof Of Concept)
4. Integration - Eclipse + Web Driver
5. Browser Handling for IE, Chrome, Firefox
6. Object Identification for different web elements using
7. ID
8. Name
9. Class
10. Link Text

11. Partial Link Text
 12. Tag name
 13. XPath (Axes methods)
 14. CSS Selector
 15. Customize Object repository
 16. Synchronization - Implicit, Explicit
 17. Performance - Page load time, Internal page navigation
 18. Mouse / Keyboard events handling
 19. Handling of Alerts and Pop Ups
 20. Handle Window handles
 21. Test NG
 22. What is Test NG
 23. Installing Test NG
 24. Test NG Annotations
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25. Running a test using Test NG
 26. Test NG Report
 27. Skipping Tests
 28. Prioritizing Tests
 29. Parameterizing tests
 - 30. Frameworks**
 31. Data driven Framework using data provider and apache poi
 32. Page Object Model
 33. BDD Cucumber Framework

Real Time Projects

- 1) Investment Banking
- 2) Insurance Architecture