

# **Manual Testing:**

- 1. Introduction to Software Testing**
  - 2. Testing Terminologies**
    - 1. Software Testing**
    - 2. Quality**
    - 3. Project**
    - 4. Product**
    - 5. Quality Assurance**
    - 6. Quality Control**
    - 7. Verification**
    - 8. Validation**
    - 9. Agile Scrum**
    - 10. Sprint**
  - 3. Software Development Life Cycle**
  - 4. SDLC Models**
    - 1. Waterfall Model**
    - 2. Spiral Model**
    - 3. Prototype Model**
    - 4. V-V Model**
    - 5. Agile Model**
      - 1. Scrum**
      - 2. Standup Meeting**
      - 3. SM,PO,ST,BA,SH**
      - 4. Sprint Review Meeting**
      - 5. Sprint Retrospective Meeting**
      - 6. Roles & Responsibilities**
  - 5. Testing Methodologies**
    - 1. Static Testing**
    - 2. White box Testing**
    - 3. Black box Testing**
    - 4. Grey box Testing**
  - 6. Black box Testing Levels**
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**7. System Testing****8. White box Testing Levels****1. Stub and Driver****9. Types of Applications**

- 1. Types of Projects**
- 2. Types of Environments**
- 3. Types of Servers**

**10. Types of Testing**

- 1. Smoke Testing**
- 2. Sanity Testing**
- 3. Retesting**
- 4. Regression Testing**
- 5. Compatibility Testing**
- 6. Performance Testing**
- 7. Install/Uninstall Testing**
- 8. Adhoc Testing**
- 9. Usability Testing**
- 10. Security Testing**
- 11. Functional Testing**
- 12. GUI Testing**
- 13. End to End Testing**
- 14. Recovery Testing**
- 15. Software Testing Life Cycle**
  - 1. Test Strategy & Planning**
  - 2. Test Analysis**
  - 3. Test Scenario & Test Case preparation**
  - 4. Test Case Design Techniques**
    - a. Equivalence Class Partitioning**
    - b. Boundary Value Analysis**
    - c. Error Guessing**
    - d. Decision table**
  - 5. Test Execution**

6. Results analysis
  7. Bug Reporting
  8. Sending Test reports on daily, weekly.
  11. Bug Life Cycle
  12. Reporting
  13. Requirement Traceability Index
  - 2. Agile Management & Test Management using Jira**
  14. Testers roles and responsibilities
  - 15. Database Testing**
    1. Introduction to Database
    2. Relational DBMS
    3. Real-time Scenarios
    4. Database Verifications
    5. Structured Query Language(SQL)
    6. DDL,DML & DCL commands
    7. Writing the queries
    8. GUI to Backend Validations
  - 16. Web Services Testing**
    1. Introduction to Web Services
    2. Understanding the XML
    3. Creating Test Case ,Test Suites in SOAPUI tool
    4. Types of Web Services
    5. Using postman tool
  
  6. Validating the web service results
  7. Reporting the issues to dev team.
  17. Explain on open source repository GIT/VSS/CVS/SVN/Github/Bit bucket
  18. Practical knowledge on real-time environment
  19. Drafting & Sending the real time emails
  20. Focus on interview questions
  21. Resume Preparation
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- 22. Mock Interviews**
- 23. Forward resumes to the companies**
- 24. Guidance on register and apply jobs through job portals**
- 25. Giving the feedback on each candidate on improvements.**

	Topics	Topic Details/Contents
1	Introduction to Automation Testing	<ul style="list-style-type: none"> <li>• What is automation testing?</li> <li>• When Automation Testing is needed?</li> <li>• When Automation Testing is not needed?</li> <li>• What is the use of automation testing?</li> <li>• Why automation is important for you career?</li> <li>• Different Automation Tools available in the Market.</li> </ul>
2	Introduction to Selenium	<ul style="list-style-type: none"> <li>• What is Selenium</li> <li>• Advantage of Selenium</li> <li>• Introduction to IDE, RC, WebDriver &amp; Grid</li> <li>• Selenium Architecture</li> <li>• Architecture of selenium web driver</li> </ul>
3	Eclipse IDE	<ul style="list-style-type: none"> <li>• How to use Eclipse</li> <li>• How to run, stop, pause</li> <li>• How to debug in Eclipse</li> <li>• Understanding console output</li> <li>• How to put a break point</li> <li>• How to add Watch variables</li> <li>• How to find errors from Problem window</li> <li>• Usage of step into and Step over debug functionality</li> </ul>
4	Set up Eclipse-SeleniumWebdriver  Setup the Environment- Setup Java, Eclipse, Selenium, TestNG	<ul style="list-style-type: none"> <li>• Download and install java</li> <li>• Download and start Eclipse</li> <li>• Download and configure WebDriver java client</li> <li>• Set up a project</li> <li>• Create packages</li> <li>• <b>Create a First Java test case</b></li> </ul>

5	Launching different browsers	<ul style="list-style-type: none"> <li>• Downloading Drivers for Firefox, IE, Chrome, iPhone, Android etc</li> <li>• <b>WebDriver Interface</b></li> <li>• <b>WebElement Interface</b></li> <li>• Launching Firefox browser</li> <li>• Launching chrome browser</li> <li>• Launching IE browser</li> <li>• Challenges with IE browser in Selenium Webdriver</li> <li>• Launching Edge browser</li> </ul>
6	Element Identification & Locators	<p>FireBug&amp;FirePath Add-Ons in Mozilla</p> <ul style="list-style-type: none"> <li>• What are locators--8 Locators (<b>ID, Name, Xpath, CSS etc</b>)</li> <li>• HTML Basics</li> <li>• HTML language tags and attributes</li> <li>• Difference between Absolute &amp; Relative Xpath</li> <li>• Xpath Functions ( text(),contains()...etc )</li> <li>• Selection of Effective Xpath</li> <li>• Handling Dynamic objects/ids on the page</li> <li>• Finding your first element</li> </ul>
7	Browser Commands , Navigation Commands & WebElement Commands	<ul style="list-style-type: none"> <li>• How to Open a URL</li> <li>• Verify Page title</li> <li>• Strategy to get the CurrentUrl</li> <li>• Strategy to get the Page Source</li> <li>• Difference between Close &amp; Quit</li> <li>• Ways to Navigate Back &amp; Forward</li> <li>• How to Refresh Page</li> <li>• <b>Another way of Navigating to specific Page</b></li> <li>• Different WebElement Commands: [ • sendKeys(CharSequence... keysToSend) , • Clear(), • Click(), • Submit(), • isDisplayed( ), • isEnabled( ), • isSelected( ), • getText( ), • getTagName( ), • getCssvalue( ), • getAttribute(String Name), • getSize( )--Dimension, • getLocation( )--Point ]</li> </ul>

8	Selenium Waits	<ul style="list-style-type: none"> <li>• Implicit and Explicit waits</li> <li>• How to use Expected Conditions with Waits</li> <li>• PageLoadTimeout&amp;SetScriptTimeout property</li> <li>• Simple use of Thread Sleep</li> <li>• Concept of Fluent Wait in Selenium</li> <li>• Difference between selenium waits and its uses</li> </ul>
9	Performing operations on WebElements	<ul style="list-style-type: none"> <li>• Enter &amp; Clear text from Input field</li> <li>• How Click action works differently on different elements</li> <li>• Managing Input fields, Buttons &amp; Links</li> <li>• Extracting Objects from a specific area of a web page</li> <li>• Check if element is Present, Displayed, Enabled or Selected (or) Difference b/w isDisplayed, isEnabled and isSelected Methods - Selenium</li> </ul>
10	About Findelements&Drop Down Handle	<p><b>Findelements:</b></p> <ul style="list-style-type: none"> <li>• Difference between FindElement&amp;FindElements</li> <li>• Concepts of List Interface in Java</li> <li>• Extracting More than one object from a page (i.e.,Autocomplete/AutoSuggest edit box )</li> <li>• Finding all links on the Page</li> </ul> <p><b>Drop Down Handle:</b></p> <ul style="list-style-type: none"> <li>• Difference between List Drop (Bootstrap Dropdown) down and Select Dropdown</li> <li>• Select class in Selenium <ul style="list-style-type: none"> <li>• Select multiple values from the list</li> <li>• Select &amp; Deselect operations by Index, Value &amp; Visible Text</li> </ul> </li> </ul>
11	TestNG Framework: Part-1	<ul style="list-style-type: none"> <li>• What is TestNG</li> <li>• Benefits and Features of TestNG</li> <li>• How to download TestNG</li> <li>• Annotations in TestNg</li> <li>• Test Case sequencing in TestNG</li> <li>• Ignoring test cases</li> <li>• Executing same @Test multiple times</li> </ul>

12	TestNG Framework: Part-2	<ul style="list-style-type: none"> <li>• TestNG Reporters</li> <li>• How to run Test Suite in TestNG</li> <li>• Test NG -Assertions :           <ul style="list-style-type: none"> <li>• Hard Assert</li> <li>• Soft Assert</li> </ul> </li> <li>• How to Verify Error messages in Selenium Webdriver</li> </ul>
13	Capture screenshots	Normally and By customizing function
14	Frame Handling	Different ways : <code>driver.switchTo().frame ("")</code> <ul style="list-style-type: none"> <li>• By Id</li> <li>• By index</li> <li>• By WebElement</li> </ul>
15	Alert & Switch Windows	<ul style="list-style-type: none"> <li>• Ways to handle Simple, Confirmation &amp; Prompt Alert</li> <li>• Concepts of Set Interface in Java</li> <li>• Difference between Window Handle &amp; Handles</li> <li>• Switching &amp; Closing Windows, Tabs &amp; PopUps</li> <li>• Concept of window ID</li> <li>• Extracting window IDs with Selenium Object reference</li> </ul>



16	Action Class	<ul style="list-style-type: none"> <li>• What is Action Class &amp; What can we do with Action Class</li> <li>• Mouse Hover &amp; Mouse Movement with Action</li> <li>• Drag and Drop Action</li> <li>• DoubleClick,RightClick</li> <li>• ToolTip</li> <li>• <b>Keyboard operations</b> <ul style="list-style-type: none"> <li>Tab Operations</li> <li>Copy And Paste</li> </ul> </li> </ul>
17	File Upload & Auto it	<p><b>Case 1:</b>If textbox is enabled ( I.e,type='file' &amp; html tag='input']</p> <p><b>Case 2:</b> AutoIT</p> <ul style="list-style-type: none"> <li>• What is AutoIT and its usage</li> <li>• Downloading of AutoIT</li> <li>• Usage of AutoIT in Selenium</li> <li>• Upload files using Autolt</li> </ul>
18	File download& Browser Profile	<p><b>File download : Case 1</b></p> <ul style="list-style-type: none"> <li>• Downloading files using firefox profile class</li> <li>• List of MIME types / Internet Media Types (Multipurpose Internet Mail Extensions ) --- <a href="https://www.freeformatter.com/mime-types-list.html">https://www.freeformatter.com/mime-types-list.html</a></li> </ul> <p><b>File download : Case 2</b></p> <ul style="list-style-type: none"> <li>•Using RobotClass</li> </ul> <p><b>Browser Profile :</b></p> <ul style="list-style-type: none"> <li>• What is Browser Profile</li> <li>• How to set up FireFox profile</li> <li>• HTTP user authentication in Mozilla</li> <li>• Certificate handle in Mozilla</li> </ul>

19	TestNG Framework: Part-3	<p>1. Test NG</p> <ul style="list-style-type: none"> <li>• Serial and parallel execution in TestNG</li> <li>• Grouping</li> <li>• Dependent methods</li> <li>• Data provider</li> <li>• TestNG Parameters</li> <li>• Multi Browser testing in TestNG using @Parameter</li> </ul>
20	Automation Framework	<ul style="list-style-type: none"> <li>• What is Automation Framework</li> <li>• Features of Automation Framework</li> <li>• Benefits of using Automation Framework</li> <li>• Different types of Automation Framework</li> <li>• What is Data Driven Framework</li> <li>• What is Hybrid Framework</li> <li>• What is Page Object Model Design Pattern</li> </ul>
21	Real Time Live PROJECT – Part 1 Selenium Hybrid Framework (POM)	<ul style="list-style-type: none"> <li>• Introduction Cucumber BDD framework and Component of Frameworks</li> <li>• Designing Feature file &amp; step definition file</li> <li>• Designing Run Data Provider (Text/Property file)</li> <li>• Setting up Maven Build Tool</li> <li>• Data Provider Factory Design</li> <li>• Creating Page Objects &amp; Object repository</li> <li>• Writing Test Script and Fetching Test Data</li> <li>• Designing Test Runner for Framework</li> <li>• Asserts, Test Fails &amp; Error logging</li> <li>• Reporters, TestNG Listeners and Log file Generation</li> <li>• Running test with different Test Data</li> <li>• Generating the HTML reports</li> <li>• Emailing test reports</li> </ul>
22	Real Time Live PROJECT – Part 2 Selenium Hybrid Framework (POM)	<ul style="list-style-type: none"> <li>• Learn on <b>GIT</b> (Version Control)</li> <li>• Learn on <b>Jenkins</b> for Auto Scheduling of Jobs for test script execution.</li> </ul>

23	Real Time Live PROJECT – Part 3 Cucumber	<ul style="list-style-type: none"><li>• Learn on Cucumber in real time way.</li></ul>
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