



100% Practical Approach Programme

100% Job Assistance

Offer Courses

- 1. Java Programming**
- 2. Software Testing**
- 3. Data Science**
- 4. Web Development**

Application of AI in Software Testing

- Automating writing test cases
- Automating API test generation
- Visual validating automation testing
- Code Review and Static Analysis
- Self-healing the execution of Selenium tests
- Natural Language Processing (NLP) Testing
- Predictive Analysis for Quality Assurance
- Automated Bug Reporting and Triaging



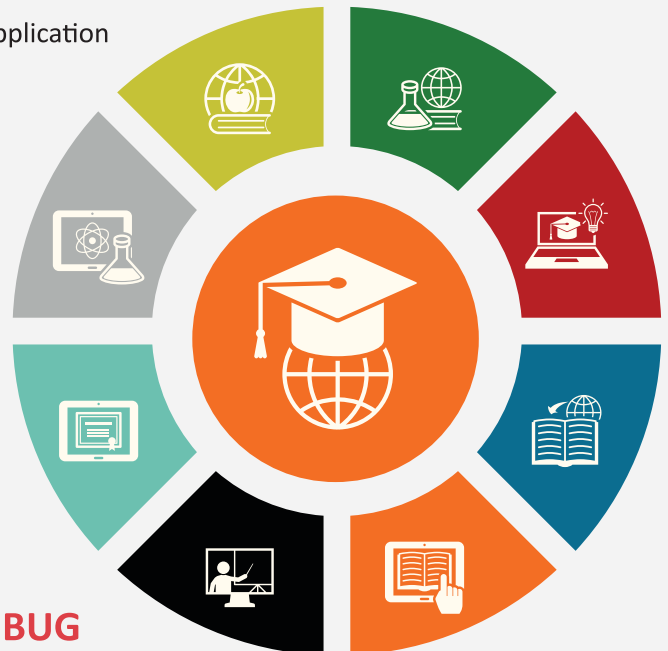
MANUAL TESTING SYLLABUS

- Introduction to software applications
- Introduction to Software development process
- Need of testing
- Software Testing methods and levels
- Test Planning
- Test design process
- Test Design techniques
- Test Execution
- Defect Management
- Non- functional testing
- Specialized testing
- Quality Control Vs Quality Assurance
- Functional Testing, Non Functional testing
- UI Testing, usability Testing, localization testing,
- Internationalized testing, Compatibility testing, Cross-Browser testing, device testing, responsive testing
- Smoke testing, Sanity Testing
- Accessibility Testing using tools
- Web and Mobile Application Testing
- Skills needed for software tester
- Agile Methodology, Waterfall model, V model and Can-ban Board
- Sprint Ceremony, Sprint Planning, DSM-Daily Status Meeting ,
- Sprint DEMO, Retrospective meeting



MANUAL TESTING with REAL TIME PROJECT HANDS-ON:

- Hands on Practice of Testing on 2 live (Real time) E-commerce application
- FSD- Functional Specific Documents
- UI Designs of Application
- Pixel Perfect testing
- RTM- Requirements Traceability Matrix
- Test plan
- Test cases
- Test Summary Report
- User Manual
- Admin Guide
- TDD-Technical Design Document



DEFECT TRACKING USING JIRA AND MANTIS BUG TRACKING Tools:

- How create Project in Jira
- How assign Members
- How create Tickets (As per requirement)
- How does the defect workflow work?
- How add comment in Jira Ticket

Core Java Programming for Selenium:

Java Standard Edition (Core Java)

1. Java Environment Setup

- Download & Install Java (JDK) software,
- Set Java environment variable path,
- Download & Install Eclipse IDE.

2. Java Keywords and Identifiers

- Java keywords are also known as reserved words. Keywords are particular words that act as a key to a code.
- Identifiers in Java are symbolic names used for identification. They can be a class name, variable name, method name, package name, constant name, and more.

3. Java Syntax

- The syntax of Java refers to the set of rules defining how a Java program is written and interpreted.

The syntax is mostly derived from C and C++.

4. Java Object Oriented Programming Basics

- Class, Object, Method, Constructor, Encapsulation, Polymorphism and Interface

5. Java Program Structure

- Java Program Structure, Java Syntax, Java Keywords & Literals, Java main method, Create Java Variables, Methods, conditions, loops, and IO.

6. Java Comments

- Java Comments, What is a Comment?,

Writing comments in Java, Java single line comment, multi-line comment, and Java Documentation comments.

7. Java Modifiers

- Access Modifiers - Controls the access level
- Types: Public/Private/Default/Protected

8. Java Data Types

- Java Data Types, Categories of Data Types in Java, Java Primetime Data Types, Java Non-primitive Data Types, and Data Type Conversion in Java.

9. Java Variables

- Java Variables, What is Variable, Types of Variables in Java, Declare Variables, Assign Values to Variables, and Java Variable Naming Rules.

10. Java Operators

- Operators in Java, what is the operator? operator precedence, arithmetic operators, unary operators, comparison operators, and logical operators.

11. Java Control Flow

- Decision Making/Conditional Statements
- Loop Statements
- Branching Statements

12. String Handling in Java

- Java Strings, What is String?,
- Declare Strings in Java, String handling in Java, String Methods, String Concatenation, and String Comparison.

13. Java Data Structures

1.Java Arrays

- Arrays in Java, What is Array in Java, Declare Arrays, Java Array built-in methods, advantages of Java Arrays, and Drawbacks of Java Arrays.

2.Java ArrayList

- Java ArrayList, Java Data Structures, Java Arrays vs. ArrayList, Add elements to an ArrayList, Remove Java Array List Elements, and Java ArrayList Operations.

14. Java Input and Output

- Java Input and Output, Java User Input, Java Output, Java Scanner Class, Java System Class, Java File Handling, and Java Database Connectivity.

15. Java Methods

1.Java User-defined methods:

Java User-defined Methods, What is a Method?. Advantages of methods in Java. Declare & call methods, and Static & Non-static Methods in Java.

2.Java built-in methods

Java Built-in Methods, Java Java Standard Library Methods, Java String Methods, Java Number Methods, Java Character Methods, and Array Methods.

16. Java Exception Handling

- Exception Handling in Java, What is Exception Handling, Types of exceptions in Java, Java Program Run-time Errors, and Java try-catch block.

17. Java Object-Oriented Programming

1.Java Classes

2.Java Objects

3.Java Methods

○Built-in Methods

○User-Defined Methods

4.Java Constructors

5.Java Object-Oriented Programming Principles

○Inheritance

○Polymorphism

○Abstraction

○Encapsulation

6.Java IO

○Read User Input

○Write Program's Output

○Read Files

○Write Files

18. JDBC Programming



Selenium WebDriver Automation Syllabus:

1. Selenium Test Environment Setup

1. Select Selenium Tools and Other Software for Selenium

Test Environment, Download & Install Java,

2. Download & Install Eclipse IDE,

3. Download Selenium WebDriver & Configure,

4. Download & Install TestNG Plug-in,

5. Create Maven Project, etc

Software used in Selenium Test Environment

1. Eclipse IDE

2. Java

3. Selenium WebDriver

4. TestNG

5. Maven

6. Extent Reports

2. Inspect Web/HTML Elements

- Handle Edit boxes, Links, Buttons, Dropdown boxes, List Boxes, Combo boxes, Radio Buttons, Check Boxes, Images, Tables, Frames, etc.

3. Locating Elements in Selenium (Using Element Locators)

- Web or HTML Elements, id(), name(), className(), tagName(), linkText(), partialLinkText(), cssSelector, and xpath()

4. Performing Actions on Elements (Using Selenium WebDriver Methods)

- Handle Browsers, Enter a Value into Edit box, Capture value from an Edit box, Clear value from an Edit box, Click Button, Click Link, Select a Radio Button, Select Checkbox, Capture Error Message, Handle Error Popup, Handle Web Tables, and Handle Frames, etc.

5. Waits

- Why Do We Need Waits In Selenium?
- Implicit Wait
- Explicit Wait
- Fluent Wait
- Difference Between Implicit Wait Vs Explicit Wait

6. Selenium Page Object Model (Creating Object Repositories)

- Create Object Page Classes using without Page Factory,
- Create Test Case Classes using Page Classes,
- Update Page Classes (Object Repositories), and Maintain Page classes



7. Writing Selenium Test Cases

- Write Selenium Test Steps
- Synchronization
- Inserting Verification points & Reporting Results – using TestNG framework Assert commands
- Handling Run-time Errors

8. TestNG Testing Framework for Selenium

1. Install TestNG plug-in for Eclipse IDE
2. Create Test Batches (TestNG Programs)
3. Prioritize Test Cases
4. Grouping Test Cases
5. Executing Test Batches
6. Generating Test Reports
7. Data driven testing using TestNG

9. Selenium Automation Framework (Hybrid Framework)

1. Selenium Test Environment Setup
 - By Integrating Maven with Selenium
2. Create a Folder Structure
 - To store Automation resources like Page Objects, Reusable Functions, Test Cases, Test Data, Test Results, etc.
3. Create Automation Resources
 - Object Repositories/Page Objects, Reusable Functions, etc.
4. Create Selenium Test Cases
5. Execute/Run Test Batches
6. Analyze Test Results & Report Defects.
7. Re & Regression Testing
8. Maintain Test Automation Resources
 - Note: Selenium Syllabus depends on our selected tools and plugins for Selenium. (Ex: Java, TestNG, etc.)

10. Eclipse IDE

- Eclipse IDE (Integrated Development Environment) is an Open source software, it is a platform to write and execute computer programs like Java, Perl, Python, Ruby, PHP, etc...
- Eclipse IDE provides an editor for writing programs, Syntax guidance, Context Help, Auto Compilation, etc...
- Note: Eclipse IDE is used to write Selenium Test cases and Integrate Selenium with other software.

11. MAVEN

Practical Use of maven in Automation Framework

Pom.xml file

How run automation suite using maven commands

12. JENKINS

Practical Use of Jenkins in Automation Framework

How create job in Jenkins

How Create Scheduler to run automation suite



SQL- Database Testing

1. Introduction

- What is a Database?
- What is a Database Management System (DBMS)?
- What is a Relational Model ?
- Introduction to RDBMS
- What is database Testing?
- Why is Database Testing important?
- How to install a sample database for practice?

2. Data Types and Constraints

- What are Data Types?
- Types and Examples
- How to use it?
- What are Constraints?
- Types and Examples?
- How to use it?

3. Statements in SQL

- Data Definition Language (DDL)
- Data Manipulation Language (DML)
- Transaction Control Language (TCL)
- Data Control Language (DCL)
- Data Query Language (DQL)

4- Software installation

- Installing and set up of software
- Use mysql workbench

5- Data Query Language (DQL)

- Select
- From
- Where
- Group By
- Having
- Order By

6 -Operators

- Types and Examples

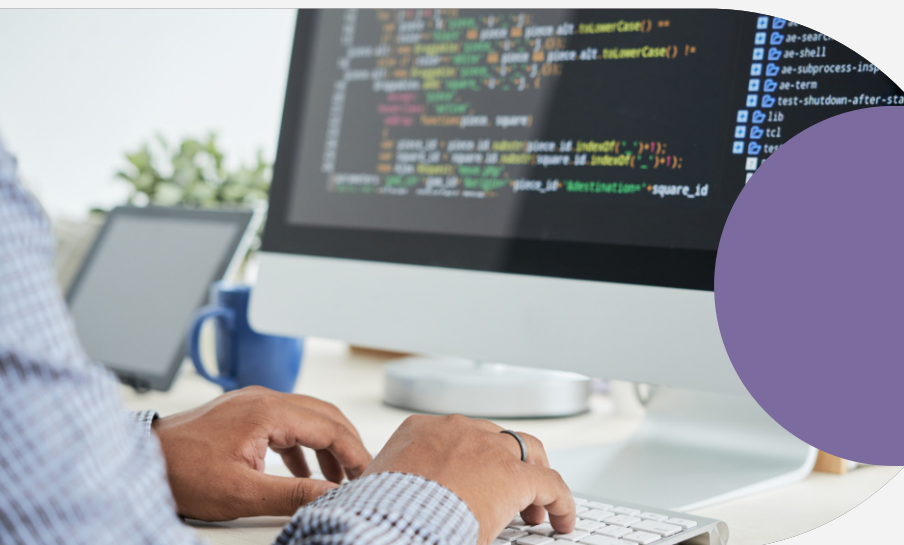
7- Functions in SQL

- Single Row Functions
- Multi Row Functions

1. Max ()
2. Min ()
3. Sum ()
4. Avg ()
5. Count ()

8-Sub Query

- Introduction to Sub Query
- Working of Sub Query
- Query Writing and Execution
- Types of Subquery :
 1. Single Row Subquery
 2. Multi Row Subquery
- Nested Subquery.



10- Pseudo Columns

- Introduction on Pseudo Columns
- ROWID
- ROWNUM
- Working and Usage.

11- JOINS

- What is Join?
- Types of Joins.
- Cartesian Join
- Inner Join
- Outer Join
- Self-Join/Left/Right
- Queries and Examples.



12- Co- Related Subquery

- Working and Examples

13- Data Definition Language (DDL)

- Create
- Rename
- Alter
- Truncate
- Drop

14- Data Manipulation Language (DML)

- Insert
- Update
- Delete

15- Transaction Control Language (TCL)

- Commit
- Save point
- Rollback

16- Data Control Language (DCL)

- Grant
- Revoke

17 - Normalization

- Introduction to Normalization
- Types of Normal Forms
- Examples.

18- E R Diagrams

- Introduction to ERD
- Examples.



API TESTING USING POSTMAN tool:

- Why Use a Postman?
- What client/Server?
- How to use Postman to execute APIs?
- How to read and create positive and negative test cases from the API Specification docs?
- How does data flow work?
- GET/POST/PUT/DELETE/PATCH how work?
- Working with GET Requests ?
- Working with POST Requests?
- Working with PUT Requests?
- Working with DELETE Requests?
- Working with PATCH Requests?
- How to Parameterize Requests?
- How to Create Postman Tests?
- How to Create Collections?
- How to Run Collections using Collection Runner?
- How to Run Collections using the Newman command line?
- How to create environments in POSTMAN?
- How to create Variables?
- What is a Pre-request script?
- How to create a Pre-Request script?
- What is API Chaining? How to use it practically in a real time project?
- How to perform data driven testing in POSTMAN?
- How to Parameterize Request Test Cases in POSTMAN?



MOCK INTERVIEW PREPARATION

(For Telephonic /Face to Face/ Zoom Call Interview Round):

Manual Testing Interview Questions Preparation

HR Interview Questions Preparation

API Testing Interview Questions Preparation

SQL Interview Questions Preparation

Resume Preparation and Job Portal Account Guidance

Selenium Interview Questions Preparation

Core Java Interview Questions Preparation

Core Java Basic Programs Preparation



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