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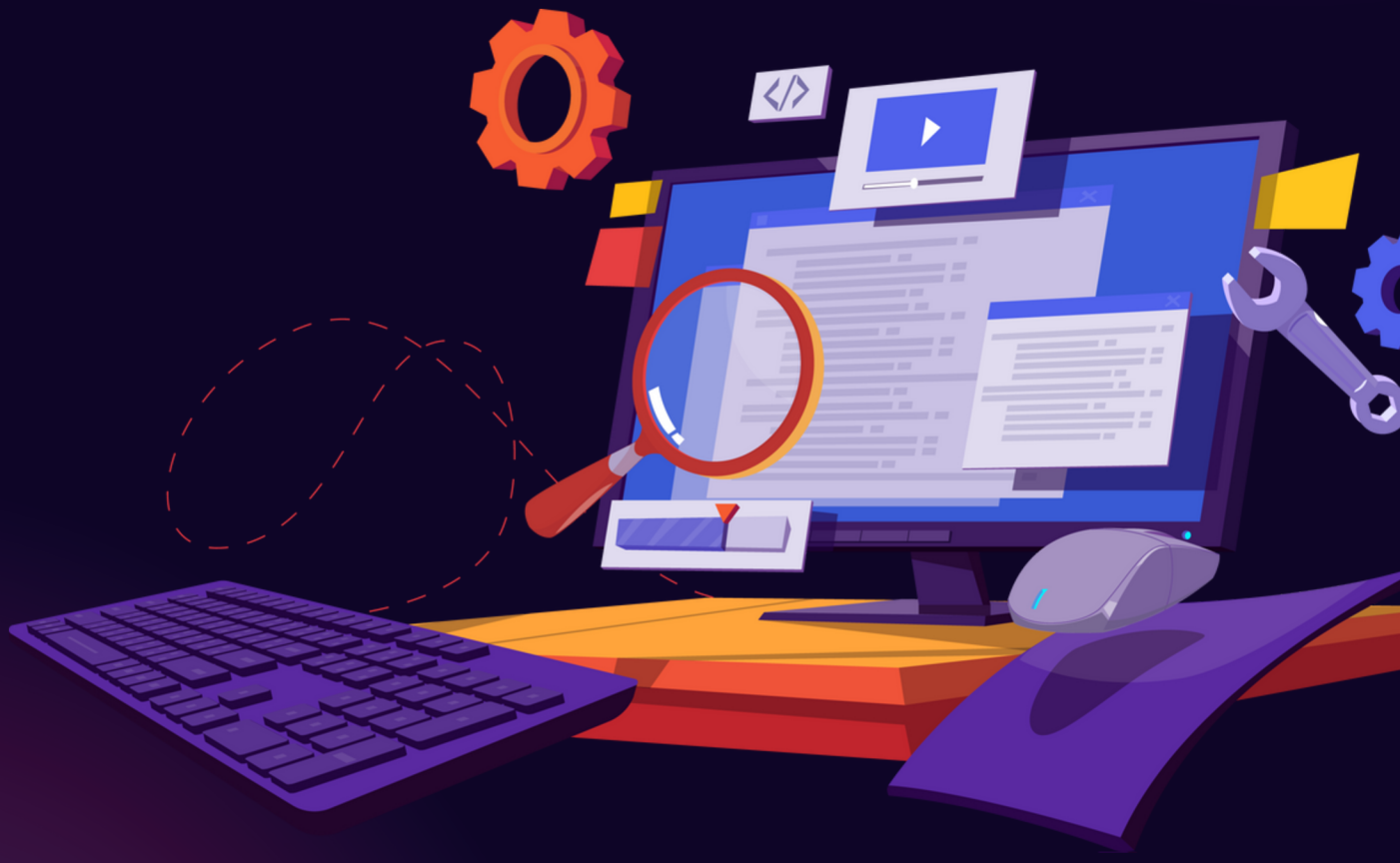
CERTIFIED PROFESSIONAL DIPLOMA IN SOFTWARE TESTING



www.infobytecomputers.com

CERTIFICATIONS OPTIONS AVAILABLE

ABOUT US

Infobyte Career Institute offers a high-quality learning experience in the field of IT training to train students on brand new technologies and train them to deliver the desired results with commercially relevant and re-organized technical skills.

The probability of achieving your dream job will keep on increasing day by day once you complete a course in Infobyte Career Institute. We also focus on improving soft skills in terms of communication, leadership, teamwork, external appearance, and attitude which helps everyone to be professional in all the aspects of their career.

ABOUT US SOFTWARE TESTING

We are a leading software testing company dedicated to ensuring the highest quality and performance of your applications. Our team of skilled testers utilizes a comprehensive range of testing methodologies, including manual and automated testing, to identify and resolve potential issues before your software reaches the end user. We focus on delivering reliable, secure, and bug-free solutions, ensuring that your product meets industry standards and provides a seamless user experience. By employing the latest tools and techniques, we help businesses reduce risks, improve efficiency, and achieve greater customer satisfaction with every release.

BENEFITS OF SOFTWARE TESTING

Career Growth - Higher Pay & Position

Encourages professional Development

Enriches self-image and Reputation

Enhances professional Credibility.

Abundant Job Opportunities Used In Many Industries Global Recognition

Secure and Flexible 150+ Case Studies

50+ Projects

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CONTENT

MANUAL TESTING

- JIRA

AUTOMATION TESTING

- CORE
- JAVA SQL
- SELENIUM
- TESTNG
- JMETER

API TESTING

- REST
- POSTMAN TOOL

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MANUAL TESTING

Manual testing is when human testers check the quality of the new software without using any automation tools or script. The intent is to identify defects or Bugs, ensure the product is bug-free, and check it conforms to specified functional requirements. Testing is a process used to help identify the correctness, completeness and quality of developed software. Testing is executing a system in order to identify any gaps, errors or missing requirements conflicting with the current requirements.

Course Outline

- Introduction to testing.
- What is software Testing
- Objective of Software Testing
- What is manual Testing
- How to detect Defects
- When to Start Testing
- When to Stop Testing

MANUAL TESTING

Functional Testing:

- Static and Dynamic testing.
- Black box testing.
- White box testing
- Positive Testing
- Negative Testing
- Smoke Testing
- Sanity Testing
- Retesting
- Regression Testing

Non Functional Testing

- User Interface Testing
- Usability Testing
- Accessibility Testing
- Localization Testing
- Performance Testing
  Load,endurance,stress,volume
- Installation Testing
- Configuration Testing
- Compatibility Testing
- Security Testing

MANUAL TESTING

- BRS and SRS Documents
- SDLC – Software Development Life Cycle.
- Who Does Testing?
- Verification vs validation.

SDLC Models

- Waterfall
- V-Model.
- Prototype
- Spiral
- Incremental
- Agile methodology and Scrum Framework
- Advantages and Disadvantages of each SDLC models.

MANUAL TESTING

- Principles of Testing.
- Level of Testing
  -Unit Testing
  -Integration testing.
  -Top Down Model
  -Bottom up Model
  -Big Bang Integration.
  -Critical part
- System Testing
- User Acceptance Testing.

STLC –Software Testing Life Cycle.

- Entry Criteria and
- Exit Criteria.
- Test Environment and Test data preparation.
- Difference between Test case
- Use case and test scenarios.
- How to prepare test case template?
- Difference between Error, bug, defect and failure.

MANUAL TESTING

White box testing Techniques

- Flow graph notations.
- Statement coverage.
- Branch Coverage.
- path coverage.
- Cyclometric complexity.

Black Test Case Design technique.

- Boundary value Analysis.
- Equivalence Partitioning.
- Decision Table.
- State Transition Diagram.

- Bug Life cycle.
- How to Prepare Bug template?
- Creating defects report.
- Bug Tracking tool.

- RTM(requirement traceability matrices)
- Error Gueesing
- Priority and Severity

MANUAL TESTING

Quality

- Concept of quality,
- Quality definition,
- Quality views,
- Quality attributes for a software,
- Role or tester in achieving the software quality,
- Quality management system,
- Quality assurance,
- Quality control

Manual Projects

JIRA

JIRA is a bug tracking tool .This software is used for bug tracking, issue tracking, task management and project management. The use of jira tools is to track issues and bugs related to your software and mobile apps. Jira is one of the best open-source tools for planning and tracking in Agile methodology. JIRA is the main source of information for future software releases. Developers can plan new features to be added to applications and bugs to be fixed in the next release of the cycle. Workflows in Jira make it easy to plan, track, release, and report on software.

Course Outline

- What is JIRA
- How to Use JIRA
- Plug-ins in JIRA
- JIRA Dashboard
- JIRA Issues
- Issue types
- Use of Clone and Link in JIRA
- Create a Subtask
- Convert Issue To Subtask
- Create Issue using CSV
- Edit an Issue
- Email an Issue
- Linking Issues
- View/Change History
- JIRA reports

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AUTOMATION TESTING

Objectives: Core Java training is a foundational course that imparts the fundamental
knowledge of developing code using the Java programming language. Core Java has a wide range of open source libraries and frameworks. Develop codes in Java implementing object-oriented concepts. Utilize the advanced class features including inheritance, polymorphism, overloading, overriding, interfacing, abstract classes and more to develop efficient and reusable code. Create programs using generic collections.

Course Outline

- Introduction of core java
- What is java
- JVM,JRE,JDK
- Execution of JAVA programs.
- Data Types
- Java variables
- Java String
- Java Array
- Java if..else
- Java Switch
- Java for loop
- While loop do while
- break, continue
- Java Methods
- Method overloading and overriding
- Java Constructor
- OOP's concepts
- Objects and Class
- Java Exception

DATABASES (SQL)

This course provides the essential SQL skills that allow developers to write queries against single and multiple tables, manipulate data in tables, and create database objects. Students learn to control privileges at the object and system level. This course covers creating indexes and constraints, and altering existing schema objects. Students also learn how to create and query external tables. Students learn to use the advanced features of SQL in order to query and manipulate data within the database, use the dictionary views to retrieve metadata and create reports about their schema objects. Students also learn some of the date-time functions available in the Oracle Database.

Course Content

- SQL Introduction
- SQL Syntax
- SQL CREATE DATABASE Statement
- SQL DROP DATABASE Statement
- SQL CREATE TABLE Statement
- SQL DROP TABLE Statement
- SQL ALTER TABLE Statement

DATABASES (SQL)

- SQL Select Statement
- SQL Select Distinct
- SQL Where clause
- SQL And,or,not Operators
- SQL Order By Keyword
- SQL Insert Into Statement
- SQL Update Statement
- SQL Delete Statement
- SQL SELECT TOP Clause
- SQL MIN() and MAX() Functions
- SQL COUNT(), AVG() and SUM() Functions
- SQL LIKE Operator
- SQL IN Operator
- SQL BETWEEN Operator
- SQL Aliases
- SQL JOIN(Inner,Left,Right,Full)

SELENIUM WITH CORE JAVA

Selenium is software that helps us automate the web browser. It is an open-source, automated testing tool used to test web applications across different browsers. It is used for functional and regression testing. Selenium can only test web applications, unfortunately, so desktop and mobile apps can't be tested.

However, other tools like Appium and HP's QTP software can be used to test web applications and also test mobile applications. Selenium used different programming languages, like Java, Python, Ruby, NodeJS, PHP, Perl, and C#.

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SELENIUM WITH CORE JAVA

Course Content

Selenium

- Introduction: Introduction of selenium.
- Selenium components.
- How differs from other automation tools.
- Advantages of selenium.
- Selenium Architecture:
- Selenium RC Architecture.
- Webdriver Architecture.
- Webdriver Vs Selenium RC.
- Brief explanation about advantages of webdriver.

Selenium IDE:

- Introduction: Introduction of selenium IDE.
- Download and Installation of Mozilla FireFox Add-ons.
- Record and playback techniques.
- Modifying the script using IDE.
- Validate the locator value using IDE.

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SELENIUM WITH CORE JAVA

Selenium IDE Concepts & Commands:

- Building Test cases using Selenium IDE
- Creating test suites
- Adding Selenium IDE commands
- Selenium IDE commands (assert, verify, wait, and store the elements).

Selenium WebDriver

- Download and Setup Selenium WebDriver and Java - JDK.
- WebDriver Introduction
- Methods in WebDriver,
- Detailed discussion about
- Webdriver commands.
- Handling dfferent browsers.

Locator Techniques:

- Introduction about locator concept.
- Brief explanation of different locator techniques.
- Xpath techniques explanation with different kind of real time scenarios.
- Identify elements and objects

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SELENIUM WITH CORE JAVA

Locating elements:

- ID
- Name
- Link Text
- PartialLinkText
- CssSelector
- ClassName
- XPath.

WebDriver Concepts:

- FindElements
- WebElements
- CheckBox
- RadioButton
- DropDown
- AlertPopup
- Read and Write data from excelsheet
- Image
- NavigationCommonds
- Upload and download file
- Take Screenshot of page

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SELENIUM WITH CORE JAVA

Concepts of Framework:

- Introduction to framework
- Use of framework
- Different types of frameworks
- DataDriven Framework
- KeywordDriven Framework
- Hybrid Framework

Selenium Grid:

- Introduction of selenium Grid.
- Installation and setup of Hub and node.
- Simple script execution using grid.
- Parallel execution using grid.

TESTNG

TestNG is one of the most widely used open-source testing frameworks used in the automation testing suite. It provides powerful features and reporting. TestNG makes automated tests more structured, readable, maintainable, and user-friendly. TestNG is a testing framework that covers different types of test designs like a functional test, unit test, UI test and integration test, end to end test. Its high-end annotations like dataprovider make it easier to scale up, as you perform cross browser testing across multiple devices, browsers, and their versions.

Course Outline

- What is TestNG,
- Advantages of TestNG over Junit,
- TestNG installation,
- Features of TestNG,
- Running Test cases,
- TestNG.xml file,
- Include and exclude of test cases,

- TestNG groups,
- TestNG annotations,
- Annotations attribute,
- TestNG parameters,
- TestNG Listeners,
- Parallel script execution,
- TestNG interview questions and Answer

JMETER

Apache JMeter is Open Source testing software, purely Java-based software. The software is used to perform the performance testing, functional testing, and load testing, regression testing, of web applications. JMeter comes with a multi-threading framework. It is used to test load testing functional behavior and measuring performance. Therefore, we can conduct JMeter performance testing for many thread groups concurrently. With JMeter performance testing, we can find the maximum number of concurrent users a web application can handle. It has an easy-to-use Graphical User Interface (GUI).

Course Content

- What is jmeter
- How does JMeter work?
- JMeter Installation Process
- What is Element in JMeter?
- Thread Group
- Samplers
- Listeners
- JMeter Listeners Type
- How To Add Listeners
- View Results In Table
- View Results In Tree
- JMeter Summary Report
- Graph Results
- Configuration Elements
- Assertion
- What is an Assertion?
- Types of Assertion
- Steps to use Response Assertion
- Recording in Jmeter
- Report

API TESTING

API (ApplicationProgramming interface) is a service that enables programs, computers or netwotrwkso to interact or talk using a common communication protocol. API Testing is a software testing type that validates Application Programming Interfaces (APIs). API tests are very different from GUI Tests and won't concentrate on the look and feel of an application. It mainly concentrates on the business logic layer of the software architecture.The aim of API Testing is to check the functionality, reliability, performance, and security of the programming interfaces.

Course Content

1) API (Application Programming Interface)

- Client-Server Architecture
- Presentation, Application and Database layers
- What is an API?
- How Does API Work
- Why would we need an API?
- Types of API
- Features,Advantages,Disadvantages Of API

API TESTING

2) API Testing

- What is API Testing?
- Tools for API Testing
- Types for API Testing
- Challenges of API Testing
- Difference between API testing and Unit testing
- API Testing Defects
- Benefits of API Testing

3) Web Service

- Web service
- Types of Web Service
- Components of Webservices(SOAP,UDDI,WSDL)
- Features,Advantages,Disadvantages of Web Service
- Web Services vs API

- HTTP Structure
- URI and URL
- Payload
- HTTP methods
- Status codes

REST

- Introduction to REST Web services.
- Difference between SOAP and REST Web services.
- Tools for REST API

POSTMAN TOOL

Postman is one of the most popular software testing tools which is used for API testing. With the help of this tool, developers and testers can easily create, test, share, and document APIs.It is free to download and use for teams of any size. The postman runs local machines so that you can stay in control of your data. You can make any kind of API call (REST, SOAP, or plain HTTP) and easily inspect even the largest responses. It has a friendly UI for constructing requests and reading responses, allowing automated tests to be created quickly.

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POSTMAN TOOL

Course Content

- What is Postman?
- Postman installation
- Workspace-Create,Rename,Delete Workspace
- Collections-Create,Rename,Delete
- Creating Requests

1) GET Method
2) POST Method
3) PUT Method
4) DELETE Method

- Status code
- Environment variables
- Parameterize Requests
- What is Pre-Request Script in Postman?
- Pre-Request Script to Collections
- What is Postman Console?
- Technical question

WHO CAN LEARN ?

- Anyone who wants to build a career in IT field.
- Entrepreneurs who want to grow their business.
- Students who are currently in college or university

CAREER OPPORTUNITIES

- Software Security Advisor
- QA Analyst
- Sr. QA Analyst
- QA Team Coordinator
- Test Manager
- Selenium Automation Engineer
- Selenium Test Analyst
- Software Development Test Engineer
- Application Security Tester
- Junior Software Security Engineer
- Security Analyst
- Security Tester

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FACILITIES OFFERED

- Practical Training on Live Projects
- Complete Placement Assistance
- Interview Preparation
- Global Certification
- Fully functional labs
- Online / Offline Training
- Study Materials
- Expert Level Industry RecognizedTraining

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