



START
coding
TODAY



**A PROVEN PATH TO GET A JOB
IN 6 TO 8 MONTHS OR LESS**



course designer

I am a teacher and entrepreneur for the past 12 years, I am managing the Software development company Kangaroo Software PVT LTD and the best Software Education Institute SHIVA CONCEPT SOLUTION. I am very much passionate about teaching and helping students.

shiva gautam



PART 1: INTRODUCTION TO SOFTWARE TESTING

- UNDERSTAND THE IMPORTANCE OF SOFTWARE TESTING.
- LEARN ABOUT VERIFICATION VS. VALIDATION.
- EXPLORE DIFFERENT TYPES OF APPLICATIONS (WEB, MOBILE, DESKTOP).

PART 2: BASIC OF SOFTWARE TESTING

1. Basics of Software Testing

- What is software testing?
- Importance and benefits of software testing
- Software Development Life Cycle (SDLC)
- Software Testing Life Cycle (STLC)
- V-Model, Waterfall Model, Agile Model, Spiral Model, Incremental Model, Iterative Model, RAD Model, Spiral Model
- Principle of Software Testing

2. Types of Testing

- Manual vs. Automated Testing
- Static Testing vs. Dynamic Testing
- White Box Testing vs. Black Box Testing
- Functional Testing vs. Non-Functional Testing
- Unit Testing, Integration Testing & it's Type
- Alpha, beta and gamma testing
- Sanity & Smoke Testing
- User Acceptance Testing, System Testing
- Random Testing, Branch Testing
- , State transition Testing
- Money Testing Gorilla Testing
- Regression Testing,

3. Types of Testing

- Security Testing
- Type of Security Testing
- Globalization & Localization Testing
- Boundary value Testing
- Regression Testing
- Migration Testing
- Comparision Testing & scalability
- Performance testing
- Type of Performance Testing
- Concurrence Testing
- Fuzz Testing
- Database Testing
- API Testing

PART 2: ADVANCE TOPIC OF SOFTWARE TESTING

1. Software Testing Life Cycle

- What is STLC?
- Different phase of STLC
- What is RTM how to design it?
- How to create Test Case Design
- Environment and Type's

2. Test Planning

- Test strategy and test plan
- Components of a test plan
- Entry and exit criteria
- Risk management and mitigation
- Prepare Test Plan report

3. Test Documentation

- create test scenerio
- create test case report
- parameters of test case report
- execute test case report

PART 3: TEST EXECUTION AND REPORTING

1. Test Execution

- Preparing for test execution
- Test environment setup
- Executing test cases
- Prepare List of pass test cases and failed test case
- Manage test case in RTM

1. Defect Lifecycle

- What is a defect/bug?
- Defect lifecycle and states
- Defect reporting and tracking
- Defect management tools (e.g., JIRA, Bugzilla)

1. JIRA

- What is a JIRA
- What is Scrum
- Jira Bug Template
- JIRA Scrum Board
- JIRA Integration for Bug Report and Test Case Report

PART 4: TEST MANAGEMENT AND TOOLS

1. Test Management Tools:

- Overview of tools like JIRA, TestRail, and Zephyr.
- Test case management and execution..

2. Test Execution and Reporting:

- Running test cases.
- Analyzing test results.
- Creating test summary reports.

PART 5: PERFORMANCE TESTING

1. Load Testing:

- Simulating user load.
- Identifying bottlenecks..

2. Stress Testing:

- Testing system limits.
- Handling peak loads.

PART 6: SECURITY TESTING

1. Security Testing Basics:

- Understanding security threats.
- Common vulnerabilities (SQL injection, XSS, CSRF).

2. Security Testing Tools:

- OWASP ZAP, Burp Suite, Nessus.

PART 7: NON-FUNCTIONAL TESTING

1. Usability Testing:

- Evaluating user experience.
- Heuristic evaluation.

2. Compatibility Testing:

- Browser compatibility.
- Device compatibility (mobile, tablet, desktop)..

PART 8: ADVANCED TOPICS IN TESTING

1. Exploratory Testing:

- Ad-hoc testing.
- Learning while testing..

2. API Testing in depth

- What is API, Type of API
- Manage API Testing using Postman
- How to call POST, GET, PUT, PATCH & Delete API
- Authentication and Authorization in API
- Understanding responses, Validating response status codes
- Introduction to pre-request scripts and tests in Postman

3. Database testing in depth

- What is database, what is SQL
- Important SQL command Insert, update, delete, select
- Select command with different conditions and filter
- What is data constraint, data type, operator
- DDL command
- test cases for database testing

PART 1: INTRODUCTION TO JAVA

1. Getting Started with Java

- Overview of Java's history and significance.
- Setting up the Java Development Kit (JDK) and (IDE).

2. Basic Concepts and Syntax

- Variables, data types, and operators.
- Control flow (if-else, loops).
- Input/output operations.

PART 2: OBJECT-ORIENTED PROGRAMMING (OOP) IN JAVA

1. Classes and Objects

- Creating classes and objects.
- Constructors and instance variables.
- Access modifiers (public, private, protected)..

2. Inheritance and Polymorphism

- Extending classes (inheritance).
- Method overriding.
- Abstract classes and interfaces.

3. Advanced OOP Concepts

- Enumerations.
- Nested classes (static and inner classes).
- Object cloning.

PART 3: EXCEPTION HANDLING AND FILE I/O

1. Exception Handling

- Try-catch blocks.
- Custom exceptions.
- Finally and resource management.

2. File I/O and Serialization

- Reading and writing files.
- Serialization and deserialization.

PART 4: COLLECTIONS AND GENERICS

1.Collections Framework

- Lists, sets, and maps.
- Iterators and enhanced for loops.
- Sorting and searching.

2.Generics

- Type safety using generics.
- Generic classes and methods.

PART 5: MULTITHREADING AND CONCURRENCY

1.Multithreading

- Creating threads.
- Synchronization and thread safety.
- Thread pools.

2.Concurrency Utilities

- Extending classes (inheritance).
- Method overriding.
- Abstract classes and interfaces.

PART 1: SELENIUM INTRODUCTION

1. Overview of Selenium

- What is Selenium?
- History and evolution of Selenium
- Selenium WebDriver vs. Selenium IDE vs. Selenium Grid
- Benefits and limitations of Selenium
- What is selenium IDE , how to install and operate them

2. Setting Up the Environment

- Installing Java Development Kit (JDK)
- Setting up Eclipse IDE for Java development
- Configuring Selenium WebDriver in Eclipse
- Creating a new Selenium project

PART 2: SELENIUM WEB DRIVER

1. WebDriver Interface

- WebDriver commands and methods
- Browser manipulation (opening, closing, navigating)
- Locating web elements (by ID, name, XPath, CSS selector)
- Locating by Link text, Text, Tag name, etc

2. Handling Different Web Elements

- Textboxes, buttons, checkboxes, radio buttons
- Drop-down lists, links, alerts, frames
- Handling dynamic elements and waits
- .Handling popup, alert, tab & scrolling options

PART 3: ADVANCED SELENIUM WEBDRIVER TECHNIQUES

1. Working with Multiple Windows and Tabs

- Switching between windows and tabs
- Handling pop-ups and alerts
- Managing browser cookies

2. Handling Frames and IFrames & waits

- Identifying frames and IFrames
- Switching to frames and IFrames
- Interacting with elements inside frames
- What is implicit and explicit wait

PART 4: SELENIUM WEB DRIVER COMMAND

1. WebDriver Command List

- Get command and Type of Get Command
- Switch command and Type of Switch Command
- Navigation command & its type
- Drag & Drop command
- Action & Actions in web driver

2. Handling Table & Screenshot

- How to handle static & Dynamic Table
- How to get screen shot
- What is robot class

PART 5: TESTNG FRAMEWORK FOR TEST AUTOMATION

1.Introduction to TestNG

- What is TestNG?
- Setting up TestNG in Eclipse
- TestNG annotations and execution order
- How to install Test NG on eclipse
- @Test,@BeforeTest,@AfterTest,
@BeforeMethod,@AfterMethod,@Group,@BeforeClass,
@Afterclass,@BeforeSuit,@AfterSuit Annotation
- What is Test Suite

2.TestNG Assertions and Reporting

- Assert methods for verification
- Generating test reports with TestNG
- TestNG listeners for custom reporting
- How to execute multiple Test class under Test Suite
- Grouping in Test suite
- Performance Testing using TestNG
- Analyse test report

PART 6: SELENIUM FRAMEWORK

1. Framework

- What is data driven framework
- read and write data from excel
- What is Keyword driven framework
- What is Hybrid Framework

2.Page Factory & Page Object Model

- What is Page Factory
- What is Page Object Model
- Difference between both of them

PART 7: ADDITIONAL TECH SKILLS

1. Artificial Intelligence (AI)

- Basics of AI and machine learning.
- chat gpt, prompt engineering

2. Cloud Computing (AWS)

- Setting up an AWS account.
- Deploying applications on AWS (EC2, S3, Lambda).

3. Git and GitHub:

- Version control using Git.
- Collaborating on GitHub repositories.

4. Deployment:

- Deploying web applications to production servers.
- Continuous integration and continuous deployment (CI/CD) pipelines.

5. Docker & Kubernetes:

- Overview of Docker.
- Overview of Kubernetes.

6. Tools

- Eclipse, IntelliJ, Postman
- Swagger, VS Code.

CORE VALUES

They're the heart of our institute, These values are the foundation of our daily operations, shaping our actions to provide an exceptional learning experience and empower students in programming.



Innovation

We encourage creative thinking and new ideas in our teaching methods and curriculum to keep learning dynamic and engaging.



Goals

We help you set clear objectives and work with you to achieve them, ensuring your progress and success.



Transparency

We believe in open communication and clarity in all our processes, keeping you informed every step of the way.



faculties

Our instructors are experienced professionals dedicated to providing quality education and guidance.



Responsibility

We take our role seriously in nurturing your skills and ensuring a supportive learning environment.



Trust

You can rely on us for honest guidance, fair practices, and a commitment to your educational journey.



placement

We assist you in securing rewarding opportunities after completing your program, bridging the gap between education and employment.



about Shiva concept solution

Shiva Concept Solution is the top software training center in Indore, India. Since 2013, we have taught more than 50,000 students with high-quality instruction.

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@shivaconceptsolution



Call us

7805063968

