

Course Title: - Automation Test Engineer (106 hours)

This comprehensive course prepares students for a successful career as Automation Test Engineers. Participants will acquire essential skills and knowledge in Agile methodologies, SQL, Git, web technologies (HTML, CSS, JavaScript, Angular), Cypress, Core Java, Selenium, BDD with Cucumber, TDD, TestNG, JUnit 5, and non-functional testing tools like JMeter, Postman, and REST Assured. Moreover, the course equips students to excel in cloud automation using Jenkins, AWS, Docker, and Maven. By the end of this course, students will be well-prepared to confidently automate testing processes and obtain relevant certifications.

Key Learning Objectives	Course Content	Hours
<p>Module 1: At the end of the module the students will be able to:</p> <ul style="list-style-type: none">➤ Understand Agile methodologies and their relevance in software development.➤ Work with SQL to retrieve and manipulate data from databases.➤ Utilize Git for version control and collaborative development.➤ Comprehend the basics of HTML, CSS, and JavaScript for web application understanding.➤ Gain familiarity with the Angular framework for building dynamic web applications.➤ Use Cypress for end-to-end testing and test automation.	<p>Module 1: Planning and Automation</p> <p>Skills and Tools Covered:</p> <ul style="list-style-type: none">• Agile• SQL• Git• HTML• CSS• JavaScript• Angular• Cypress• Summary and Review• Online quiz test	22

<p>Module 2: At the end of the module the students will be able to:</p> <ul style="list-style-type: none"> ➤ Master Core Java programming concepts. ➤ Understand JDBC for database connectivity and interactions. ➤ Proficiently use Selenium for web automation. ➤ Implement Behavior-Driven Development (BDD) principles using Cucumber. ➤ Apply Test-Driven Development (TDD) methodologies. ➤ Utilize TestNG and JUnit 5 for unit and integration testing. ➤ Write and interpret Gherkin syntax for creating executable specifications. 	<p>Module 2: Functional Testing Skills and Tools Covered:</p> <ul style="list-style-type: none"> • Core Java • JDBC • Selenium • Cucumber • TDD • TestNg • JUnit 5 • Gherkin • Summary and Review • Online quiz test 	<p>44</p>
<p>Module 3: At the end of the module the students will be able to:</p> <ul style="list-style-type: none"> ➤ Learn how to conduct performance testing using JMeter. ➤ Understand API testing and how to use Postman. ➤ Utilize REST Assured for automating API testing. 	<p>Module 3: Non - Functional Testing Skills and Tools Covered:</p> <ul style="list-style-type: none"> • JMeter • Postman • REST Assured • Summary and Review • Online quiz test 	<p>18</p>

<p>Module 4: At the end of the module the students will be able to:</p> <ul style="list-style-type: none">➤ Set up continuous integration and continuous deployment (CI/CD) pipelines using Jenkins.➤ Understand the basics of Amazon Web Services (AWS) for cloud computing.➤ Work with Docker for containerization of applications.➤ Use Maven for project build and dependency management.	<p>Module 4: Cloud Automation</p> <p>Skills and Tools Covered:</p> <ul style="list-style-type: none">• Jenkins• AWS• Docker• Maven• Summary and Review• Online quiz test	<p>22</p>
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