

QA Automation Engineering and DevOps



Training Methodology

- Digital point is a global classroom. All classes are featured online (No recorded version). Students around world can join this online live class
- Each class is instructor oriented live class and will be recorded, and students will get access to watch video for practice.
- Real-world scenario labs.
- VPN access to digital Point's Lab that is accessible from anywhere 24/7
- Class Notes and Labs for each class

Contact Us

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QA Automation Engineer Market Scope:

QA Automation Engineer jobs are on a healthy growth track, with an estimated 100,000 new positions set to be created through 2022. That's higher growth than is anticipated for several other skilled technology jobs, according to the Bureau of Labor Statistics. More and more, QA automation engineers are a necessary part of any company's tech team. These positions are an integral part to any software development platform.

Benefit of QA Automation Engineer Course:

- **Better Job Opportunities:** If you are looking for a new job, completion of this course, you can apply as a QA automation/DevOps Engineer
- **Improved Skills & Knowledge:** If you are already a QA/IT professional, completion of this course will improve your skills to latest technologies.
- **Increased Salary:** DevOps professionals are the highest paid in the IT industry.
- **Increased Productivity & Effectiveness:** Benefit Your Organization through Visibility to Build, Run and Secure Modern Applications

Prerequisites:

1. A bachelor degree in any background
2. Good presentation skills

Class Schedule:

Sat & Sun 9:00 AM - 1:00 PM EST
Tue & Thu 7:00 PM - 10:00 PM EST
Mon & Wed 7:00 PM - 10:00 PM EST

Training Methodology:

- Real-world scenario labs.
- Class Notes and Labs for each class
- Each class is instructor oriented live class and will be recorded, and students will get access to watch video for practice.
- Azure and AWS Cloud

Why choose us?

- Digital point is a global classroom. All classes are featured online (No recorded version). Students around world can join this online live class.
- The course is very interactive and has lots of lab practice with it.
- We help you with Resume preparation, Interview preparation, before and after job support
- Student can repeat the same program two times with no extra cost.

Course Curriculum

Phase 1: Foundation Training

Module 1	Overview of enterprise applications and N-Tier Infrastructure
Module 2	Operating System –Windows Server 2012/2016, UNIX
Module 3	Networking, Active Directory and DNS
Module 4	Power Shell Scripting, Batch Scripting
Module 5	Incident, Problem and Change Management process

Module 6	Infrastructure setup
	<ul style="list-style-type: none">▪ Installation of Virtual Machine on Physical Server▪ Installation of Virtual Machine on Cloud▪ Configure VPN▪ Connect Remote Windows Servers▪ Connect Remote Unix Server

Phase 2: SDLC

Module 7 Manual Testing

- Types of Testing, Agile Methodology and Live Project Overview
- SDLC and Test Scenarios
- Test Plan Complete Walkthrough
- Test case writing process, Test Data
- Test Execution, Traceability matrix, reviews, Status reporting
- Manual Testing on real-world projects

Module 8 Test Strategy and Defect Management

- Defect management
- Quality tools
- Change management
- Version control

Module 9 Test Management Tool

- JIRA
- Gits
- Git Hub

Hands-On:

- Project Management with JIRA
- GIT Installation, Version Control, Working with remote repository

Module 10 Backend Testing

- Database overview and SQL
- Database schema tests
- Stored Procedure tests
- Integration tests of procedures
- Trigger tests
- Integration tests of SQL server
- Checking data integrity and consistency
- Test back end via front end

Hands-On:

- Query on Oracle Database
- Connect remote database using TOAD / Oracle SQL Developer client
- Query techniques

Module 11 Database tools

- TOAD
- Oracle SQL Developer

Phase 3: Automation Testing

Module 12 Java Basics

- Overview of Object Oriented Concepts
- Classes, Objects, Constructors and methods
- Method Overloading
- Inheritance
- Method Overriding
- Access Modifiers

- Arrays
- Looping and Conditions

Module 13 Test Automation with Selenium

- Introduction of Selenium and its Components
- TestNG Framework
- Maven with Selenium
- Data Driven Framework
- Behavior driven framework with Cucumber
- Keyword driven framework
- Hybrid framework
- Selenium Grid

Module 14 Performance Testing Tool – JMeter

- JMeter Architecture
- Loading Testing using JMeter
- Regular expressions and data driving
- Handling dynamic responses
- Bean shell scripting basics for JMeter
- Integration of Selenium with JMeter
- REST API Load Testing using JMeter
- Database Testing using JMeter
- Blazemeter plugin and JMeter Template
- Monitoring Server Performance

Module 15 API Testing

- Functionality testing
- Reliability testing
- Load testing
- Creativity testing
- Security testing and access controls.
- Proficiency testing

Module 16 Security Testing

- Fundamentals of Security Testing
- Web application coding security
- Web application security testing
- Ethical hacking of applications
- Web portal security testing

Phase 4: DevOps Tool

Module 17 Introduction to DevOps on Cloud

- Why Cloud?
- Introduction to Cloud Computing
- Why DevOps on Cloud?
- Introduction to AWS
- Various AWS services
- DevOps using AWS

Module 18 Test Management Tool

- JIRA
- Gits and Git Hub

Hands-On:

- Project Management with JIRA
- GIT Installation, Version Control, Working with remote repository

Module 19 CI /CD Pipeline

- Build an automated continuous integration (CI) pipeline with Jenkins
- Build CI and CD pipelines using Jenkins, Maven, and corresponding plugins
- Configure, secure and extend Jenkins
- Continuous integration (CI) pipeline integration with Git repositories
- Manage the build artifacts which are produced by continuous integration builds

Phase 5: Real-World Project

Module 20 Boot Camp

- Boot Camp with real-world project - Each student will be required to complete a real-time project lab that covers the entire course curriculum.

Phase 6: Job Marketing

Module 21 Real-world Job Interview Preparation

- Professional real-world Resume Writing
- Project Analysis
- Interview Preparation
- Mock Interview