

# Software QA Testing

<b>Course ID</b>	<b>0101</b>
<b>Course Name</b>	Software QA Testing Full course
<b>Duration</b>	39 hours
<b>Delivery Method</b>	In class
<b>Course Overview</b>	This course delivers the skills on how quality assurance is performed. It focuses on quality assurance standards and its maintenance in order to assure the highest quality possible. Testing of an application or product is necessary to improve the business processes and quality of the product or application.
<b>Lab requirement</b>	
<b>Audience</b>	Fresh Graduates, Students, House wives , New job seekers, Working professionals
<b>Prerequisites</b>	Candidate should have bachelor degree or college diploma. Candidate should either have past working experience in business, information technology, logistics, engineering, finance, health care, banking and insurance domains or is currently working in these domains. Candidate should have good communication and writing skills.
<b>Course Objective</b>	
<b>Any certification aligned</b>	
<b>Course Outline</b>	<p><b>QA ( Software Testing)</b></p> <p><b>Manual Test Process Implementation</b></p> <p>Introduction to Software Testing and Quality</p> <p>Software Life Cycle Stages</p> <p>Software Development Models</p> <p>Testing Techniques: Static Testing , Dynamic Testing , Black Box Testing, White Box Testing</p> <p>Software Quality Assurance Standards CMMI Model and SIX SIGMA</p> <p>Test Planning, Test Design and Test Execution</p> <p>Test measurement Techniques and Metrics Collection</p> <p>Defect Management</p> <p>Defect Severities and Priorities</p> <p>Defect management and defect resolution process</p> <p>User Acceptance Testing</p> <p>Testing Terminologies</p> <p><b>Test Management with Quality Center (QC)</b></p> <p>Introduction to Quality Center</p> <p>Defining Test Requirements</p> <p>Adding Test Cases</p> <p>Planning Test execution</p> <p>Mapping Business Requirements to Test cases</p> <p>Adding Defects</p> <p>Generating Graphs and Reports</p> <p>Export requirements to Quality Center</p> <p>Export Text Cases to Quality Center from Excel</p> <p><b>Basic Test Automation with Quick Test Professional (QTP)</b></p> <p>Introduction to QTP</p> <p>Launching QTP, Add- in Manager and Quick Test window</p> <p>Introduction to Functional Testing Functional Testing approach</p> <p>Benefits of automation</p> <p>QTP testing Process ( record and run process)</p> <p>Different types of checkpoints ( standard checkpoints and supported checkpoints)</p> <p>Parameterization ( datable and parameterization, parameterization by importing values from excel)</p> <p>Actions ( Different types of actions, nesting the actions)</p> <p>Object repository</p> <p>Object spy</p> <p>Synchronizing a Test</p>

Handling exceptions using recovery scenarios.

## **SELENIUM**

Introduction to automation

Introduction to the Selenium Suite

### **Selenium IDE**

Installing Selenium IDE

Selenium IDE icons

Recording your first test with Selenium IDE

IDE Context Menu

Assert

Verify

Adding Selenium IDE comments

Synchronization commands

Storing elements

Creating test suites

What you cannot record

### **Locators & Object Identification**

Tools to identify elements/objects

Firebug

IE Developer tools

Google Chrome Developer tools

Locating elements by ID

Finding elements by name

Finding elements by link text

Finding elements by XPath

Finding Elements by using CSS

Summary

Some Special IDE commands

Write your own Selenium IDE script without record and playback

### **Java Basics**

Introducing the JAVA technology

Packages

Introduction to all predefined packages

User Defined Packages

Access Specifiers

### **Object Oriented Programming Concepts**

Introduction

Class

Object

Local, Instance and static variables

Constructors

This keyword

Inheritance and Types

Working with super classes and subclasses

Using types of polymorphism such as overloading, overriding, and dynamic binding

Abstraction

Encapsulation

Abstract classes

Interfaces

### **String Processing**

String manipulation with String Builder and String Buffer

Essential String Methods

### **Exceptions and Assertions**

#### **I/O Streams**

I/O using Java

Files (Create/Read/Write operations on files)

#### **Wrapper Classes**

Introduction

Byte, Short, Integer, Long

Float, Double

Character

Boolean classes

#### **Collections**

Introduction  
util Package  
List, Set and Map  
Reading data from Property files using java program  
Reading and Writing data from/to Excel files using Apache POI API and JXL API  
TestNGFrameWork  
How to Install TestNG plugin in Eclipse?  
TestNG sample script  
Writing Selenium testing script from scratch  
Creating Test suites using TestNG  
Reports generation using TestNG  
Parameterized test cases using TestNG framework  
**Selenium WEB-DRIVER**  
Why WebDriver?  
Downloading web driver Jars configuring in eclipse  
Architecture of selenium webdriver  
Drivers for Firefox, IE, Chrome  
What is the difference between Selenium RC and WD?  
**Sample Programs in WebDriver**  
Text box  
Link  
Button  
Checkbox  
Radio Button  
Drop Down Box  
Select value  
Display all values  
Select values step by step  
Capture screenshots  
Synchronization Commands In Web Driver  
Implicit wait  
Explicit wait  
Web Driver wait  
File uploads and File downloads  
Handling alerts  
Handling confirmation messages  
Keyboard actions  
Mouse actions  
Handling Iframes  
Handling multiple tabs  
Handling popups  
Preparing web driver test cases using customized x-path  
Identifying controls using x-path predefined functions  
Web Tables  
What is Web Table  
Extracting data from web tables  
Examples on static and dynamic Web Tables  
Creating Reusable functions for Web Tables  
Web Driver with TEST NG Frame Work  
Batch Running Test cases using TestNG  
Validations and its usage in Automation test scripts  
Customized Report Generation  
Implementing Logs using Apache Log4j API  
Database testing using Web Driver  
**Working with Multiple Browsers**  
Executing Automation Test Cases in multiple browsers Sequentially  
Executing Automation Test Cases in multiple browsers Parallel  
**Build Configuration Tool? Apache Maven**  
Downloading and configuring Maven  
Create Maven project  
Maven commands and operations  
Adding Maven dependencies to the project

	<p>Execute Test Suites using Maven</p> <p><b>Automation Test Frame Work</b></p> <p><b>How to develop Test automation frame work in live environment</b></p> <p>What is a frame work</p> <p>Types of frame work</p> <p>Data driven frame work</p> <p>Modular driven frame work</p> <p>Keyword driven frame work</p> <p>User Defined Keyword driven framework with implementation</p> <p>Execute test scripts from the framework</p> <p><b>Backend Testing using SQL ( Structured Query Language)</b></p> <p>Introduction to Database and Rational Database Management System</p> <p>DML Commands ( Insert, Select, Update , Delete)</p> <p>DDL Commands- ( Create, Use, Alter, Drop)</p> <p>Sub queries ,Joins and Unions</p> <p>Simple and Complex SQL- queries</p> <p>Other DB Utilities Toad, SQL Navigator etc</p> <p>Database role in application development</p> <p><b>Reporting tool Jira</b></p> <p>Introduction to Jira</p> <p>Track bugs and issues</p> <p>Monitor Activity</p> <p>Report on Project Status</p> <p><b>Mobile Testing</b></p> <p>Introduction to Mobile Application Testing</p> <p>Traditional Apps vs. Mobile apps</p> <p>Technology buzzwords</p> <p>Various Mobile Development Platforms &amp; technologies</p> <p><b>Project Training</b></p> <p>Insurance</p> <p>Banking</p> <p>E -commerce.</p>
--	---

**Course ID:** 0101

**Course Overview**

This 39 hours Instructor lead training course is aimed at quality assurance tester to teach software testing fundamentals and Test strategy tools and techniques. This course Overview of software development life cycle, Testing methods and automated testing.

**Cost :** CAD 1200

Note: Please enquire with us for ongoing promotions, group and early bird prices.

**Registration and Enquiries**

For registration and any other enquiries, please contact Big Data School at [info@bigdataschool.ca](mailto:info@bigdataschool.ca) or call us on +1-647 948 9595

Visit us on <https://www.bigdataschool.ca/>

### About us

We are a team of independent consultants offering Software Testing consulting and transformation solutions. With an average Industry experience of over 15 years and currently working on several cutting-edge technology projects on Software Testing, we have extensive experience in QA Software Testing projects across several industries such as Information Technology, Telecommunications, Finance, Insurance, Healthcare, Automobile, Energy etc.

We are experienced and certified QA Software Testing corporate trainers providing Industry-standard training to several industry leaders.

### Course design philosophy

We want to bring corporate quality and industry standard training to individuals seeking a career in Software Testing.

Our courses are modelled based on extensive industry experience and cater to current Industry needs to provide relevant practical experience and real-time working knowledge.

For those looking to certify, the course has been designed specifically to help take the certification examination with ease. Also, the courses are designed with an ideal theory to practical ratio of 50:50, ensuring learning conceptual knowledge backed by practical applicable skills suited to make you an individual contributor at work from the first day.

The courses are delivered by professional trainers who offer corporate trainings to companies, and are working as consultants and architects on software testing projects.

