

# Course Catalog for QA Software Testing Training

Product Catalog for Software Manual Testing

Provides the details about the training session of the Software QA Testing



# Quality Assurance (QA) Software Testing

This course runs for nine weeks, 4 hours/week with 15 min break, covers in-depth techniques to get started your career on QA Manual Testing. There is no pre-requisite required to attend this course.

We provide onsite instructor led courses for this course. Course contents are subject to change. Please look the <u>schedules</u> page for current start date of the courses and fees information. Click <u>here</u> to contact us for any questions and you can reach us at 1-510-991-7591. Due to limited seats availability register and pay for the course at least a week before to guarantee a seat for you.

Bring your own laptop. All the installation instructions and step by step guide is provided to you ahead of time. Install the required software's and/or tools ahead of time for the next week. This will allow covering the course materials instead of wasting time on installation during the course.

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# Week 1: - Introduction to Software Testing & TestLink (Test Mgmt Tool)

You will learn fundamentals of Software Testing. You will learn how Software Testing used in different type of Software Development Life Cycle (SDLC) like Agile, Waterfall, V-Model, etc.

You will learn the buzzwords used in the QA industry. You will understand how to create test cases, and you will create test cases using Noah's Classifieds Application. You will discuss and learn how to create User Acceptance Test Cases (UAT) in the business/product owner's point of view.

You will be shown how to use the Test Link Test Management tool to create test suite and test cases in TestLink Application. You will learn how to track the bug and how to link/assign the bug within TestLink Application.

### **Presentation**

- 1. Software Testing
- 2. Software Development Life Cycles
- 3. Verification and Validation
- 4. Qualification and Quality Control
- 5. Bug vs. Error
- 6. Creating Test Cases Using Noah's Classified Application
- 7. Introduction to TestLink Test Management Tool
- 8. Creating Test Cases Using TestLink
- 9. Questions

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### Exercise:

- 1. Create manual test cases for Noah's classified application
- 2. Create manual test cases for yahoo.com/google.com
- 3. Creating test cases in TestLink

# Week 2: - Types of Testing and Bugzilla (Bug Tracking Tool)

Week two focuses on Testing Techniques (Black Box Testing and White Box Testing) and different types of testing. In this week you will learn the Black Box testing technique with different types of testing.

We will also discuss about the stand alone application testing process and web application testing approach. You can install osTicket Application and explore the application and create test cases both functional and non-functional (UI test cases). Also you will install the BugZilla tool, explore the tool and create the test cases in the test link and how to track the bug and how to link/assign the bug.

The key concepts covered will be the following:

# **Testing Techniques**

- Black Box Testing
- White Box testing
- Positive / Negative Testing

# Types of Testing

- UI Testing
- Functional Testing
- Unit Testing
- Integration Testing
- Ad hoc Testing
- Smoke Testing
- Automation Testing

### **Presentation**

- 1. Quiz on Week 1
- 2. Introduction to BugZilla
- 3. Windows Calculator Stand Alone UI Testing
- 4. osTicket Application
- 5. Games Manual Testing

# **Exercise:**

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- 1. Creating test cases/test suites in BugZilla
- 2. AgeProblem White Box Testing
- 3. Firefox HTML Validator Addon Greybox Testing
- 4. YSlow Firefox Addon Website Load Performance measurement tool

# **Week 3: - Types of Testing and Testing Tools**

We will continue with different types of testing this week, by installing different add-ons in different browsers and implement with different examples.

You will install and learn how to use Omniture, Firebug, LinkChecker, MeasureIT add-ons.

# **Presentation:**

- 1. Load Testing / Performance Testing
- 2. DB Testing
- 3. Version Testing / Scenario Testing
- 4. Regression Testing
- 5. Browser Testing
- 6. Using Firebug
- 7. Using Omniture / Omnibug

# **Exercise:**

- 1. Using Omniture track the variables values for version testing
- 2. Using LinkChecker Checking the broken links in a webpage
- 3. MeasureIT Add-on
- 4. Quiz on Week3

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# Week 4:-Test Plan and Test Case Document

The week four focuses on introducing QA Test Plan and Test Case Document. Test plan reflects your entire project testing schedule and approach. We will discuss about simple test plan and scope. We will elaborate that index to what each point meant to do. So this Test plan will include the purpose of test plan i.e to describe the scope, approach, resources, and schedule of the testing activities. Also we will discuss how to identify the items being tested, the features to be tested, the testing tasks to be performed, the personnel responsible for each task, and the risks associated with the plan.

# **QA Test Plan:**

- Scope
- Purpose
- Tools
- System
- What /When/How
- Software
- Automation Scope
- Title
- Deliverable

# **QA Test Case:**

- TC.NO
- Description
- Expected Result
- Actual Result
- Remarks

# **Presentation:**

- 1. Test Plan
- 2. Test Case

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- 3. Using Bugzilla
- 4. Using TestLink
- 5. Import test cases from Excel to TestLink
- 6. Quiz on Week 3

**Exercise:** We will take a sample web application and create test cases / Edge cases will execute and track the test cases using Bugzilla or TestLink.

# Week 5:- Bug Life Cycle / Bug Track Management

The week five covers Bug Life Cycle and Bug management. We will discuss the software development process, how the bug life cycle is involved and how the bug should go through the life cycle to be closed. Also discuss about how specific life cycle ensures and the process is standardized. The bug attains different states in the life cycle.

The following are life cycle of the bug and will be discussed in detail in the class:

- New
- Open
- Assign
- Test
- Verified
- Deferred
- Reopened
- Duplicate
- Rejected and
- Closed

# **Presentation:**

- Bug Life Cycle
- Using TeamTrack
- File a Bug

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• Quiz on Week 4

### **Exercise:**

• Take any one of the web application, use the test cases and apply the Bug Life Cycle process.

# Week 6:- Mobile / API Testing

The Week 6 provides the basic aspects of the Mobile Testing. Also the brief introduction about mobile testing covers about what is Mobile testing and how it is different from web testing. And also know about Android Emulator and IPhone Simulator. We will see some examples using Android Emulator.

- Physical Devices iOS: IPhone 4, / Android HTC / BlackBerry / Windows 7
- Testing types
- API Testing Concepts
- Testing Web Applications on Mobile Devices
- Android Testing Environment

# **Presentation:**

- 1. Using Android Emulator
- 2. Using REST Tool For API Testing
- 3. Web Testing
- 4. Quiz on Week 05

# **Exercise:**

Testing one web application in the Android Emulator Interface

# Week 7:- Database testing and Basic SQL queries:

The week seven focuses on Database concepts and basic SQL queries. Week 07 you will learn how to compose SQL queries to retrieve information from the database. In this class you will be able to connect to the SQL server database and execute a query that includes a search condition.

We will focus on the DDL, DML and TCL commands with examples.

- Create tables
- Update
- Delete
- Insert
- Commit
- Rollback
- Select

# **Presentaions:**

- 1. Setting up PhpMyAdmin
- 2. Using PhpMyAdmin (Cloud based client tool to execute MySQL Queries)

## **Exercises:**

1. Using cloud based data base with PhpMyAdmin client we will create Database , Table and using SQL retrieve the data from the table

# Week 8: - Introduction to Web Application Automation/Selenium IDE

Week 8 provides high level overview of the contents of Selenium. The course starts with installing Selenium IDE (and optionally Firefox) in Mozilla Firefox. Creating simple test cases that search "Energy Efficient" key word in different domain's search engines.

Using Selenium IDE demonstrates to create a Selenium Test Suite using the "Energy Efficient" test cases. The test cases created will allow you to understand how Selenium is dependent on the HTML structure of the application under test (AUT).

### Presentation:

- History of Selenium and WebDriver
- Selenium IDE Overview
- Using Selenium IDE
- Running a Simple Test
- Creating Selenium Test Suites

## **Exercises:**

Create Energy Efficient Test Cases for the below

- Yahoo
- GE
- Google

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Bing

Create a Test Suite using the above test cases:

Energy Efficient Test Suite

# Week 9:- Introduction to UNIX OS and Using Cygwin

During week nine you will learn UNIX operating system and the top commands required to function day to day activities as a QA Engineer.

You will learn the UNIX commands by executing in the Cygwin Terminal.

# **Presentation:**

- 1. Introduction to Unix/Linux Operating System
- 2. Using Cygwin
- 3. Frequently Used Commands
- 4. Command options
- 5. Working with Directories
- 6. Working with Files
- 7. Vi Editor
- 8. Server Concepts
- 9. QA Tester Role
- 10. Quiz on Week 08

### Exercise:

- 1. Vi Editor
- 2. Basic Commands