Capgemini

SELENIUM MASTER CLASS

Participant GUIDE

Automation Testing using Selenium+Java and TestNG framework

Document Revision History

Date	Revision No.	Author	Summary of Changes
07-Aug-2023	1.0	Poornima Krishnan	Initial Version

Contents

Introduction

Selenium Master Class introduces you to all the essentials Component of Automation Testing using Selenium+Java.

Pre-requisites:

- Participants should have basic knowledge on Core Java
- Participants must complete min 70% pathway of Selenium (https://degreed.com/pathway/e9kmjz4w8o?path=selenium) learning or complete the Post Assessment Test of pathway

Duration: 8 hours

Following topics of Selenium will be covered in the Master class
- Introduction to Selenium
- Record and Playback using Selenium IDE
- Webdriver
- Selenium locators
- Complex locators – CSS , Xpath
- Synchronisation
- TestNG Framework
- Annotations used in TestNG
- Selenium Automation Framework
- Page Object Model and Page Factory in Selenium
- Extent Reports
- Parametrization in Selenium
- Data Driven Testing – From Excel file
- Parallel Execution in Selenium
- Selenium Grid
- Hub and Node configuration
- Running Selenium Tests using Grid

Outcome:

After completion of this master class, participants will understand and develop a Selenium Automation Framework using Java and TestNG Framework

Problem Statement:

The below URL is a sample application of an e-commerce application.The purpose of this page is to provide an object with basic functionality for you to try your first attempt to use Selenium with Java.

https://www.saucedemo.com/

Task 1:Creation of a basic Selenium automation script (Duration 2 hour)
1. Create a new maven project in Eclipse and add the required dependencies.
2. Create a basic selenium script to invoke the browser navigate to URL
3. Use Selenium locator basics , CSS , Xpath and create the scripts to test the above application

Task 2: Refactoring into Page Factory Model TestNG Framework (Duration 3 hours)
1. Convert the above tests into Page Object/Page Factory Model

Task 3: Refactoring into TestNG Framework (Duration 3 hours)
1. Convert the above tests into TestNG framework. Add the required assertions.
2. Execute the above tests and generate the TestNG Reports
3. Add groups, include/exclude test cases.

Task 4: Add Extent Reports (Duration 3 hours)
1. Add dependencies of Extent reports into pom.xml.
2. Refactor the above script to use Extent report to read the execution report .

Task 5: Add Data parametrization (Duration 3 hours)
1. Create utilities to read data from config files, excel sheet , data provider using Apache POI.
2. Refactor the above script to parametrize the input data as per Step #1.

Task 6: Parallel execution and Selenium Grid (Duration 2 hours)
1. Configure your machine into hub and node pattern.
2. Update the testNG xml files to enable parallel execution. Run the test cases in parallel using the above grid created.

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