Version:

Java: 7, JDK:1.7

Appium:1.6.4

Selenium:2.5.3

**Introduction:**

I worked as manual and automation tester for 8+ years. I have worked on testing both web based and desktop applications. I have 3+ years of agile experience. I used Selenium with Java, javascript in my applications. I worked with TestNg, JUnit along with Page Object Model, Page Factory and Cucumber for BDD in my projects. I also worked on keyword driven and data driven testing. Single Page applications were tested with Javascript using protractor. I have successfully tested web services both REST and SOAP services using Rest assured framework and SOAPUI. I have been involved in testing databases by Executing the queries, stored procedures, views and triggers. I have been involved in my projects as a contributor for the framework development with Java. In mobile testing, I worked with appium for native application testing, used selenium with java scripts. I have used Jira, HP ALM in my projects to execute and record defects, track stories, maintain requirements.

**What I did in the SOA testing ?**

In terms of SOA testing, I have tested both the customer facing services, API’s as well as the back end components required for the service to perform the request and response actions. On the back end part, I have used Mock as mocking service on the interfaces, contract layers and the routing classes. By using the assertions available in both JUnit for the Java spring based applications and NUnit on a ASP .NET applications, I have validated the services. I also wrote validation on the classes that perform the ORM queries on the database, based on the transaction calls. I also ensured that the database is not properly locked so that the calls can be processed in

the order of the queues. When I talk about the Queues, I have worked with JMS and rabbitMQ as well.

**Other:**

In this project, I worked on a CRM based application. Here the application portal is responsible for delegating the different customer related issues with our biometric verification product. It includes creating a query log with the verification system, bypassing the authentication through secure One-time release, prepare the customer new identity for the incoming system parameters that enable multi-level verification, create logs and report based on the access credentials and sectors associated.

It is available on the .com based application for the employee’s side and a native application on the customer side. I worked in testing the UI of application. We followed BDD with cucumber in java platform with cucumber JSON reports for UI testing.

HP ALM for test management and linking entities with the requirements. Git as our repository and Jenkins for pipelines. The application was developed using Angularjs version 1.4.2 and node JS middleware with Spring MVC back end.

These reading are accessed in real time along with the the comparison with the past consumption. We have a web application where we are able to pull all these records and tracking the minimum and maximum gradient of usage. It will provide a multi dimensional visualization of these reading on a D3.js display panel. Analysis of the sectors in the client side which usage ranges is processed by collecting the data through API. This will provide a conclusive definition on how the utility API will be processing and sending data to the clients with different reports generated everyday.

Apart from this I also worked on testing the payment, audit and utility API using SOAPUI Pro tool, where I created test steps with OAuth protocol for authentication and validating the request and response patterns with the data stored in the database.

As a part of my activities, I also work with developer in developing unit test cases. Testing middleware was also part of my responsibilities as I worked with setting up and creating the structure for protractor framework.

**HealthCare:**

I performed manual and automation testing. WIth Automation, I used Java selenium for UI and Testng and Page object.

Functional and regression, apart from white box and black , ad hoc testing. We are working on Maven based projects and Jenkins for CICD.

This application also has a portal where the insurance details regarding the customer can be pulled to check for information changes in the history and track the changes.

This application each customer when registered will have all his medical records pulled along with the physician preceding over that. On every case, the diagnostics information, in house medications and treatment methods provided. The summary section also contains the last recorded vitals reading. Also this application is attached with the real time data from the current patient profile, as any changes made will be populated as notification flags ready to be updated to the patient records.

Connecting to the insurance portal, pulling the patient history through insurance ID,

He we used to do automation with browser and used jmeter to test the load in gui mode and non gui mode of browsers

it has four teams in IT basing on the work they do. Care Pro is one of the teams I used to work which creates Portals for accessing information and helps doctors related people to create new Tickets/Requests and access information of the patients basing on their member ID’s.

**Financial:**

The application is a web portal that I was working on. The application we are testing involves a file upload functionality where the file is filled with SSN numbers of the customers. Once the file is uploaded, it will provide notification of being saved in the database. After the file is processed, the customers whose accounts are connected to the SSN will be listed by customer ID and Name. When a particular customer is viewed, then the customer's history, types of accounts related to the account and the payment ihistory for the services are available. If the customer does not have any mortgage history, then a Sent Eligibility for different types available for the customer. If a customer has a late payments history, then that account can we flagged for further checks, which is handled by other departments.

**Team Structure:**

4developers - 3 backend, 1 front end UI and UX.

2 testers - I performed both manual and automations.

1 product owner

1 scrum master

1 team lead

**Daily Roles and Responsibilities:**

We operate on (n-1) sprint user stories.

Our sprint is 2 week long.

For every sprint i get the user story, I need to perform the manual testing for 2 days and then based on that I have to write automation scripts. The scripts I developed were using Java, Selenium and Cucumber where I write the Gherkin feature file and step definition code for implementation. We followed BDD.

We used it along with Jasmine and karma to write js based test cases to automate the angularjs based MVC single page app.

We write jsono ourselves and validate it with schema proided by dev as well as jsonlint

SOAP servives using SOAPUI. Where we use the wsdl file and create test suite and steps . Here we used groovy xml holder object to load and store node data in transaction based app.

Also in data driven we used data source and properties transfer

Sprint is for 3 week, we have daily stand up meeting to discuss the progress and issues.

In sprint grooming meetings, we discuss requirements for the sprint and along with the users stories that need to be implemented.

Daily stand up meeting where discuss the progress of the user story.

in the Sprint Retro Meeting, if we have any sprint backlogs that are not completed, we look at the issues and plan to move to next sprint.

**CUCUMBER**

IN Cucumber, we have feature file where we will provide scenarios and scenario outline along with example for the data table. Then we will use Java JVM binding for the step definition where we will declare the @annotated hooks to connect the feature steps to the step definition.

Java method that can contain locating the webdriver context, web app locators, assertions.

In the runner class, we will connect the feature file and step definition, along with that in the class

For feature file, we will provide feature file location @CucumberOption and the glue is the keyword where the step definition is connected.

Using the @given, @when, @then methods to create the test steps were in the steps,

we can create a object of the Page object model, we call call the method to login.

We have action class

We have doubleclick() method

**Difficult Challenge:**

One of the task in my current project is to show the current payment trend of the user and to predict the future payments. For this, we need to validate the trend curve that is developed on a SVG graph. Since we are using protractor and selenium, it was a rather difficult challenge to validate the markers on the dynamic graphs. To overcome the challenge, My team and I created a comparison algorithm for comparing the markers. Then we created a mock graph using the data and compared the markers using the marker properties from both graphs.

**How to automate many task in less amount of time?**

I will prioritize the task or user stories based on the functional and nonfunctional requirements. Once I have prioritized, I will create the test cases based on the critical business logic and transaction based modules to satisfy the basic and fundamental operation of the application.

Usually when we need to test the other application, we don’t worry abou the functionality of the other app, but nly use the data that the component gives. So we will be getting all the required dtat in csv or JSON or excel format.

IN the integration testing we test how the apis intract with other database component and queuing components. We use RabbitMq in our application and sometimes our api uses socketio to transmit streams instead of json data.

**Explain your Framework?**

Reporting, exception handling, logging, data reading, and writing components are the main aspects. I also used Page Object model to have object repository and single code base.

I developed the framework in a abstraction level, so that different components can be used in automating multiple application. For this purpose, I designed the Reporting component using the ITestListeners and ISuiteListeners of the TestNg. For logging and debugging purposes used the Log4J library. Apart from that a exception class was developed and used for handling the different types of exception that may occur in browser and mobile based application. This component also utilized the abstraction principle of Java Object Oriented principles, so that more narrow exceptions can be defined in the child classes extending this.

I created a session sharing and switching component so that test cases can be loaded to both mobile and desktop browsers by changing the context. Data providers were used for Data driven testing using TestNg Data providers. A runner class that binds the data and the test cases to run priority based testing. Also developed Page Objects

using Page object model and UIAutomatorViewer.Used Maven and POM.xml to load the dependencies of the project.

**what is jenkins/continuous integration?**

we use jenkins to create jobs and schedule them to run on a specified time. First create a new task and provide our source repository(like github) url link and details, then we use build tools like maven to build our code and then we do post build task like deploying our code on containers or servers, on success of all the above events we run ourtest scripts using commands like mvn(maven) clean test or install etc., we can also configure email notification to send the status of our test schedules. Sometimes we also have to configure slave jobs to run the regression parallel to reduce the time.

Customer order – id, order id and amunt

SELECT count(\*) from customer where customer id – id, group by customerid

**What you will automate and what you will manual test?**

Critical business functionality, main business requirements, the components that require API driven or data driven functional

Those I will automate.

They features that are independent of other components and have no dependency that I will perform manual testing.

**If the defect is not created by you, how will you retest ?**

I will look at the test case and understand the original defect and try to see how the bug was fixed by the developer, then see the tester notes when the defect was recorded.

Based on that I will first run tests based on the data set and environment conditions that originally resulted in the bug. If the bug is resolved for those conditions, I will iterate other test data sets.

**How will you decide test cases for a new features ?**

First understand the feature, look at the FRD docs, try to come up with different scenarios both + and -ve, boundary value. Accessing the data, look at the test coverage and how distinct the test cases are.

**How will you write test cases if there is no documentation ?**

Then I will work with Business and dev’s to get the end user acceptance criteria and how the feature is developed with different components and dependencies involved. What are the different UI techniques used like locators, event handlers and ajax requests.

yes

**What is your strong suite or skill?**

Adapt to different types of teams and with good time and velocity management without any problems.

**What is the difference between Soft Assertion and Hard Assertion?**

Hard assertions are used to terminate test case when it fails a certain condition, we use assert class methods

Soft assertion are used to continue execution even though the condition fails, we create softAssert class object use this obj.assert methods to validate conditions.

At the end of test case we use object.assertall() method to collect all the exceptions thrown and fail the test case if needed.

**What is parameterization in TestNg ? What are the different ways to achieve that ?**

1)We can achieve by using @parameter tag before @test annotation and pass arguments to method

eg:@parameter(“key”=”value”,)

2) we can give parameter in testng.xml file like suite level and class level parameters

3) we use data provider to pass data to a test method

In dataprovider we can send data as 2D array or iterator object of List(List)

**When will you prefer TestNG over JUnit ?**

TestNg is like advance version of JUnit, testNG include more annotations like before test, before class, i prefer testNG as it supports dependency on other methods, group execution, parameterized object.

**What are the limitations of selenium ?**

* Selenium supports only web based applications.
* Doesn’t support image based testing,
* No direct tool integration for test management(with ALM or Jira).
* No built in reporting facility.
* Lot of challenges with IE browser.

**Challenges with IE Browser?**

We find exceptions like

1)*SessionNotFoundException: Unexpected error launching Internet Explorer. This exception may raise when Protected Mode settings are not the same for all zones (like* internet,local internet, trusted sites,restricted sites. To handle this change settings to enable or disable)

2)If Browser zoom level is other than 100% it will raise session not found exception. resolve by setting it to 100%.

3)Sendkeys method works very slow in IEDriverServer 64bit , to resolve use 32 bit version

4)we get ssl certificate popups.

Sol1.

driver.get(URL for which certificate error is coming);

driver.navigate().to("javascript:document.getElementById('overridelink').click()");

sol2.DesiredCapabilities capabilities = DesiredCapabilities.internetExplorer(); capabilities.setCapability(CapabilityType.ACCEPT\_SSL\_CERTS, true);

**How to integrate Test Management suite with automation ?**

In automation we need to include the interfaces for the test management tools like HP ALM. For example in the Reporting component, we can extend the class and add the result along with the screenshot and the data sets that can be supplied to the defect creation process. Since the reporting component will determine the pass or failure of the test cases, we can attach it with the test case requirement in the Test Lab module.

**What are common exception in Java and selenium automation ?**

**NoSuchElement** : An element could not be located on the page using the given search parameters. **NoSuchFrame** : A request to switch to a frame could not be satisfied because the frame could not be found. **StaleElementReference** : An element command failed because the referenced element is no longer attached to the DOM. **ElementNotVisible** : An element command could not be completed because the element is not visible on the page. **Timeout** : An operation did not complete before its timeout expired. **InvalidElementState** : An element command could not be completed because the element is in an invalid state (e.g. attempting to click a disabled element).

**Explain Page object model?**

We use Page object model design pattern to maintain object repository, in POM we have separate class for each web page/view and the class contains all the web elements of that page as variables, in class we use “by” class objects to store the webelement locators. And we have methods that return webelement , we call these methods to get a web element in that page.

By Page object model we can change locator of an web element at a single place rather than changing in all the test cases it was used. It reduces lot of time and effort.te

**Explain Data driven framework?**

We use data driven framework to run a test script multiple times with different sets of data, we use data as input values or to validate values in the script.

We have developed our framework with util classes that take data from external excel sheet, flat files, and databases, to get data from excel sheet we used “apache POI” libraries, we have multiple methods to extract data in different formats based on requirement. We used “JDBC” connection to get data from database servers.

How will you determine the use of BDD over DDT or other frameworks?

# What are tools used for code review?

# **How to change the date format from one to another in selenium?**

How have you used the OOP concepts in your automation process ?

What will be your roles in Agile Scrum process ?

Explain the main components of HP ALM?

Discuss the steps you will take when you begin a sprint ?

Discuss the steps you will take when you start the automation ?

What is Code refactoring in Agile ? What type of testing will be performed in that phase ?

Static testing is performed at the time of code refactoring.

What is Sprint 0 in agile ?

Explain how HashMap works in Java ?

**Do you have any Questions?**

Is the env already set up ?

What type of release do you have? every sprint or every 2 months ?

Is it a data driven framework or behaviour driven development and testing ?

Are you performing Ad-hoc tests currently ? Does my role involve evaluating the correct framework for automation?