1. Roles and Responsibilities

Hi, I am **Radhika K N**, Having **4.8 years** of experience. And Currently working for **Relogix technologies**. I am having experience in both **functional testing and automation testing.**

For **automation**, I have experience in **Java, Selenium, TestNG and cucumber BDD framework.** Also I did **API** testing for testing restful webservices using **postman and Rest Assured**.

My roles and responsibilities and day to day activities are,

As part of an **agile** **team**, my roles and responsibilities are understanding **the user story requirement and preparing functional test cases**

**and performing functional testing for the features once the build is ready by developers**

writing **automation** **scripts** and maintaining **automation** **regression suits**

**Executing automation suit and preparing the report** and distributing to stackholders

**Logging JIRA defects** for identified bugs and working with developers to track the bugs to closure.

Attending **Bug triage meeting** to either prioritize or defer the bugs.

Collaborating with **devops** team and dev team for **deployments**.

1. In 4.8 years of experience you have did both manual and automation or only automation?

It is combination of both. I am part of agile team so I work on both manual and automation.

1. In your experience have you created framework from scratch?

No, I haven’t got chance to create from scratch. Initially I worked in TestNG and then Cucumber BDD , then Rest Assured framework also.

In future if I get a chance to create from scratch because I have hands on experience in TestNG ,Cucumber BDD and Rest Assured frameworks. I have understood framework components and re-usabilities and all so I can create framework.

1. Can you explain me any one framework which you are comfortable?

I have worked with both TestNG and Cucumber BDD frameworks.

In current Project we are using Cucumber BDD.

1.Here we are using Maven as build tool to manage the build life cycle by using different maven goals. And also managing the jar dependencies using POM.xml file.

**Cucumber is a tool that supports Behaviour-Driven Development(BDD).**

2.And we have prepared feature files with .feature extension using gherkin language by using different gherkin keywords like feature, background, scenario, scenario outline, examples, given, when, then , and , but keywords.

**{ A feature file can contain a scenario or can contain many scenarios in a single feature file but it usually contains a list of scenarios. Let's create one such file.}**

We have used src->test->resources->features folder to store the feature files.

3.And created Step definition classes for each scenario step that is created inside feature files. And placed the step definition files under src->test->java->step definitions package. And we have used annotations like @Given, @When and @Then to implement step definition methods.

4.We have implemented Page Object Model design pattern to manage the web elements and created different page classes foreach page and used PageFactory to initialize the web elements. And we have used these web elements inside our step definition classes.

5.We have also created runner classes to run the features and we have used @CucumberOptions annotation with attributes like plugin, glue, features, tags, dry run and monochrome to manage the runners.

6.We have segregated the scenarios using different tags and configured those tags with different runner classes.

And we have used html reports to generate test reports and configured that using plugins attribute of CucumberOptions annotation.

1. Which testing Framework you guys are using for execution?

We are using TestNG with this.

1. Cucumber by default executes using Junit so we have to do some changes to run in TestNG. What is that?

We have used @runwith annotation in TestNg and along with that added jar dependencies for TestNg into our pom.xml file.

1. What is the difference between scenario outline and background?

We use Background when we have multiple scenario’s inside a feature file and if there is any common steps for all the scenario’s inside feature file. Instead of writing common steps in each scenario we can use background and mention those steps there, so that for each scenario that executes this background will executes once.

Scenario outline is the one which we used to perform data driven testing like if we want to run same scenario steps multiple times for different sets of test data so we use scenario outline with example.

1. Suppose I have written 10 scenario’s in my feature file while executing I want execute only one. How we do that?

I will use some tag on which needs to be execute and in runner class I will configure only that tag and when I run that runner class only the scenario’s which are configured with that tag will be executed.

1. Suppose if we can’t pass the tags in cucumber options, What will happen ?

All the scenario’s will be executed

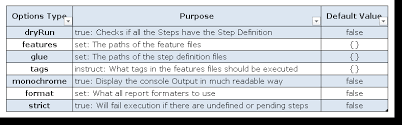
1. What is the purpose of dry run?

Once we create a feature file and related step definition, To compile whether all the steps definition are implemented for all the scenario’s

1. How do we achieve dry run?

It’s a Boolean parameter, if dry run = true then we will execute it, it will not run any test with test data , it will just compile feature with step definition link

@Cucumber Options we will pass





1. Difference between .equals and == operator?

"==" checks the memory addresses of the references. And equals methods verifies the content of the strings.

13. What is the output of below program?

String str1 = "Java";

String str2 = "Java";

String str3 = new String("Java");

String str4 = new String("Java");

System.out.println(str1 == str2); Ans:-----> true (str1 and str2 are String literals created String constant pool and both are pointing to same object, and == verifies the memory address)

System.out.println(str1 == str3); Ans:-----> false(Str1 is created in string constant pool, str3 created as an object in heap memory and both are pining to different memory addresses)

System.out.println(str3 == str4); Ans:-----> false (both str3 and str4 are created in heap memory as separate objects and they are pointing to different memory addresses)

System.out.println(str1.equals(str2));Ans: ---> true (Equals method checks the content of String and content is same for these two strings)

System.out.println(str1.equals(str3));Ans: ---> true(Equals method checks the content of String and content is same for these two strings)

System.out.println(str3.equals(str4));Ans: ---> true(Equals method checks the content of String and content is same for these two strings)

1. I have a Arraylist and I want to compare whether they are equals?

The **equals()** method of List interface compares the specified object with this collection for equality. It returns a Boolean value true if both the lists have same elements and are of the same size.

Arraylist1.equals(Arraylist2);

Arrays.compare();

Size of array

If size are same

Iterate first list and check values in the second list

1. Can we create object for abstract class

Abstract class will have both concrete and abstract method

It will have constructor but we cannot create an object

Abstractclass a = new Subclass();

1. We have an instance variable declared in abstract class, we have created object for subclass

So how will access the instance variable present in abstract class

When we create a object for subclass

During Object creation, Subclass Constructor will always call it’s parent constructor and initial all the instance or non static variables in that particular parent class and then return to subclass

1. What is the purpose of getter setter?

To achieve encapsulation

Encapsulation is concept of binding data and methods together.

In a class, for security reasons if we define any private instance variables

We can’t access them from outside the defined class

We create getter and setter methods as public to get or set values to those variables

Account Balance – public { anybody can change value)

1. Which version of selenium

Selenium 3.14

I’m just exploring selenium 4.0 version

Relative Locators in Selenium 4

1. To left of
2. To right of
3. Above
4. Below

Better Window/Tab Management in Selenium 4

driver.switchTo().newWindow(WindowType.WINDOW);

// Opens BrowserStack homepage in the newly opened window

driver.navigate().to("https://www.browserstack.com/");

1. How to find broken links

**Broken links are dead links when we click on it, it won’t redirect to any web page.**

Broken links are links or URLs that are not reachable. They may be down or not functioning due to some server error

An URL will always have a status with 2xx which is valid. There are different HTTP status codes which are having different purposes. For an invalid request, HTTP status is 4xx and 5xx.

WebDriver driver = new ChromeDriver();

// Navigate to BStackDemo Website

driver.get("https://bstackdemo.com/");

// Finding all the available links on webpage

**List<WebElement> links = driver.findElements(By.tagName("a"));**

// Iterating each link and checking the response status

for (WebElement link : links) {

**String url = link.getAttribute("href");**

verifyLink(url);

}

driver.quit();

}

public static void verifyLink(String url) {

try {

**URL link = new URL(url);**

HttpURLConnection httpURLConnection = (HttpURLConnection) link.openConnection();

httpURLConnection.setConnectTimeout(3000); // Set connection timeout to 3 seconds

httpURLConnection.connect();

**if (httpURLConnection.getResponseCode() == 200) {**

System.out.println(url + " - " + httpURLConnection.getResponseMessage());

} else {

System.out.println(url + " - " + httpURLConnection.getResponseMessage() + " - " + "is a broken link");

}

} catch (Exception e) {

System.out.println(url + " - " + "is a broken link");

}

}

}

1. Frame 1 and Frame 2

Handling Frames

If we are in frame 1 🡪 use driver.switchTo().defaultContent {Main Page} or driver.switcTo.ParentFrame();

From Main Page , we can switch to Frame 2

Driver.switchTo.frame(Int NUm or String Name or ID or WebElement)

Frame inside a frame – we can switch direct

1. Driver.get() and Driver.naviagte.To(0

Internally navigate will call get method , it’s sort of synthetical sugar

Navigation

1. Scrum with sprint

Two weeks sprint

How sprint starts-Story Grooming start of sprint

Product owner and Business Analyst will prioritize backlog items and they discuss story

During grooming , we will have clear idea on each story

Planning session they will pick prioritized stories

Planning Poker

They will Story – acceptance criteria

Story Points – 1, 3, 5, 8, 13

Epic 13

We will split has two story

8+5

Every team member gives estimation

5, 8, 5 ,3

Tshirt Sizing

Based on story user story desc and acceptance criteria

Different subtasks

Based on number of tasks we give story points

1. Blockers on PRODuction

We need to reproduce in lower env

Configuration missed

Environment issues

Production data

**Sanyam wadwa (1)**

Hi Shashank, let's start with the basic introduction now. I am Shashank Kovi and I am working as an Automation Test Engineer. Currently I am with Neptune.

You are with what? Neptune Information Solutions is my current organization. In total I have nearly 4 years of experience. In that I started my career as a Functional Tester when I was a junior member.

I was trained in Java. I was interested in Automation. Lately I started working on Automation as well.

Initially I was maintaining the Automation Regression Suite. Now I am actively working on new Automation scripts and maintaining the framework as well. I have experience in Selenium with Java, TestNG, Cucumber and Rest assured.

I have used different tools like Jira for maintaining the user stories and tracking the bugs. We are using wiki and conference pages. I have worked with Postman, Swagger.

We are also working with different teams like collaborating with DevOps team and Dev team for tracking the identified bugs to Clojure. Also attending different sprint related ceremonies as part of our 2 week sprint. And show progress on the user stories that are assigned to me.

These are the day to day activities and roles and responsibilities. Okay. I just wanted to know about the framework structure you are using in your current project.

So this current framework is Cucumber BDD framework. We have mainly focused on 3 parts here. Like we are focusing on features which are created using Gherkin language.

And we are also writing identical step definition files using Java. And to link these two and to perform execution we are using runner classes. And these runner classes are created using like Cucumber options.

And we are mapping the step definitions using Glue. And we are mapping the like feature files using Features. And we are using tags inside our feature files to segregate the scenarios into different like suits like for regression, for sanity, smoke.

And based on that particular tags we are creating different runner classes. And we are using tags attribute in Cucumber options to segregate them with different runner classes. And we are actually having one base task where we have different methods to handle the web elements.

And we are handling web elements using that methods inherited. And yeah so I think like for reporting we are using extent reporting with the extent report manager. And we are generating the report.

Sorry? Extent reporting. Extent reporting. And along with that like yeah so like we are maintaining our test data by using properties files.

And on startup we are loading that like required test data and maintaining in the in-memory hash map. And we are reusing that. And wherever required we have even used like this scenario outline with examples where we need to test same scenario with multiple data.

Ok let's start with Java first. Please share your screen and let's write a piece of code. Ok.

Have you worked with hash maps? Yeah I have worked. Ok. Is my screen visible? Yes it's visible.

You can open any of the online compiler or any IDE that would work. Yeah sure. Shall I go with this? Yes.

Ok. So what you need to do is you have to do sorting with the help of hash maps here. So where you will be having keys and value pairs.

In the keys you will be having integers and in values you will be having strings. Ok. So on the basis of keys you need to do sorting.

So here the catch is you are not allowed to use the state forward method that is sort. Ok. Please start writing the code.

Ok. So let me first understand the statement like I need to create a map with integer as key and a string as value. Yes.

So do you want me to sort that map using keys or values? Keys. Using keys only. Yeah.

Yeah I think directly we can achieve that using tree map. Ok. Like is that.

Ok you are mentioning not to use state forward. Ok. Yes.

So like what kind of values you want me to enter here? Anything like let's say 55 would be mapped with any string, 26 would be mapped with other string so and so. Ok. So the lower number will come first and higher number will come next when you do sorting.

Got it. Got it. Ok.

Ok. Yeah. I will simply do one thing like you mentioned 55.

I will take 55 as key and string 55 as value. Is that fine? Yeah that's fine. We don't have any issues with strings.

You can take anything. Ok. Got you.

Got you. Yeah. Anyways we are sorting with key right? Yeah.

Ok. Can you please repeat the approach? So like what I thought initially like simply we can use tree set but that doesn't work for your scenario. And then I thought of like after getting this key set right even we can sort the elements of this key set using collections.sort even as you asked me not to use that also.

So what I am doing here I have created one array and like here I created that array with size of the key set size. And like I placed all the elements from that key set into this like integer array that I created using one counter. And then I sorted that integer array.

So all the keys are sorted here in this array. And at the end I am iterating that array and as this array elements are keys inside my map. So from my map I am getting value associated to that each key and I am printing like that index value from array is key and value associated to that is value.

Ok. Cool. Ok.

So what is volatile keyword? Volatile. I think I haven't used volatile keyword anytime. I remember like theoretically when we use multiple threads and if you want a particular variable to be always like read from main memory.

So if you use multiple threads if one thread performs write operation and if parallelly if another thread tries to read. So like if you want to read that particular variable like reference from main memory then we use volatile for that. Ok.

Ok. Give me a second please. Sorry.

Give me a second please. Sure. Yeah.

Ok. Ok. How can we achieve multiple inheritance in Java? Multiple inheritance like the process of deriving more than one class into a class or more than one like interface or combination of class and interface into a class is called multiple inheritance.

But with classes we cannot achieve that in Java. Java doesn't support multiple inheritance with only classes. We can achieve that using combination of class and interface or with only interfaces.

Ok. Ok. Let's say you have two classes.

One is final class and other one is normal class. So you need to use the methods from final class into the normal class. How can we achieve that? So only way is creating object of that final class and like calling them because final class cannot be inherited and so there is no way that inheriting that and getting them derived.

So we have to create object of that final class and access the methods. Ok. Ok.

Let's talk about Java. Yeah. So what is the use of robot class? Robot class like it provides libraries to perform certain like key actions.

So like if you see Selenium like we cannot perform few operations like if you have any like windows based popups kind of we cannot achieve that using Selenium library. So in such cases like to perform keyboard actions we can make use of this robot class and actions class like that. Ok.

When we create a framework we must see a folder that is target folder. Yeah. So what is the use of the target folder? So generally in the project structure this target folder like it contains different contents which like which are generated when we actually build the program or build the project or run the project.

So like when we run any project internally the .java files gets converted into .class files and also like if we use based on the maven goal that we use if we use MVN install so MVN install generates the jar also. So that jar also gets placed inside this target folder and the .class files are stored here and even like if report is generated that report also by default it gets stored into target folder. Ok.

Can you please open your notepad? Ok. So here let's say you have a website where you have multiple dynamic links available. Ok.

So what you need to do is you have to find and capture all the links and store. Sorry? You have to find those links and store those links. Ok.

But the condition is the code report should be a one line code only. Ok. So like you want me to store that like link web elements or actual link URL? No only web elements the name of the links.

Yeah. So this will help us to get all the like links that are present in that page. Ok let's talk about test engine.

Yeah. So what is the use of timeout in test engine? So timeout like when we like try to execute a script. So for example if like if the script gets takes more time than expected.

So like the ideal time till when the like execution should wait for that operation to be completed is timeout. So if the script is not like giving result even after the timeout it gets timed out. Ok let's say you have a test class where you have multiple test methods available.

Ok. Let's say 10 methods are there. So here what you need to do is you have to run all the test cases.

Like when you execute the class that will automatically run right? Yeah. But here the condition is we need to run all methods only once and even methods should run twice. Ok.

So how can we achieve that? Yeah like we can use invocation count with the even methods like with other test annotation this is one attribute which we can use. So if we use invocation count equal to 2 for all the even methods so those methods will get executed 2 times. Ok.

So what are the various methods with which we can execute test cases in TestNG? Sorry can you come again? What are the various methods which helps us in you know running the test cases in TestNG? Yeah we can. I just wanted to know the ways different ways of running the test. Yeah we can execute them like by using direct test classes where we annotate the test methods with addDirectTest.

And we can directly execute that class through annotations. Or we can execute that using TestNG XML file where we configure the test suite, test groups, test classes, test methods everything. And another way like when we use like build tools like Maven if we use Surefire plugin like we can execute through Maven goals also.

Ok. Did you get a chance to work on the test plans? Test plan I have seen test plan but I did not get chance to like work on creating test plan because the senior like QA lead and QA manager they take care of that. But I have seen our test plan document what it contains all those.

Do you have any idea about the suspension and resumption? Sorry? Suspension and resumption. In test plan? Suspension and resumption. No I need to check that.

Ok. What about test estimation? Have you worked on that? Test estimation actually at project level estimation no I did not. But during this sprint right so user story level yes we do estimation.

I also participate in that during planning session. Ok. What are the different techniques we have for test estimation? I think see like whichever technique we use first what we do we first analyze the work that requirement what we need to be achieved.

And like we also calculate the complexity of that particular work and also we consider like the work that is involved in that and also we consider like dependencies with that work like with other teams or partner teams kind of with third parties. And also like we by considering some like associated risks everything we give estimation like we are following like story pointing for our estimation like we consider one day as one story point and our sprint is for two weeks. So based on that we like give estimation in story points and we pick the user stories.

Ok. So who all are involved in risk RCA meeting? Root cause analysis actually mainly like we do initial analysis from QSI when we identify any bug right. So we try to like find the basic root cause and based on the prioritization of that particular bug we assign that to developer and actually developers work deeply to identify the root cause.

And once the root cause is identified we used to have like meeting with our BA with QA and develop team and we like discuss on that and we conclude on the root cause analysis. Ok. Ok Shahang I think we are good with the interview.

So do you have any questions for me? Yeah like I would like to understand about the role. The role would be you need to create script, you need to maintain those scripts and the overall testing activities you will be performing here. Ok.

Yeah. Anything else? No I am good. Ok.

Thank you so much. Thank you. Share your feedback and if everything goes well we will contact you.

Thank you. Ok.

Introduction(About Me)

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Hi, I am Naga Sindhu, Having 4+ years of experience. I am currently working for tech mahendra.

I am having experience in both functional testing and automation testing.

For automation, I have experience in Java, Selenium, TestNG and cucumber BDD framework.

Also I did API testing for testing restful webservices using postman and Rest Assured.

My roles and responsibilities and day to day activities are,

As part of an agile team, my roles and responsibilities are understanding the user story requirement

and preparing functional test cases

and performing functional testing for the features once the build is ready by developers.

writing automation scripts and maintaining automation regression suits

Executing automation suit and preparing the report and distributing to stackholders

Logging JIRA defects for identified bugs and working with developers to track the bugs to closure.

Attending Bug triage meeting to either prioritize or defer the bugs.

Collaborating with devops team and dev team for deployments.

Explain about your current framework?

=========================================

I have worked with both TestNG and Cucumber BDD frameworks.

In current Project we are using Cucumber BDD.

Here we are using Maven as build tool to manage the build life cycle by using different maven goals.

And also managing the jar dependencies using POM.xml file.

And we have prepared feature files with .feature extension

using gherkin language by using different gherkin keywords like feature,

background, scenario, scenario outline, examples, given, when, then , and , but keywords.

We have used src->test->resources->features folder to store the feature files.

And created Step definition classes for each scenario step that is

created in side feature files. And placed the step definition

files under src->test->java->step definitions package.

And we have used annotations like @Given, @When and @Then to implement step definition methods.

We have implemented Page Object Model design pattern to manage the web elements

and created different page classes foreach page and used PageFactory to

initialize the web elements. And we have used these web elements inside our step definition classes.

We have also created runner classes to run the features and we have used

@CucumberOptions annotation with attributes like plugin, glue, features,

tags, dryrun and monochrome to manage the runners.

We have segregated the scenarios using different tags and configured

those tags with different runner classes.

And we have used html reports to generate test reports and configured

that using plugins attribute of CucumberOptions annotation .

to configure the step definitions files

plugin for html and json reports.

2)volatile keyword:

when we use multiple threads and if you want a particular variable to be always like read from main memory.

So if you use multiple threads if one thread performs write operation and if parallelly if another thread tries to read. So like if you want to read that particular variable like reference from main memory then we use volatile for that.

3)How can we achieve multiple inheritance in Java?

More than one class derived into a single sub class.

Here Java doesn't support multiple inheritance with classes due to diamond problem.

When more than one class is derived into a single sub class,

then if more than one super class has same property or method defined,

then there will be ambiguity in subclass like which super class implemetation to be considered in the sub class.

But it supports multiple inheritance with help of Interfaces. As interface can contain only abstract classes and the sub class which implements the interface has to implement the methods(provide it's own implementation). Hence with interfaces there will not be any ambiguity

and java supports multiple inheritance with interfaces help.

4)what is the use of Robot Class?

Robot class which provides libraries to perform certain key actions.

So if you see Selenium we cannot perform few operations , if you have any windows based popups kind of we cannot achieve that using Selenium library. So in such cases to perform keyboard actions we can make use robot class and actions class.

5)what is the use of the target folder?

6) What is time out in test engine?

7)What are the various methods which helps us in you know running the test cases in TestNG?

we can execute them like by using direct test classes where we annotate the test methods with addDirectTest.

And we can directly execute that class through annotations. Or we can execute that using TestNG XML file where we configure the test suite, test groups, test classes, test methods and another way like when we use like build tools like Maven if we use Surefire plugin like we can execute through Maven goals also.

8)Test plans

9)The suspension and resumption?

10)Test estimation?

11)who all are involved in risk RCA meeting?

12)How can we use drag and drop or perform drag and drop in Selenium?

we can use this actions class for that, like as we created actions class object here, so first we create actions class object and in this actions class, we have method called drag and drop and here for drag and drop, we have to locate that source web element and destination web element, like from where to where we have to drag. So like first we locate that source element from where we have to drag and we locate the destination element where we have to drop. So if you pass that source and destination web elements to this drag and drop, so drag and drop will be performed.

13)when can we find null pointer exception in Selenium?

14)Is there any difference between webelement & findelement VS webDriver & Findelement?

15)What are the different keywords in Gherkins?

gherkin keywords like feature, background, scenario, scenario outline, examples, given, when, then , and , but keywords.

16)what are the different listeners we have?

we have different listeners like ITestListener, IReaderAnalyzer and IReportListener.

So, these listeners are used like wherein instead of writing the redundant code we can reuse the code by placing certain code in this listener classes and this listener classes contains some event methods and those event methods will be called whenever particular event occurs. So, that like whenever some event occurs if you want to perform same logic again and again we can place that in a listener.

1. How to launch Browser or Explain WebDriver driver = new ChromeDriver();

Ans: Here WebDriver is inteface and ChromeDriver is its implementation class,

as We can't directly create object for WebDriver Interface,

creating object for its implementation class ChromeDriver and assigning that to WebDriver reference.

This called upcasting and also we achive dynamic binding here.

2. Why can't we create object for Interface?

Ans: Interface contains constant properties and abstract methods and it doesn't contain constructor

as abstract method doesn't contain any method implementation there is no meaning in allowing object

to be created for interface.

Instead we implement interface into a subclass and provide implementation for all the abstract methods

and then we can create object for implementation class and execute the implemented methods.

Here we can assign this implementation class object to Interface reference.

3. Why interface doesn't have constructor.

Ans: Generally constructor is called while creating object to initialize instance variables as

interface contains only constant properties and it will not any instance variables,

Hence Constructor is not required

4. Can we create WebDriver as static reference?

Ans: Yes, we can create WebDriver as static reference but if we wanted to parallel execution

and then if we create WebDriver as static and then multiple threads will be reusing same WebDriver reference

that may cause unpredictable results in the Script. Hence while doing parallel execution we should not make

WebDriver reference as static instead we can use thread local,

it make sure that each thread uses its own WebDriver Reference.

5. How to capture Screeshot?

Ans: We use TakeScreenshot interface to capture Screeshot in Selenium.

We first Typecast WebDriver reference into TakeScreenshot reference

and then execute getScreenshot() as method by passing output type as file to capture Screeshot as file.

Syntax::

TakeScreenshot ts = (TakeScreenshot)driver;

ts.getScreenshotAs(OutputType.FILE);

6. How to perform scrolling in selenium?

Ans: We can achive this in two ways.

Either by using actions class or by using JavaScript Executor.

Using Actions Class:::

First we need to create actions class object using WebDriver reference.

Then we can use moveToElement() method to move to that Element.

Actions action = new Actions(driver);

action.moveToElement(webElement);

using JavaScript Executor:::

We can typecaste WebDriver reference into JavaScript Executor and

use executeScript() method to execute JavaScript.

JavaScriptExecutor jse = (JavaScriptExecutor)driver;

jse.executeScript("arguments[0].scrollIntoView();", webElement);

7. Types of XPaths

Ans: There are two types of xpaths

1. Obsolute xpath => we use single slash(/) to write obsolute xpath

and we build obsolute xpath by following HTML hirarchy starting from root element

till the element to be located.

2. Relative xpath => We use double slash(//) to build the relative xpath.

we directly locate the webElement using its tag name

and associated attributes of that webElement

8. Which xpath is more reliable

Ans: Relative xpath is more reliable, as obsolute xpath uses the HTML Hierarchy starting from root element

till the webElement. Incase there is any new element added or updated or deleted in the Hierarchy,

there is chance that xpath will break. Hence Relative xpath is more reliable.

9. Explain Dynamic xpath.

Ans: Incase if there are No attributes associated to the webElement which can be used to

locate the webElement uniquely then we can locate the webElement using its neibour elements like

sibling or parent or child

10. TestNG Annotations?

@BeforeSuit Runs before starting the execution of a test suit

@BeforeTest- Runs before starting execution of each test group..

@BeforeClass - Runs before starting execution of a test class.

@BeforeMethod Runs before starting execution of each test method

@Test- Considers this method as a test method

@DataProvider - Dataprovider is used on top of a method which returns two dimensional object array.

and it supplies different sets of test data for the test methods..

@AfterMethod -Runs after completing execution of each test method

@AfterClass -Runs after completing execution of a test class.

@AfterTest- Runs after completing execution of each test group.

@AfterSuit -Runs after completing the execution of a test suit

11. TestNG Listeners?

Listeners contain event methods and we can use these event methods to reuse the code when such event occures.

For example - ITestListener has events like onStart, onFailure, OnSkip and onSuccess.

So, onFailure gets called when ever a test fails.

And if we need to do something when ever a test fails then we can place that code under this onFailure method.

12. How to perform parllel testing?

in Testng framework, we can enable parllel execution by using parllel attribute of suit in testNG.xml

and parllel execution can be enabled at class level, methods level and test level.

And when we perform parllel execution, we have to make sure that webdriver reference should not be static.

As static reference can be reused by different threads.

13. How to execute same test multiple times?

In TestNG we can use invocation-count attribute of @test annotation.

14. what is dataprovider?

@DataProvider isa anntation used on top of the method and by default this method retuns

two dimentional object array(Object[][]).

And we can configure dataProvider with @test method and depending on number of records provided

by dataprovider same @Test method will execute per each data provided by dataprovider.

15.What is priority ?

Priority is the attribute of @Test annotation. Lowest value of priority will take higher preceedence.

Introduction(About Me)

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Hi, I am Siri Chandana, Having 4.10 years of experience. I am currently working for DXC Technologies.

I am having experience in both functional testing and automation testing.

For automation, I have experience in Java, Selenium, TestNG and cucumber BDD framework.

Also I did API testing for testing restful webservices using postman and Rest Assured.

My roles and responsibilities and day to day activities are,

As part of an agile team, my roles and responsibilities are understanding the user story requirement

and preparing functional test cases

and performing functional testing for the features once the build is ready by developers.

writing automation scripts and maintaining automation regression suits

Executing automation suit and preparing the report and distributing to stackholders

Logging JIRA defects for identified bugs and working with developers to track the bugs to closure.

Attending Bug triage meeting to either prioritize or defer the bugs.

Collaborating with devops team and dev team for deployments.

Explain about your current framework?

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I have worked with both TestNG and Cucumber BDD frameworks.

In current Project we are using Cucumber BDD.

Here we are using Maven as build tool to manage the build life cycle by using different maven goals.

And also managing the jar dependencies using POM.xml file.

And we have prepared feature files with .feature extension

using gherkin language by using different gherkin keywords like feature,

background, scenario, scenario outline, examples, given, when, then , and , but keywords.

We have used src->test->resources->features folder to store the feature files.

And created Step definition classes for each scenario step that is

created in side feature files. And placed the step definition

files under src->test->java->step definitions package.

And we have used annotations like @Given, @When and @Then to implement step definition methods.

We have implemented Page Object Model design pattern to manage the web elements

and created different page classes foreach page and used PageFactory to

initialize the web elements. And we have used these web elements inside our step definition classes.

We have also created runner classes to run the features and we have used

@CucumberOptions annotation with attributes like plugin, glue, features,

tags, dryrun and monochrome to manage the runners.

We have segregated the scenarios using different tags and configured

those tags with different runner classes.

And we have used html reports to generate test reports and configured

that using plugins attribute of CucumberOptions annotation .

to configure the step definitions files

plugin for html and json reports

API RestAssured Framework

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We have used Maven build tool to manage the build life cycle.

And we have used Testng for execution.

We managed the test data using Excel sheets and used Apache POI libraries to read the excel sheet data.

we have placed this under src->test->utils package

And We build RequestSpecification object using RestAssured.given() and set all the http request parameters

like base uri, path or query parameters, headers , request body based on the http method.

We have used JSON Objects or POJO(plain old java classes) to manage the request body.

call the end point using the http method and it returns Response object.

This response object contains different http response contents like response status code, response body

response time , response line and response headers.

We verify the key properties of the response like status code and response body, response headers etc.

We have used json path to extract the key propertiesfrom response json body.

Also we have used ObjectMapper to parse the response json into java POJO classes and used getter and setter methods

to extract the data.

For reporting we have used Xtent reporting configured with our framework

and used XTentReportManager to initialize the reporting.

Java

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OOPS

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1. What are the oops concepts?

Ans: Class

Object

Inheritance

Polymorphism

Abstraction and

Encapsulation

these are the oops conces

2. Can you exlain what is class?

Ans: Class is a blue print or logical entity. It is not physically existing.

3. What is Object?

Ans: Object is a real time entity and it is physically existing.

4. What is Inheritance?

Ans: Inheritaance is the process of deriving the properties and behaviours of a super class into sub class.

When we inherit a super class into subclass, all the non private properties/members and methods of that class gets derived into subclass.

In sub class we can directly access them without creating object of the class.

5. What are the types of inheritance?

Ans: Single Inheritance - one super class derived into one sub class.

Multilevel inheritance - One super class derived into a sub class and that classs is derived into another class.

Multiple Inheritaance - More than one class derived into a single sub class.

Hierarchical Inheritance - One super class getting derived into more than one sub class.

6. Does java support Multiple inheritance? Why?

Ans: Java doesn't support multiple inheritance with classes due to diamond problem.

When more than one class is derived into a single sub class,

then if more than one super class has same property or method defined,

then there will be ambiguity in subclass like which super class implemetation to be considered in the sub class.

But it supports multiple inheritance with help of Interfaces. As interface can contain only abstract classes and the sub class which implements the

interface has to implement the methods(provide it's own implementation). Hence with interfaces there will not be any ambiguity

and java supports multiple inheritance with interfaces help.

7. What is Polymorphism and what are types of polymorphism.

Ans: Polymorphism is one of the main oops concepts. The process of representing same thing in multiple forms is called Polymorphism.

There are two types of polymorphism.

1. Compile time polymorphism - It is achieved using overloading

2. Runtime polymorphism - It is achieved using Overriding.

8. What is overloading? How we achieve it?

Ans. Overloading is the process of having more than one method in a class with same name, by having difference in either number of parameters or

type of parameters.

We achieve Compile time polymorphism with overloading.

9. What is Overriding? How we achieve it?

Ans: When we inherit a super class into sub class, all the non private methods of super class gets derived into subclass.

In sub class we can provide our own implementation for the methods which are derived from super class.

The process of having same method in super class and sub class with different method implementation is called overriding.

We achieve runtime polymorphism with help of overriding.

10. What are rules for Overriding?

Ans: The method signature should be same in both super class and sub class.

Static methods in super class can not be overriden in subclass

Private methods in super class will not be visible in sub class. Hence we can not override private methods.

final methods in super class can not be overridden in subclass.

When we override a super class method in sub class, then the access modifier of the method can be made less restricted in the sub class.

But we can not apply more restriction.

Example: If the access modifier in super class in Protected, then in sub class we can make it public but we can not change it to default or private.

If the super class method is not throwing any exception then overridden method in subclass can throw any unchecker/runtime exception

but it can't throw checked exception.

If the super class is throwing any chacked exception , then sub class overriden method can throw same or smaller checked exception

but it can not throw wider checked exception than the one super class methods is throwing.

11. What is the difference between == and equals methods in java?

Ans: "==" checks the memory addresses of the references. And equals methods verifies the content of the strings.

12. What is the output of below program?

String str1 = "Java";

String str2 = "Java";

String str3 = new String("Java");

String str4 = new String("Java");

System.out.println(str1 == str2); Ans:-----> true (str1 and str2 are String literals created String constant pool and both are pointing to same object, and == verifies the memorry address)

System.out.println(str1 == str3); Ans:-----> false(Str1 is created in string constant pool, str3 created as an object in heap memory and both are pining to different memory addresses)

System.out.println(str3 == str4); Ans:-----> false (both str3 and str4 are created in heap memory as separate objects and they are pointing to different memory addresses)

System.out.println(str1.equals(str2));Ans: ---> true (Equals method checks the content of String and content is same for these two strings)

System.out.println(str1.equals(str3));Ans: ---> true(Equals method checks the content of String and content is same for these two strings)

System.out.println(str3.equals(str4));Ans: ---> true(Equals method checks the content of String and content is same for these two strings)

13. Why string is immutable?

String is immutable in java because, once if we create a string we can not change it's value. If we try to change the value of a String

then internally it creates a new String with the updated value and exisitng string will not be changed.

14. What is difference between String, StringBuffer and StringBuilder?

Ans: String is immutable in java and both StringBuffer and StringBuilder and mutable ( we can change the values for StringBuffer and StringBuilder).

and StringBuffer is thread safe as all it's methods are synchronized and multiple threads can access it safely.

15. What is exception and how we handle exception?

Ans: Exception is an abnormal condition which terminates program execution intermittently.

There are two types of exceptions - 1. Checked Exception(Compile time exception) and

2. Unchecked Exception (Runtime Exception)

we handle exceptions using try, catcha and finally blocks.

We keep the statements which may cause exception inside try block and catch the exception using catch block

and write the logic which needs to be executed when exception is occured under catch block,

catch block executes only when exception is raised.

And finally block will execute always. And we keep the statements which needs to be executed always

(whether exception raised or not) under finally block.

16. What is difference between throw and throws?

Ans: throw and throws are keywords used in exception handling.

Throws is used in method declaration to declare that the method may throw specified exception

when the method itself not handling the exception.

And throw keyword is used to explicitely throw an exception inside a method body.

17. Explain about static keyword?

Ans: static is a keyword which is used to define class level variables and methods

when we declare a variable or method as static it bounds to class and memory allocation happens only once when class is loaded.

we dont need to create object for the class to access static members.

we can directly access them by using class name like classname.VARIABLENAME OR classname.methodName

18. Collection Framework

Ans: Collection Framework is one of the key concept in JAVA.

There are different interfaces and classes to handle Collection of elements in JAVA.

Example::: List, Set, Map are the collection interfaces which I have frequently used.

LIST: List is a collection of elements.

It uses index to store the elements,

it stores duplicate elements and preserves insertion order,

it can grow dinamically.

We can use index to access the Elements.

ArrayList, LinkedList are the implementation classes of List Interface which we frequently used.

SET: Set is another collection interface, Which stores unique elements and doesn't preserve insertion order.

To access the elements we need to iterate over the SET.

HashSet, TreeSet are the implemetation classes of SET Interface which we frequently use.

by default SET doesn't preserve insertion order,

if we need to maintain the insertion order we can use LikedHashSet

Differences between List,ArrayList and LinkedList

And LinkedList also can store duplicate elements and it uses nodes to store the elements.

LinkedList is also dynamic in size and it can grow dynamically. It contains nodes, each node is connected to next and previous node.

LinkedList also preserves(mintains) the insertion order.

Difference between list and Set

1. List can store duplicate elements but set can store only unique elements

2. Both List and set are dynamic in size and they can grow dynamically.

3. List preserves/maintains insertion order but set doesn't preserve/maintain insertion order

4. List elements can be accessed using index. And we iterate set to access it's elements.

Difference between TreeSet and HashSet

Both TreeSet and HashSet are implementation classes SET interface.

Both store unique elements.

HashSet doesn't preserve insertion order but TreeSet stores elements in natural sorting order

19. Premitive datatypes and Wrapper classes.

Ans: Java is Object Oriented programing language hence JVM treats premitive datatypes as classes internally

to support premitive datatypes in java each premitive datatype has a wrapper class.

For Example

int -> Interger

long -> Long

boolean -> Boolean