What is testing framework?
A testing framework is a group of guidelines that support testers in building test cases and performing software testing effectively. It also provides robust tools and methods to simplify the testing process. By using a testing framework, you can increase the accuracy and performance of software testing to high levels.

Have you designed framework?
No, our higher autority designed it for us .I am responcipal for POM and testNG classes.

What is Automated Testing Framework?
In its basic form, an automated testing framework is a set of guidelines with which you can perform software testing efficiently. These guidelines include many elements, such as coding standards, reusable modules, and libraries. It also includes managing test data, storing test results, etc.

Maven is a project management and comprehension tool that provides developers a complete build lifecycle framework. Development team can automate the project's build infrastructure in almost no time as Maven uses a standard directory layout and a default build lifecycle.

How you run failed test cases?
1. After the first run of an automated test run. Right click on Project – Click on Refresh
2. A folder will be generated named “test-output” folder. Inside “test-output” folder, you could find “testng-failed.xml”
3. Run “testng-failed.xml” to execute the failed test cases again.

How yourun only one test case?
@Test (Enabled==false)
You can disable or exclude the test cases by using the enable attribute to the @Test annotation and assign False value to the enable attribute.

What is an Exception?
Exceptions are events due to which java program ends abruptly without giving expected output.
Java provides a framework where a user can handle exceptions.

The process of handling Exceptions is called Exception Handling.

Exceptions need to be handled because they break the normal flow of execution of a program. One of the important intentions of exception handling is to prevent this break and continue program execution. Sometimes, you might want to perform some series of actions on occurring of a certain exception.

When an exception occurs, an exception object is created which is technically referred to as ‘Throwing an Exception’ and we add Try/Catch blocks like,

```
try {
// Protected code
} catch (ExceptionName e) {
// Catch block
}
```
#1) The piece of code which might throw an exception is added inside the Try block.

#2) The Catch statement catches the exception and takes it as a parameter.

#3) When no exception is thrown, the try statement is executed and not the catch statement.

Example: When selenium script fails due to the wrong locator, then the developer should be able to understand the reason for failure and this can be achieved easily if the exception is handled properly in the program.

In my experience, it is best to try to avoid WebDriver exceptions whenever possible and catch truly exceptional cases. Use try/catch to handle things that go wrong and are outside my control.

Avoid the ones I can Catch others!

This is the best strategy that has worked for me.

For example, consider a test page that takes more than usual time to load on a test server. We will get frequent exceptions while doing actions on this page. So, instead of just catching this every time, we can

Add a wait command and try to avoid an exception
Use ‘Try/Catch’ to handle in case if a truly exceptional case has occurred
Thereby reducing the chances for exceptions.

3) org.openqa.selenium.NoSuchFrameException
When WebDriver is trying to switch to an invalid frame, NoSuchFrameException under NotFoundException class is thrown.

The below code can throw org.openqa.selenium.NoSuchFrameException if a frame “frame_11” doesn’t exist or is not available.

```
driver.switchTo().frame(“frame_11”);
```

Exception Handling:

```
try {
driver.switchTo().frame("frame_11");
} catch (NoSuchFrameException e)
```
In this case, the exception is thrown even if the frame is not loaded.

#8) org.openqa.selenium.TimeoutException
This exception occurs when a command completion takes more than the wait time. Waits are mainly used in WebDriver to avoid the exception ElementNotVisibleException.
Sometimes test page might not load completely before next command in the

program. If WebDriver tries to find an element in the webpage before the page completely loads, then exception ElementNotVisibleException is thrown. To avoid this exception, waits commands are added.
However, if the components don't load even after the wait, the exception org.openqa.selenium.TimeoutException will be thrown.

```
driver.manage().timeouts().implicitlyWait(10,TimeUnit.SECONDS) ;
driver.get("https://www.softwaretestinghelp.com" );
```

In the above program, an implicit wait of 10 seconds is added. If the page www.softwaretestinghelp.com doesn't load in 10 seconds, then TimeoutException will be thrown.
Avoiding and Handling: To avoid this, we can manually check the average time for a page to load and adjust the wait
Or, we can add explicit wait using JavaScript executor until the page is loaded. In the below example, JavaScript executor is used. After page navigation, we call JavaScript return document.readyState for 20 seconds until "complete" is returned.

```
WebDriverWait wait = new WebDriverWait(driver, TimeSpan.FromSeconds(30));
wait.until(webDriver -> ((JavascriptExecutor)webDriver).executeScript("return
document.readyState").equals("complete"));
driver.get("https://www.softwaretestinghelp.com");
```

#10) org.openqa.selenium.StaleElementReferenceException
This exception says that a web element is no longer present in the web page. This error is not the same as ElementNotVisibleException.

What is stale exception?
A Stale Element Reference Exception is a runtime error that occurs when the state of an object
has changed while your code was in the middle of using it. This could be caused by an update on your page or an event
triggered by user interaction that changes the structure of your document.i.e. WebElement path changes at middle of running code.

```
WebElement firstName = driver.findElement(By.id("firstname"));
driver.switchTo().window(Child_Window);
element.sendKeys("Aaron");
```

In the code above, object firstName was created and then the window was switched.
Then, WebDriver tries to type 'Aaron' in the form field. In this case StaleElementReferenceException is thrown.

What is difference between list and array?

List	Set
1. The List is an indexed sequence.	1. The Set is an non-indexed sequence.
2. List allows duplicate elements	2. Set doesn't allow duplicate elements.
3. Elements by their position can be accessed.	3. Position access to elements is not allowed.
4. Multiple null elements can be stored.	4. Null element can store only

once.
5. List implementations are ArrayList, Linked List, Vector, Stack 5. Set implementations are HashSet, LinkedHashSet.

What are http methods?

1 GET

The GET method is used to retrieve information from the given server using a given URI.
Requests using GET should only retrieve data and should have no other effect on the data.

2 HEAD

Same as GET, but transfers the status line and header section only.

3 POST

A POST request is used to send data to the server, for example, customer information, file upload, etc. using HTML forms.

4 PUT

Replaces all current representations of the target resource with the uploaded content.

5 DELETE

Removes all current representations of the target resource given by a URI.

6 CONNECT

Establishes a tunnel to the server identified by a given URI.

7 OPTIONS

Describes the communication options for the target resource.

8 TRACE

Performs a message loop-back test along the path to the target resource.

What is core factors of postman?

It is free: Postman is free software that we can use for API testing. It is free to download and use for teams of any size.
It is easy to use: Postman is an easy-to-use software tool. We can send HTTP requests of various types (such as GET, POST, PUT, PATCH, etc.).
We have to download it, and we can send our first request in minutes.
It also gives us the ability to save environments for future use.
Community & Support: It has a huge community forum for customer support and extensive documentation.
It is extensible: Postman facilitates us customizing it according to our needs with the Postman API.
APIs Support: It facilitates us to make any API call (REST, SOAP, or plain HTTP) and easily inspect even the largest responses.
It also helps manage the end-to-end lifecycle of the API - starting from design to mocking to testing and finally maintaining the APIs.
Runtime Services: Postman provides Runtime Services that help us manage API collections, environments, work-spaces, and different examples.
Integration: Postman facilitates us to easily integrate test suites into our preferred CI/CD tools and services, such as Jenkins with

Newman (command-line collection runner).

How to handle dynamic xpath?
1. Absolute Path method. This is the easiest way to solve the issue.
2. Use Relative XPath using contains or starts with text.
3. Identify by index.
4. Use Multiple attributes to locate an element.

What are defect you got in your carreer?
- Request xml and responce xml not matching.
- Discounts are not working
- missing product details
- Shipping cost not changing as per pincode (S0152GB,DN161EX, L18JQ)
- In review page products are not shown in dropdown.
- In feedback page rating 3 is not clickable.

What is XML parcing?
Process of mapping between request xml and responce xml is xml parcing.

What is web service testing?
Data conversiion between client and server known as WebService Testing.
We send request file to server wia FTP.
we get responce from server and we check it.

Problem on I/P domain coverage.
Suppose you have very important tool at office, accepts valid User Name and Password field to work on that tool, and accepts minimum 8 characters and maximum 12 characters. Valid range 8-12, Invalid range 7 or less than 7 and Invalid range 13 or more than 13.

Example for Boundary Value Analysis

Write Test Cases for Valid partition value, Invalid partition value and exact boundary value.
Test Cases 1: Consider password length less than 8.
Test Cases 2: Consider password of length exactly 8.
Test Cases 3: Consider password of length between 9 and 11.
Test Cases 4: Consider password of length exactly 12.
Test Cases 5: Consider password of length more than 12.

Explain UAT in short.
1. Tester share desktop with devoper team and user by Q massenger.
2. Execute testcase related to Userstory selected by user.
3. Then he gets sessionID (Contains all actions in that session) AVAS / Bharat mantri tool.
4. From sessionID tester gets log file in .txt format(HTML code).
5. Tester send log file to devloper team wia Q-Massenger.
6. Log file has all front and back end operations of that session, Devloper checks it.

UAT has two types :
Alpha testing : happens in controlled envoironment Tester+Dev+User perform it.

Beta Testing : Application send to no of testers and feedback collected from

them.