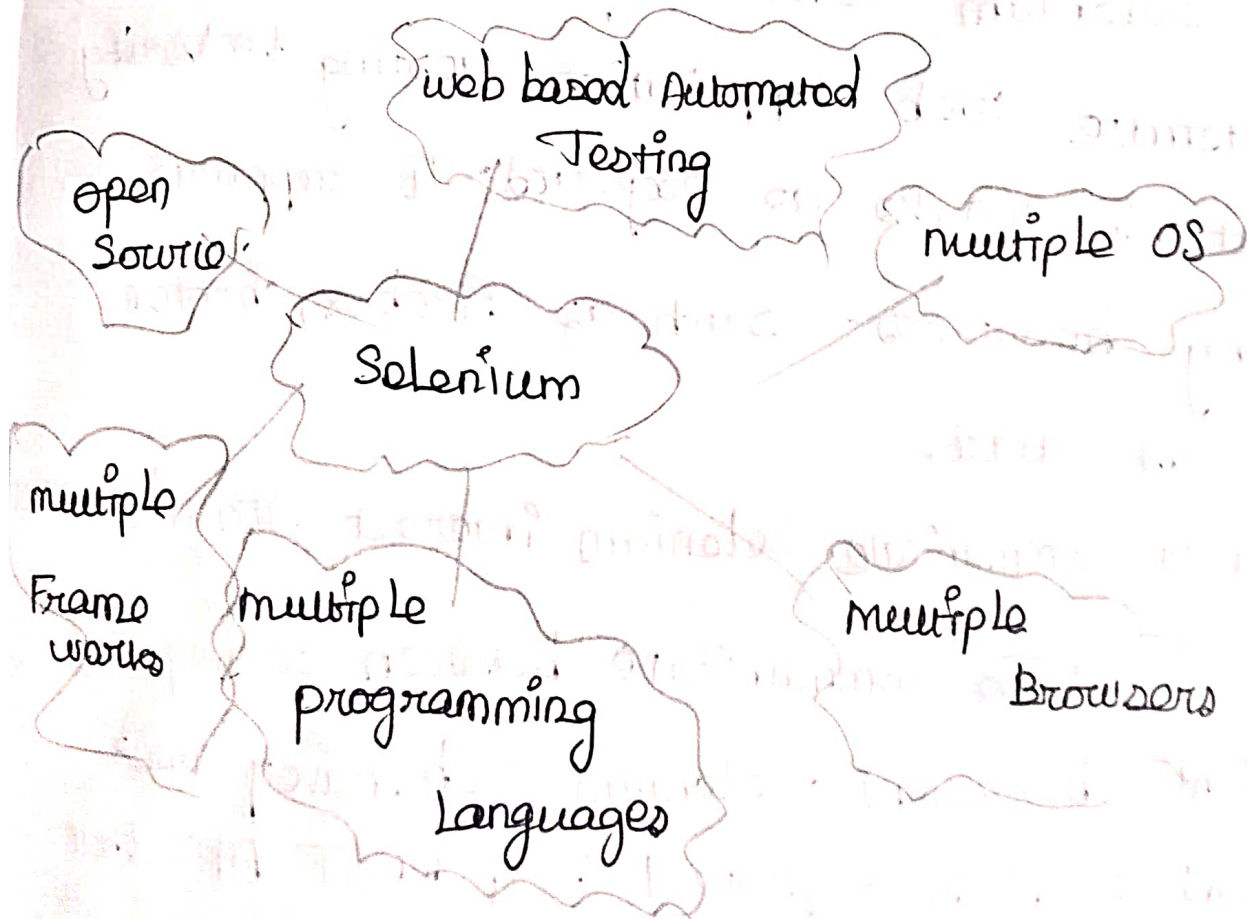# Daily Questions 4

1] what is selenium?

Selenium is one of the most widely used open source web UI (user Interface) automation testing suite.

- Developed by Jason Huggins in 2004..

Selenium supports automation across different browsers, platforms and programming L

It supports all OS

Components of Selenium

Selenium IDE

Selenium RC

Selenium Webdriver.

Selenium GRID :

Selenium Webdriver

It Is a collection of open source APIs which are used to automate the testing of a web application.

selenium Web Driver tool is used to automate web application testing to verify that it works as expected. It supports Many browsers - such as Firebox, chrome, IE, and Safari.

How to communicate Selenium interact with browser

To communicate between Server and Client (browser) selenium web driver uses JSON, JSON wire protocol is a REST API that transfers the information between HTTP servers. Each Browser Driver has it own HTTP Server

Selenium Script creates an HTTP Requests for each Selenium command and sends it to the browser driver.

An HTTP request is then sent to the server using Browser Driver.

The steps are executed on the HTTP server.

The execution status is sent to the HTTP Server which is then captured by the automation Script.

3] Locators in selenium

By CSS ID : find_element_by_id

By CSS class name : find_element_by-classname

By name attribute : find_element_by-name

By DOM structure or xpath : find_element_by-xpath

By LinkText : find_element_by_link_text

By partial linktext : find_element_by-partial_link_text

By HTML tagname : find_element_by-tagname

4]. why ID is preferable than xpath?

because ID is considered as unique key so there cannot be more than 1 elements for same ID while xpath is created using relative path/position of elements. we can get 2 more elements for same xpath.

5] How to select value in DropDown

SelectByValue (" ")

This method used to to select value in DropDown:

<select>
<option value=" ">Text</option>
</select>

6]

Absolute path	Relative path
It contains the complete path from the Root element to the desire element. It is start with the / Symbol.	This is more like starting simply by referencing the element you want and go from the particular location. It is relative xpath start // Symbol

one drawback with the absolute xepath is that if there is any change in attributes beginning from the root to the element. our absolute xpath will become invalid	It is mainly used for automation since even if an element is removed or added in the DOM. the relative xpath is not impacted..
It is Longthy, and difficult to maintain (html/body/tagname...)	It is short (//@attribute='Value')

7] how to Verify if the checkbox is checked or not in selenium.

we can used isSelected() method.

it is return a boolean Value of true if

driver. FindELement (By. xpath ("   ")). click();

boolean selected =driver. findelement ("xpath")).
                                    isSelected();

if (Selected ==true)
{
    sysso ("The checkbox is selected");

2.

System.setProperty	WebDriverManager
System.setProperty ("web driver.chromedriver", "G: \\ chromedriver.exe"); This is you need to download the chrome driver.exe file. each time to download The this file.	WebDriver Manager. Chromedriver().setup(); but this is actually download driver you can just add the webdriver manager dependency. In your Maven project (pom.xml)

9] Syntax for preceding Ancestor
following.

Elder cousin -- younger cousin

Elder cousin
//tagname [@Attribute = "AttributeValue"]/

following :: younger cousin [ ]
tag name

Elder cousin xpath / following :: younger cousin
younger -- to -- Elder   tagname

younger cousin xpath / preceding :: elder cousin
tagname

10] How to get attribute Value in using selenium

getAttribute () method is helps to get the Value of any attribute of a web element. which is returned as a string.