1. To run java pgm dependencies are not necessary
2. Maven Project:

What is maven?

What is dependencies?

* Jar files
* Inbuilt classes – make changes

Driver :

 These drivers act as a bridge between test scripts and browsers for test automation.

Resource : https://github.com/bonigarcia/webdrivermanager

WebDriverManager :

WebDriverManager (Copyright © 2015-2021) is a project created and maintained by [Boni Garcia](https://bonigarcia.github.io/) and licensed under the terms of the [Apache 2.0 License](https://www.apache.org/licenses/LICENSE-2.0).

WebDriverManager is a library which allows to automate the management of the drivers (e.g. chromedriver, geckodriver, etc.) required by [Selenium WebDriver](https://www.selenium.dev/projects/).

Notice that simply adding WebDriverManager.chromedriver().setup(); WebDriverManager does magic for you:

1. It checks the version of the browser installed in your machine (e.g. Chrome, Firefox).
2. It matches the version of the driver (e.g. *chromedriver*, *geckodriver*). If unknown, it uses the latest version of the driver.
3. It downloads the driver if it is not present on the WebDriverManager cache (~/.cache/selenium by default).
4. It exports the proper WebDriver Java environment variables required by Selenium (

WebDriverManager resolves the drivers for the browsers **Chrome**, **Firefox**, **Edge**, **Opera**, **PhantomJS**, **Internet Explorer**, and **Chromium**.

 it provides several drivers managers for these browsers. These drivers managers can be used as follows:

WebDriverManager.chromedriver().setup();

WebDriverManager.firefoxdriver().setup();

WebDriverManager.edgedriver().setup();

WebDriverManager.operadriver().setup();

WebDriverManager.phantomjs().setup();

WebDriverManager.iedriver().setup();

WebDriverManager.chromiumdriver().setup();

some browsers such as **Chrome**, **Firefox**, **Edge**, **Opera**, **PhantomJS**, or **Internet Explorer**,

first you need to download the so-called driver, i.e. a binary file which allows WebDriver to handle these browsers

 In Java, the path to this driver should be set as JVM properties, as follows:

System.setProperty("webdriver.chrome.driver", "/path/to/chromedriver");

System.setProperty("webdriver.gecko.driver", "/path/to/geckodriver");

System.setProperty("webdriver.edge.driver", "/path/to/msedgedriver.exe");

System.setProperty("webdriver.opera.driver", "/path/to/operadriver");

System.setProperty("phantomjs.binary.path", "/path/to/phantomjs");

System.setProperty("webdriver.ie.driver", "C:/path/to/IEDriverServer.exe");

 it forces you to link directly this driver into your source code.

In addition, you have to check manually when new versions of the drivers are released.

WebDriverManager comes to the rescue, performing in an automated way this job for you

the proper WebDriverManager setup call is executed to manage the required driver

Where do I get these locator from?

DOM – Document Object Model

How do I reach the DOM?

1. Right Click on the webElemnt 🡪 Inspect
2. F12

Tags:

<html>

Body

div: Divider/ larger section in an HTML document

Span : similar to div atg, but presents a smaller section of the document

Input - user can give an input

Label – display text

Button

Img - image

Table - table

Tbody - body of the table

Tr - table row

Td - table data ( column)

**<a> - anchor tag : HTML links/ hyperlink**

<p> : paragraph

H1 – header

**Structure of HTML elements:**

1. Tags are pink/purple in color
2. Attribute: Orange ( class, id, type, name…)
3. Attribute values: Blue- values assigned to the attributes
4. Text : Black ( not an attribute)

**Tips:**

**To access the webElemnts of secured sites which doesnot allow right click,**

* Use F12
* ThreeDots (right corner of webpage) 🡪 More Tools 🡪 Developer Tools

**Locators**: Helps locate a web element in my web page

1. Id
2. Name
3. LinkText
4. Tagname
5. className
6. XPath
7. CSS
8. Partial Link Text

***Tips on using selectors***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Attribute** |  | **To use** | **Not to use** |  |
|  |  |  |  |  |
| Id | Attribute | Unique | When it has numbers (eg) ext-gen592 |  |
| Name | Attribute | Unique |  |  |
| className | Attribute | Unique | When it has space in it |  |
| LinkText | Attribute | Has an <a> tag and a text with it |  |  |
| tagname |  | Tagnames fr each web element |  |  |
| XPath |  |  |  |  |
| CSS Selector | - | - | - | **-** |
| PartialLinkText |  | Has an <a> tag and a text with it |  |  |

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