Selenium:-Selenium is a portable software-testing framework for web applications. Selenium provides a playback tool for authoring tests without the need to learn a test scripting language.

Selenium tool can be used as following forms-:

1.**IDE-**:It is an extension to web browser and has proper GUI and corresponding functionalities to record all tests with respective Xpaths and run them.

2.**Webdriver-**:Selenium WebDriver tool is used to automate web application testing with programming,Unlike IDE it has no GUI, the script has to be programmed (it supports java,python ,PHP etc) ,so on executing the script it open web browsers and runs the test cases.

So I'll use python programming language to display it's use from **installation** to **implementation**:

    Installation:-
        Selenium can be installed by executing following command:

                pip install -U selenium

>I use chromedriver as webdriver ,so it can be downloaded from:-

        https://sites.google.com/a/chromium.org/chromedriver/downloads

Implementation:-

```python
from selenium import webdriver
from selenium.webdriver.common.keys import Keys

driver= webdriver.Chrome()     # create a new Chrome session
driver.get('http://www.google.com')  # Navigate to the application home page
search_field = driver.find_element_by_name("q") # get the search textbox
search_field.send_keys("iiitb website")    # enter search keyword and submit
search_field.submit()  #submit
driver.quit() # close the browser window
```

Note-:If chrome driver is not in executable path add these lines instead:-

driver = webdriver.Chrome('/path/to/chromedriver') # argument to specify path

-----> 3)**Using headless property** :-Here we add headless property to the web browser options,so unlike previous one, this property is used so that browser window is not opened ,instead all tests and similar functionalities run in background without opening a browser window.

Since I am using chrome driver ,I add headless argument to chromeoptions() instead of just chrome().
So implementation changes as follows-:

Implementation:-

from selenium import webdriver
from selenium.webdriver.common.keys import Keys

driver= webdriver.ChromeOptions()   # create a new Chrome session
driver.add_argument('headless')   # adding headless argument to browser
driver= webdriver.Chrome(options=options) # creating a headless Chrome browser
driver.get('http://www.google.com') # Navigate to the application home page
search_field = driver.find_element_by_name("q") # get the search textbox
search_field.send_keys("iiitb website")   # enter search keyword and submit
search_field.submit() #submit
driver.quit() # close the browser window

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