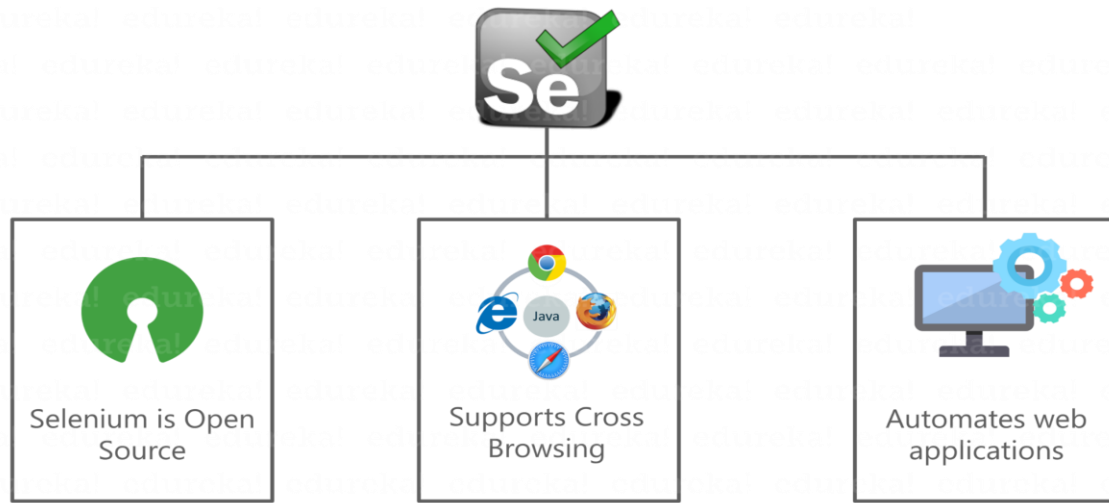# SELENIUM

What is Selenium?

- Selenium is a powerful tool for controlling web browsers through programs and performing browser automation.
- It is functional for all browsers, works on all major OS and its scripts are written in various languages i.e. Python, Java, C#,etc,

Support Cross Browsing: Can work on Chrome, Mozilla fire fox,edge etc.

And is automates web application.

SELENIUM COMPATIBILITY

Languages	Platforms	Browsers
Java		Google Chrome
C#		Internet Explorer
PHP	Windows	Firefox
Ruby	Linux	Safari
Perl	Mac	Opera
Python	Android (with Selendroid,	Microsoft Edge
JavaScript	Appium, or Robotium)	HtmlUnitDriver
Objective-C	iOS (with ios-driver or	
Haskell	Appium)	
R		

altexsoft
software r&d engineering

ADVANTAGES OF SELENIUM

It can be used both for functional, compatibility and regression testing

Testing tool for browser?based testing of web applications

Script once, Run on multiple browsers

Easy to learn

Open source, Free software

Can convert scripts in to other languages

Easy Installation

Easy Record and Play back

Supports Multiple operating systems

Supports Multiple Browser Testing

Selenium can easily send standard commands of python to various browsersirrespective of all variations in the design of the browser.

Py Selenium
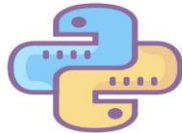
Why Choose Selenium?

- Open Source and Portable
- Combination of tools and DSL(Domain Specific Language)
- Easier to understand and implement
- Less burden and stress for testers

Installation Of Selenium:

Step 1 : go to command prompt

Type -> pip install 4.0.0.b4

```
C:\Users\hp>pip install selenium==4.0.0.b4
Defaulting to user installation because normal site-packages is not writeable
Collecting selenium==4.0.0.b4
  Downloading selenium-4.0.0.b4-py3-none-any.whl.metadata (6.5 kB)
Collecting urllib3~=1.26 (from urllib3[secure]~=1.26->selenium==4.0.0.b4)
  Downloading urllib3-1.26.19-py2.py3-none-any.whl.metadata (49 kB)
  ----------------------------------------- 49.3/49.3 kB 56.8 kB/s eta 0:00:00
Collecting trio~=0.17 (from selenium==4.0.0.b4)
  Downloading trio-0.26.0-py3-none-any.whl.metadata (8.8 kB)
Collecting trio-websocket~=0.9 (from selenium==4.0.0.b4)
  Downloading trio_websocket-0.11.1-py3-none-any.whl.metadata (4.7 kB)
Collecting attrs>=23.2.0 (from trio~=0.17->selenium==4.0.0.b4)
  Using cached attrs-23.2.0-py3-none-any.whl.metadata (9.5 kB)
Collecting sortedcontainers (from trio~=0.17->selenium==4.0.0.b4)
  Downloading sortedcontainers-2.4.0-py2.py3-none-any.whl.metadata (10 kB)
Requirement already satisfied: idna in c:\users\hp\appdata\roaming\python\python312\site-packages (from trio~=0.17->sele
nium==4.0.0.b4) (3.7)
Collecting outcome (from trio~=0.17->selenium==4.0.0.b4)
  Downloading outcome-1.3.0.post0-py2.py3-none-any.whl.metadata (2.6 kB)
Collecting sniffio>=1.3.0 (from trio~=0.17->selenium==4.0.0.b4)
  Using cached sniffio-1.3.1-py3-none-any.whl.metadata (3.9 kB)
Collecting cffi>=1.14 (from trio~=0.17->selenium==4.0.0.b4)
  Using cached cffi-1.16.0-cp312-cp312-win_amd64.whl.metadata (1.5 kB)
Collecting wsproto>=0.14 (from trio-websocket~=0.9->selenium==4.0.0.b4)
  Downloading wsproto-1.2.0-py3-none-any.whl.metadata (5.6 kB)
Collecting pyOpenSSL>=0.14 (from urllib3[secure]~=1.26->selenium==4.0.0.b4)
  Downloading pyOpenSSL-24.1.0-py3-none-any.whl.metadata (12 kB)
Collecting cryptography>=1.3.4 (from urllib3[secure]~=1.26->selenium==4.0.0.b4)
  Downloading cryptography-42.0.8-cp39-abi3-win_amd64.whl.metadata (5.4 kB)
```

Step 1: in browser type download chrome driver

Step 2: based on our chrome version we need to install , so click on 3 dots in right hand side of your chrome -> go to settings -> About chrome -> then can see the version in my case , I could see 126.0 as a chrome version and I have to install driver same.

Step 3: Go back to step 1 and after click on first link, you'll be in this page and in my case it is giving me warning , after reading warning we need to take the action in my case I have 126 as a chrome version and I have to click on warning

Downloads 🔖 ▾

Current Releases

⚠ **Warning:**

- If you are using Chrome version 115 or newer, consult the Chrome for Testing availability dashboard. This page provides convenient JSON endpoints for specific ChromeDriver version downloading.

- For lower versions of Chrome, see below for the version of ChromeDriver that supports it.

For more information on selecting the right version of ChromeDriver, see the Version Selection page.

ChromeDriver 114.0.5735.90

Supports Chrome version 114

Step 4: Now I can see stable has 126.0 version so I am going to copy that link

Chrome for Testing availability

This page lists the latest available cross-platform Chrome for Testing versions and assets per Chrome releas

Consult our JSON API endpoints if you're looking to build automated scripts based on Chrome for Testing re

Last updated @ 2024-07-09T10:09:23.591Z

Channel	Version	Revision	Status
Stable	126.0.6478.126	r1300313	✅
Beta	127.0.6533.26	r1313161	✅
Dev	128.0.6559.0	r1319638	✅
Canary	128.0.6585.0	r1324454	✅

Copy link for the same , come down :

chrome	mac-arm64	https://storage.googleapis.com/chrome-for-testing-public/126.0.6478.126/mac-arm64/chrome-mac-arm64.zip	200
chrome	mac-x64	https://storage.googleapis.com/chrome-for-testing-public/126.0.6478.126/mac-x64/chrome-mac-x64.zip	200
chrome	win32	https://storage.googleapis.com/chrome-for-testing-public/126.0.6478.126/win32/chrome-win32.zip	200
chrome	win64	https://storage.googleapis.com/chrome-for-testing-public/126.0.6478.126/win64/chrome-win64.zip	200
chromedriver	linux64	https://storage.googleapis.com/chrome-for-testing-public/126.0.6478.126/linux64/chromedriver-linux64.zip	200
chromedriver	mac-arm64	https://storage.googleapis.com/chrome-for-testing-public/126.0.6478.126/mac-arm64/chromedriver-mac-arm64.zip	200
chromedriver	mac-x64	https://storage.googleapis.com/chrome-for-testing-public/126.0.6478.126/mac-x64/chromedriver-mac-x64.zip	200
chromedriver	win32	https://storage.googleapis.com/chrome-for-testing-public/126.0.6478.126/win32/chromedriver-win32.zip	200
chromedriver	win64	https://storage.googleapis.com/chrome-for-testing-public/126.0.6478.126/win64/chromedriver-win64.zip	200
chrome-headless-shell	linux64	https://storage.googleapis.com/chrome-for-testing-public/126.0.6478.126/linux64/chrome-headless-shell-linux64.zip	200
chrome-headless-shell	mac-arm64	https://storage.googleapis.com/chrome-for-testing-public/126.0.6478.126/mac-arm64/chrome-headless-shell-mac-arm64.zip	200
chrome-headless-shell	mac-x64	https://storage.googleapis.com/chrome-for-testing-public/126.0.6478.126/mac-x64/chrome-headless-shell-mac-x64.zip	200
chrome-headless-shell	win32	https://storage.googleapis.com/chrome-for-testing-public/126.0.6478.126/win32/chrome-headless-shell-win32.zip	200
chrome-headless-shell	win64	https://storage.googleapis.com/chrome-for-testing-public/126.0.6478.126/win64/chrome-headless-shell-win64.zip	200

And paste it in browser by opening new tab and it automatically starts downloading.

Step 5: go to download folder and is zip file extract that and you can see folder for that extract click on that

| chromedriver | 6/21/2024 4:35 PM | Application | 17,160 KB |
| LICENSE.chromedriver | 6/21/2024 4:35 PM | CHROMEDRIVER F... | 405 KB |

And that will open prompt that says chrome driver was started successfully.