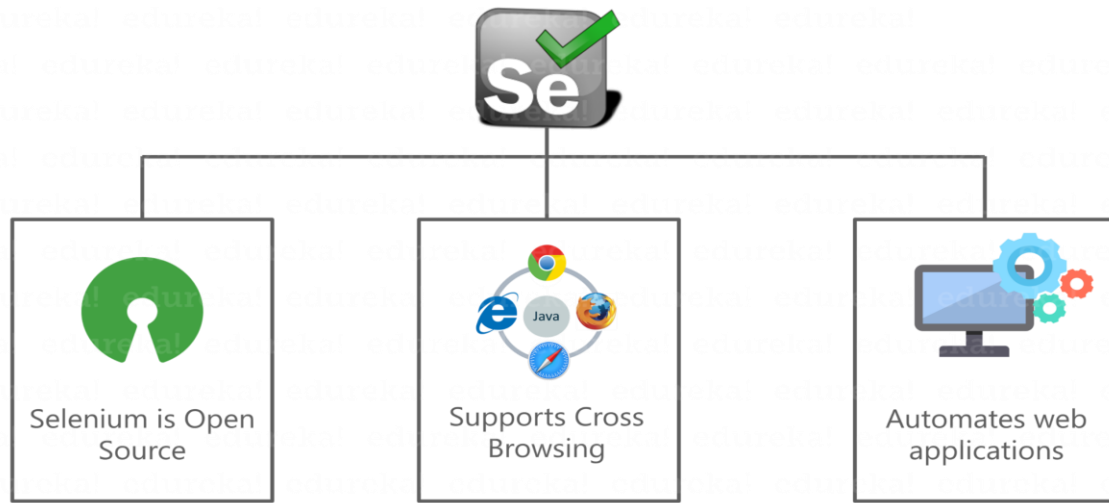


SELENIUM

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



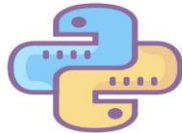
altexsoft
software r&d engineering

ADVANTAGES OF SELENIUM



Selenium can easily send standard commands of python to various browsers irrespective 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->selenium==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)
```

Download Chrome driver:



Step 1: in browser type download chrome driver

The screenshot shows a Google search for 'ChromeDriver'. The top result is from 'Chrome for Developers' with the URL <https://developer.chrome.com/docs/chromedriver>. A red arrow points to the three dots in the URL bar. Below the title 'Downloads | ChromeDriver - Chrome for Developers', the date '15 Nov 2023' is shown, followed by a list of ChromeDriver versions: 'ChromeDriver 114.0.5735.90', 'ChromeDriver 114.0.5735.16', 'ChromeDriver 113.0.5672.63', 'ChromeDriver 113.0.5672.24', and 'ChromeDriver ...'. Links for 'Version selection', 'Chrome Extensions', 'Canary', and 'Chromium' are also present. The second result is from 'Google' with the URL <https://developer.chrome.com/docs/chromedriver>. The title is 'ChromeDriver overview - Chrome for Developers', dated '7 Feb 2024'. The text states: 'The older releases can be found at the Downloads page. ChromeDriver documentation. Getting started with ChromeDriver on Desktop (Windows, Mac, ...'. Links for 'Downloads', 'Version selection', 'Getting started', and 'Chrome Extensions' are provided.

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.


The screenshot shows the 'About Chrome' page in the Chrome settings. The 'About Chrome' section is highlighted with a red circle and a red arrow. It displays 'Google Chrome' and 'Chrome is up to date Version 126.0.6478.127 (Official Build) (64-bit)'. Below this, there are links for 'Get help with Chrome', 'Report an issue', and 'Privacy Policy'. The left sidebar shows the 'Settings' menu with 'About Chrome' selected and circled in red. A handwritten note 'after Settings' with an arrow points to the 'About Chrome' option. The bottom of the page shows the 'Google Chrome' logo, copyright information 'Copyright 2024 Google LLC. All rights reserved.', and a link to 'Terms of Service'.

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

[Home](#) > [Docs](#) > [ChromeDriver](#)Was this helpful?  

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 release.

Consult [our JSON API endpoints](#) if you're looking to build automated scripts based on Chrome for Testing releases.

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.

```
C:\Users\hp\Documents\softwares\chromedriver-win64\chromedriver.exe
Starting ChromeDriver 126.0.6478.126 (d36ace6122e0a59570e258d82441395206d60e1c-refs/branch-heads/6478@{#1591}) on port 9515
Only local connections are allowed.
Please see https://chromedriver.chromium.org/security-considerations for suggestions on keeping ChromeDriver safe.
ChromeDriver was started successfully.
```