

EXPERIMENT-10

AIM: Install and Explore Selenium for Automated Testing

Objective: To install Selenium and explore its environment for automating web application testing.

Software Requirements

- Python installed (<https://www.python.org/downloads/>)
 - Selenium library installed
 - Web browser (Chrome, Firefox, etc.)
 - WebDriver for the browser (e.g., ChromeDriver)
 - Code editor (VS Code or any)
-

Lab Procedure

1. Install Python

- Download and install Python.
- Verify installation:

`python -version`

2. Install Selenium Library

- Use pip to install Selenium:

`pip install selenium`

3. Download WebDriver

- Download ChromeDriver from
- (<https://sites.google.com/chromium.org/driver/>) or appropriate WebDriver for your browser.
- Place the WebDriver executable in your system PATH or project directory.

The screenshot shows a Google search results page. The search query is "chrome driver for selenium". The top result is a link to "Downloads | ChromeDriver - Chrome for Developers" from "Chrome for Developers" at <https://developer.chrome.com/Docs/ChromeDriver>. The page content includes sections for "Version selection" and "Get started with ChromeDriver".

Open the 1st link.

ChromeDriver

Contribute

Design docs

Download ChromeDriver

Chrome version 115+

▼ Earlier Chrome

Stable Releases

Canary Releases

Version selection

Get started

Desktop

Home > Docs > ChromeDriver

Was this helpful?

Downloads

⚠ Warning: If you're using Chrome version 115 or newer, consult the [Chrome for Testing availability dashboard](#). On this dashboard, you'll find [JSON endpoints](#) to download specific ChromeDriver versions.

Earlier Chrome versions

For earlier versions of Chrome, here are the versions of ChromeDriver that support 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

Click on version selection and check your version in chrome by
chrome://settings/help

The screenshot shows the Chrome Settings page at chrome://settings/help. The left sidebar has a 'Settings' icon and a list of options: Privacy and security, Performance, AI innovations, Appearance, Search engine, Default browser, On startup, Languages, Downloads, Accessibility, System, Reset settings, Extensions, and About Chrome. The 'About Chrome' option is highlighted with a blue bar at the bottom. The main content area has a search bar 'Search settings'. Below it is the 'About Chrome' section, which includes the Google Chrome logo, a message 'Nearly up to date! Relaunch Chrome to finish updating. Version 141.0.7390.107 (Official Build) (64-bit)', a 'Relaunch' button, links for 'Get help with Chrome', 'Report an issue', and 'Privacy policy', and a copyright notice: 'Copyright 2025 Google LLC. All rights reserved. Chrome is made possible by the [Chromium](#) open source project and other [open source software](#). [Terms of Service](#)'.

Click on the Chrome for Testing (CfT) availability dashboard.

The screenshot shows the 'Version selection' page at developer.chrome.com/docs/chromedriver/downloads/version-selection. The left sidebar has sections for Contribute, Design docs, Download ChromeDriver (with sub-options for Chrome version 115+, Earlier Chrome, Stable Releases, Canary Releases, and Version selection), and Get started (with sub-options for Desktop, Android, and ChromeOS). The main content area has a title 'Version selection' with a dropdown menu. Below it is a paragraph about version selection: 'Version selection is the process of matching a Chrome binary of a given version to a compatible ChromeDriver binary.' It then discusses versions 115 and newer, mentioning that starting with M115, the release process is integrated, and the latest Chrome + ChromeDriver releases per channel (Stable, Beta, Dev, Canary) are available at the [CfT availability dashboard](#). It also notes that automated version downloading can be done via [CFT JSON endpoints](#). Finally, it provides instructions for non-CfT users, mentioning the [latest-patch-versions-per-build JSON endpoints](#) and the [latest-versions-per-milestone JSON endpoint](#), and an alternative [LATEST_RELEASE endpoints](#).

Click on **Stable**

← → ⌂ googlechromelabs.github.io/chrome-for-testing/

Chrome for Testing availability

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

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

Last updated @ 2025-10-23T09:10:11.440Z

Channel	Version	Revision	Status
Stable	141.0.7390.122	r1509326	
Beta	142.0.7444.52	r1522585	
Dev	143.0.7475.7	r1530564	
Canary	143.0.7488.0	r1533544	

Binary	Platform	URL	HTTP status
chrome	linux64	https://storage.googleapis.com/chrome-for-testing-public/141.0.7390.122/linux64/chrome-linux64.zip	200
chrome	mac-arm64	https://storage.googleapis.com/chrome-for-testing-public/141.0.7390.122/mac-arm64/chrome-mac-arm64.zip	200
chrome	mac-x64	https://storage.googleapis.com/chrome-for-testing-public/141.0.7390.122/mac-x64/chrome-mac-x64.zip	200
chrome	win32	https://storage.googleapis.com/chrome-for-testing-public/141.0.7390.122/win32/chrome-win32.zip	200
chrome	win64	https://storage.googleapis.com/chrome-for-testing-public/141.0.7390.122/win64/chrome-win64.zip	200
chromedriver	linux64	https://storage.googleapis.com/chrome-for-testing-public/141.0.7390.122/linux64/chromedriver-linux64.zip	200
chromedriver	mac-arm64	https://storage.googleapis.com/chrome-for-testing-public/141.0.7390.122/mac-arm64/chromedriver-mac-arm64.zip	200
chromedriver	mac-x64	https://storage.googleapis.com/chrome-for-testing-public/141.0.7390.122/mac-x64/chromedriver-mac-x64.zip	200
chromedriver	win32	https://storage.googleapis.com/chrome-for-testing-public/141.0.7390.122/win32/chromedriver-win32.zip	200
chromedriver	win64	https://storage.googleapis.com/chrome-for-testing-public/141.0.7390.122/win64/chromedriver-win64.zip	200
chrome-headless-shell	linux64	https://storage.googleapis.com/chrome-for-testing-public/141.0.7390.122/linux64/chrome-headless-shell-linux64.zip	200
chrome-headless-shell	mac-arm64	https://storage.googleapis.com/chrome-for-testing-public/141.0.7390.122/mac-arm64/chrome-headless-shell-mac-arm64.zip	200
chrome-headless-shell	mac-x64	https://storage.googleapis.com/chrome-for-testing-public/141.0.7390.122/mac-x64/chrome-headless-shell-mac-x64.zip	200
chrome-headless-shell	win32	https://storage.googleapis.com/chrome-for-testing-public/141.0.7390.122/win32/chrome-headless-shell-win32.zip	200
chrome-headless-shell	win64	https://storage.googleapis.com/chrome-for-testing-public/141.0.7390.122/win64/chrome-headless-shell-win64.zip	200

- Select according to your Operating System and Copy and paste chromedriver link in chrome it will download automatically.
- The file will be downloaded, extract the files and set the path of chromedriver.exe in system environment variables

- Verify chromeDriver installation

chromeDriver –version

- Open a VS code and create a python file and Add the following code

```
from selenium import webdriver
from selenium.webdriver.chrome.service import Service
from selenium.webdriver.common.by import By
from selenium.webdriver.common.keys import Keys
import time
```

```
# Specify the correct path to your ChromeDriver
chrome_service = Service("C:\Program Files\chromedriver-
win64\chromedriver.exe")
```

```
# Set up the WebDriver for Chrome
driver = webdriver.Chrome(service=chrome_service)
```

try:

```
    # Step 1: Open Google in the browser
    driver.get("https://www.google.com")
```

```
    # Step 2: Locate the search box using the name attribute
    search_box = driver.find_element(By.NAME, "q")
```

```
    # Step 3: Enter the search term and press Enter
    search_box.send_keys("https://cmrcet.ac.in/")
    search_box.send_keys(Keys.RETURN)
```

```
    # Optional: Wait for a few seconds to see the search results
    time.sleep(20)
```

finally:

```
    # Step 4: Close the browser
    driver.quit()
```

Make sure to change the path of the driver in the code to avoid errors

- Run the code

OUTPUT

The screenshot shows a Google search results page for the query "cmrcet.ac.in". The top result is the official website of CMR College of Engineering & Technology, featuring its logo and the text "About – CMR College of Engineering & Technology". Below it, there are links for "CMRCET Results" and "Admissions 2025-26 – CMR College of Engineering...". The search interface includes standard Google controls like AI Mode, All, Images, News, Videos, Short videos, Shopping, More, Tools, and Sign in.

https://cmrcet.ac.in/ - Google S

google.com/search?q=https%3A%2F%2Fcmrcet.ac.in%2F&sca_esv=ef441955f1d3bd14&source=hp&ei=gCn7aMyGOJv...

Chrome is being controlled by automated test software.

Google https://cmrcet.ac.in/

All Mode All Images News Videos Short videos Shopping More Tools Sign in

cmrcet.ac.in https://cmrcet.ac.in › about

About – CMR College of Engineering & Technology

CMR College of Engineering & Technology Kandlakoya(v), Medchal Road Hyderabad, Telangana, India - 501401 · principal@cmrcet.ac.in · +91 9248727210. Copyright ...

CMRCET Results https://results.cmrcet.ac.in

CMRCET Results

CMR College of Engineering and Technology. Examination Results. CMRCET Results. Exam Year, All, 2025, 2024, 2023. Filters: All; B.Tech; MBA; M.Tech; M.Tech. All

cmrcet.ac.in https://cmrcet.ac.in › admissions-2025-26

Admissions 2025-26 – CMR College of Engineering...

CMR College of Engineering & Technology Kandlakoya(v), Medchal Road Hyderabad, Telangana, https://cmrcet.ac.in/admissions-2025-26/ at ac.in · +91 9248727210. Copyright