🚀 Selenium Setup on Ubuntu

📌 1️⃣ Install Java (required for Selenium Server / WebDriver)

Selenium needs Java (JDK).

sudo apt update

sudo apt install -y openjdk-17-jdk

✅ Verify Java installation:

java -version

Output:

openjdk version "17.x.x"

📌 2️⃣ **Install Google Chrome (browser to automate)**

👉 **Download the latest Google Chrome:**

wget https://dl.google.com/linux/direct/google-chrome-stable\_current\_amd64.deb

**👉 Install it:**

sudo apt install -y ./google-chrome-stable\_current\_amd64.deb

**👉 Confirm Chrome is installed:**

google-chrome --version

**Example output:**

Google Chrome 125.x.x

📌 3️⃣ Install ChromeDriver (to control Chrome)

👉 **Check your Chrome version:**

google-chrome --version

👉 **Download matching ChromeDriver:**  
Go to → https://chromedriver.chromium.org/downloads

wget https://chromedriver.storage.googleapis.com/137.0.7151.55/chromedriver\_linux64.zip

unzip chromedriver\_linux64.zip

sudo mv chromedriver /usr/local/bin/

sudo chmod +x /usr/local/bin/chromedriver

👉 **Test it:**

chromedriver --version

**Example:**

ChromeDriver 125.0.6422.60

📌 4️⃣ Install Python + Selenium

👉 If you’re using Python for testing:

sudo apt install -y python3-pip

pip3 install selenium

👉 Verify:

python3 -c "import selenium; print(selenium.\_\_version\_\_)"

✅ (Optional) Create a virtual environment for your project:

python3 -m venv selenium\_env

source selenium\_env/bin/activate

pip install selenium

## 📌 **5️⃣ Example Selenium Test Script**

Create a file: test\_google.py

from selenium import webdriver

from selenium.webdriver.common.by import By

# Setup Chrome options (optional headless mode)

options = webdriver.ChromeOptions()

options.add\_argument('--no-sandbox')

options.add\_argument('--disable-dev-shm-usage')

# options.add\_argument('--headless') # Uncomment for headless mode

# Launch browser

driver = webdriver.Chrome(options=options)

# Open Google

driver.get("https://www.google.com")

# Find search box

search\_box = driver.find\_element(By.NAME, "q")

search\_box.send\_keys("Selenium Python")

search\_box.submit()

# Print title

print(driver.title)

# Close browser

driver.quit()

python3 test\_google.py

📌 6️⃣ (Optional) Run Headless (no GUI)

If you’re on a server or don’t want the browser to open:

In your script:

options.add\_argument('—headless')

## 📌 **7️⃣ Keep Everything Up to Date**

👉 Update Chrome:

sudo apt update && sudo apt --only-upgrade install google-chrome-stable

📌 📁 Suggested Project Structure

selenium\_project/

├── selenium\_env/ (virtualenv)

├── tests/

│ └── test\_google.py

└── requirements.txt # selenium==<version>

✅ Save dependencies:

pip freeze > requirements.txt

## 📌 **8️⃣ Official Docs for Reference**

* Selenium → https://www.selenium.dev/documentation/webdriver/
* ChromeDriver → https://chromedriver.chromium.org/
* Python Selenium API → <https://selenium-python.readthedocs.io/>

## 💡 **Final Tips**

✅ Always match ChromeDriver version to Chrome version  
✅ Use virtualenv to isolate dependencies  
✅ Consider using headless mode on servers  
✅ Use try..finally or with statements to ensure browser quits