

How to Setup Selenium with ChromeDriver on Ubuntu

Ubuntu version:

```
weijian@weijian-VirtualBox:~$ lsb_release -a
No LSB modules are available.
Distributor ID: Ubuntu
Description:    Ubuntu 20.04.1 LTS
Release:        20.04
Codename:       focal
weijian@weijian-VirtualBox:~$
```

1. First execute those commands:

```
sudo apt-get update
```

```
sudo apt-get install -y unzip xvfb libxi6 libgconf-2-4
```

2. Install Java:

```
sudo apt-get install default-jdk
```

3. Install Chrome Browser:

```
sudo apt install gdebi-core wget
```

```
wget https://dl.google.com/linux/direct/google-chrome-stable_current_amd64.deb
```

```
sudo gdebi google-chrome-stable_current_amd64.deb
```

4. Type this in terminal to start Chrome browser:

```
google-chrome
```

5. Install ChromeDriver:

```
wget https://chromedriver.storage.googleapis.com/2.41/chromedriver_linux64.zip
```

```
unzip chromedriver_linux64.zip
```

6. After you unzip ChromeDriver:

```
sudo mv chromedriver /usr/bin/chromedriver
```

```
sudo chown root:root /usr/bin/chromedriver
```

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

7. Download required Jar files:

```
wget https://selenium-release.storage.googleapis.com/3.13/selenium-server-standalone-3.13.0.jar
```

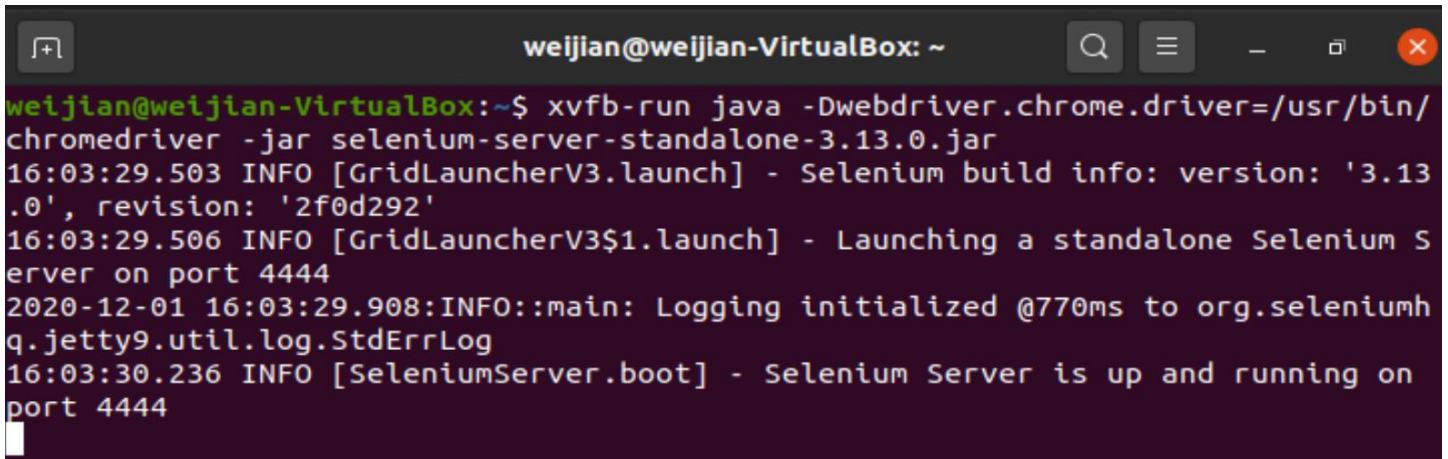
```
wget http://www.java2s.com/Code/JarDownload/testng/testng-6.8.7.jar.zip
```

```
unzip testng-6.8.7.jar.zip
```

8. Start Chrome via Selenium Server:

```
xvfb-run java -Dwebdriver.chrome.driver=/usr/bin/chromedriver -jar selenium-server-standalone-3.13.0.jar
```

You will see something like this:

A terminal window titled 'weijian@weijian-VirtualBox: ~' with standard window controls. It shows the command 'xvfb-run java -Dwebdriver.chrome.driver=/usr/bin/chromedriver -jar selenium-server-standalone-3.13.0.jar' and its output. The output includes Selenium build info (version 3.13.0, revision 2f0d292), a message about launching a standalone Selenium server on port 4444, logging initialization, and a final message that the Selenium server is up and running on port 4444.

```
weijian@weijian-VirtualBox:~$ xvfb-run java -Dwebdriver.chrome.driver=/usr/bin/chromedriver -jar selenium-server-standalone-3.13.0.jar
16:03:29.503 INFO [GridLauncherV3.launch] - Selenium build info: version: '3.13.0', revision: '2f0d292'
16:03:29.506 INFO [GridLauncherV3$1.launch] - Launching a standalone Selenium S
erver on port 4444
2020-12-01 16:03:29.908:INFO::main: Logging initialized @770ms to org.seleniumhq.jetty9.util.log.StdErrLog
16:03:30.236 INFO [SeleniumServer.boot] - Selenium Server is up and running on port 4444
```

9. Create a test Java file:

`vim TecAdminSeleniumTest.java`

And type this to the file:

```
import java.io.IOException;
```

```
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeOptions;
import org.openqa.selenium.chrome.ChromeDriver;
import org.testng.annotations.Test;
```

```
public class TecAdminSeleniumTest {
    public static void main(String[] args) throws IOException, InterruptedException {
        System.setProperty("webdriver.chrome.driver", "/usr/bin/chromedriver");
        ChromeOptions chromeOptions = new ChromeOptions();
        chromeOptions.addArguments("--headless");
        chromeOptions.addArguments("--no-sandbox");

        WebDriver driver = new ChromeDriver(chromeOptions);

        driver.get("https://www.npu.edu");

        Thread.sleep(1000);

        if (driver.getPageSource().contains("Events")) {
            System.out.println("Pass");
        } else {
            System.out.println("Fail");
        }
        driver.quit();
    }
}
```

In my case, if “www.npu.edu” web page contains “Events”, it will display “Pass”, otherwise display “Fail”.

10. Export jar files and run:

```
export CLASSPATH=".:selenium-server-standalone-3.13.0.jar:testng-6.8.7.jar"
```

```
javac TecAdminSeleniumTest.java
```

```
java TecAdminSeleniumTest
```

```
weijian@weijian-VirtualBox:~$ vim TecAdminSeleniumTest.java
weijian@weijian-VirtualBox:~$ javac TecAdminSeleniumTest.java
weijian@weijian-VirtualBox:~$ java TecAdminSeleniumTest
Starting ChromeDriver 2.41.578700 (2f1ed5f9343c13f73144538f15c00b370eda6706) on
port 12603
Only local connections are allowed.
Dec 01, 2020 4:39:46 PM org.openqa.selenium.remote.ProtocolHandshake createSess
ion
INFO: Detected dialect: OSS
Pass
weijian@weijian-VirtualBox:~$
```