



American International University-Bangladesh (AIUB)

**Department of Computer Science
Faculty of Science & Technology (FST)
Summer 21-22**

Assignment

Selenium Installation Guide & Testing

Software Quality & Testing

Section: A

Submitted To

Abhijit Bhowmik

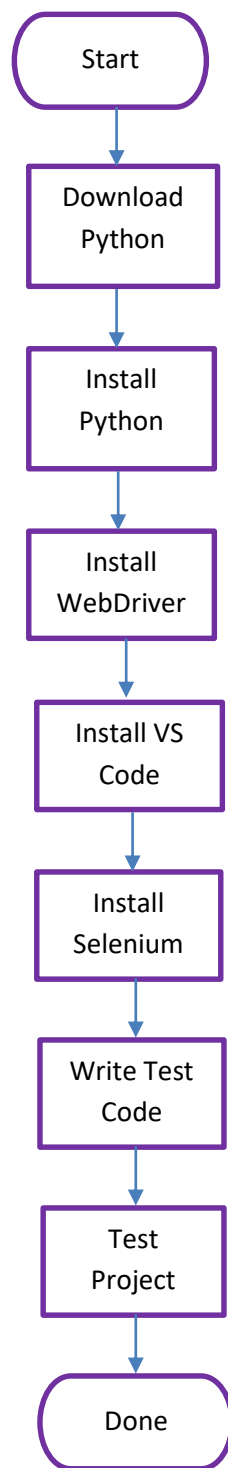
Submitted By

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Nissa, Zinnatun (18-38838-3)

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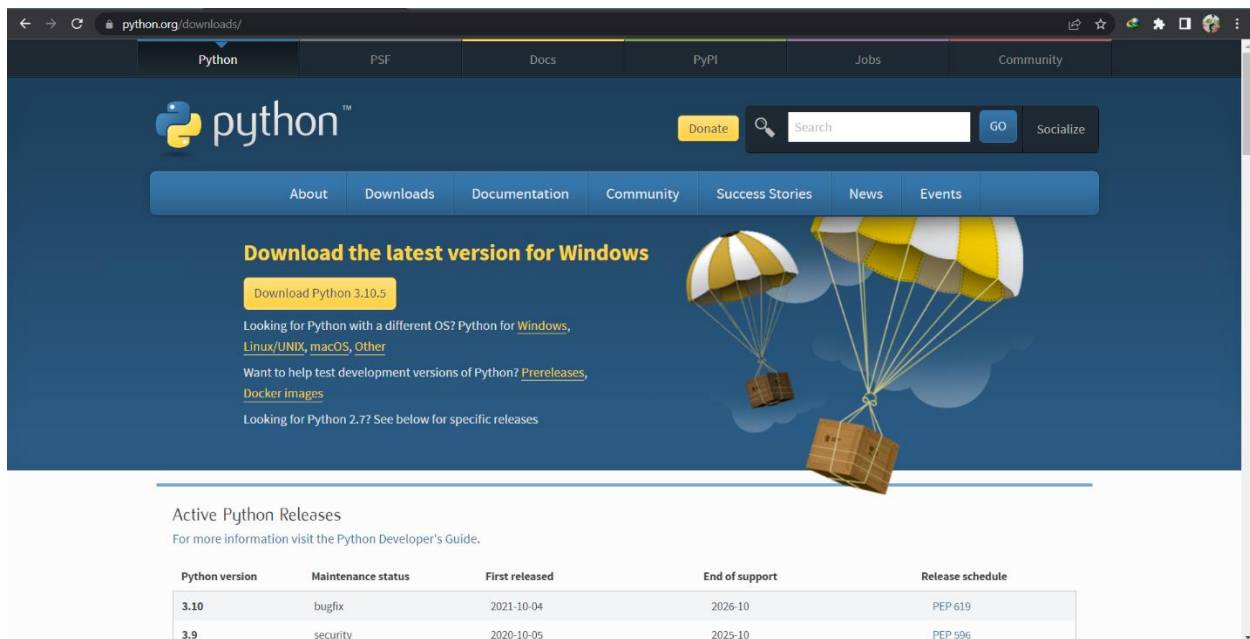
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1. Flowchart of Selenium Installation & Testing



2. Python Download

First search for 'Download python', then click on the first link appear.



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[Download Python 3.10.5](#)

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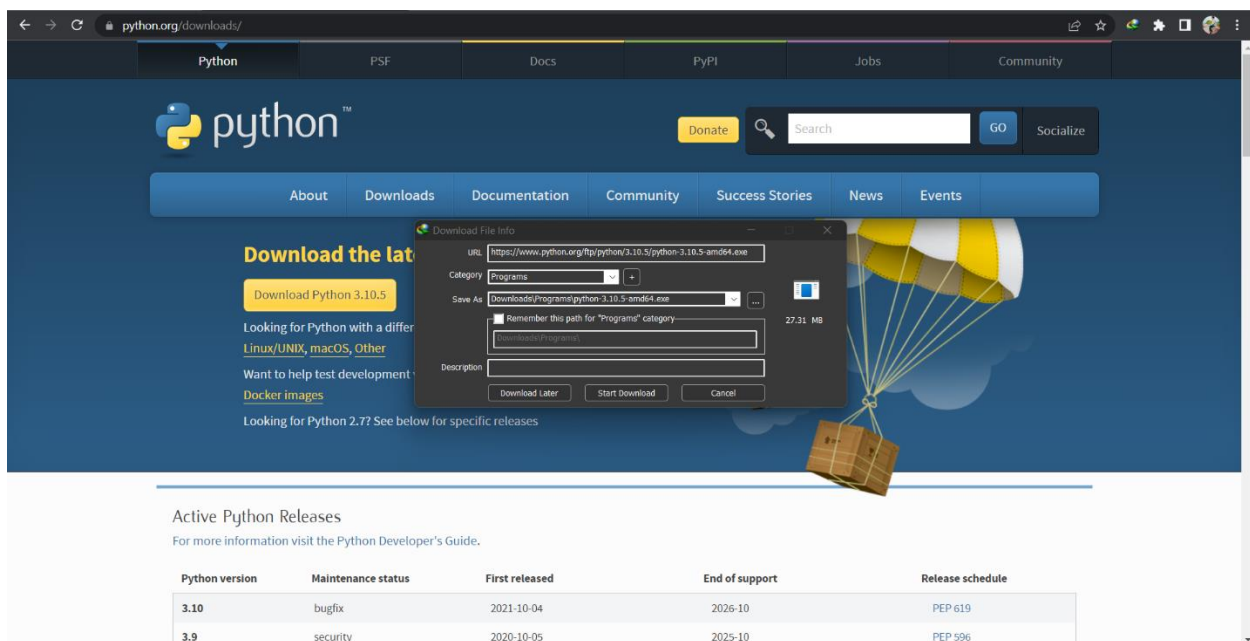
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Looking for Python 2.7? See below for specific releases

Active Python Releases
For more information visit the [Python Developer's Guide](#).

Python version	Maintenance status	First released	End of support	Release schedule
3.10	bugfix	2021-10-04	2026-10	PEP 619
3.9	security	2020-10-05	2025-10	PEP 596

Next, Click on the download button simply.



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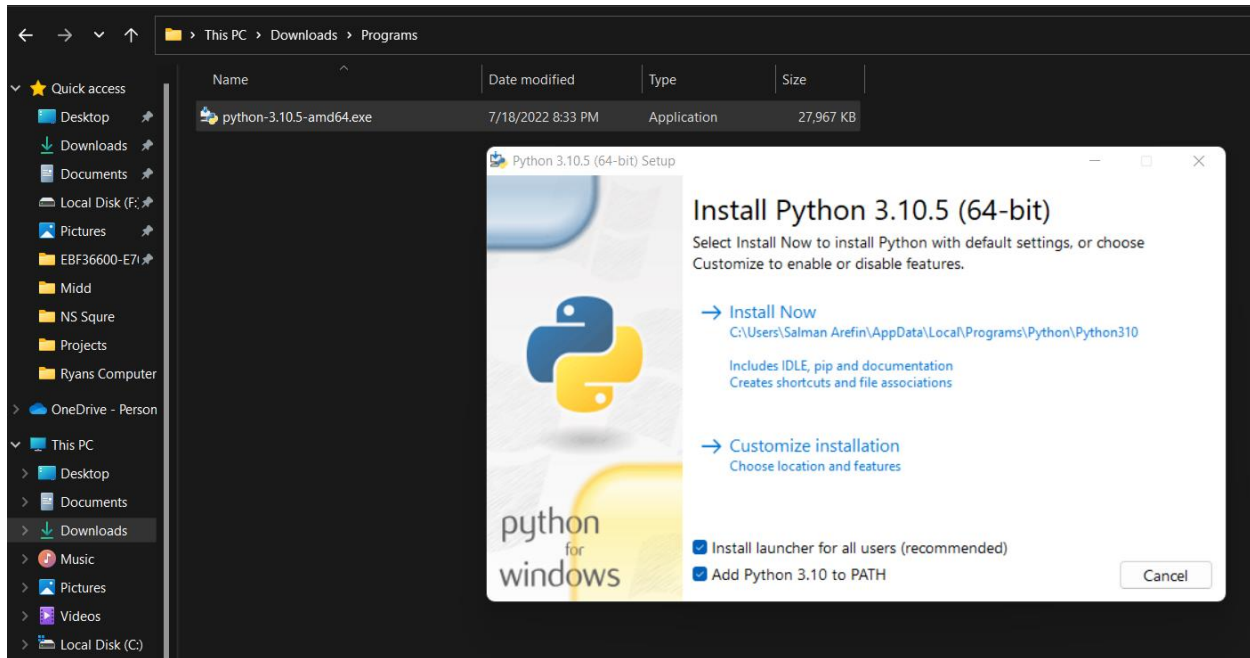
Looking for Python 2.7? See below for specific releases

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For more information visit the [Python Developer's Guide](#).

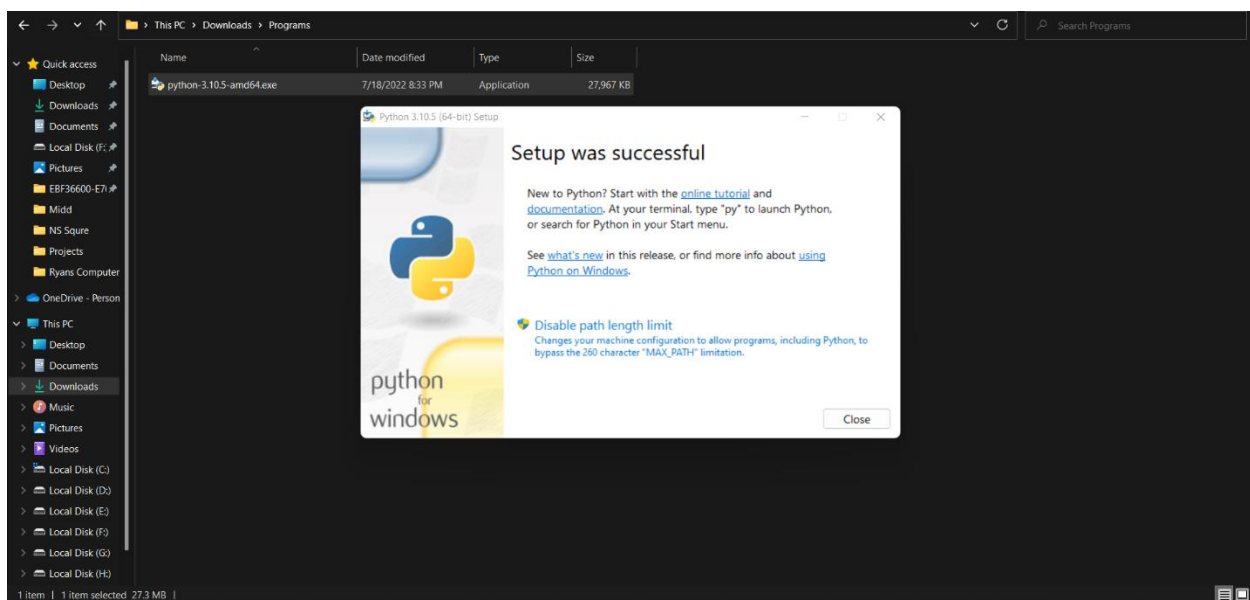
Python version	Maintenance status	First released	End of support	Release schedule
3.10	bugfix	2021-10-04	2026-10	PEP 619
3.9	security	2020-10-05	2025-10	PEP 596

3. Install Python

Next go to the download folder and click right button and select run as administrator. Then click on install launcher for all users (recommended) and as well as the Add Python 3.10 to PATH. Then click on Install Now.



Next close the window.



4. Upgrade pip

Opening cmd write pip install --upgrade pip.

```

Command Prompt - pip install --upgrade pip
Collecting python-dotenv
  Downloading python_dotenv-0.20.0-py3-none-any.whl (17 kB)
Requirement already satisfied: idna<4,>=2.5 in c:\users\s Salman Arefin\appdata\local\programs\python\python310\lib\site-packages (from requests->webdriver-manager) (3.3)
Requirement already satisfied: urllib3<1.27,>=1.21.1 in c:\users\s Salman Arefin\appdata\local\programs\python\python310\lib\site-packages (from requests->webdriver-manager) (1.26.10)
Collecting charset-normalizer<3,>=2
  Downloading charset_normalizer-2.1.0-py3-none-any.whl (39 kB)
Requirement already satisfied: certifi>=2017.4.17 in c:\users\s Salman Arefin\appdata\local\programs\python\python310\lib\site-packages (from requests->webdriver-manager) (2022.6.15)
Installing collected packages: python-dotenv, charset-normalizer, requests, webdriver-manager
Successfully installed charset-normalizer-2.1.0 python-dotenv-0.20.0 requests-2.28.1 webdriver-manager-3.8.2
WARNING: You are using pip version 22.0.4; however, version 22.1.2 is available.
You should consider upgrading via the 'C:\Users\S Salman Arefin\AppData\Local\Programs\Python\Python310\python.exe -m pip install --upgrade pip' command.

C:\Users\S Salman Arefin>
C:\Users\S Salman Arefin>
C:\Users\S Salman Arefin> pip install --upgrade pip
Requirement already satisfied: pip in c:\users\s Salman Arefin\appdata\local\programs\python\python310\lib\site-packages (22.0.4)
Collecting pip
  Downloading pip-22.1.2-py3-none-any.whl (2.1 MB)
----- 2.1/2.1 MB 1.4 MB/s eta 0:00:00
Installing collected packages: pip
  Attempting uninstall: pip
    Found existing installation: pip 22.0.4
    Uninstalling pip-22.0.4:
      Successfully uninstalled pip-22.0.4

```

5. Install WebDriver Manager

Opening cmd write pip install webdriver-manager.

```

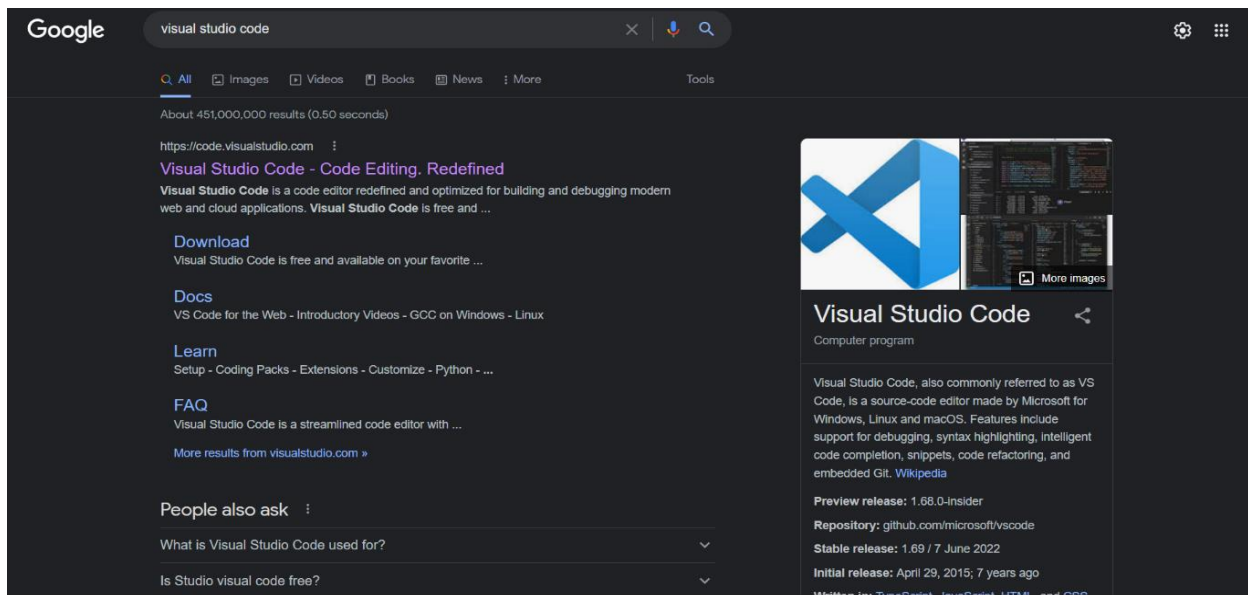
C:\Users\S Salman Arefin>pip install webdriver-manager
Collecting webdriver-manager
  Downloading webdriver_manager-3.8.2-py2.py3-none-any.whl (26 kB)
Collecting requests
  Downloading requests-2.28.1-py3-none-any.whl (62 kB)
----- 62.8/62.8 KB 674.4 kB/s eta 0:00:00
Collecting python-dotenv
  Downloading python_dotenv-0.20.0-py3-none-any.whl (17 kB)
Requirement already satisfied: idna<4,>=2.5 in c:\users\s Salman Arefin\appdata\local\programs\python\python310\lib\site-packages (from requests->webdriver-manager) (3.3)
Requirement already satisfied: urllib3<1.27,>=1.21.1 in c:\users\s Salman Arefin\appdata\local\programs\python\python310\lib\site-packages (from requests->webdriver-manager) (1.26.10)
Collecting charset-normalizer<3,>=2
  Downloading charset_normalizer-2.1.0-py3-none-any.whl (39 kB)
Requirement already satisfied: certifi>=2017.4.17 in c:\users\s Salman Arefin\appdata\local\programs\python\python310\lib\site-packages (from requests->webdriver-manager) (2022.6.15)
Installing collected packages: python-dotenv, charset-normalizer, requests, webdriver-manager
Successfully installed charset-normalizer-2.1.0 python-dotenv-0.20.0 requests-2.28.1 webdriver-manager-3.8.2
WARNING: You are using pip version 22.0.4; however, version 22.1.2 is available.
You should consider upgrading via the 'C:\Users\S Salman Arefin\AppData\Local\Programs\Python\Python310\python.exe -m pip install --upgrade pip' command.

C:\Users\S Salman Arefin>
C:\Users\S Salman Arefin>
C:\Users\S Salman Arefin>

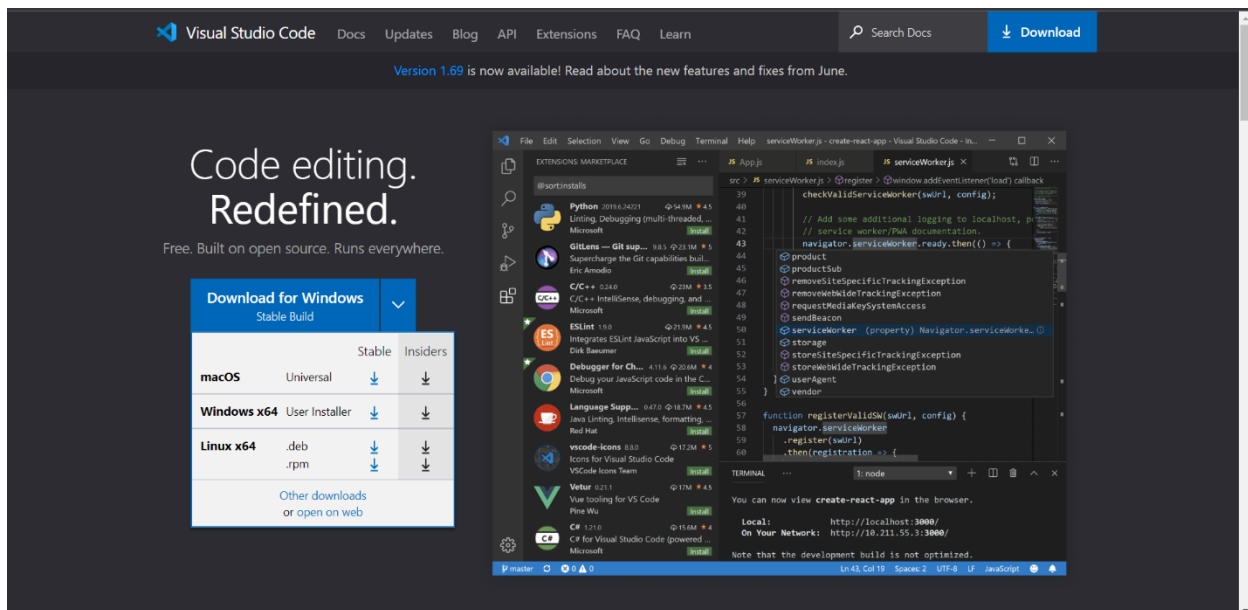
```

6. Install Visual Studio Code

First search for 'Visual Studio Code', then click on the first link appear

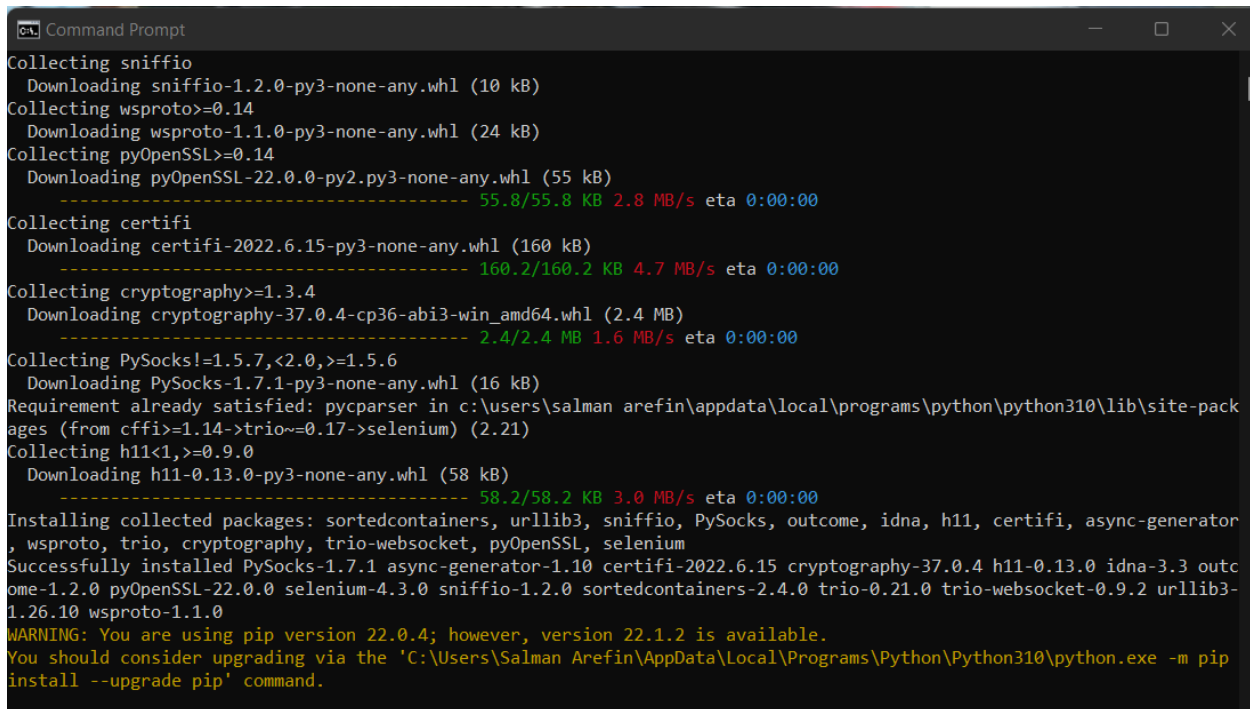


Next, Click on the download for windows stable build version.



7. Install Selenium

Opening cmd write pip install selenium.



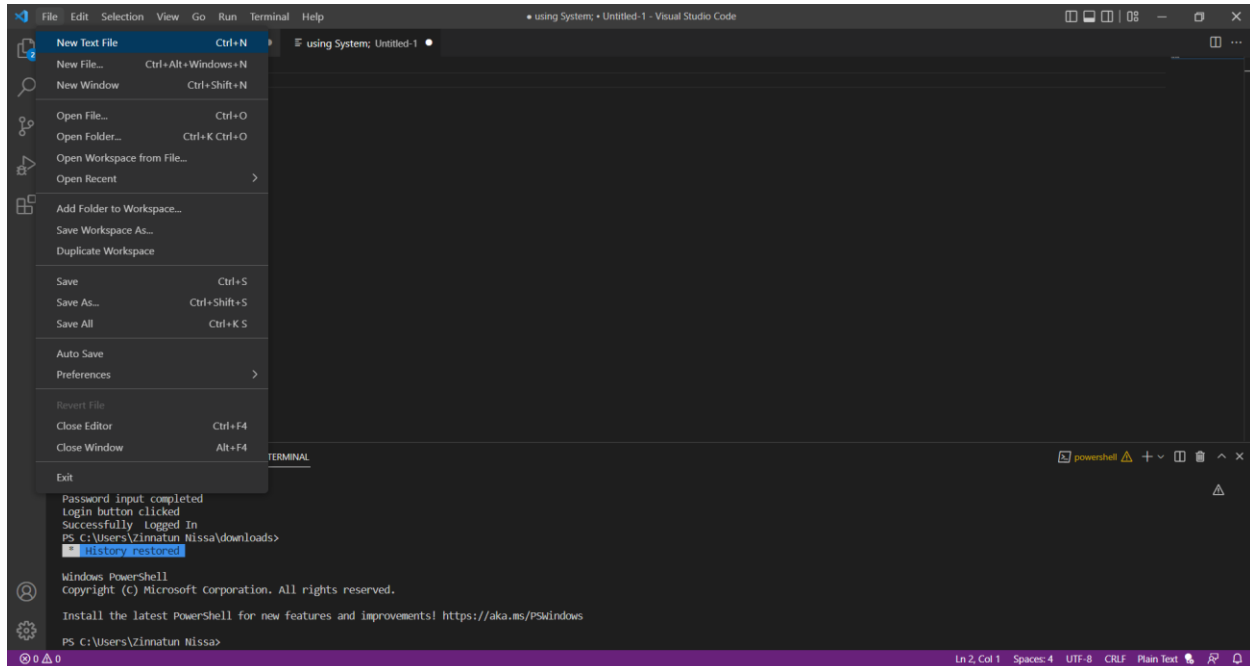
```

Command Prompt
Collecting sniffio
  Downloading sniffio-1.2.0-py3-none-any.whl (10 kB)
Collecting wsproto>=0.14
  Downloading wsproto-1.1.0-py3-none-any.whl (24 kB)
Collecting pyOpenSSL>=0.14
  Downloading pyOpenSSL-22.0.0-py2.py3-none-any.whl (55 kB)
----- 55.8/55.8 KB 2.8 MB/s eta 0:00:00
Collecting certifi
  Downloading certifi-2022.6.15-py3-none-any.whl (160 kB)
----- 160.2/160.2 KB 4.7 MB/s eta 0:00:00
Collecting cryptography>=1.3.4
  Downloading cryptography-37.0.4-cp36-abi3-win_amd64.whl (2.4 MB)
----- 2.4/2.4 MB 1.6 MB/s eta 0:00:00
Collecting PySocks!>=1.5.7,<2.0,>=1.5.6
  Downloading PySocks-1.7.1-py3-none-any.whl (16 kB)
Requirement already satisfied: pycparser in c:\users\s Salman Arefin\AppData\Local\Programs\Python\Python310\lib\site-packages (from cffi>=1.14->trio~0.17->selenium) (2.21)
Collecting h11<1,>=0.9.0
  Downloading h11-0.13.0-py3-none-any.whl (58 kB)
----- 58.2/58.2 KB 3.0 MB/s eta 0:00:00
Installing collected packages: sortedcontainers, urllib3, sniffio, PySocks, outcome, idna, h11, certifi, async-generator, wsproto, trio, cryptography, trio-websocket, pyOpenSSL, selenium
Successfully installed PySocks-1.7.1 async-generator-1.10 certifi-2022.6.15 cryptography-37.0.4 h11-0.13.0 idna-3.3 outcome-1.2.0 pyOpenSSL-22.0.0 selenium-4.3.0 sniffio-1.2.0 sortedcontainers-2.4.0 trio-0.21.0 trio-websocket-0.9.2 urllib3-1.26.10 wsproto-1.1.0
WARNING: You are using pip version 22.0.4; however, version 22.1.2 is available.
You should consider upgrading via the 'C:\Users\S Salman Arefin\AppData\Local\Programs\Python\Python310\python.exe -m pip install --upgrade pip' command.

```

8. Automation Testing by Selenium

First opening Vs code click 'File'>'New Text File'.

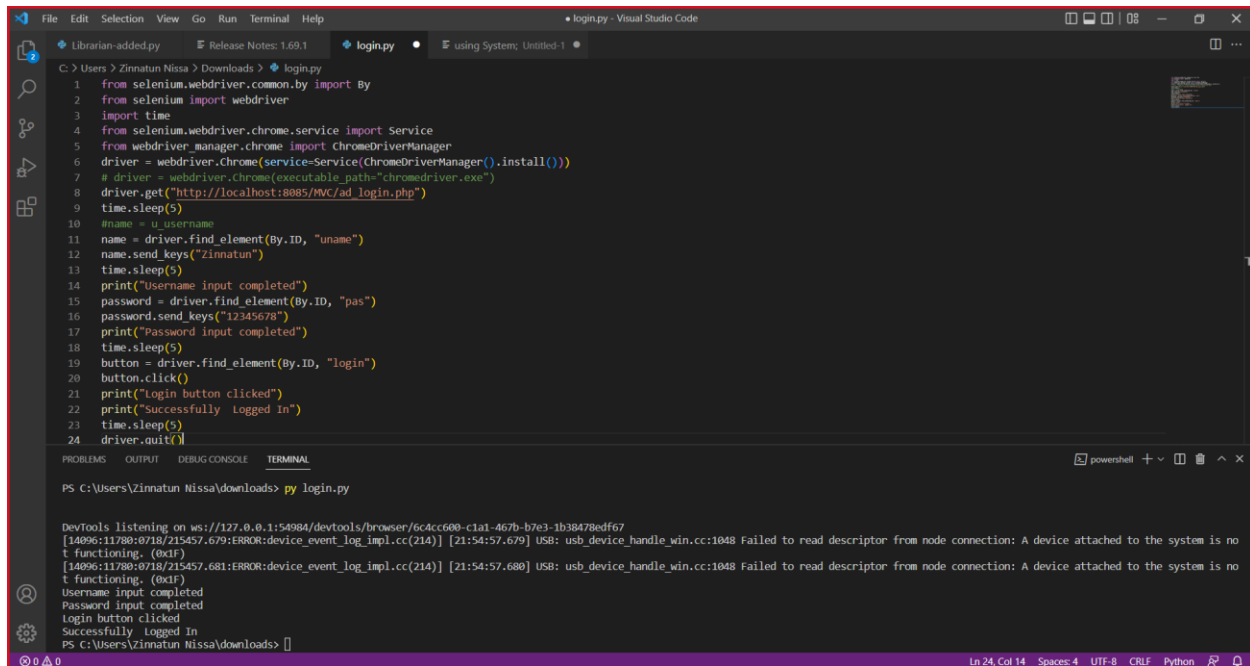


```

File Edit Selection View Go Run Terminal Help
New Text File Ctrl+N
New File... Ctrl+Alt+Windows+N
New Window Ctrl+Shift+N
Open File... Ctrl+O
Open Folder... Ctrl+K Ctrl+O
Open Workspace from File...
Open Recent
Add Folder to Workspace...
Save Workspace As...
Duplicate Workspace
Save Ctrl+S
Save As... Ctrl+Shift+S
Save All Ctrl+K S
Auto Save
Preferences
Revert File
Close Editor Ctrl+F4
Close Window Alt+F4
Exit
Password input completed
Login button clicked
Successfully Logged In
PS C:\Users\Zinnatun Nissa\downloads> .\History restored
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.
Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows
PS C:\Users\Zinnatun Nissa>

```


Then written a testing code in order to test an existing project login page. Then by running testing is successfully accomplished.



```

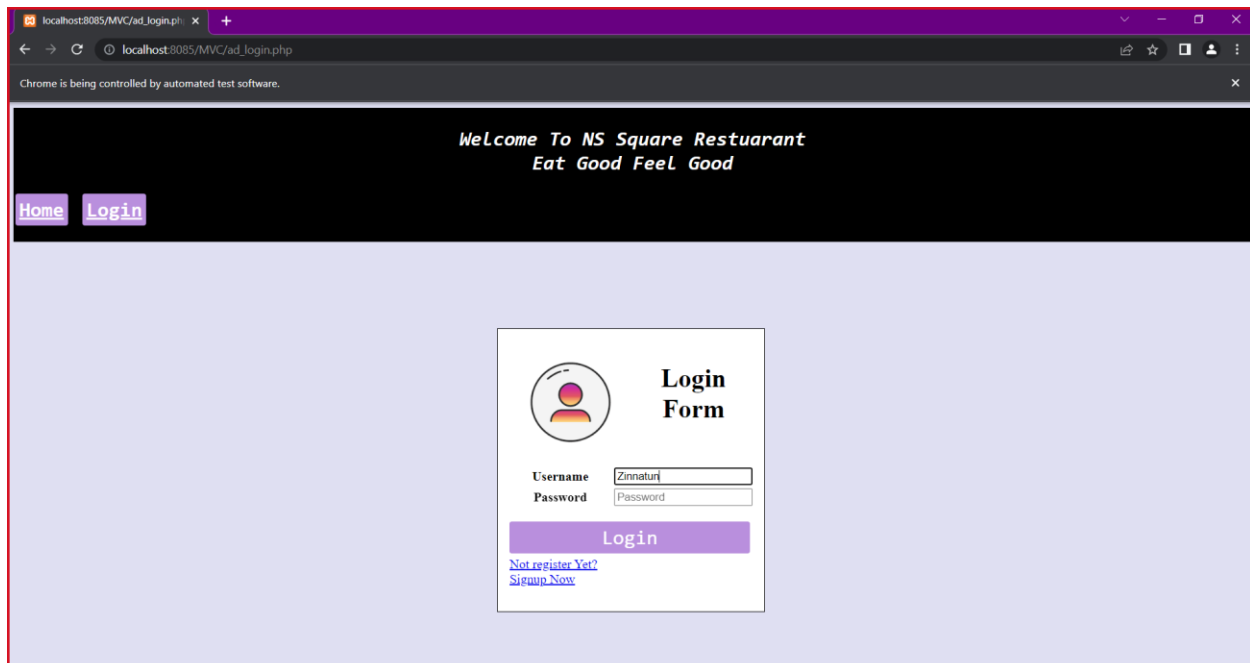
File Edit Selection View Go Run Terminal Help
login.py - Visual Studio Code
C:\Users\Zinnatun Nissa\Downloads> login.py
1 from selenium.webdriver.common.by import By
2 from selenium import webdriver
3 import time
4 from selenium.webdriver.chrome.service import Service
5 from webdriver_manager.chrome import ChromeDriverManager
6 driver = webdriver.Chrome(service=Service(ChromeDriverManager().install()))
7 # driver = webdriver.Chrome(executable_path="chromedriver.exe")
8 driver.get("http://localhost:8085/MVC/ad_login.php")
9 time.sleep(5)
10 #name = u_username
11 name = driver.find_element(By.ID, "uname")
12 name.send_keys("Zinnatun")
13 time.sleep(5)
14 print("Username input completed")
15 password = driver.find_element(By.ID, "pas")
16 password.send_keys("12345678")
17 print("Password input completed")
18 time.sleep(5)
19 button = driver.find_element(By.ID, "login")
20 button.click()
21 print("Login button clicked")
22 print("Successfully logged in")
23 time.sleep(5)
24 driver.quit()

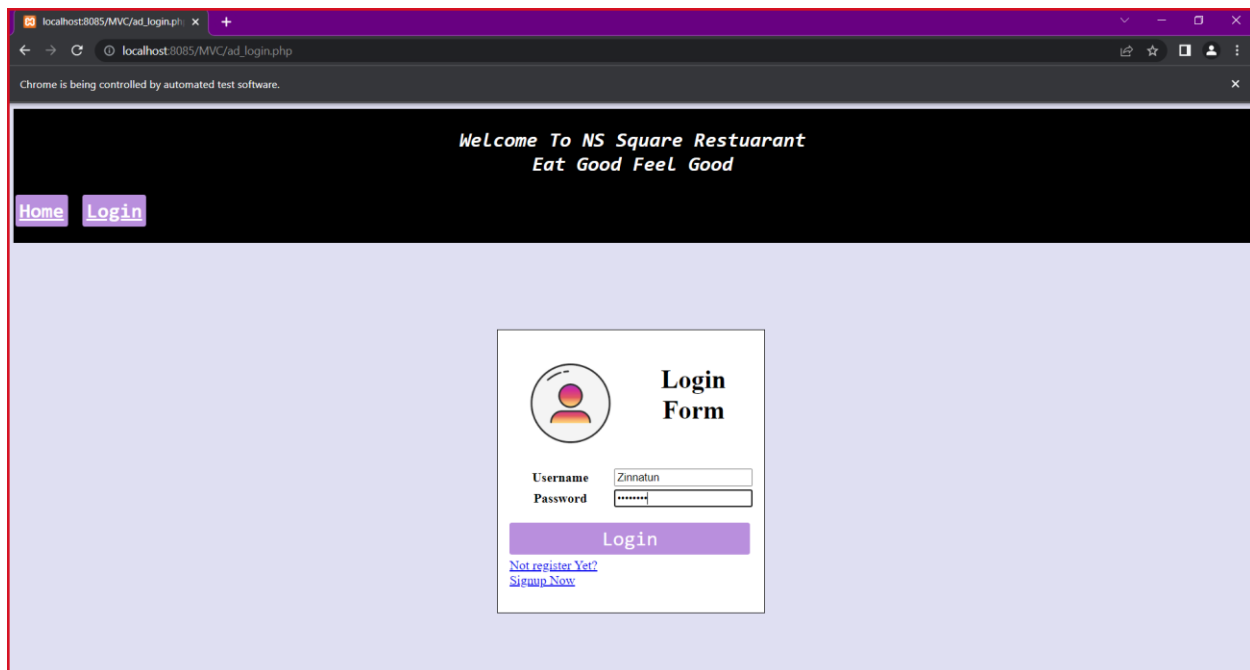
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
PS C:\Users\Zinnatun Nissa\downloads> py login.py

DevTools listening on ws://127.0.0.1:54984/devtools/browser/6c4cc600-c1a1-467b-b7e3-1b38478edf67
[14096:11780:0718/215457.679:ERROR:device_event_log_impl.cc(214)] [21:54:57.679] USB: usb_device_handle_win.cc:1048 Failed to read descriptor from node connection: A device attached to the system is not functioning. (0x41)
[14096:11780:0718/215457.681:ERROR:device_event_log_impl.cc(214)] [21:54:57.680] USB: usb_device_handle_win.cc:1048 Failed to read descriptor from node connection: A device attached to the system is not functioning. (0x41)
Username input completed
Password input completed
Login button clicked
Successfully logged in
PS C:\Users\Zinnatun Nissa\downloads>

```

This page is automated tested by selenium.





Finally, Home page is shown after a successful login.

