

```
In [1]: !pip install selenium
```

```
Looking in indexes: https://pypi.tuna.tsinghua.edu.cn/simple
Requirement already satisfied: selenium in c:\users\dell\.conda\lib\site-packages (4.13.0)
Requirement already satisfied: urllib3[socks]<3,>=1.26 in c:\users\dell\.conda\lib\site-packages (from selenium) (1.26.16)
Requirement already satisfied: trio~=0.17 in c:\users\dell\.conda\lib\site-packages (from selenium) (0.22.2)
Requirement already satisfied: trio-websocket~=0.9 in c:\users\dell\.conda\lib\site-packages (from selenium) (0.11.1)
Requirement already satisfied: certifi>=2021.10.8 in c:\users\dell\.conda\lib\site-packages (from selenium) (2023.7.22)
Requirement already satisfied: attrs>=20.1.0 in c:\users\dell\.conda\lib\site-packages (from trio~=0.17->selenium) (22.1.0)
Requirement already satisfied: sortedcontainers in c:\users\dell\.conda\lib\site-packages (from trio~=0.17->selenium) (2.4.0)
Requirement already satisfied: idna in c:\users\dell\.conda\lib\site-packages (from trio~=0.17->selenium) (3.4)
Requirement already satisfied: outcome in c:\users\dell\.conda\lib\site-packages (from trio~=0.17->selenium) (1.2.0)
Requirement already satisfied: sniffio in c:\users\dell\.conda\lib\site-packages (from trio~=0.17->selenium) (1.2.0)
Requirement already satisfied: cffi>=1.14 in c:\users\dell\.conda\lib\site-packages (from trio~=0.17->selenium) (1.15.1)
Requirement already satisfied: exceptiongroup>=1.0.0rc9 in c:\users\dell\.conda\lib\site-packages (from trio~=0.17->selenium) (1.1.3)
Requirement already satisfied: wsproto>=0.14 in c:\users\dell\.conda\lib\site-packages (from trio-websocket~=0.9->selenium) (1.2.0)
Requirement already satisfied: PySocks!=1.5.7,<2.0,>=1.5.6 in c:\users\dell\.conda\lib\site-packages (from urllib3[socks]<3,>=1.26->selenium) (1.7.1)
Requirement already satisfied: pycparser in c:\users\dell\.conda\lib\site-packages (from cffi>=1.14->trio~=0.17->selenium) (2.21)
Requirement already satisfied: h11<1,>=0.9.0 in c:\users\dell\.conda\lib\site-packages (from wsproto>=0.14->trio-websocket~=0.9->selenium) (0.14.0)
```

```
In [2]: import selenium
import pandas as pd
from selenium import webdriver
import time
from selenium.common.exceptions import NoSuchElementException
import warnings
warnings.filterwarnings('ignore')
from selenium.webdriver.common.by import By
```

```
In [3]: import time
import requests
from selenium import webdriver
from selenium.webdriver.common.keys import Keys
from selenium.webdriver.common.by import By
```

```
In [ ]: from selenium import webdriver
from webdriver_manager.chrome import ChromeDriverManager

driver = webdriver.Chrome(ChromeDriverManager().install())
```

## qus 1

```
In [ ]: value=input("enter your item: ")
```

```
In [ ]:
```

In [ ]:

## qus 2

In [ ]:

## qus 3

```
In [ ]: for_in range(25):
        driver.execute_script("window.scrollTo(0,200)")

image=driver.find_elements(By.XPATH,'//img[@class="rg_i Q4LuWd"]')
img_urls=[]
for image in images:
    source=image.get_attribute('src')
    if source is not None:
        if (source[0,4]=='http'):
            img_urls.append(source)

for i in range(len(img_urls)):
    if i > 10
        breakBy.XPATH
        print("Downloading{0} of {1} image",format(i,10))
        response=requests.get(img_urls[i])
        file=open(r"C:\Users\DELL\Desktop\OneDrive"+str(i)+".jpg","wb")
        file.write(response.content)
```

In [ ]:

In [ ]:

## qus 4

In [ ]:

## qus 5

```
In [ ]: driver = webdriver.Chrome(r"\Users\DELL\Desktop\OneDrive\Chromedriver.exe")
driver.get("https://www.google.com/maps")
city_to_search="Lagos"
```

```
search_box = driver.find_element_by_id(id="searchboxinput")
search_box.clear()
search_box.send_keys(city_to_search)

search_box.send_keys(Keys.ENTER)
time.sleep(3)
```

```
In [ ]: coordinates_element = driver.find_element_by_css_selector(".searchboxinput xiQnY")

coordinates_text = coordinates_element.text

latitude, longitude = map(float, coordinates_text.split(','))
```

```
print(f'Latitude: {latitude}')
print(f'Longitude: {longitude}')
```

In [ ]:

In [ ]:

## qus 6

```
In [ ]: driver_path = 'path_to_chromedriver_executable'
```

```
driver = webdriver.Chrome(executable_path=driver_path)
```

```
digit_url = 'https://www.digit.in/top-products/best-gaming-laptops-40.html'
driver.get(digit_url)
```

```
In [ ]: laptop_elements = driver.find_elements(By.XPATH, '//div[@class="TopNumbeHeading sticky-f
```

```
for laptop_element in laptop_elements:
    laptop_names.append(laptop_element.text)
    specs_element = laptop_element.find_element(By.XPATH, './following-sibling::ul')
```

```
processor = specs_element.find_element(By.XPATH, './li[1]').text
ram = specs_element.find_element(By.XPATH, './li[2]').text
graphics_card = specs_element.find_element(By.XPATH, './li[3]').text
storage_type = specs_element.find_element(By.XPATH, './li[4]').text
display_size = specs_element.find_element(By.XPATH, './li[5]').text
price = specs_element.find_element(By.XPATH, './li[6]').text
```

```
processor_names.append(processor)
ram_sizes.append(ram)
graphics_cards.append(graphics_card)
storage_types.append(storage_type)
display_sizes.append(display_size)
prices.append(price)
```

```
In [ ]: data = {
    "Laptop Name": laptop_names,
    "Processor": processor_names,
    "RAM Size": ram_sizes,
    "Graphics Card": graphics_cards,
    "Storage Type": storage_types,
    "Display Size": display_sizes,
    "Price": prices
}
```

```
df = pd.DataFrame(data)
```

```
In [ ]: df.to_csv('gaming_laptops.csv', index=False)
```

In [ ]:

In [ ]:

## qus 7

```
In [ ]: driver= webdriver..exe"chrome(r"\Users\DELL\Desktop\OneDrive\Chromedriver.exe")
```

```
driver = webdriver.Chrome(executable_path=driver_path)

forbes_url = 'https://www.forbes.com/billionaires/'
driver.get(forbes_url)
```

```
In [ ]: ranks = []
names = []
net_worths = []
ages = []
citizenships = []
sources = []
industries = []
```

```
In [ ]: try:

time.sleep(5)

driver.execute_script("window.scrollTo(0, document.body.scrollHeight);")
time.sleep(2)

billionaires = driver.find_elements(By.CSS_SELECTOR, '.forbes h3 a')

for billionaire in billionaires:
    billionaire.click()
    time.sleep(2)

    rank = driver.find_element(By.CSS_SELECTOR, '.profile-heading-rank').text
    name = driver.find_element(By.CSS_SELECTOR, '.profile-heading-title').text
    net_worth = driver.find_element(By.CSS_SELECTOR, '.profile-heading-figure').text
    age = driver.find_element(By.XPATH, '//div[text()="Age"]/following-sibling::div').text
    citizenship = driver.find_element(By.XPATH, '//div[text()="Citizenship"]/following-sibling::div').text
    source = driver.find_element(By.XPATH, '//div[text()="Source"]/following-sibling::div').text
    industry = driver.find_element(By.XPATH, '//div[text()="Industry"]/following-sibling::div').text

    ranks.append(rank)
    names.append(name)
    net_worths.append(net_worth)
    ages.append(age)
    citizenships.append(citizenship)
    sources.append(source)
    industries.append(industry)

    driver.back()
    time.sleep(2)
```

```
In [ ]: data = {
    "Rank": ranks,
    "Name": names,
    "Net Worth": net_worths,
    "Age": ages,
    "Citizenship": citizenships,
    "Source": sources,
    "Industry": industries
}

df = pd.DataFrame(data)
```

```
In [ ]: df.to_csv('billionaires_data.csv', index=False)
```

In [ ]:

In [ ]:

## qus 8

In [ ]: `driver_path =(r"\Users\DELL\Desktop\OneDrive\Chromedriver.exe")`

```
driver = webdriver.Chrome(executable_path=driver_path)
```

```
video_url = 'https://www.youtube.com/watch?v=your_video_id'  
driver.get(video_url)
```

In [ ]: `for_in range(1000):`  
    `driver.execute_script("window.scrollTo(0,1000)")`  
    `youtube= driver.find_element(By.CLASS_NAME,"style-scope ytd-comment-renderer")`  
  
    `comments = driver.find_elements(By.CSS_SELECTOR, ".style-scope ytd-comment-renderer")`  
    `comment_data = []`  
  
    **for** `comment in comments:`  
        `comment_text = comment.find_element(By.CSS_SELECTOR, "#content-text").text`  
        `comment_upvotes = comment.find_element(By.CSS_SELECTOR, "#vote-count-middle").text`  
        `comment_timestamp = comment.find_element(By.CSS_SELECTOR, "#header-author > yt-forma`  
  
        `comment_data.append([comment_text, comment_upvotes, comment_timestamp])`

In [ ]: `data = {`  
    `"Comment": [item[0] for item in comment_data],`  
    `"Upvotes": [item[1] for item in comment_data],`  
    `"Timestamp": [item[2] for item in comment_data]`  
    `}`  
  
    `df = pd.DataFrame(data)`  
  
    `df.to_csv('youtube_comments.csv', index=False)`

In [ ]:

In [ ]:

## qus 9

In [ ]: