

1. & 2.

[illegible]

3.

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In [ ]: !pip install selenium
import selenium
import pandas as pd
from selenium import webdriver
from bs4 import BeautifulSoup
from selenium.common.exceptions import StaleElementReferenceException, NoSuchElementException
from selenium.webdriver.common.by import By
import time
import requests

driver=webdriver.Chrome()
driver.get('https://images.google.com/')

time.sleep(2)

def scrape_images(keyword, num_images):

    image_elements = driver.find_elements(By.CSS_SELECTOR, 'img.rg_i')

    image_urls = []
    start=0
    end=10
    for page in range(start,end)

    keywords = ['fruits', 'cars', 'Machine Learning', 'Guitar', 'Cakes']

    for keyword in keywords:
        print(f"Scraping images for keyword: {keyword}")
        image_urls = scrape_images(keyword, 10)
        for url in image_urls:
            all_images.append({'Keyword': keyword, 'Image URL': url})

df = pd.DataFrame(all_images)
df.to_csv('google_images.csv')

print('Image scraping completed and data saved to google images.csv')
```

## 04.

```

In [ ]: !pip install selenium
import selenium
import pandas as pd
from selenium import webdriver
from bs4 import BeautifulSoup
from selenium.webdriver.support import expected_conditions as EC
from selenium.common.exceptions import StaleElementReferenceException
from selenium.webdriver.common.by import By
import time
import requests

driver=webdriver.Chrome()
driver.get('https://www.flipkart.com/')

search_field_designation = driver.find_element(By.CLASS_NAME,"suggestor-input")
search_field_designation.send_keys(Smartphone)

search_button= driver.find_element(By.XPATH,"/html/body/div[1]/div/div[1]/div/div/div/div/div[1]/div/div/div/div")
search_button.click()

data_url = []
start = 0
end= 1
for page in range (start,end):
    url=driver.find_elements(By.XPATH,"//div[@class="KzDlHZ"]')

    name= driver.find_elements(By.XPATH,"//div[@class="KzDlHZ"]').text
    details = driver.find_elements(By.XPATH,"//div[@class="_6NESgJ"]').text
    price=driver.find_elements(By.XPATH,"//div[@class="Nx9bj _4b5DiR"]').text
    url=driver.find_elements(By.XPATH,"div[@class="tUxRFH"]').text

    for i in url:
        data_url.append(i.get_attribute('href'))

time.sleep(5)

df=pd.DataFrame({'Name':name,'Details':details,'Price':price,'Url':url})

print(df)

```

## 5.

```

In [1]: !pip install selenium
import selenium
import pandas as pd
from selenium import webdriver
from bs4 import BeautifulSoup
from selenium.webdriver.support import expected_conditions as EC
from selenium.common.exceptions import StaleElementReferenceException
from selenium.webdriver.common.by import By
import time
import requests

driver=webdriver.Chrome()
driver.get('https://www.google.com/maps')

search_box = driver.find_element(By.XPATH,"//div[@class="NhWQq"]')
search_box.send_keys('Ghaziabad')
search_box.submit()

time.sleep(5)
city_url = driver.current_url('https://www.google.com/maps/@28.6998545,77.2302124,11z?entry=tту&g_ep=EgoyMDI0MDI')
lat_long = url.split('@')[1].split(',')[0:2]
latitude = lat_long[0]
longitude = lat_long[1]

print({'Latitude':latitude, 'Longitude': longitude})
driver.quit()

```

Requirement already satisfied: selenium in c:\users\hp\anaconda3\lib\site-packages (4.23.1)  
 Requirement already satisfied: urllib3<3,>=1.26 in c:\users\hp\anaconda3\lib\site-packages (from urllib3[socks]<3,>=1.26->selenium) (2.2.2)  
 Requirement already satisfied: trio~=0.17 in c:\users\hp\anaconda3\lib\site-packages (from selenium) (0.26.2)  
 Requirement already satisfied: trio-websocket~=0.9 in c:\users\hp\anaconda3\lib\site-packages (from selenium) (0.11.1)  
 Requirement already satisfied: certifi>=2021.10.8 in c:\users\hp\anaconda3\lib\site-packages (from selenium) (2024.7.4)  
 Requirement already satisfied: typing\_extensions~=4.9 in c:\users\hp\anaconda3\lib\site-packages (from selenium) (4.11.0)  
 Requirement already satisfied: websocket-client~=1.8 in c:\users\hp\anaconda3\lib\site-packages (from selenium) (1.8.0)  
 Requirement already satisfied: attrs>=23.2.0 in c:\users\hp\anaconda3\lib\site-packages (from trio~=0.17->selenium) (24.2.0)  
 Requirement already satisfied: sortedcontainers in c:\users\hp\anaconda3\lib\site-packages (from trio~=0.17->selenium) (2.4.0)  
 Requirement already satisfied: idna in c:\users\hp\anaconda3\lib\site-packages (from trio~=0.17->selenium) (3.7)  
 Requirement already satisfied: outcome in c:\users\hp\anaconda3\lib\site-packages (from trio~=0.17->selenium) (1.3.0.post0)  
 Requirement already satisfied: sniffio>=1.3.0 in c:\users\hp\anaconda3\lib\site-packages (from trio~=0.17->selenium) (1.3.0)  
 Requirement already satisfied: cffi>=1.14 in c:\users\hp\anaconda3\lib\site-packages (from trio~=0.17->selenium) (1.16.0)  
 Requirement already satisfied: wsproto>=0.14 in c:\users\hp\anaconda3\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\hp\anaconda3\lib\site-packages (from urllib3[socks]<3,>=1.26->selenium) (1.7.1)  
 Requirement already satisfied: pycparser in c:\users\hp\anaconda3\lib\site-packages (from cffi>=1.14->trio~=0.17->selenium) (2.21)  
 Requirement already satisfied: h11<1,>=0.9.0 in c:\users\hp\anaconda3\lib\site-packages (from wsproto>=0.14->trio-websocket~=0.9->selenium) (0.14.0)

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ImportError                                Traceback (most recent call last)
Cell In[1], line 6
      4 from selenium import webdriver
      5 from bs4 import BeautifulSoup
----> 6 from selenium.common.exceptions import StaleElementReferenceException, NoSuchElementException
      7 from selenium.webdriver.common.by import By
      8 import time

ImportError: cannot import name 'NoSuchElementException' from 'selenium.common.exceptions' (C:\Users\HP\anaconda3\Lib\site-packages\selenium\common\exceptions.py)
```

## 7.

```
In [ ]: !pip install selenium
import selenium
import pandas as pd
from selenium import webdriver
from bs4 import BeautifulSoup
from selenium.webdriver.support import expected_conditions as EC
from selenium.common.exceptions import StaleElementReferenceException
from selenium.webdriver.common.by import By
import time
import requests

driver = webdriver.Chrome()
driver.get('https://www.forbes.com/billionaires/')

WebDriverWait(driver, 10).until(EC.presence_of_all_elements_located((By.XPATH, "//table[@class='table table-sor'

rows = driver.find_elements(By.XPATH, "//table[@class='table table-sortable']/tbody/tr")

data = []

columns = row.find_elements(By.XPATH, '//div[@class="Table_tableRow__lF_cY"]')

    rank = columns[0].text
    name = columns[1].text
    net_worth = columns[2].text
    age = columns[3].text
    citizenship = columns[4].text
    source = columns[5].text
    industry = columns[6].text

    data.append({"Rank": rank, "Name": name, "Net worth": net_worth, "Age": age, "Citizenship": citizenship, "Source": source, "Industry": industry})

driver.quit()

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

## 8.

```
In [ ]: !pip install selenium
import selenium
import pandas as pd
from selenium import webdriver
from bs4 import BeautifulSoup
from selenium.webdriver.support import expected_conditions as EC
from selenium.common.exceptions import StaleElementReferenceException
from selenium.webdriver.common.by import By
import time
import requests

driver = webdriver.Chrome()
driver.get("https://www.youtube.com/watch?v=5hFd6zGkxLE")

time.sleep(5)
driver.execute_script("window.scrollTo(0, 1000);")
for i in range(0, 6):
    time.sleep(2)
    driver.execute_script("window.scrollTo(0, 10000);")

comments_section = driver.find_element_by_xpath('//*[@id="comments"]')

comments_html = comments_section.get_attribute('innerHTML')

comments = []
for comment in soup.find_all('yt-formatted-string', {'class': 'style-scope ytd-comment-renderer'}):
    comment_text = comment.text
    upvote = comment.find('span', {'class': 'count'}).text
    timestamp = comment.find('yt-formatted-string', {'class': 'published-time-text above-comment'}).text
    comments.append({ "Comment": comment_text, "Upvote": upvote, "Timestamp": timestamp})

for comment in comments:
    print(comment)
driver.quit()
```

## 9.

```
In [ ]: !pip install selenium
import selenium
import pandas as pd
from selenium import webdriver
from bs4 import BeautifulSoup
from selenium.webdriver.support import expected_conditions as EC
from selenium.common.exceptions import StaleElementReferenceException
from selenium.webdriver.common.by import By
import time
import requests

driver = webdriver.Chrome()
driver.get("https://www.hostelworld.com/")

driver = webdriver.Chrome(service=Service(ChromeDriverManager().install()), options=options)

search_field_designation = driver.find_element(By.CLASS_NAME, "suggestor-input")
search_field_designation.send_keys('London')

search_button = driver.find_element(By.XPATH, "/html/body/div[3]/div/div[3]/main/header/div/div[2]/div[1]/div[1]/")
search_button.click()

time.sleep(5)

hostel_links = []
hostel_elements = driver.find_elements(By.XPATH, '//div[@class="property-list"]')
for element in hostel_elements:
    link = element.find_element(By.TAG_NAME, "a").get_attribute("href")
    hostel_links.append(link)

hostel_data = []
for link in hostel_links:
    driver.get(link)

hostel_name = driver.find_element(By.XPATH, '//div[@class="property-name"]').text
distance_element = driver.find_element(By.CSS_SELECTOR, ".distance")
distance = distance_element.text.split(": ")[1]
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ratings_element = driver.find_element(By.XPATH, '//span[@class="score"]')
ratings = ratings_element.text

reviews_element = driver.find_element(By.CSS_SELECTOR, ".reviews")
total_reviews = reviews_element.text.split(" ")[0]

overall_reviews_element = driver.find_element(By.CSS_SELECTOR, ".overall-rating")
overall_reviews = overall_reviews_element.text

privates_price_element = driver.find_element(By.XPATH, '//div[@class="accommodation-price"]')
privates_from_price = privates_price_element.text.split("from ")[1]

dorms_price_element = driver.find_element(By.XPATH, '//span[@class="current"]')
dorms_from_price = dorms_price_element.text.split("from ")[1]

facilities_element = driver.find_element(By.CSS_SELECTOR, ".facilities")
facilities = facilities_element.text

description_element = driver.find_element(By.CSS_SELECTOR, ".property-description")
property_description = description_element.text

hostel_data.append({ "Hostel_name": hostel_name, "Distance_from_city_centre": distance, "Ratings": ratings, "Total_reviews": total_reviews, "Privates_from_price": privates_from_price, "Dorms_from_price": dorms_from_price, "Facilities": facilities, "Property_description": property_description })

print(hostel_data)

```

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