```
In [1]: ! pip install selenium
        Requirement already satisfied: selenium in c:\users\admin\anaconda3\lib\sit
        e-packages (4.9.1)
        Requirement already satisfied: certifi>=2021.10.8 in c:\users\admin\anacond
        a3\lib\site-packages (from selenium) (2022.9.14)
        Requirement already satisfied: urllib3[socks]<3,>=1.26 in c:\users\admin\an
        aconda3\lib\site-packages (from selenium) (1.26.11)
        Requirement already satisfied: trio-websocket~=0.9 in c:\users\admin\anacon
        da3\lib\site-packages (from selenium) (0.10.2)
        Requirement already satisfied: trio~=0.17 in c:\users\admin\anaconda3\lib\s
        ite-packages (from selenium) (0.22.0)
        Requirement already satisfied: outcome in c:\users\admin\anaconda3\lib\site
        -packages (from trio~=0.17->selenium) (1.2.0)
        Requirement already satisfied: sortedcontainers in c:\users\admin\anaconda3
        \lib\site-packages (from trio~=0.17->selenium) (2.4.0)
        Requirement already satisfied: cffi>=1.14 in c:\users\admin\anaconda3\lib\s
        ite-packages (from trio~=0.17->selenium) (1.15.1)
        Requirement already satisfied: async-generator>=1.9 in c:\users\admin\anaco
        nda3\lib\site-packages (from trio~=0.17->selenium) (1.10)
        Requirement already satisfied: sniffio in c:\users\admin\anaconda3\lib\site
In [2]: import selenium
In [3]: from selenium import webdriver
        from selenium.webdriver.common.by import By
        import pandas as pd
        import time
        import warnings
        warnings.filterwarnings('ignore')
In [4]: driver = webdriver.Chrome (r'chromedriver.exe')
In [5]: | driver.get ('https://www.naukri.com/')
In [ ]:
```

QUESTION NO. = 1

```
In [8]: # here in the above case the 'class name' is same for both 'designatio & locat'
# and for location we are using'ABSOLUTE XPATH'

In [9]: search = driver.find_element (By.CLASS_NAME, "qsbSubmit")
search.click()

In [10]: # now upto here we are having all the pagewise data for "data analyst" for "bar
In []:
```

```
In [12]: # now below we are finding and makiing data frame top 10 companies list with me
         job title = []
         job location = []
         company name = []
         experiance required = []
         # for job title :-
         title all = driver.find elements (By.XPATH, '//a[@class="title ellipsis"]')
         for i in title all [0:10]:
             title = i.text
             job title.append(title)
         # for job location :-
         location_all = driver.find_elements (By.XPATH, '//span[@class="ellipsis fleft
         for i in location all [0:10]:
             location = i.text
             job_location.append(location)
         # for company name :-
         company all = driver.find elements (By.XPATH, '//a[@class="subTitle ellipsis f
         for i in company all [0:10]:
             name = i.text
             company name.append(name)
         # for experiance required :-
         experiance_required = driver. find_elements (By.XPATH, '//span[@class="ellipsi
         for i in experiance required [0:10]:
             experiance = i.text
             experiance required.append(experiance)
             exp1 = experiance required[0:10]
         # to identify whether the length of all lists are same or not
         len(job title),len(job location),len(company name),len(exp1)
Out[12]: (10, 10, 10, 10)
In [13]: import pandas as pd
```

```
localhost:8889/notebooks/selenium worksheet.ipynb#
```

```
df = pd.DataFrame({'Job Title':job title, 'Location':job location, 'Company':c
                                                     df
Out[14]:
                                                                             Job Title
                                                                                                                                                                                               Location
                                                                                                                                                                                                                                                     Company
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Experian
                                                                                               Data
                                                         0
                                                                                                                                                 Bangalore/Bengaluru
                                                                                                                                                                                                                                                                                                    <selenium.webdriver.remote.webelement.WebEleme
                                                                                     Analyst
                                                                                                                                                             Hybrid - Gurgaon/
                                                                          Tech Data
                                                                                                                                                   Gurugram, Haryana,
                                                                                                                                                                                                                                                                     Wipro
                                                                                                                                                                                                                                                                                                      <selenium.webdriver.remote.webelement.WebEleme
                                                                                    Analyst
                                                                                                                                                                                   Bangalore...
                                                                                               Data
                                                                                                                                           Bangalore/ Bengaluru,
                                                         2
                                                                                                                                                                                                                                                                   Artech
                                                                                                                                                                                                                                                                                                     <selenium.webdriver.remote.webelement.WebEleme
                                                                                                                                                                                           Karnataka
                                                                                     Analyst
                                                                                               Data
                                                                                                                                                 Bangalore/Bengaluru
                                                         3
                                                                                                                                                                                                                                                                                                     <selenium.webdriver.remote.webelement.WebEleme
                                                                                                                                                                                                                                                                   Brunel
                                                                                     Analyst
                                                                           Celonis &
                                                                       Salesforce
                                                                                                                                                                                                Chennai,
                                                                                                                                                                                                                                                                 Hitachi
                                                                                                                                                                                                                                                                                                       <selenium.webdriver.remote.webelement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.Web
                                                                                               Data
                                                                                                                                                Bangalore/Bengaluru
                                                                                                                                                                                                                                                                 Energy
                                                                                    Analyst
                                                                            Celonis &
                                                                       Salesforce
                                                                                                                                                Bangalore/Bengaluru
                                                                                                                                                                                                                                                Hitachi Ltd.
                                                                                                                                                                                                                                                                                                    <selenium.webdriver.remote.webelement.WebEleme
                                                                                              Data
                                                                                    Analyst
                                                                                               Data
                                                                                                                                                                                                    Hybrid -
                                                         6
                                                                                                                                                                                                                                                      HARMAN
                                                                                                                                                                                                                                                                                                     <selenium.webdriver.remote.webelement.WebEleme
                                                                                                                                                 Bangalore/Bengaluru
                                                                                     Analyst
                                                                                                                                                                                                    Hybrid -
                                                                                              Data
                                                         7
                                                                                                                                              Bangalore/Bengaluru,
                                                                                                                                                                                                                                                                             Aon
                                                                                                                                                                                                                                                                                                      <selenium.webdriver.remote.webelement.WebEleme
                                                                                    Analyst
                                                                                                                                                                                     Delhi / NCR
                                                                                                                                                                                                    Hybrid -
                                                                                              Data
                                                         8
                                                                                                                                              Bangalore/Bengaluru,
                                                                                                                                                                                                                                                                                                     <selenium.webdriver.remote.webelement.WebEleme
                                                                                                                                                                                                                                                                             Aon
                                                                                     Analyst
                                                                                                                                                                                     Delhi / NCR
                                                                                                                                                                                                                                                                           Tata
                                                                                                                                                                                                   Kolkata,
                                                                                                                                                                                                                                             Consultancy
                                                         9
                                                                                                                         Hyderabad/Secunderabad,
                                                                                                                                                                                                                                                                                                       <selenium.webdriver.remote.webelement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.Web
                                                                                     Analyst
                                                                                                                                                                                                                                                           Services
                                                                                                                                                                 Pune, Chennai...
                                                                                                                                                                                                                                                                     (TCS)
```

QUESTION NO. = 2

```
In [15]: driver.get ('https://www.naukri.com/')
In [16]: designation = driver.find_element (By.CLASS_NAME, "suggestor-input ")
designation.send_keys('Data Scientist')
In [17]: location = driver.find_element (By. XPATH, "/html/body/div[1]/div[6]/div/div/d: location.send_keys('Banglore')
```

In []:

```
In [18]: | search = driver.find element(By.CLASS NAME, 'qsbSubmit')
         search.click()
In [19]: | ds job title = []
         ds_job_location = []
         ds company name = []
         ds experiance required = []
In [20]: title tag1 = driver.find elements (By.XPATH,'//a[@class="title ellipsis"]')
         for i in title_tag1[0:10]:
             title1 = i.text
             ds job title.append(title1)
In [21]: |len(ds_job_title)
Out[21]: 10
In [22]: title tag2 = driver.find elements (By.XPATH, '//span[@class="ellipsis fleft lock
         for i in title_tag2[0:10]:
             title2 = i.text
             ds job location.append(title2)
In [23]: len(ds_job_location)
Out[23]: 10
In [24]: title_tag3 = driver.find_elements(By.XPATH,'//a[@class="subTitle ellipsis flef")
         for i in title_tag3[0:10]:
             title3 = i.text
             ds_company_name.append(title3)
In [25]: len(ds_company_name)
Out[25]: 10
In [26]: title_tag4 = driver.find_elements(By.XPATH, '//span[@class="ellipsis fleft expw
         for i in title_tag4[0:10]:
             title4 = i.text
             ds_experiance_required.append(title4)
In [27]: len(ds_experiance_required)
Out[27]: 10
In [28]: import pandas as pd
         df = pd.DataFrame({'Job Tile':ds job title, 'Location':ds job location, 'Compai
```

In [29]:	df				
Out[29]:		Job Tile	Location	Company Nmae	Experiance
	0	Permanent Opportunity - Data Scientist(Snaplog	Hybrid - Kolkata, Hyderabad/Secunderabad, Pune	Deloitte	9-14 Yrs
	1	Analystics & Modeling Specialist	Kolkata, Mumbai, Hyderabad/Secunderabad, Pune,	Accenture	6-8 Yrs
	2	Machine Learning (AI) Architect	Kolkata, Mumbai, New Delhi, Hyderabad/Secunder	Persistent	5-12 Yrs
	3	Staff Data Scientist	Bangalore/Bengaluru	Walmart	6-8 Yrs
	4	Data Scientist	Bangalore/ Bengaluru, Karnataka	Tata Consultancy Services (TCS)	4-8 Yrs
	5	Hiring For Data Scientist	Hybrid - Hyderabad/ Secunderabad, Telangana, C	Tata Consultancy Services (TCS)	4-9 Yrs
	6	Data Scientist	Hybrid - Pune, Bangalore/Bengaluru, Delhi / NC	Infogain	3-6 Yrs
	7	Director/Senior Director - Data Science	Noida, Hyderabad/Secunderabad, Pune, Gurgaon/G	Axtria India	10-15 Yrs
	8	Manager/Senior Manager - Data Science	Noida, Hyderabad/Secunderabad, Pune, Gurgaon/G	Axtria India	8-12 Yrs
	9	Data Scientist	Bangalore/Bengaluru	Ericsson	5-7 Yrs
In []:					
In []:					

```
In [36]: |ds_job_title ncr = []
         ds job location ncr = []
         ds company name ncr = []
         ds experiance required ncr = []
In [37]: title ncr = driver.find elements (By. XPATH, '//a[@class="title ellipsis"]')
         for i in title ncr [0:10]:
             title1 = i.text
             ds job title ncr.append(title1)
In [38]: len(ds job title ncr)
Out[38]: 10
In [39]: location ncr = driver.find elements (By.XPATH, '//span[@class="ellipsis fleft le
         for i in location_ncr [0:10]:
             location1 = i.text
             ds job location ncr.append(location1)
In [40]: len(ds job location ncr)
Out[40]: 10
In [41]: company ncr = driver.find elements(By.XPATH,'//a[@class="subTitle ellipsis fle
         for i in company ncr [0:10]:
             company1 = i.text
             ds company name ncr.append(company1)
In [42]: len(ds company name ncr)
Out[42]: 10
In [43]: experiance ncr = driver.find elements(By.XPATH,'//span[@class="ellipsis fleft
         for i in experiance ncr[0:10]:
             exp2 = i.text
             ds experiance required ncr.append(exp2)
In [44]: ds experiance required ncr
Out[44]: ['0-2 Yrs',
           '3-7 Yrs',
           '3-8 Yrs',
           '2-4 Yrs',
           '3-8 Yrs',
           '7-12 Yrs',
           '0-1 Yrs',
           '2-6 Yrs',
           '2-4 Yrs',
           '1-6 Yrs']
```

```
In [45]: len(ds experiance required ncr)
Out[45]: 10
In [46]:
            import pandas as pd
In [47]: df = pd.DataFrame({'Job Title':ds job title ncr, 'Job Location': ds job location'
Out[47]:
                        Job Title
                                                                                   Company Name
                                                                                                    Experiance
                                                             Job Location
                      Junior Data
                                               Kolkata, Mumbai, New Delhi,
             0
                                                                                          Analytos
                                                                                                        0-2 Yrs
                         Scientist
                                                     Hyderabad/Secunder...
                    Data Scientist
                                    Gurgaon/Gurugram, Bangalore/Bengaluru
                                                                                         Blackbuck
             1
                                                                                                        3-7 Yrs
             2
                    Data Scientist
                                                                            Jubilant Ingrevia Limited
                                                                    Noida
                                                                                                        3-8 Yrs
                                               Kolkata, Mumbai, New Delhi,
                    Data Scientist
             3
                                                                                          Analytos
                                                                                                        2-4 Yrs
                                                     Hyderabad/Secunder...
                   Python and ML
                                       Hyderabad/Secunderabad, New Delhi,
                                                                                        Thescholar
                                                                                                        3-8 Yrs
                          Trainer
                                                            Pune, Gurga...
                                                                                  Tata Consultancy
                    Data Scientist
                                                               Delhi / NCR
             5
                                                                                                       7-12 Yrs
                                                                                    Services (TCS)
             6
                           Intern
                                                        Gurgaon/Gurugram
                                                                             Tower Research Capital
                                                                                                        0-1 Yrs
                   Lead Assistant
                                                        Gurgaon/Gurugram
                                                                                              EXL
                                                                                                        2-6 Yrs
                        Manager
             8
                    Data Scientist
                                                                    Noida
                                                                                                        2-4 Yrs
                                                                                        Innovaccer
                      Junior Data
                                    Gurgaon/Gurugram, United States (USA),
             9
                                                                                            Adidas
                                                                                                        1-6 Yrs
                         Scientist
                                                                  Bulgaria
 In [ ]:
 In [ ]:
```

```
In [68]: driver.get ('https://www.flipkart.com')
In [69]: search = driver.find_element(By.XPATH,'/html/body/div/div/div[1]/div[1]/div[2],
    search.send_keys('sunglasses')
In [71]: find = driver.find_element(By.XPATH,'/html/body/div/div/div[1]/div[1]/div[2]/d:
    find.click()
```

```
In [72]: sunglasses = driver.find elements(By.XPATH,'//div[@class=" 2WkVRV"]')
         len(sunglasses)
Out[72]: 40
In [73]: | sunglass brand = []
         sun pro disc = []
         sunglasses price = []
 In [ ]:
In [74]: s brand = []
         start=0
         end=3
         for page in range(start,end):
             brand = driver.find elements(By.XPATH, '//div[@class=" 2WkVRV"]')
             for i in brand:
                 s brand.append(i.text)
             next button = driver.find element (By.XPATH,'//a[@class=" 1LKTO3"]')
             next button.click()
             time.sleep(3)
In [75]: sunglasses brand = s brand[0:100]
         len(sunglasses brand)
Out[75]: 100
         s disc = []
In [76]:
         start=0
         end=3
         for page in range(start,end):
             discription = driver.find_elements(By.XPATH, '//a[@class="IRpwTa"]')
             for i in discription:
                 s disc.append(i.text)
             next_button = driver.find_element (By.XPATH,'//a[@class="_1LKTO3"]')
             next button.click()
             time.sleep(3)
In [77]: sun pro disc = s disc[0:100]
         len(sun_pro_disc)
Out[77]: 100
```

```
In [78]:
           s price = []
           start=0
           end=3
           for page in range(start,end):
               price = driver.find_elements(By.XPATH,'//div[@class="_30jeq3"]')
               for i in price:
                    s price.append(i.text)
               next button = driver.find element (By.XPATH,'//a[@class=" 1LKTO3"]')
               next button.click()
               time.sleep(3)
In [79]: sunglasses_price = s_price[0:100]
           len(sunglasses price)
Out[79]: 100
          import pandas as pd
In [80]:
In [81]: | df = pd.DataFrame({'Brand':sunglasses brand,'Product Discription':sun pro disc
Out[81]:
                          Brand
                                                          Product Discription
                                                                              Price
                        OAKLEY
                                            UV Protection Aviator Sunglasses (57)
                                                                              ₹435
             0
               ROZZETTA CRAFT
                                            UV Protection Aviator Sunglasses (58)
                                                                            ₹7,239
             2
                          SRPM
                                   UV Protection, Polarized, Mirrored Wayfarer Su...
                                                                              ₹216
             3
                         Elligator
                                                              Shield Sunglass
                                                                              ₹213
                         Elligator
                                            UV Protection Round Sunglasses (54)
             4
                                                                              ₹109
            95
                 VINCENT CHASE UV Protection Rectangular Sunglasses (Free Size)
                                                                            ₹5,300
            96
                         Elligator
                                      UV Protection Aviator Sunglasses (Free Size)
                                                                              ₹149
            97
                        Fastrack
                                          UV Protection Wayfarer Sunglasses (62)
                                                                              ₹569
                         PIRASO
                                       UV Protection Rectangular Sunglasses (52)
                                                                              ₹214
            98
            99
                 VINCENT CHASE
                                          UV Protection Wayfarer Sunglasses (62) ₹6,389
           100 rows × 3 columns
 In [ ]:
```

```
In [82]: driver.get ('https://www.flipkart.com')
```

```
In []: search = driver.find_element(By.XPATH,'/html/body/div/div[1]/div[1]/div[2],
    search.send_keys('apple iphone 11 black 64 gb')

In []: find_button = driver.find_element(By.XPATH,'/html/body/div/div/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/d
```

```
In [83]: driver.get ('https://www.flipkart.com')
In [84]: search = driver.find_element(By.XPATH, '/html/body/div/div[1]/div[1]/div[2],
    search.send_keys('sneakers')
In [85]: find_button = driver.find_element(By.XPATH, '/html/body/div/div/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/div[1]/d
```

```
In [89]: brand name = []
In [90]: start=0
         end=3
         for page in range (start,end):
             name = driver.find elements(By.XPATH,'//div[@class=" 2WkVRV"]')
             for i in name:
                 brand name.append(i.text)
             next button = driver.find element (By.XPATH,'//a[@class=" 1LKTO3"]')
             next button.click()
             time.sleep(3)
In [91]: len(brand name)
Out[91]: 120
In [92]: brand all = brand name[0:100]
         len(brand all)
Out[92]: 100
In [93]: | disc = []
         start=0
         end=3
         for page in range (start,end):
             discription = driver.find_elements (By.XPATH,'//a[@class="IRpwTa"]')
             for i in discription:
                 disc.append(i.text)
             next button = driver.find element (By.XPATH,'//a[@class=" 1LKTO3"]')
             next button.click()
             time.sleep(3)
In [94]: discription all = disc[0:100]
         len(discription_all)
Out[94]: 100
In [95]: price = []
         start=0
         end=3
         for page in range(start,end):
             rate = driver.find elements(By.XPATH,'//div[@class=" 30jeq3"]')
             for i in rate:
                 price.append(i.text)
             next button = driver.find element (By.XPATH,'//a[@class=" 1LKTO3"]')
             next button.click()
             time.sleep(3)
```

```
In [96]: price all = price [0:100]
           len(price all)
Out[96]: 100
In [97]: len(brand all),len(discription all),len(price all)
Out[97]: (100, 100, 100)
In [98]:
           import pandas as pd
In [99]: df = pd.DataFrame({'Brand Name':brand all,'Product Discription':discription all
           df
Out[99]:
                       Brand Name
                                                              Product Discription
                                                                                   Price
             0
                          CAMPUS
                                            White Sneaker For Men Sneakers For Men
                                                                                  ₹1,849
             1
                       New Balance
                                    2006 Trenddy Fashion Sporty Casuals Sneakers R...
                                                                                   ₹399
             2
                              aadi
                                             Modern Trendy Shoes Sneakers For Men
                                                                                   ₹249
             3
                            BIRDE
                                     Combo Pack Of 2 Casual Shoes Sneakers For Men
                                                                                   ₹479
                      HIGHLANDER
                                      Stylish & Trending Outdoor Walking Comfortable...
             4
                                                                                   ₹599
                           KILLER
                                    WATERPROOF-05cFULLBLACK Sneakers For Men
                                                                                   ₹569
            95
            96
                              Krors
                                                                Sneakers For Men
                                                                                   ₹399
                         Field Care
                                      Stylish Trendy Outdoor High Ankle Jordan Boots...
                                                                                   ₹524
            97
            98
                              aadi
                                                                Sneakers For Men
                                                                                   ₹249
                World Wear Footwear
                                      Stylish & Trending Outdoor Walking Comfortable...
                                                                                   ₹369
           100 rows × 3 columns
 In [ ]:
```

```
In [100]: driver = webdriver.Chrome (r'chromedriver.exe')
In [101]: driver.get('https://www.amazon.in/')
In [102]: title_all =[]
    ratings_all =[]
    price_all =[]
```

```
In [103]: title tag = driver.find element(By.XPATH,'/html/body/div[1]/header/div/div[1]/
          title tag.send keys('LAPTOP')
          search button = driver.find element(By.XPATH,'/html/body/div[1]/header/div/div
In [104]:
          search button.click()
In [105]: filter cpu = driver.find element(By.XPATH, '/html/body/div[1]/div[2]/div[1]/div
          filter cpu.click()
  In [ ]:
In [106]: laptop title = driver.find elements(By.XPATH,'//span[@class="a-size-medium a-co
          for i in laptop title[0:10]:
              laptop = i.text
              title_all.append(laptop)
In [107]: |title_all = laptop_title[0:10]
In [108]: len(title all)
Out[108]: 10
  In [ ]:
In [109]: laptop_rating = driver.find_elements(By.XPATH,'//span[@class="a-icon-alt"]')
          for i in laptop rating[0:10]:
              rating = i.text
              ratings_all.append(laptop)
In [110]: ratings_all = laptop_rating[0:10]
          len(ratings_all)
Out[110]: 10
In [111]: laptop price = driver.find elements(By.XPATH,'//span[@class="a-price-whole"]')
          for i in laptop price[0:10]:
              price1 = i.text
              price all.append(price1)
In [112]: price all = laptop price[0:10]
          len(price all)
Out[112]: 10
In [113]: len(title all),len(ratings all),len(price all)
Out[113]: (10, 10, 10)
```

```
In [ ]:
In [114]:
                                     import pandas as pd
In [115]: | df = pd.DataFrame({'Title':title_all, 'Ratings':ratings_all, 'Price':price_all})
Out[115]:
                                                                                                                                                                            Title
                                                                                                                                                                                                                                                                                                               Ratin
                                                 <selenium.webdriver.remote.webelement.WebEleme...</p>
                                                                                                                                                                                             <selenium.webdriver.remote.webelement.WebEleme
                                                 <selenium.webdriver.remote.webelement.WebEleme...</p>
                                                                                                                                                                                             <selenium.webdriver.remote.webelement.WebElement.</p>
                                        2
                                                 <selenium.webdriver.remote.webelement.WebEleme...</p>
                                                                                                                                                                                             <selenium.webdriver.remote.webelement.WebEleme
                                                 <selenium.webdriver.remote.webelement.WebEleme...</p>
                                                                                                                                                                                             <selenium.webdriver.remote.webelement.WebEleme
                                                 <selenium.webdriver.remote.webelement.WebEleme...</p>
                                                                                                                                                                                             <selenium.webdriver.remote.webelement.WebEleme
                                                 <selenium.webdriver.remote.webelement.WebEleme...</p>
                                                                                                                                                                                             <selenium.webdriver.remote.webelement.WebEleme
                                                  <selenium.webdriver.remote.webelement.WebEleme...</p>
                                                                                                                                                                                             <selenium.webdriver.remote.webelement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.WebElement.Web
                                                 <selenium.webdriver.remote.webelement.WebEleme...</p>
                                                                                                                                                                                             <selenium.webdriver.remote.webelement.WebEleme
                                                 <selenium.webdriver.remote.webelement.WebEleme...</p>
                                                                                                                                                                                             <selenium.webdriver.remote.webelement.WebEleme
                                                  <selenium.webdriver.remote.webelement.WebEleme...</p>
                                                                                                                                                                                             <selenium.webdriver.remote.webelement.WebEleme
       In [ ]:
```

Question-8

```
In [137]: driver.get ('https://www.azquotes.com/')
In [138]: top_quotes = driver .find_element(By.XPATH,'/html/body/div[1]/div[1]/div
top_quotes.click()
In [139]: quotes = []
author = []
type_of_quotes = []
```

```
In [154]: # start=0
          # end=10
          # for page in range (start,end):
                quotes tag = driver.find elements(By.XPATH, '//a[@class="title"]')
                for i in quotes tag:
                    quotes.append(i.text)
                next button = driver.find element(By.XPATH, '/html/body/div[1]/div[2]/div
                next button.click()
                time.sleep(5)
In [155]: | quotes_tag = driver.find_elements(By.XPATH,'//a[@class="title"]')
          for i in quotes_tag[0:100]:
              quot = i.text
              quotes.append(quot)
In [159]: | quotes_all = quotes[0:100]
In [160]: len(quotes_all)
Out[160]: 100
  In [ ]:
In [163]: author = []
          author tag = driver.find elements(By.XPATH,'//div[@class="author"]')
          for i in author_tag[0:100]:
              auth = i.text
              author.append(auth)
In [166]: len(author)
Out[166]: 100
  In [ ]:
In [168]: | type of quote = []
          type tag = driver.find elements(By.XPATH,'//div[@class="tags"]')
          for i in type_tag[0:100]:
              typ = i.text
              type_of_quote.append(typ)
In [170]: len(type_of_quote)
Out[170]: 100
  In [ ]:
```

```
selenium worksheet - Jupyter Notebook
In [172]:
              import pandas as pd
              df = pd.DataFrame({'Quote':quotes all, 'Author':author, 'Type Of Quote':type of
In [173]:
Out[173]:
                                                    Quote
                                                                        Author
                                                                                                         Type Of Quote
                        The essence of strategy is choosing
                                                                                         If you want to make a permanent
                0
                                                                  Michael Porter
                                                what not t ...
                                                                                                         change, stop f...
                       One cannot and must not try to erase
                                                                                         If you want to make a permanent
                1
                                                                     Golda Meir
                                                 the past ...
                                                                                                         change, stop f...
                           Patriotism means to stand by the
                                                                      Theodore
                                                                                         If you want to make a permanent
                2
                                                                      Roosevelt
                                              country. It d...
                                                                                                         change, stop f...
                      Death is something inevitable. When a
                                                                                         If you want to make a permanent
                                                                Nelson Mandela
                                                man has ...
                                                                                                         change, stop f...
                    You have to love a nation that celebrates
                                                                                         If you want to make a permanent
                                                                 Erma Bombeck
                                                                                                         change, stop f...
                                                      its ...
                       When the going gets weird, the weird
                                                                      Hunter S.
                                                                                         If you want to make a permanent
               95
                                                  turn pro.
                                                                     Thompson
                                                                                                         change, stop f...
                     When a train goes through a tunnel and
                                                                                         If you want to make a permanent
               96
                                                               Corrie Ten Boom
                                                   it gets...
                                                                                                         change, stop f...
                     If you think you are too small to make a
                                                                                         If you want to make a permanent
               97
                                                                     Dalai Lama
                                                     diffe...
                                                                                                         change, stop f...
                      God doesn't require us to succeed, he
                                                                                         If you want to make a permanent
               98
                                                                  Mother Teresa
                                                 only req...
                                                                                                         change, stop f...
                                                                Norman Vincent
                      Change your thoughts and you change
                                                                                         If you want to make a permanent
               99
                                                your world.
                                                                          Peale
                                                                                                         change, stop f...
              100 rows × 3 columns
```

In []:	
In []:	
In []:	