PROJECT=WEB SCRAPING – ASSIGNMENT 2

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```
In [87]: import selenium
    from selenium import webdriver
    import pandas as pd
    from selenium.webdriver.common.by import By
    import warnings
    warnings.filterwarnings("ignore")
    import time
In [26]: driver = webdriver.Chrome()
```

Q1: Write a python program to scrape data for "Data Analyst" Job position in "Bangalore" location. You have to scrape the job-title, job-location, company_name, experience_required. You have to scrape first 10 jobs data.

```
In [27]: #First get the webpage https://www.shine.com/
                                   driver.get('https://www.shine.com/')
In [28]: #2. Enter "Data Analyst" in "Job title
                                   designation=driver.find_element(By.XPATH, "/html/body/div[1]/div[4]/div/div[2]/div[2]
                                   designation.send_keys('Data Analyst')
In [32]: #3. enter "Bangalore" in "enter the location" field
                                   Location=driver.find element(By.XPATH,"/html/body/div[1]/div[4]/div[4]/div[2]/div[2]/div[2]/div[2]/div[2]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/d
                                   Location.send keys('Banglore')
In [33]:
                                  # clicked on search button
                                   submit=driver.find_element(By.XPATH,'/html/body/div[1]/div[4]/div[4]/div[2]/div[2]/div
                                   submit.click()
In [36]: #scraped job location
                                   job_location=driver.find_elements(By.XPATH,'//div[@class=" jobCard_jobCard_lists_i
                                   for x in job location:
                                                  job.append(x.text)
                                   #scraped company name
```

```
company_name=[]
name=driver.find_elements(By.XPATH,'//div[@class="jobCard_jobCard_cName__mYnow"]')
for x in name:
    company_name.append(x.text)

# scraped experience
experience_name=[]
experience=driver.find_elements(By.XPATH,'//div[@class=" jobCard_jobCard_lists_iter
for x in experience:
    experience_name.append(x.text)
```

In [44]: #finally created a dataframe
 df=pd.DataFrame({'job':job,'company_name':company_name,'experience_name':experience
 df[:10]

Out[44]:		job	company_name	experience_name
	0	Bangalore	futures and careers	2 to 4 Yrs
	1	Bangalore	boyen haddin consulting and technol	3 to 6 Yrs
	2	Singapore\n+14	kavya staffing solutions	0 to 4 Yrs
	3	Bangalore	ara resources private limited	2 to 5 Yrs
	4	Gurugram\n+9	ashutosh sabhashankar chaturvedi hi	7 to 12 Yrs
	5	Oman\n+14	divya interprises	0 to 4 Yrs
	6	Bangalore	deuglo infosystem private limited	1 to 2 Yrs
	7	Bangalore	deuglo infosystem private limited	1 to 2 Yrs
	8	Bangalore	deuglo infosystem private limited	1 to 2 Yrs
	9	Bangalore	deuglo infosystem private limited	1 to 2 Yrs

Q2:Write a python program to scrape data for "Data Scientist" Job position in "Bangalore" location. You have to scrape the job-title, job-location, company_name. You have to scrape first 10 jobs data. This task will be done in following steps:

```
In [42]: driver= webdriver.Chrome()
In [43]: driver.get('https://www.shine.com/')
In [45]: designation=driver.find_element(By.XPATH,"/html/body/div[1]/div[4]/div/div[2]/div[2]/div[3]
designation.send_keys('Data Scientist')
In [46]: location=driver.find_element(By.XPATH,"/html/body/div[1]/div[4]/div/div[2]/div[2]/div[3]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4]/div[4
```

```
submit=driver.find element(By XPATH, "/html/body/div[1]/div[4]/div[4]/div[2]/div[2]/div
In [47]:
           submit.click()
           job location=[]
In [55]:
           location=driver.find_elements(By.XPATH,'//div[@class=" jobCard_jobCard_lists_item_
           for x in location:
               job_location.append(x.text)
           company_name=[]
           company=driver.find elements(By.XPATH,'//div[@class="jobCard jobCard cName mYnow"
           for x in company:
               company_name.append(x.text)
In [57]:
           df=pd.DataFrame({'company_name':company_name,'job_location':job_location})
Out[57]:
                                                  job_location
                                company_name
           0
                          kavya staffing solutions
                                                Bangalore\n+17
           1
                          kavya staffing solutions
                                                Bangalore\n+17
           2
                              skyleaf consultants
                                                     Bangalore
           3
                     gfl recruitment private limited
                                                 Bangalore\n+7
           4
                                divya interprises
                                                Bangalore\n+14
           5
                 deuglo infosystem private limited
                                                     Bangalore
           6
                 deuglo infosystem private limited
                                                 Bangalore\n+8
           7 seven geomax consulting private lim...
                                                     Bangalore
           8
               employberry consultants hiring for ...
                                                     Bangalore
           9
                             niharika enterprises Bangalore\n+15
```

Q3: In this question you have to scrape data using the filters available on the webpage

```
In [58]: driver=webdriver.Chrome()
In [60]: driver.get('https://www.shine.com/')
In [64]: designation=driver.find_element(By.XPATH,"/html/body/div[1]/div[4]/div/div[2]/div[2]/div[3]/designation.send_keys('Data Scientist')
In [65]: location=driver.find_element(By.XPATH,'/html/body/div[1]/div[4]/div/div[2]/div[2]/div[2]/div[6]/div[6]: submit=driver.find_element(By.XPATH,'/html/body/div[1]/div[4]/div/div[2]/div[2]/div[6]/div[6]: submit-click()
```

```
salary=driver.find element(By XPATH, '/html/body/div[1]/div[1]/div[4]/div[1]/div
In [67]:
          salary.click()
          salary criteria=driver.find element(By.XPATH,'/html/body/div[1]/div[4]/div[4]/div[6]
In [68]:
          salary_criteria.click()
          show_result=driver.find_element(By.XPATH,'/html/body/div[1]/div[1]/div[4]/div/div[1]
In [69]:
          show result.click()
In [70]:
          company_name=[]
          name=driver.find_elements(By.XPATH,'//div[@class="jobCard_jobCard_cName__mYnow"]')
          for x in name:
              company_name.append(x.text)
In [72]:
          job_location=[]
          location=driver.find_elements(By.XPATH,'//div[@class=" jobCard_jobCard_lists_item_
          for x in location:
              job_location.append(x.text)
In [73]:
          experience_required=[]
          experience=driver.find_elements(By.XPATH,'//div[@class=" jobCard_jobCard_lists_iter
          for x in experience:
              experience_required.append(x.text)
          df=pd.DataFrame({'company_name':company_name,'job_location':job_location,'experient
In [79]:
          df.tail()
Out[79]:
                            company_name job_location experience_required
          15 gharondaa advisors private limited
                                             Gurugram
                                                                 2 to 5 Yrs
          16 gharondaa advisors private limited
                                                Noida
                                                                 2 to 5 Yrs
          17
                        js placement services
                                             Ghaziabad
                                                                 0 to 3 Yrs
                                                                 0 to 3 Yrs
          18
                        js placement services
                                              Faridabad
          19
                        js placement services
                                                Noida
                                                                 0 to 3 Yrs
```

Q4: Scrape data of first 100 sunglasses listings on flipkart.com. You have to scrape four attributes:

```
In [80]: driver=webdriver.Chrome()
In [81]: driver.get('https://www.flipkart.com/')
In [82]: sunglasses=driver.find_element(By.XPATH,'/html/body/div[1]/div[1]/div[1]/div[2] sunglasses.send_keys('sunglasses')
In [85]: submit=driver.find_element(By.XPATH,'/html/body/div[1]/div[1]/div[1]/div[2]/div submit.click()
In [105... brand_name=[] item_price=[] start=0
```

```
end=3
for page in range (start,end):
   brand=driver.find_elements(By.XPATH,'//div[@class="_2WkVRV"]')
   for x in brand:
        brand_name.append(x.text)
   price=driver.find_elements(By.XPATH,'//div[@class="_30jeq3"]')
    for x in price:
       item_price.append(x.text)
    next_page=driver.find_element(By.XPATH,'/html/body/div/div/div[3]/div[1]/div[2
    next_page.click()
    time.sleep(3)
df=pd.DataFrame({'brand_name':brand_name,'item_price':item_price})
df[0:100]
```

In [108...

Out[108]:		brand_name	item_price
	0	LOUIS KOUROS	₹426
	1	LOUIS KOUROS	₹410
	2	Fastrack	₹968
	3	Ray-Ban	₹3,731
	4	Ray-Ban	₹11,891
	•••		
	95	PETER JONES	₹547
	96	Rich Club	₹235
	97	VINCENT CHASE	₹999
	98	QUICKAND FAST	₹149
	99	VINCENT CHASE	₹1,199

100 rows × 2 columns

Q5: Scrape 100 reviews data from flipkart.com for iphone11 phone. You have to go the link:

```
In [109...
           driver=webdriver.Chrome()
In [110...
           driver.get('https://www.flipkart.com/apple-iphone-11-black-64-gb/product-reviews/it
In [119...
           Rating_product=[]
           Review_summary=[]
           Full_review=[]
           start=0
           for page in range(start,end):
```

```
Rating=driver.find_elements(By.XPATH,'//div[@class="_3LWZlK _1BLPMq"]')
for x in Rating:
    Rating_product.append(x.text)

Review=driver.find_elements(By.XPATH,'//div[@class="t-ZTKy"]')
for x in Review:
    Review_summary.append(x.text)

Full=driver.find_elements(By.XPATH,'//p[@class="_2-N8zT"]')
for x in Full:
    Full_review.append(x.text)

next_page=driver.find_element(By.XPATH,'/html/body/div/div/div[3]/div/div/div[2]
next_page.click()
time.sleep(3)
```

	Rating_product	Review_summary	Full_review
0	5	Value for money 🤩	Terrific purchase
1	5	Photos super	Classy product
2	5	Very very good	Terrific
3	5	Camera is awesome\nBest battery backup\nA perf	Classy product
4	5	This is amazing at all	Wonderful
5	5	Perfect Product!!	Just wow!
6	5	Feeling awesome after getting the delivery of	Worth every penny
7	5	V Good all	Perfect product!
8	5	Good Camera	Best in the market!
9	5	Super ♠ and good performance ♂ ♥	Fabulous!
10	5	It's really awesome	Must buy!
11	5	Purple is best	Great product
12	4	Camera is just wow 💍 💍	Worth the money
13	5	Go for iPhone 11 , if confused between iPhone	Must buy!
14	5	Excellent Phone.	Brilliant
15	5	Value for money $lack lack lack$	Terrific purchase
16	5	very good camera quality	Brilliant
17	5	It's very good battery life and display and vi	Fabulous!
18	5	NYC	Excellent
19	5	Damn this phone is a blast . Upgraded from and	Best in the market!
20	5	Such an awesome experience with iPhone 11 awes	Best in the market!
21	5	Awesome Phone. Battery backup top-notch	Awesome
22	5	It is better to buy iPhone 11 over iPhone 12 i	Worth every penny
23	5	Excellent Fabulous Adorable Iphone 11 Value fo	Wonderful
24	5	happy 🎔	Must buy!
25	5	Best phone	Brilliant
26	5	Perfect iPhone on this budget!! Camera and the	Brilliant
27	5	Battery backup is extraordinary, camera is dec	Perfect product!
28	5	iPhone is delivered on time. Display is great	Worth every penny
29	5	Outstanding performance this phone	Classy product

Out[121]:

Q6: Scrape data forfirst 100 sneakers you find whenyou visit flipkart.com and search for "sneakers" inthe search field.

```
driver=webdriver.Chrome()
In [43]:
       driver.get('https://www.flipkart.com/')
In [44]:
       In [45]:
       sneakers.send_keys('sneakers')
       In [46]:
       submit.click()
       brand_name=[]
In [48]:
       price_product=[]
       start=0
       end=3
       for page in range(start,end):
          brand=driver.find_elements(By.XPATH,'//div[@class="_2WkVRV"]')
          for x in brand:
              brand_name.append(x.text)
           price=driver.find_elements(By.XPATH,'//div[@class="_30jeq3"]')
           for x in price:
              price_product.append(x.text)
          next_page=driver.find_element(By.XPATH,'/html/body/div/div/div[3]/div[1]/div[2
          next_page.click()
          time.sleep(3)
       df=pd.DataFrame({'brand_name':brand_name,'price_product':price_product})
In [50]:
       df[0:100]
```

Out[50]:	brand_name	price_product
0 21 0 1 1		be-beamer

0	Elevarse	₹279
1	Elevarse	₹279
2	asian	₹499
3	BRUTON	₹379
4	Nobelite	₹299
•••		
95	YUNIKO	₹749
96	New Balance	₹4,679
97	Shozie	₹549
98	BIG FOX	₹799
99	SWIGGY	₹757

100 rows × 2 columns

Q7: Go to webpage https://www.amazon.in/ Enter "Laptop" in

the search field and then click the search icon. Thenset CPU Type filter to "Intel Core i7" as shown in the below image:

```
In [51]: driver=webdriver.Chrome()
In [52]: driver.get('https://www.amazon.in/')
In [53]:
         laptop=driver.find_element(By.XPATH,'/html/body/div[1]/header/div/div[1]/div[2]/div
         laptop.send_keys('laptop')
         submit=driver.find_element(By.XPATH,'/html/body/div[1]/header/div/div[1]/div[2]/div
In [54]:
         submit.click()
In [58]: filters=driver.find_element(By.XPATH,'/html/body/div[1]/div[2]/div[2]/div[2]/div/d:
         filters.click()
In [65]: title_product=[]
         title=driver.find_elements(By.XPATH,'//h2[@class="a-size-mini a-spacing-none a-colo
         for x in title:
             title_product.append(x.text)
In [66]:
         price_product=[]
         price=driver.find_elements(By.XPATH,'//span[@class="a-price-whole"]')[0:10]
         for x in price:
             price_product.append(x.text)
In [67]:
         rating_product=[]
         rating=driver.find_elements(By.XPATH,'//span[@class="a-size-base puis-bold-weight-
         for x in rating:
             rating_product.append(x.text)
```

Q8:Write a python program to scrape data for Top 1000 Quotes of All Time

```
In [88]:
         driver=webdriver.Chrome()
In [89]:
         driver.get('https://www.azquotes.com/')
         top quotes=driver.find element(By.XPATH, '/html/body/div[1]/div[1]/div[1]/div[3]
In [90]:
         top_quotes.click()
In [94]:
             quotes_types=[]
             types=driver.find elements(By.XPATH,'//div[@class="tags"]')
             for x in types:
                 quotes_types.append(x.text)
             top_quotes=[]
             quotes=driver.find_elements(By.XPATH,'//a[@class="title"]')
             for x in quotes:
                 top_quotes.append(x.text)
             Author list=[]
              types=driver.find_elements(By.XPATH,'//div[@class="author"]')
```

```
for x in types:
    Author_list.append(x.text)
```

In [95]: | df=pd.DataFrame({'quotes_types':quotes_types,'top_quotes':top_quotes,'Author_list'

Out[95]:		quotes_types	top_quotes	Author_list
	0	Spring, April, Fragrance	Can words describe the fragrance of the very b	Neltje Blanchan
	1	Inspirational, Faith, Spiritual	Faith is to believe what you do not see; the r	Saint Augustine
	2	Inspirational, Motivational, Positive	When everything seems to be going against you,	Henry Ford
	3	Love, Inspirational, Life	I have found that if you love life, life will	Arthur Rubinstein
	4	Strength, Peace, Gun	To disarm the people was the best and most	George Mason
	•••			
	95	Love, Inspirational, Life	When one door closes, another opens; but we of	Alexander Graham Bell
	96	Inspirational, Motivational, Positive	Don't find fault, find a remedy.	Henry Ford
	97	Love, Life, Lonely	I used to think the worst thing in life was to	Robin Williams
	98	Love, Inspirational, Friendship	Friends and good manners will carry you where	Margaret Walker
	99	Inspirational, Change, Inspiring	If you want to make a permanent change, stop f	T. Harv Eker

100 rows × 3 columns

Q9.Data cannot be scraped using class name and tag name

Q10:Write a python program to display list of 50 Most expensive cars in the world (i.e.Car name and Price) from https://www.motor1.com/

```
driver=webdriver.Chrome()
In [96]:
In [97]: driver.get('https://www.motor1.com/')
         car name=driver.find element(By.XPATH,'/html/body/div[10]/div[2]/div/div/div[3]/div
In [99]:
         car_name.send_keys('50 most expensive cars')
```

Out[102]: car_name

0	Aston Martin Valour
1	McLaren Elva
2	Czinger 21C
3	Ferrari Monza
4	Gordon Murray T.33
5	Koenigsegg Gemera
6	Zenvo TSR-S
7	Hennessey Venom F5
8	Bentley Bacalar
9	Hispano Suiza Carmen Boulogne
10	Bentley Mulliner Batur
11	Deus Vayanne
12	SSC Tuatara
13	Lotus Evija
14	Aston Martin Vulcan
15	Delage D12
16	Ferrari Daytona SP3
17	McLaren Speedtail
18	Rimac Nevera
19	Pagani Utopia
20	Pininfarina Battista
21	Gordon Murray T.50
22	Lamborghini Countach
23	Mercedes-AMG Project One
24	Zenvo Aurora
25	Aston Martin Victor
26	Hennessey Venom F5 Roadster
27	Koenigsegg Jesko
28	Aston Martin Valkyrie
29	W Motors Lykan Hypersport
30	McLaren Solus
31	Lamborghini Sian
32	Koenigsegg CC850
33	Bugatti Chiron Super Sport 300+
34	Lamborghini Veneno
35	Bugatti Bolide

car_name

36	Pininfarina B95 Speedster
37	Bugatti Mistral
38	Pagani Huayra Imola
39	Bugatti Divo
40	SP Automotive Chaos
41	Pagani Codalunga
42	777 Hypercar
43	Mercedes-Maybach Exelero
44	Bugatti Centodieci
45	Bugatti Chiron Profilée
46	Rolls-Royce Sweptail
47	Bugatti La Voiture Noire
48	Rolls-Royce Boat Tail*
49	Rolls-Royce La Rose Noire Droptail
50	Most Expensive Cars In The World

END-----
