## Instructions

WEB SCRAPING - ASSIGNMENT 2

- 1. All the questions must be done in a single Jupyter notebook.
- 2. There should be proper comments in code.

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. This task will be done in following steps:

- 1. First get the webpage <a href="https://www.naukri.com/">https://www.naukri.com/</a>)
- 2. Enter "Data Analyst" in "Skill, Designations, Companies" field and enter "Bangalore" in "enter the location" field.
- 3. Then click the search button.
- 4. Then scrape the data for the first 10 jobs results you get.
- 5. Finally create a dataframe of the scraped data. Note: All of the above steps have to be done in code. No step is to be done manually

## In [1]:

```
#lets import all required libraries

import selenium
from selenium import webdriver
import pandas as pd
import warnings
warnings.filterwarnings("ignore")
```

#### In [2]:

1 driver=webdriver.Chrome(r'C:/Users/Acer Aspire 3/Downloads/chromedriver\_win32/chromedri

#### In [3]:

```
#similar to above we can also upload the downloaded chrome FILE in jupyter notebook
with this code it just open the chorme not any url
driver = webdriver.Chrome('chromedriver.exe')
```

#### In [4]:

```
1 #to open any url follow the below steps
2 url='https://www.naukri.com/'
3 driver.get(url)
```

#### In [5]:

```
#finding web element for search job bar using id
#right click and inspect on search bar with out entering anything

search_job=driver.find_element_by_class_name("suggestor-input")
search_job
```

## Out[5]:

<selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be3
069e71053efdb3d", element="25b9f47f-de37-4df7-bcbf-73a508a1ddd4")>

## In [6]:

```
1 search_job.send_keys("Data Analyst")
```

### In [7]:

```
#finding web element for search loaction using absolute xpath
#right click and inspect (2) times in the search bar for loaction and copy the link usi

search_locn=driver.find_element_by_xpath('/html/body/div/div[2]/div[3]/div/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div[3]/div/div[3]/div/div[3]/div/div[3]/div[3]/div/div[3]/div/div[3]/div[3]/div/div[3]/div[3]/div/div[3]/div[3]/div/div[3]/div/div[3]/div/div[3]/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div/div[3]/div[3]/div/div[3]/div[3]/div[3]/div[3]/div[3]/div[3]/div[3]/div[3]/div[3]/div[3]/div[3]/div[3]/div[3]/div[3]/div[3]/div[3]/div[3]/
```

### Out[7]:

<selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be3
069e71053efdb3d", element="e68f95ee-6835-4ad9-afb2-d6db21205460")>

#### In [8]:

```
#finding web element for job location bar
search_locn.send_keys("Bangalore")
search_locn
```

#### Out[8]:

<selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be3
069e71053efdb3d", element="e68f95ee-6835-4ad9-afb2-d6db21205460")>

#### In [9]:

```
#clicking using absolute path
#similarly we have to right click and inpect (2) times on search button
# we use absolute xpath for unique enteries like search and selecting salary for others

search_btn=driver.find_element_by_xpath("/html/body/div/div[2]/div[3]/div/div/div[6]")
search_btn
```

#### Out[9]:

<selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be3
069e71053efdb3d", element="8fd16081-b266-4c77-a588-15e121bfabb8")>

#### In [10]:

```
#now we have to use the code to clik the search button from here
#it will click the search button

search_btn.click()
```

## **Extracting 10 Job Titles**

## In [12]:

```
#Right click and inspect the job ttiles two times and copy class details and add //a[@]
title_tags=driver.find_elements_by_xpath('//a[@class="title fw500 ellipsis"]')
title_tags[0:10]
title_tags[0:10]
```

#### Out[12]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be</pre>
3069e71053efdb3d", element="10559901-85f4-4239-b87e-ae9ae012910d")>,
 <selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be</pre>
3069e71053efdb3d", element="18531fa4-9b05-4e5b-8abe-bafc0f999c65")>,
 <selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be</pre>
3069e71053efdb3d", element="1dd9fe3c-b6c8-4e87-af3a-05139cf4e616")>,
 <selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be</pre>
3069e71053efdb3d", element="51d182ae-3983-4f71-96b0-b86990abefda")>,
 <selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be</pre>
3069e71053efdb3d", element="a6810ea9-561d-4adc-b825-4682d7fe2f8a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be</pre>
3069e71053efdb3d", element="327fb132-860f-4f17-b3b3-73e0e1dc5a88")>,
 <selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be")</pre>
3069e71053efdb3d", element="f9ef1d83-9dfb-4e69-a85e-b95547288ac7")>,
 <selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be</pre>
3069e71053efdb3d", element="2b8d38e8-5509-4539-af15-d382761da4c0")>,
 <selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be</pre>
3069e71053efdb3d", element="b85f5bfc-3911-433f-a218-5152035393a0")>,
 <selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be</pre>
3069e71053efdb3d", element="b833acb1-f9ee-4413-8719-5b4327027eee")>]
```

#### In [13]:

```
# now the text for job titles is inside the web element extracted above
# so we will run a for loop to iterate over the tags and will extract the text for job to

job_titles=[]

for i in title_tags:
    job_titles.append(i.text)

len(job_titles)
job_titles[0:10]
```

## Out[13]:

```
['Data Analyst I',
   'Senior Data Analyst II',
   'Senior Data Analyst - Ads & Promotion Platform (APP)',
   'Hiring For Data Analyst I(SQL & Python)',
   'Lead Data Analyst - Flipkart Data science group',
   'Data Analyst',
   'Data Analyst',
   'Senior Data Analyst',
   'Senior Data Analyst',
   'Senior Data Analyst II']
```

## **Extracting 10 Location**

## In [15]:

```
locn_tags=driver.find_elements_by_xpath('//li[@class="fleft grey-text br2 placeHolderLi
locn_tags[0:10]
```

#### Out[15]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be
3069e71053efdb3d", element="20c7d3eb-9f61-4ecb-8706-2eda09e93fb0")>,
<selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be</pre>
3069e71053efdb3d", element="07122b54-72c8-48fd-b209-9c156ca9804e")>,
 <selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be</pre>
3069e71053efdb3d", element="398e3f16-f843-436f-af75-76a36147888c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be</pre>
3069e71053efdb3d", element="1dbd910e-f04d-4839-bb90-18ffe2790cb5")>,
 <selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be</pre>
3069e71053efdb3d", element="928a7936-b8ef-4765-9e59-588ac4d02253")>,
 <selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be</pre>
3069e71053efdb3d", element="78439f46-000f-4a06-bac4-d62a78ff424c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be</pre>
3069e71053efdb3d", element="d49b12dd-28ee-4155-ae3f-eeeda7c55c62")>,
 <selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be</pre>
3069e71053efdb3d", element="54c78f8d-e2d5-46ae-a35d-5d27dd34c859")>,
 <selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be")</pre>
3069e71053efdb3d", element="19d0dae3-32ab-4be8-a1ea-65843169c590")>,
 <selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be</pre>
3069e71053efdb3d", element="a0145d1b-e445-4336-97ab-35ee1bbd67cf")>]
```

#### In [16]:

```
1 location=[]
2
3 for i in locn_tags:
4    location.append(i.text)
5 location[0:10]
```

## Out[16]:

```
['Bangalore/Bengaluru',
'Bangalore/Bengaluru',
```

## **Extracting 10 Company Names**

## In [18]:

```
#lets extract all web elements having company names
company_tags=driver.find_elements_by_xpath('//a[@class="subTitle ellipsis fleft"]')
company_tags[0:10]
```

#### Out[18]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be
3069e71053efdb3d", element="f475c0ee-adb9-478a-b9da-65797583710b")>,
<selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be</pre>
3069e71053efdb3d", element="108553f5-b20d-4ef6-8b32-56dd973b1dca")>,
 <selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be</pre>
3069e71053efdb3d", element="5100edb8-5624-45ae-bed2-04e8a90d1507")>,
 <selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be</pre>
3069e71053efdb3d", element="668444d6-bf8e-4c37-86fb-6eabf16b3c11")>,
 <selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be</pre>
3069e71053efdb3d", element="985c5419-72bf-487d-b67b-76d437194f89")>,
 <selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be</pre>
3069e71053efdb3d", element="f6f3537e-f427-4147-85b1-3cf2fddb4bf5")>,
 <selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be</pre>
3069e71053efdb3d", element="c8923fbb-f98c-4f7a-8f1b-abf305174c6b")>,
 <selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be</pre>
3069e71053efdb3d", element="6d014226-f2c9-43c3-bf43-9e9352472d46")>,
 <selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be</pre>
3069e71053efdb3d", element="3910d09b-4fb0-462c-85d6-8ed420928e9e")>,
 <selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be")</pre>
3069e71053efdb3d", element="3e013e72-3a92-49d3-b718-c4476ac35836")>]
```

#### In [19]:

```
# now the text for company names is inside the web element extracted above
# so we will run a for loop to iterate over the tags and will extract the text for compo

company_names=[]
for i in company_tags:
    company_names.append(i.text)
company_names[0:10]
```

## Out[19]:

```
['Cerner',
  'Flipkart',
  'Gojek',
  'Clario India Pvt Ltd',
  'Flipkart',
  'Flipkart',
  'Intel',
  'Capco',
  'Flipkart',
  'Flipkart',
```

## **Extracting 10 Experience**

#### In [21]:

```
#lets extract all the web elements having experience using parent tag
#here tag is li

exp_tags=driver.find_elements_by_xpath('//li[@class="fleft grey-text br2 placeHolderLiexp_tags[0:10]
```

#### Out[21]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be"
3069e71053efdb3d", element="6c13ac2b-da94-4b81-ac93-aa4e8ebc67e8")>,
 <selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be</pre>
3069e71053efdb3d", element="bc989ca1-7480-4d20-a5f1-3087a625157d")>,
 <selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be</pre>
3069e71053efdb3d", element="6ce3b56e-e3a9-43b8-ac17-b0a0e7bbd798")>,
 <selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be</pre>
3069e71053efdb3d", element="82f1da13-e11a-49ad-b7d4-ba3724e655d7")>,
 <selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be</pre>
3069e71053efdb3d", element="fe10f352-e6d0-403e-9164-1e1094673783")>,
 <selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be</pre>
3069e71053efdb3d", element="77385101-7aaf-47ea-bd1f-6eb70d46eefa")>,
 <selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be</pre>
3069e71053efdb3d", element="85a5de2b-b214-4086-a0d0-4137bd5e8ff9")>,
 <selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be")</pre>
3069e71053efdb3d", element="8e829375-82f1-426a-9b4c-2cc2d4dfcdd1")>,
 <selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be</pre>
3069e71053efdb3d", element="01f15501-c579-468f-a75d-932f3ab4aad7")>,
 <selenium.webdriver.remote.webelement.WebElement (session="1444fdb5545c30be</pre>
3069e71053efdb3d", element="d59ac8cd-7a3e-47ed-aa41-ab6a2073e3c4")>]
```

```
In [22]:
```

```
1 experience=[]
2
3 for i in exp_tags:
    experience.append(i.text)
5
6 experience[0:10]
```

## Out[22]:

```
['5-10 Yrs',
'3-6 Yrs',
'3-8 Yrs',
'0-2 Yrs',
'4-7 Yrs',
'1-3 Yrs',
'7-12 Yrs',
'4-8 Yrs',
'3-8 Yrs',
'2-4 Yrs']
```

## In [23]:

```
1 len(job_titles), len(company_names), len(experience), len(location)
```

## Out[23]:

```
(20, 20, 20, 20)
```

#### In [24]:

```
# To create a data frame all the length should be same. we have to make sure that we wi

#now we can make the DataFrame

jobs=pd.DataFrame()

jobs['Job Title']=job_titles[0:10]

jobs['Company']=company_names[0:10]

jobs['Experience']=experience[0:10]

jobs['Location']=location[0:10]

jobs
```

#### Out[24]:

|   | Job Title  | Company                 | Experience | Location            |
|---|--|-------------------------|------------|---------------------|
| 0 | Data Analyst I                                     | Cerner                  | 5-10 Yrs   | Bangalore/Bengaluru |
| 1 | Senior Data Analyst II                             | Flipkart                | 3-6 Yrs    | Bangalore/Bengaluru |
| 2 | Senior Data Analyst - Ads & Promotion Platform     | Gojek                   | 3-8 Yrs    | Bangalore/Bengaluru |
| 3 | Hiring For Data Analyst I(SQL & Python)            | Clario India Pvt<br>Ltd | 0-2 Yrs    | Bangalore/Bengaluru |
| 4 | Lead Data Analyst - Flipkart Data science<br>group | Flipkart                | 4-7 Yrs    | Bangalore/Bengaluru |
| 5 | Data Analyst                                       | Flipkart                | 1-3 Yrs    | Bangalore/Bengaluru |
| 6 | Data Analyst                                       | Intel                   | 7-12 Yrs   | Bangalore/Bengaluru |
| 7 | Senior Data Analyst                                | Capco                   | 4-8 Yrs    | Bangalore/Bengaluru |
| 8 | Senior Data Analyst                                | Flipkart                | 3-8 Yrs    | Bangalore/Bengaluru |
| 9 | Senior Data Analyst II                             | Flipkart                | 2-4 Yrs    | Bangalore/Bengaluru |

#### In [ ]:

1

```
Q2: Write a python program to scrape data for "Data Scientist" Job position in
   "Bangalore" location.
 2
 3
       You have to scrape the job-title, job-location, company_name. You have to scrape
   first 10 jobs data.
 5
   This task will be done in following steps:
 7

    First get the webpage https://www.naukri.com/

   2. Enter "Data Scientist" in "Skill, Designations, Companies" field and enter
   "Bangalore" in "enter the
   location" field.
10 3. Then click the search button.
   4. Then scrape the data for the first 10 jobs results you get.
11
   5. Finally create a dataframe of the scraped data
13
   Note: All of the above steps have to be done in code. No step is to be done manually.
```

```
In [82]:
```

```
#lets import all required libraries

import selenium

from selenium import webdriver

import pandas as pd
import warnings
warnings.filterwarnings("ignore")
```

#### In [83]:

1 driver=webdriver.Chrome(r'C:/Users/Acer Aspire 3/Downloads/chromedriver\_win32/chromedri

#### In [84]:

```
1 driver = webdriver.Chrome('chromedriver.exe')
```

### In [85]:

```
1 url='https://www.naukri.com/'
2 driver.get(url)
```

#### In [86]:

```
search_job=driver.find_element_by_class_name("suggestor-input")
search_job
```

#### Out[86]:

<selenium.webdriver.remote.webelement.WebElement (session="ae2515b01d5b583bb
1b7e1c879a066dd", element="293df945-879e-4946-9220-309ec60890b5")>

#### In [87]:

```
1 search_job.send_keys("Data Scientist")
```

#### In [88]:

## Out[88]:

<selenium.webdriver.remote.webelement.WebElement (session="ae2515b01d5b583bb
1b7e1c879a066dd", element="f88ca9cc-215b-40ce-be57-0865054dc0b7")>

#### In [89]:

```
search_locn.send_keys("Bangalore")
search_locn
```

### Out[89]:

<selenium.webdriver.remote.webelement.WebElement (session="ae2515b01d5b583bb
1b7e1c879a066dd", element="f88ca9cc-215b-40ce-be57-0865054dc0b7")>

#### In [90]:

```
search_btn=driver.find_element_by_xpath("/html/body/div/div[2]/div[3]/div/div/div[6]")
search_btn
```

## Out[90]:

<selenium.webdriver.remote.webelement.WebElement (session="ae2515b01d5b583bb
1b7e1c879a066dd", element="53dd4440-02b5-4ad7-86ac-c50b34c2d416")>

## In [91]:

```
1 search_btn.click()
```

# **Extracting 10 Job Titles**

### In [92]:

```
title_tags=driver.find_elements_by_xpath('//a[@class="title fw500 ellipsis"]')
title_tags[0:10]
```

#### Out[92]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="ae2515b01d5b583b
b1b7e1c879a066dd", element="3ba77126-c3d6-4c8a-a9ca-8477cd08f2a1")>,
<selenium.webdriver.remote.webelement.WebElement (session="ae2515b01d5b583b</pre>
b1b7e1c879a066dd", element="44a557ee-8ad4-46ab-bb3f-95a14f2d84c9")>,
 <selenium.webdriver.remote.webelement.WebElement (session="ae2515b01d5b583b</pre>
b1b7e1c879a066dd", element="5d30e9db-95bd-430b-9911-d148b88e95ee")>,
 <selenium.webdriver.remote.webelement.WebElement (session="ae2515b01d5b583b</pre>
b1b7e1c879a066dd", element="71d18f67-6ab6-4508-9bf6-84ff35f4ea0d")>,
 <selenium.webdriver.remote.webelement.WebElement (session="ae2515b01d5b583b</pre>
b1b7e1c879a066dd", element="f5d12793-79af-4cbd-9dc0-6150042f2125")>,
 <selenium.webdriver.remote.webelement.WebElement (session="ae2515b01d5b583b</pre>
b1b7e1c879a066dd", element="5fba0da9-c199-4ca5-900a-659bacbc0220")>,
 <selenium.webdriver.remote.webelement.WebElement (session="ae2515b01d5b583b</pre>
b1b7e1c879a066dd", element="00db2ef7-9b30-4322-92af-ddb072cd9cc4")>,
 <selenium.webdriver.remote.webelement.WebElement (session="ae2515b01d5b583b</pre>
b1b7e1c879a066dd", element="ebce2d05-9fb3-4b19-a0c4-fc432a77d9ac")>,
 <selenium.webdriver.remote.webelement.WebElement (session="ae2515b01d5b583b</pre>
b1b7e1c879a066dd", element="091b2cd2-b7b3-429c-84d3-902aabacc00d")>,
 <selenium.webdriver.remote.webelement.WebElement (session="ae2515b01d5b583b</pre>
b1b7e1c879a066dd", element="d754e673-24ef-4d33-829e-620935f2ff10")>]
```

#### In [93]:

```
job_titles=[]

for i in title_tags:
    job_titles.append(i.text)

len(job_titles)
    job_titles[0:10]
```

#### Out[93]:

```
['Data Scientist III',
   'Sr Data Scientist',
   'Data Scientist/Senior Data Scientist - Python',
   'HCL Tech Opening - Lead Data Scientist',
   'Sr . Data Scientist',
   'Need Data scientists and data engineers - WFH- less than 30days notice',
   'Sr. Data Scientist - Manufacturing Projects - German MNC',
   'Principal Data Scientist',
   'Data Scientist',
   'Data Scientist']
```

## **Extracting 10 Location**

## In [94]:

```
1 locn_tags=driver.find_elements_by_xpath('//li[@class="fleft grey-text br2 placeHolderLi
2 locn_tags[0:10]
```

#### Out[94]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="ae2515b01d5b583b
b1b7e1c879a066dd", element="d5dcc0db-c9c7-408a-861a-2a3d2e94d43a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="ae2515b01d5b583b</pre>
b1b7e1c879a066dd", element="acf187c2-82b3-4635-83bd-7f76a9475621")>,
 <selenium.webdriver.remote.webelement.WebElement (session="ae2515b01d5b583b</pre>
b1b7e1c879a066dd", element="d086db06-b38d-4782-b540-f24dbcb12687")>,
 <selenium.webdriver.remote.webelement.WebElement (session="ae2515b01d5b583b</pre>
b1b7e1c879a066dd", element="766ddaae-ef45-4b83-8ff1-a453331f0bdf")>,
 <selenium.webdriver.remote.webelement.WebElement (session="ae2515b01d5b583b</pre>
b1b7e1c879a066dd", element="45cc07a7-6e74-4fec-ac41-25051c4352db")>,
 <selenium.webdriver.remote.webelement.WebElement (session="ae2515b01d5b583b</pre>
b1b7e1c879a066dd", element="7812753f-5269-449a-866f-035a7e6eb884")>,
 <selenium.webdriver.remote.webelement.WebElement (session="ae2515b01d5b583b</pre>
b1b7e1c879a066dd", element="67ad7941-f399-45b5-9648-d1d017eae57b")>,
 <selenium.webdriver.remote.webelement.WebElement (session="ae2515b01d5b583b</pre>
b1b7e1c879a066dd", element="dd802282-7610-4adc-9b53-755e9f157d70")>,
 <selenium.webdriver.remote.webelement.WebElement (session="ae2515b01d5b583b</pre>
b1b7e1c879a066dd", element="c552da8c-d5c1-4719-8dbb-e07f2b8e6987")>,
 <selenium.webdriver.remote.webelement.WebElement (session="ae2515b01d5b583b</pre>
b1b7e1c879a066dd", element="61978344-4ed7-408e-9499-c3a5d41103a2")>]
```

#### In [95]:

```
1 location=[]
2
3 for i in locn_tags:
    location.append(i.text)
5 location[0:10]
```

#### Out[95]:

```
['Bangalore/Bengaluru',
    'Bangalore/Bengaluru',
    'Bangalore/Bengaluru',
    'Kolkata, Hyderabad/Secunderabad, Pune, Chennai, Bangalore/Bengaluru, Delhi
/ NCR',
    'Bangalore/Bengaluru',
    'Hyderabad/Secunderabad, Bangalore/Bengaluru, Mumbai (All Areas)\n(WFH duri
ng Covid)',
    'Pune, Bangalore/Bengaluru',
    'Bangalore/Bengaluru',
    'Bangalore/Bengaluru',
    'Pune, Gurgaon/Gurugram, Chennai, Bangalore/Bengaluru, Delhi / NCR, Mumbai
(All Areas)']
```

## **Extracting 10 Company Names**

## In [96]:

```
company_tags=driver.find_elements_by_xpath('//a[@class="subTitle ellipsis fleft"]')
company_tags[0:10]
```

#### Out[96]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="ae2515b01d5b583b
b1b7e1c879a066dd", element="fdb1e18c-f65f-4d5d-aa7e-586553c01db8")>,
 <selenium.webdriver.remote.webelement.WebElement (session="ae2515b01d5b583b</pre>
b1b7e1c879a066dd", element="8b548261-e53c-4e09-b921-fc0a50f41a51")>,
 <selenium.webdriver.remote.webelement.WebElement (session="ae2515b01d5b583b</pre>
b1b7e1c879a066dd", element="63c3714b-36ce-411f-af69-39b7f0853da3")>,
 <selenium.webdriver.remote.webelement.WebElement (session="ae2515b01d5b583b</pre>
b1b7e1c879a066dd", element="758d39c1-2450-4be1-9a68-285fa6f7e1c5")>,
 <selenium.webdriver.remote.webelement.WebElement (session="ae2515b01d5b583b</pre>
b1b7e1c879a066dd", element="00d38cf5-cd89-4b1c-aeda-3cefc14f3539")>,
 <selenium.webdriver.remote.webelement.WebElement (session="ae2515b01d5b583b</pre>
b1b7e1c879a066dd", element="1b3456cf-279b-4d74-a3ee-e10b27e8379b")>,
 <selenium.webdriver.remote.webelement.WebElement (session="ae2515b01d5b583b</pre>
b1b7e1c879a066dd", element="a591d629-439c-4f7d-ac4a-a46d641f9d23")>,
 <selenium.webdriver.remote.webelement.WebElement (session="ae2515b01d5b583b</pre>
b1b7e1c879a066dd", element="966e8b4f-eefe-44db-8c76-bc5fcd2ba0ad")>,
 <selenium.webdriver.remote.webelement.WebElement (session="ae2515b01d5b583b</pre>
b1b7e1c879a066dd", element="9cc56aea-3d83-4fdd-966c-c57bfa40fa03")>,
 <selenium.webdriver.remote.webelement.WebElement (session="ae2515b01d5b583b</pre>
b1b7e1c879a066dd", element="6fcf2937-62af-487a-8a47-5edf694e815b")>]
```

#### In [97]:

```
company_names=[]
for i in company_tags:
    company_names.append(i.text)
company_names[0:10]
```

#### Out[97]:

```
['Groupon',
'Uber',
'ApicalGo Consultancy',
'HCL',
'Visa',
'Covalense Technologies Private Limited',
'EVOLVE TECHNOLOGIES AND SERVICES PRIVATE LIMITED',
'Mobile Premier League',
'Shell',
'HDFC Bank']
```

#### In [98]:

```
jobs=pd.DataFrame()
jobs['Job Title']=job_titles[0:10]
jobs['Company']=company_names[0:10]
jobs['Location']=location[0:10]
jobs
```

## Out[98]:

|   | Job Title  | Company  | Location   |
|---|--|--|--|
| 0 | Data Scientist III                               | Groupon  | Bangalore/Bengaluru                                  |
| 1 | Sr Data Scientist                                | Uber   | Bangalore/Bengaluru                                  |
| 2 | Data Scientist/Senior Data<br>Scientist - Python | ApicalGo Consultancy                             | Bangalore/Bengaluru                                  |
| 3 | HCL Tech Opening - Lead<br>Data Scientist        | HCL  | Kolkata,<br>Hyderabad/Secunderabad,<br>Pune, Chennai |
| 4 | Sr . Data Scientist                              | Visa   | Bangalore/Bengaluru                                  |
| 5 | Need Data scientists and data engineers - WFH    | Covalense Technologies Private<br>Limited        | Hyderabad/Secunderabad,<br>Bangalore/Bengaluru, M    |
| 6 | Sr. Data Scientist -<br>Manufacturing Projects   | EVOLVE TECHNOLOGIES AND SERVICES PRIVATE LIMITED | Pune, Bangalore/Bengaluru                            |
| 7 | Principal Data Scientist                         | Mobile Premier League                            | Bangalore/Bengaluru                                  |
| 8 | Data Scientist                                   | Shell  | Bangalore/Bengaluru                                  |
| 9 | Data Scientist                                   | HDFC Bank  | Pune, Gurgaon/Gurugram,<br>Chennai, Bangalore/Ben    |

## In [ ]:

1

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

2

You have to use the location and salary filter.

You have to scrape data for "Data Scientist" designation for first 10 job results.
You have to scrape the job-title, job-location, company name, experience required.
The location filter to be used is "Delhi/NCR". The salary filter to be used is "3-6" lakhs

The task will be done as shown in the below steps:
1. first get the webpage https://www.naukri.com/
2. Enter "Data Scientist" in "Skill, Designations, and Companies" field.
3. Then click the search button.
4. Then apply the location filter and salary filter by checking the respective boxes
5. Then scrape the data for the first 10 jobs results you get.
6. Finally create a dataframe of the scraped data.
Note: All of the above steps have to be done in code. No step is to be done manually.

#### In [53]:

17

```
import selenium
from selenium import webdriver
import pandas as pd
import warnings
warnings.filterwarnings("ignore")
```

## In [54]:

1 driver=webdriver.Chrome(r'C:/Users/Acer Aspire 3/Downloads/chromedriver\_win32/chromedri

#### In [55]:

```
1 driver = webdriver.Chrome('chromedriver.exe')
```

#### In [56]:

```
1 url='https://www.naukri.com/'
2 driver.get(url)
```

#### In [57]:

```
search_job=driver.find_element_by_class_name("suggestor-input")
search_job
```

#### Out[57]:

<selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf297834
501b64da61c3b1f", element="87505c73-0758-4bda-96ca-85cf4dd0c752")>

#### In [58]:

```
search_job.send_keys("Data Scientist")
search_job
```

## Out[58]:

<selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf297834
501b64da61c3b1f", element="87505c73-0758-4bda-96ca-85cf4dd0c752")>

#### In [59]:

```
1 | search_btn=driver.find_element_by_xpath("/html/body/div/div[2]/div[3]/div/div/div[6]")
```

#### 2 search\_btn

## Out[59]:

<selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf297834
501b64da61c3b1f", element="f22bf5f5-ffad-4bd6-92d7-2d30c895bdec")>

#### In [60]:

```
1 search_btn.click()
```

1 Clicking filter by selecting check boxes sing absolute xpath

#### In [63]:

1 locn\_check=driver.find\_element\_by\_xpath("/html/body/div[1]/div[3]/div[2]/section[1]/div

2 locn\_check

## Out[63]:

<selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf297834
501b64da61c3b1f", element="4c53fa85-1146-4734-ab87-6359c3b0e14a")>

#### In [64]:

1 locn\_check.click()

#### In [65]:

1 salary\_check=driver.find\_element\_by\_xpath("/html/body/div[1]/div[3]/div[2]/section[1]/div[3]

2 salary\_check

#### Out[65]:

<selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf297834
501b64da61c3b1f", element="1dfd47ed-9b50-4aed-85a0-2b0c11fe7eec")>

## In [66]:

1 salary\_check.click()

## **Extracting 10 Job Titles**

#### In [69]:

```
#Right click and inspect the job ttiles two times and copy class details and add //a[@]
title_tags=driver.find_elements_by_xpath('//a[@class="title fw500 ellipsis"]')
title_tags[0:10]
title_tags[0:10]
```

#### Out[69]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783
4501b64da61c3b1f", element="fe57896f-6cbf-4186-9738-b282c0835c61")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783</pre>
4501b64da61c3b1f", element="5a87ba5d-eaad-48cb-adb5-a527c24b4a91")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783")</pre>
4501b64da61c3b1f", element="86c833eb-2680-4b6e-bb23-0158522be8a2")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783")</pre>
4501b64da61c3b1f", element="e0e730cb-2ff9-40f8-8405-3e09b5f245fc")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783")</pre>
4501b64da61c3b1f", element="a05232a3-0ded-477b-bd49-366118b0f2d3")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783")</pre>
4501b64da61c3b1f", element="4302fab1-90fe-40bb-b6c5-4b94cccd3e86")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783")</pre>
4501b64da61c3b1f", element="eed9bdf9-f05b-4762-856b-0b49fa298c1c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783")</pre>
4501b64da61c3b1f", element="d79afcdf-19f8-40b5-8407-4cbb1b70261e")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783")</pre>
4501b64da61c3b1f", element="f53ad9f2-84bd-4604-a02e-2a6b2ddf040e")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783")</pre>
4501b64da61c3b1f", element="eb757cb1-92dc-4940-8bbd-3771a2260b68")>]
```

## In [70]:

```
job_titles=[]

for i in title_tags:
    job_titles.append(i.text)

len(job_titles)
    job_titles[0:10]
```

#### Out[70]:

```
['Excellent Opportunity For Freshers For AI/ML, Data Scientist, BI, QA',
    'Data Scientist',
    'Data scientist- Python',
    'Data Analyst / Data Scientist / Business Analytics / Fresher - MNC',
    'Data Scientist _NLP',
    'Hiring For Senior Data Scientist-Noida',
    'Junior Data Analyst/ Scientist- Fresher Position',
    'Data Scientist (freelance)',
    'Data Scientist - MIND Infotech',
    'Data Scientist - MIND Infotech']
```

## **Extracting 10 Location**

```
In [71]:
```

```
1 locn_tags=driver.find_elements_by_xpath('//li[@class="fleft grey-text br2 placeHolderLi
2 locn_tags[0:10]
```

#### Out[71]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783
4501b64da61c3b1f", element="ca150329-f257-458c-b423-c92ae69faaa6")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783")</pre>
4501b64da61c3b1f", element="f76a3cba-5633-4ea2-97a8-5e1635e4dcf8")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783")</pre>
4501b64da61c3b1f", element="dabfa22c-1f24-4830-a25f-7ba4a16a1d76")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783")</pre>
4501b64da61c3b1f", element="44839a92-2d87-44cc-b888-d15ae33ee6ee")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783")</pre>
4501b64da61c3b1f", element="f251848e-d08a-4d11-b748-a4d69245f298")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783")</pre>
4501b64da61c3b1f", element="b54145b0-967e-489a-b11a-b2d270748e1b")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783</pre>
4501b64da61c3b1f", element="fa6a4b92-7209-46a2-a093-46b6ddee0d0c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783")</pre>
4501b64da61c3b1f", element="053c4ab3-0dd6-4814-b40f-a2f362caf8ac")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783")</pre>
4501b64da61c3b1f", element="9e8dcee2-6ea2-4f0b-b379-a5bcaa27f902")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783")</p>
4501b64da61c3b1f", element="f66cf8c1-0aeb-44d2-a978-0358dbe21a33")>]
```

#### In [72]:

```
1 location=[]
2
3 for i in locn_tags:
4    location.append(i.text)
5 location[0:10]
```

#### Out[72]:

```
['Noida, Kolkata, Hyderabad/Secunderabad, Pune, Chennai, Bangalore/Bengalur
u, Delhi / NCR, Mumbai (All Areas)\n(WFH during Covid)',
  'Hyderabad/Secunderabad, Pune, Gurgaon/Gurugram, Bangalore/Bengaluru, Delhi
/ NCR',
  'Gurgaon/Gurugram',
  'Noida, New Delhi, Delhi / NCR',
  'Bangalore/Bengaluru, Delhi / NCR\n(WFH during Covid)',
  'Noida, New Delhi, Greater Noida',
  'Kolkata, Hyderabad/Secunderabad, Pune, Ahmedabad, Chennai, Bangalore/Bengaluru, Delhi / NCR, Mumbai (All Areas)\n(WFH during Covid)',
  'New Delhi, Delhi',
  'Noida',
  'Noida']
```

## **Extracting 10 Company Names**

```
In [73]:
```

```
company_tags=driver.find_elements_by_xpath('//a[@class="subTitle ellipsis fleft"]')
company_tags[0:10]
```

#### Out[73]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783
4501b64da61c3b1f", element="bf893486-15c3-49dd-a90b-ef8302c6edc6")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783")</pre>
4501b64da61c3b1f", element="ad15aa49-88c2-4d06-a94d-96a4ac975176")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783</pre>
4501b64da61c3b1f", element="3154b806-732f-4b96-ae2c-3784d37027e4")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783")</pre>
4501b64da61c3b1f", element="98924ad8-faaf-4f98-a9cb-f3df7b717cf0")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783")</pre>
4501b64da61c3b1f", element="a236e1a5-a536-400f-9189-c967e129ed8e")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783")</pre>
4501b64da61c3b1f", element="aedc2b6a-958c-4520-8c54-23ea43c4aa25")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783")</pre>
4501b64da61c3b1f", element="696b97fc-7204-492f-a6c8-bc1599f243ed")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783")</pre>
4501b64da61c3b1f", element="d5eff994-be56-4679-b8d2-015838fe35b9")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783")</pre>
4501b64da61c3b1f", element="b311a3ee-5f33-40da-b2a5-a5500df636d8")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783")</pre>
4501b64da61c3b1f", element="6d0d209e-837b-4416-9075-92de6ffbb24b")>]
```

## In [74]:

```
company_names=[]
for i in company_tags:
    company_names.append(i.text)
company_names[0:10]
```

## Out[74]:

```
['NTT Data',
'Mount Talent Consulting Private Limited',
'TeamPlus Staffing Solution Pvt Ltd',
'GABA Consultancy services',
'EXL',
'Lumiq.ai',
'Sejal Consulting Hub',
'2Coms',
'MOTHERSONSUMI INFOTECH & DESIGNS LIMITED',
'MOTHERSONSUMI INFOTECH & DESIGNS LIMITED']
```

# **Extracting 10 Experience**

#### In [75]:

```
exp_tags=driver.find_elements_by_xpath('//li[@class="fleft grey-text br2 placeHolderLi
exp_tags[0:10]
```

#### Out[75]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783
4501b64da61c3b1f", element="25ad6932-3bec-4e15-a102-064dfad08887")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783")</pre>
4501b64da61c3b1f", element="0f94567c-28af-4435-bcba-23a3fa7d31d1")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783</pre>
4501b64da61c3b1f", element="b7caa0e6-de95-403a-a770-9b9009c94788")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783</pre>
4501b64da61c3b1f", element="8b219089-50db-482e-8433-68e289bc1df4")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783")</pre>
4501b64da61c3b1f", element="8194bf6e-bd57-4448-9703-f661a02065d9")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783</pre>
4501b64da61c3b1f", element="b2a54e9e-0d82-403f-a4d4-41823d2ff7d6")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783</pre>
4501b64da61c3b1f", element="75f44c1c-02cf-45e3-ab46-55e310b46e6a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783</pre>
4501b64da61c3b1f", element="93488ab4-3bfa-4b2a-af03-6787c9c49e87")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783</pre>
4501b64da61c3b1f", element="92151dfc-5e53-475e-945e-6ec9889c00cf")>,
 <selenium.webdriver.remote.webelement.WebElement (session="8919464c7bf29783</pre>
4501b64da61c3b1f", element="1cd0d05b-aec3-4ed9-b484-30154d33c700")>]
```

#### In [76]:

```
1 experience=[]
2
3 for i in exp_tags:
    experience.append(i.text)
5
6 experience[0:10]
```

## Out[76]:

```
['0-0 Yrs',
'1-4 Yrs',
'3-6 Yrs',
'0-0 Yrs',
'2-6 Yrs',
'2-6 Yrs',
'2-7 Yrs',
'4-8 Yrs',
'4-8 Yrs']
```

## In [80]:

```
jobs=pd.DataFrame()
jobs['Job Title']=job_titles[0:10]
jobs['Company']=company_names[0:10]
jobs['Experience']=experience[0:10]
jobs['Location']=location[0:10]
jobs
```

## Out[80]:

|   | Job Title   | Company  | Experience | Location   |
|---|---|--|------------|--|
| 0 | Excellent Opportunity For Freshers For Al/ML,       | NTT Data                                       | 0-0 Yrs    | Noida, Kolkata,<br>Hyderabad/Secunderabad,<br>Pune,  |
| 1 | Data Scientist                                      | Mount Talent Consulting<br>Private Limited     | 1-4 Yrs    | Hyderabad/Secunderabad,<br>Pune,<br>Gurgaon/Gurugram |
| 2 | Data scientist- Python                              | TeamPlus Staffing Solution Pvt<br>Ltd          | 3-6 Yrs    | Gurgaon/Gurugram                                     |
| 3 | Data Analyst / Data<br>Scientist / Business Analy   | GABA Consultancy services                      | 0-0 Yrs    | Noida, New Delhi, Delhi /<br>NCR                     |
| 4 | Data Scientist _NLP                                 | EXL  | 3-8 Yrs    | Bangalore/Bengaluru,<br>Delhi / NCR\n(WFH during<br> |
| 5 | Hiring For Senior Data<br>Scientist-Noida           | Lumiq.ai                                       | 2-6 Yrs    | Noida, New Delhi, Greater<br>Noida                   |
| 6 | Junior Data Analyst/<br>Scientist- Fresher Position | Sejal Consulting Hub                           | 0-3 Yrs    | Kolkata,<br>Hyderabad/Secunderabad,<br>Pune, Ahmedab |
| 7 | Data Scientist (freelance)                          | 2Coms  | 2-7 Yrs    | New Delhi, Delhi                                     |
| 8 | Data Scientist - MIND<br>Infotech                   | MOTHERSONSUMI<br>INFOTECH & DESIGNS<br>LIMITED | 4-8 Yrs    | Noida  |
| 9 | Data Scientist - MIND<br>Infotech                   | MOTHERSONSUMI<br>INFOTECH & DESIGNS<br>LIMITED | 4-8 Yrs    | Noida  |

#### In [ ]:

1

2

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

3 1. Brand

- 2. Product Description
- 5 3. Price
- 6  ${\sf The}$  attributes which you have to scrape is ticked marked in the below image.

7 8

- 9 To scrape the data you have to go through following steps:
- .0 1. Go to Flipkart webpage by url : https://www.flipkart.com/
- 2. Enter "sunglasses" in the search field where "search for products, brands andmore" is written and
- 12 click the search icon

- 13 | 3. After that you will reach to the page having a lot of sunglasses. From this pageyou can scrap the 14 required data as usual.
- 15 4. After scraping data from the first page, go to the "Next" Button at the bottom ofthe page , then
- 16 click on it.
- 17 5. Now scrape data from this page as usual
- 18 6. Repeat this until you get data for 100 sunglasses.
- Note: That all of the above steps have to be done by coding only and not manually.
- 20

## In [81]:

- 1 import selenium
- 2 **from** selenium **import** webdriver
- 3 import pandas as pd
- 4 import warnings
- 5 warnings.filterwarnings("ignore")

### In [44]:

1 driver=webdriver.Chrome(r'C:/Users/Acer Aspire 3/Downloads/chromedriver\_win32/chromedri

#### In [45]:

1 | driver = webdriver.Chrome('chromedriver.exe')

#### In [46]:

- 1 url='https://www.flipkart.com/' 2 driver.get(url)
- In [47]:
- search=driver.find\_element\_by\_class\_name("\_3704LK")
  - 2 search

#### Out[47]:

<selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769a</pre> 6e7630a38497998", element="9edc1bbc-9138-4d67-acab-4b4af23c8f2b")>

#### In [48]:

search.send\_keys("sunglasses")

## In [50]:

- search\_btn=driver.find\_element\_by\_xpath("/html/body/div[1]/div/div[1]/div[1]/div[2]/div
  - search\_btn

#### Out[50]:

<selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769a</pre> 6e7630a38497998", element="507aefde-b07f-4598-a758-ffc1cf9fa5e8")>

#### In [51]:

search\_btn.click()

# **Extracting 100 Brands**

#### In [52]:

```
brand=driver.find_elements_by_xpath('//div[@class="_2WkVRV"]')
brand[0:40]
```

#### Out[52]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769
a6e7630a38497998", element="80a33285-e644-484c-986c-76e6b743f3e9")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="39f1d399-fff4-43a9-90ef-29c8fdd6a34f")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="dec70608-d4dd-4fe3-8539-9d200fdda5bd")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="ea53a8b5-9d61-4251-996f-d747bcb33355")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="16d32af3-70b8-4ae4-80bb-9e635f7c8fb4")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</p>
a6e7630a38497998", element="5c9cf37c-fa38-41a1-883b-c44481028a84")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="6b1d5a82-1ecf-4de9-8393-f9ef162bdb63")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="18f46b89-df8e-4445-b9a8-44d0362031c9")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="6d953065-541d-4f39-bf80-29a14c067e6b")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</p>
a6e7630a38497998", element="7f99c753-1724-4214-a5f5-76badcfccab9")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="80110a18-9b54-493e-aa4a-cbd398305ade")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="19b15b55-7abb-42c7-8837-642a0b96c455")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="f2775fb5-7d76-4c90-a44c-2b13bbc7bd0a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="36906fa9-a929-4e23-a9d7-e48da618fe94")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="7a6c8e29-07a4-4cef-b2e4-67c436ad2f78")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="d3415e71-8214-43df-a4b5-8569bfc13d67")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="609241dc-3e61-4bc7-846d-31bf20f57703")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="9ae7efd2-00f1-47b2-a571-7fdd9cd7e472")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="1cadbdd6-0dc0-4ec4-87d9-0cf5818c0053")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="7541dbeb-d6d0-44c3-af18-c69833c50aa0")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="cfd1f657-94ac-4ab2-bcd7-ece68c811456")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="b807d0c3-a656-4c8c-ace4-39f36de12bb6")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="f11afb1e-3723-441f-a112-f5b3692fd049")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="d5434daa-2699-446e-ada8-ac8949e8bf1e")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="9f91c485-a7ae-4651-8120-30e27dcfda54")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="11e17ce0-1b8c-40e9-ab66-bb727a874bab")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="f65d28b0-a528-49b7-a0d6-b86bd28f4596")>,
```

<selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre> a6e7630a38497998", element="84a0130e-a3ec-4d2b-abde-a570df323514")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="6a653e5c-8212-4653-ba31-fb77965e17f1")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="ca44fd77-c1f7-4777-84a0-66d06ea45fa9")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="aea9dc0c-6def-408a-9238-f1013a7a413d")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="d797b532-b678-4a9f-8fbd-8ffd0ee327a1")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="621fd660-bcb7-4270-8cfb-a703ad809b3f")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="6ef511ce-6953-42ea-97a1-0a33665f769a")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="02ed5a5f-4b51-4b72-b558-956c00c6cf97")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="60e3e031-3af4-4927-8562-e344326d38f7")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="3023fa9e-a005-4a29-8b07-7bad85f3a31f")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="45eb1fbd-4b6a-4ada-bd12-ad535ec0edc0")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="c427df96-113d-47c5-85a4-de8cc57bc188")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="ae9a0658-99ac-4b45-b36c-45b324f638a9")>]

```
In [53]:
```

```
brand_tags=[]
 2
 3
    for i in brand:
 4
        brand_tags.append(i.text)
    brand_tags[0:40]
Out[53]:
['VINCENT CHASE',
 'VINCENT CHASE',
 'SRPM',
 'SUNBEE',
 'ROZZETTA CRAFT',
 'PIRASO',
 'Elligator',
 'povty',
 'Fastrack',
 'PIRASO',
 'New Specs',
 'Sundry',
 'SHAAH COLLECTIONS',
 'DEIXELS',
 'PIRASO',
 'ROZZETTA CRAFT',
 'Lee Topper',
 'Lee Topper',
 'GANSTA',
 'LOUIS KOUROS',
 'PIRASO',
 'ROYAL SON',
 'kingsunglasses',
 'ROYAL SON',
 'kingsunglasses',
 'PHENOMENAL',
 'kingsunglasses',
 'VILLAIN',
 'Silver Kartz',
 'SUNBEE',
 'SRPM',
 'Velocity Eyewear',
 'PIRASO',
 'GANSTA',
 'SHAAH COLLECTIONS',
 'ROYAL SON',
 'ROYAL SON',
 'Elligator',
 'PIRASO',
 'ROYAL SON']
```

# **100 Product Description**

#### In [54]:

```
product_description=driver.find_elements_by_xpath('//a[@class="IRpwTa"]')
product_description[0:40]
```

#### Out[54]:

[<selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547 69a6e7630a38497998", element="a9c1aa9e-033d-4090-8f9a-e6a132172853")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="38e5b49e-33d7-4610-a1cb-44b6e0095177")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="25d16392-7ae8-4003-a14b-5f7dced00d60")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="9c2ee0ff-1db8-4d74-9683-b97f69ddbb92")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="4feb5036-84cd-447d-bc36-fe7133896265")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="6d3bef61-2e74-4921-8710-fd5430938840")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="39549ba5-fdd9-462e-ba37-d4548328df7c")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="7da3f569-5abc-4d47-ba57-8299e5d45ae8")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="a8aed80d-2629-4fb2-8cd1-94d0a96a71bd")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="5322e67e-a1a0-4b6e-9b4d-a37f51e4468f")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="cf1400c1-ac89-4b1b-adcf-ac71e9f31789")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="e9c3ad54-214e-42e7-bb95-ed25c9574e5b")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="40e72288-3645-478a-b70e-769382894179")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="0267e9a9-8915-45b1-9fd1-abefa08daedf")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="402b1a2c-d97e-4713-beb6-82d5dd102b1f")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="fefcdca8-de67-423d-838f-4d0a223221da")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="81ad84f7-93b5-41ce-a1b5-0d9b7c3e2ffe")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="c7d63193-626b-4689-9d52-dc3cfe2baf8a")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="a8e8ac83-b16f-4622-93a9-5d0275e5edc3")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="c8fb3bde-56b7-4d08-afe9-16a91cdc518d")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="20616875-a26c-498a-994b-cfe4084d5f99")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="eac82fac-c291-48df-8a64-5bbcbd499080")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="4cefb123-70ae-4f97-b910-9aca70ec11be")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="3c4393d2-9dac-475a-8c68-969514f76c81")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="9a64f2e1-2902-48b9-a6f9-9bb923c614c6")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="e2af1ea4-8990-4d91-b82e-b799c330e95b")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547"</p>

69a6e7630a38497998", element="6a3c7d67-16e0-474b-ae1e-f90dc09bd2ce")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="46a256fe-1eb1-4657-93d2-aea3324b190d")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="f3c1d71b-7369-4daf-9481-a4e76234ee0b")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="ca011748-823e-426a-962b-17d6d48ca416")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="d491fd34-cab1-4f9a-8280-1aab21503d63")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="ce77c44b-4ba5-485d-812a-f61de50c84a7")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547")</pre> 69a6e7630a38497998", element="84378c34-dc9e-42ed-83bc-bd507ce16552")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="26c28c09-158a-4a02-82c1-4a59092fd9f3")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="3b5457d3-8a05-473a-8342-d84108d30f34")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="347678ec-a55e-40ad-92ad-285674d1954c")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="9625f403-c4cd-4995-af6e-937e3cf485ee")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="20868af4-b244-4887-93c8-9999953cb915")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f409547</pre> 69a6e7630a38497998", element="c5fbf099-05ae-4dc6-803d-578dcc856127")>]

#### In [55]:

```
product_description_tags=[]

for i in product_description:
    product_description_tags.append(i.text)

len(product_description_tags)
product_description_tags[0:40]
```

### Out[55]:

```
['by Lenskart Polarized, UV Protection Round Sunglasses (...',
 'by Lenskart Polarized, UV Protection Wayfarer Sunglasse...',
 'UV Protection Wayfarer Sunglasses (50)',
 'UV Protection, Polarized Wayfarer Sunglasses (Free Size...',
 'Polarized, Night Vision, Riding Glasses Sports, Wrap-ar...',
 'UV Protection Aviator Sunglasses (54)',
 'UV Protection Round Sunglasses (54)',
 'UV Protection Retro Square Sunglasses (Free Size)',
 'UV Protection Rectangular Sunglasses (Free Size)',
 'UV Protection Aviator Sunglasses (54)',
 'UV Protection Rectangular Sunglasses (Free Size)',
 'Mirrored, Others Round, Wayfarer Sunglasses (Free Size)',
 'UV Protection, Polarized, Mirrored Rectangular Sunglass...',
 'UV Protection Aviator, Wayfarer Sunglasses (Free Size)',
 'UV Protection Wayfarer Sunglasses (55)',
 'Gradient, UV Protection Round Sunglasses (Free Size)',
 'Riding Glasses Wrap-around Sunglasses (Free Size)',
 'UV Protection Rectangular Sunglasses (Free Size)',
 'UV Protection, Riding Glasses Wayfarer Sunglasses (53)',
 'UV Protection, Riding Glasses, Mirrored Aviator Sunglas...',
 'UV Protection Aviator Sunglasses (54)',
 'Mirrored Aviator Sunglasses (Free Size)',
 'Mirrored, UV Protection Wayfarer Sunglasses (Free Size)',
 'UV Protection Retro Square Sunglasses (60)',
 'UV Protection Round Sunglasses (54)',
 'UV Protection Retro Square Sunglasses (53)',
 'UV Protection, Riding Glasses, Mirrored Wayfarer Sungla...',
 'Others Wayfarer Sunglasses (Free Size)',
 'UV Protection Wayfarer Sunglasses (Free Size)',
 'UV Protection, Polarized, Mirrored Round Sunglasses (Fr...',
 'UV Protection Wayfarer Sunglasses (53)',
 'UV Protection Butterfly Sunglasses (65)',
 'UV Protection Aviator Sunglasses (57)',
 'UV Protection, Polarized, Mirrored Rectangular Sunglass...',
 'UV Protection, Gradient Retro Square Sunglasses (60)',
 'Mirrored Aviator Sunglasses (55)',
 'UV Protection Round Sunglasses (53)',
 'UV Protection Wayfarer Sunglasses (32)',
 'UV Protection Retro Square Sunglasses (60)']
```

## 100 Glasses price

#### In [56]:

```
price=driver.find_elements_by_xpath('//a[@class="_3bPFwb"]')
price[0:40]
```

#### Out[56]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769
a6e7630a38497998", element="0b016b0d-45cb-482f-bccb-d06ec83b78a7")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="961b08e9-829e-42d3-9fb1-f3d54efa622c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="fbf9dd10-50d4-45cb-a6af-2d049d9d8f51")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="a88394a5-532b-4c5b-8ff4-939debbff0c2")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="048a3fa4-9784-411a-8298-60c184082d7f")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="85be7e4c-b4d7-4d38-bea5-b3b3fb3698e0")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="57471542-7382-41af-b1b5-862fca2721e2")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="faae5368-93c7-4ec5-8b95-2351df0d4b3a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="3b487795-ea5e-4562-b158-631b5621b42c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="6390f77c-f453-43f0-8729-6b37d279ee2b")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="d847da51-84a1-457b-bfb9-6c3e6e89016b")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="1418ea37-e036-4cbb-a7cf-e8ca8dbe9a0a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="4673024c-f2d2-4fec-b350-e833baa21215")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="89ac886d-88b2-4fbd-b850-2c605c7d90b1")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="037f4fc4-fec6-4668-b372-a4afc36730dc")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</p>
a6e7630a38497998", element="f161ab2e-5c58-4637-be77-efc303236e42")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="e49f6451-42b6-4008-8ad7-64e980f90bde")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="b0db5b31-76ee-4f31-8344-a10609ec7702")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="13f8ddea-b163-4a6c-90ba-81c347b2e7ba")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="c650f40d-12c8-48d6-8dec-32d69e1e4b9e")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="196c60fd-1002-4602-9fe5-bfe03af20bd6")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="f524a2bb-63ec-4c4f-860e-84a214001138")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="de624b87-fccf-4873-932b-d998369d5325")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="7b64d700-542a-4bc7-9424-33590185277e")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="4e623de2-3404-4aba-9f70-3a05c3b8ce99")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="4657f9c4-849a-40c4-9388-9c570cb19b0a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
```

a6e7630a38497998", element="5e5adc12-fa2b-415f-8e4b-00a0061b7c1b")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="6bdee2d5-55d7-4a78-81f9-5826dbebfe97")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="af354280-ac32-4f74-9d5d-280e0dfa60fd")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="ca23a107-83b7-4691-aeef-77a16c8f4f68")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="48e30abe-92ae-498e-b4f9-4bb5ff920b7d")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="7e66738c-7961-4b81-9538-d1b029f4f47f")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="fc50f242-e57a-457e-9a1c-08cda042c03b")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="7085e2e5-0152-46e9-8560-44d2d83fe19d")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="281ee711-2ddd-4110-9548-4ff008876ec3")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="85f70b5a-fca5-4dd5-8fbf-3fb45f056341")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="61734470-b6fa-4a27-a5d3-9187bb906b72")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="af540ff0-e760-4f6d-bea5-93e2ffaab2aa")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre> a6e7630a38497998", element="de300f0d-aa8d-4665-bd99-04cd410acca1")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="6783b95b-a85e-463a-aac1-2ff5abfb7fd0")>]

```
In [57]:
```

```
price tags=[]
 2
 3
    for i in price:
 4
        price_tags.append(i.text)
    price_tags[0:40]
Out[57]:
['₹799₹2,50068% off\nFree delivery',
 '₹799₹2,50068% off\nFree delivery',
 '₹198₹1,29984% off',
 '₹253₹1,29980% off'
 '₹474₹1,99976% off',
 '₹229₹1,59985% off',
 '₹258₹2,49589% off',
 '₹299₹99970% off',
 '₹679₹79915% off\nFree delivery',
 '₹225₹1,59985% off',
 '₹232₹2,59991% off'
 '₹165₹1,19986% off'
 '₹165₹1,69990% off',
 '₹202₹1,19983% off'
 '₹225₹1,59985% off'
 '₹426₹1,99578% off'
 '₹275₹2,49988% off',
 '₹199₹99980% off'.
 '₹198₹1,79988% off'
 '₹1,349₹8,00083% off\nFree delivery',
 '₹225₹1,59985% off',
 '₹379₹1,49974% off'
 '₹239₹1,99988% off',
 '₹699₹1,99965% off\nFree delivery',
 '₹186₹99981% off',
 '₹289₹99971% off'
 '₹184₹1,19984% off',
 '₹522₹99947% off\nFree delivery',
 '₹246₹1,49983% off',
 '₹284₹1,69983% off',
 '₹220₹99877% off',
 '₹899₹2,09957% off\nFree delivery',
 '₹375₹2,59985% off',
 '₹284₹1,99985% off',
 '₹181₹99981% off',
 '₹699₹1,99965% off\nFree delivery',
 '₹379₹1,49974% off',
 '₹189₹99881% off'
 '₹225₹1,59985% off',
 '₹699₹1,99965% off\nFree delivery']
In [58]:
 1 len(brand), len(product description),len(price)
Out[58]:
(40, 39, 40)
```

#### In [59]:

```
next_btn=driver.find_element_by_xpath("/html/body/div[1]/div/div[3]/div[1]/div[2]/div[1]
next_btn
```

## Out[59]:

<selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769a
6e7630a38497998", element="3b8064d7-6cfc-4382-914b-52830101cff9")>

## In [60]:

```
1 next_btn.click()
```

## In [61]:

```
url='https://www.flipkart.com/search?q=sunglasses&otracker=search&otracker1=search&mark
driver.get(url)
```

#### In [62]:

```
brand1=driver.find_elements_by_xpath('//div[@class="_2WkVRV"]')
brand1[0:40]
```

#### Out[62]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769
a6e7630a38497998", element="6f38d3d5-53ba-4919-9633-b816bb5a1770")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="2a5c770d-a40c-4c37-96c5-91b734ccb96b")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="3ce7ddc5-7b1e-494e-9907-625c12c1ce8b")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="c0ad0997-e0ce-457d-9d09-8a2fbba61594")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="52d95335-bfc8-4315-8af7-8d2c1cec52f6")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</p>
a6e7630a38497998", element="f95a9324-5c52-4360-a39b-89eb06dcf1b2")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="90ab2180-cae1-4f1f-a881-ec0f0a8a1356")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="8522ad02-16b8-42d6-b503-66799bd07db0")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="002145c4-7fe8-4604-9965-e242afe73ded")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</p>
a6e7630a38497998", element="a3a0014f-d536-446f-a072-085ce8d2326d")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="3cea1386-7e78-4f30-a33e-e73b0843f5fd")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="57b34ed6-32ce-4031-b75c-e0b4a89f0c98")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="a8e6d8f5-a488-4e99-9422-895415b79700")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="8be541d6-fcc4-413f-8346-9cbf85a4ae6c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="936b085b-0524-440f-96f2-847448cc9eed")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="c3e52a16-2133-4dbc-8adb-4cf9641ccfd2")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="c97a1001-fad3-4bf8-84f8-f5813d2a9998")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="05a3d1af-1271-4c76-9310-ccbd6878a2ca")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="6b995e70-af41-4f6c-9ae3-dfcc35b32c7f")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="faac79e9-25cb-492b-a24d-7fd1d28c1cec")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="c0efca18-0a6c-474a-a909-7d629549f89d")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</p>
a6e7630a38497998", element="f372dac8-d27b-4a5e-b706-0c9dae535f3c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="409f7056-26ae-470f-98b7-30f3d1c70bcb")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="bfae7367-8d7b-40e9-a159-17deaf1435f4")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="c1c8dc10-7842-4230-bb38-b0a171588086")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="56978fce-661e-493d-9c99-751d077245ac")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="ce851c51-5e6b-4ff5-a99d-e7ec8ebfd9fd")>,
```

<selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="16c40106-86a0-4a8a-9ee7-68771e55c2ff")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="7767fcb9-bf00-4993-b5f3-4113432aafcc")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="fa4a39b0-8b33-46b9-a107-c85c93085cab")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="3ecc7840-7cd5-47e8-bb1d-b0103d2cc5cc")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="a15ed985-5b90-456f-b0e0-a2e99c8866a3")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="2d1ca2f7-a143-419b-b1e1-21cd5a55ade3")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="9526ef1a-4446-44d5-b449-15c72c145e20")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="b4944515-eb7e-4b43-820d-840930b7ac57")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="32a551fb-f3d6-440a-bc20-ac51339a8c1c")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="1d4d856c-c607-4898-8081-64024ff6d680")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="afa0885f-9778-4eff-839a-919f3e8234b3")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="791a3e58-537c-42a9-ac6f-440c88a0df0d")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre> a6e7630a38497998", element="7605ff48-1313-4488-8973-721d0db3608d")>]

#### In [63]:

```
brand_tags1=[]

for i in brand1:
    brand_tags1.append(i.text)
brand_tags1[0:40]
```

## Out[63]:

```
['ROZZETTA CRAFT',
 'SUNBEE',
 'Rich Club',
 'LOUIS KOUROS',
 'IDEE',
 'kingsunglasses',
 'ROYAL SON',
 'VINCENT CHASE',
 'New Specs',
 'kingsunglasses',
 'New Specs',
 'povty',
 'ROYAL SON',
 'PHENOMENAL',
 'New Specs',
 'GANSTA',
 'ROZZETTA CRAFT',
 'ROZZETTA CRAFT',
 'SUNBEE',
 'Sundry',
 'Lee Topper',
 'hipe',
 'Elligator',
 'VINCENT CHASE',
 'PHENOMENAL',
 'kingsunglasses',
 'Lee Topper',
 'LOUIS KOUROS',
 'PIRASO',
 'ROZZETTA CRAFT',
 'Fastrack',
 'ROYAL SON',
 'ROYAL SON',
 'hipe',
 'PHENOMENAL',
 'LOUIS KOUROS',
 'Fastrack',
 'Fastrack',
 'kingsunglasses',
 'Velocity Eyewear']
```

#### In [64]:

```
product_description1=driver.find_elements_by_xpath('//a[@class="IRpwTa"]')
product_description1[0:40]
```

#### Out[64]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769
a6e7630a38497998", element="8707001b-88bd-4eeb-a2e0-65686e43fb89")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="5e6330ad-9947-478d-989b-7501e803c831")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="e864691c-59ba-4827-98c6-d17662874605")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="3b3431a1-8590-46ff-a775-a0f22df2e321")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="ba1477f2-75e9-4f34-b51e-0435de63a221")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="7b236e65-08e4-4466-98cc-654ff12e3ce3")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="4f84c880-3484-4e38-aed8-13e5e9952def")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="595de439-1c1b-408e-b439-fbe7a74aa7a7")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="077bde13-e51d-438e-a760-b53fab7bbe28")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="c42ab33f-9b92-4e2b-bad0-8ac1d8d6792b")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="7b2bc927-d10f-45ab-9b46-8ceb35a3ade1")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="93999416-7215-41e5-aa44-6abb02f7494b")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="31d955cf-d78e-4e1f-848e-819553d16d5b")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="f8d18126-3eaa-45e4-bce7-1ca82359a79c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="dcef3028-efd9-48dc-b41c-0f2aaccd5728")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="c45d2fa3-2b8f-4b56-a3b7-81dd98ddc7dd")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="cbdea716-c4e1-4b42-8ffd-a7902c6ce730")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="fbd2bc1a-cbf9-46f3-a3a1-4f12d2dbe4e2")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="0084c99e-1235-48c9-8144-3764ba6e7f66")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="5b945629-7459-444f-b03f-3d4f6e2e6966")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="9d32b554-860b-4488-b23a-38e6df9c5925")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="7e5ea47a-ba60-4843-aa88-f4ee45638920")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="506eba09-a0ae-4f96-a1df-ed570074719a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="27c094e6-eb1c-4e69-ab90-24e57f65dc19")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="4c36b5c2-c6db-4bc1-8753-238c669e3f23")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="49d38892-09c2-4952-8cb3-0165662b657e")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
```

a6e7630a38497998", element="0db5aa7f-a210-47f9-8948-77d41577da51")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="2eaed3fc-1e48-49e7-8be2-e146b8ea222c")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="7cb1fead-4943-47d6-8875-727f99721afd")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="fa2baf38-73a1-4ea0-8c56-82bf156f8e9e")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="e3b6d322-e25e-4da6-9071-1fc92da9c80d")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="f97280b6-7220-452a-88ef-98160d75f0eb")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="47ea11fa-ad9d-4e03-a98d-01e97aaf26ba")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="d78492f7-ca8a-4fe0-a5be-6e94bddfbc7a")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="69d3cc97-8ee9-43d1-a27e-b39258ce8bba")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="f6c90eed-506b-4a8f-a9f7-6df661986bc3")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="70771b6f-f6d4-4583-a219-5ae6ed165bd7")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="50b76b01-40dc-4cae-95f2-3a230b5a27e5")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="8e7274b8-181a-469d-850a-b5d8fbac6677")>]

#### In [65]:

```
product_description_tags1 =[]

for i in product_description1:
    product_description_tags1.append(i.text)

len(product_description_tags1)
product_description_tags1[0:40]
```

## Out[65]:

```
['UV Protection, Gradient Rectangular Sunglasses (Free Si...',
 'UV Protection, Polarized, Mirrored Retro Square Sunglas...',
 'Polarized Round Sunglasses (48)',
 'UV Protection, Riding Glasses, Mirrored Aviator Sunglas...',
 'UV Protection Rectangular Sunglasses (59)',
 'UV Protection Round Sunglasses (Free Size)',
 'Mirrored Aviator Sunglasses (55)',
 'by Lenskart Polarized, UV Protection Round Sunglasses (...',
 'Mirrored, UV Protection, Riding Glasses, Others Round S...',
 'Mirrored, UV Protection Wayfarer, Rectangular Sunglasse...',
 'UV Protection, Mirrored Sports Sunglasses (Free Size)',
 'UV Protection Retro Square Sunglasses (Free Size)',
 'UV Protection Rectangular Sunglasses (58)',
 'UV Protection Clubmaster Sunglasses (Free Size)',
 'UV Protection Aviator Sunglasses (Free Size)',
 'UV Protection Aviator Sunglasses (57)',
 'UV Protection Retro Square Sunglasses (Free Size)',
 'UV Protection, Gradient Round Sunglasses (Free Size)',
 'UV Protection, Polarized, Mirrored Wayfarer Sunglasses ...',
 'Mirrored, Others Round, Wayfarer Sunglasses (Free Size)',
 'Riding Glasses, Night Vision Wrap-around Sunglasses (Fr...',
 'UV Protection, Gradient, Mirrored, Riding Glasses Aviat...',
 'UV Protection Wayfarer Sunglasses (53)',
 'by Lenskart Polarized, UV Protection Wayfarer Sunglasse...',
 'UV Protection Retro Square Sunglasses (Free Size)',
 'Mirrored, UV Protection Wayfarer Sunglasses (53)',
 'UV Protection, Riding Glasses Retro Square, Spectacle ...',
 'UV Protection, Riding Glasses, Mirrored Aviator Sunglas...',
 'Mirrored Aviator Sunglasses (32)',
 'UV Protection Aviator Sunglasses (62)',
 'UV Protection Wayfarer Sunglasses (Free Size)',
 'UV Protection Retro Square Sunglasses (60)',
 'Polarized Rectangular Sunglasses (60)',
 'Mirrored, UV Protection, Gradient Round Sunglasses (55)',
 'UV Protection, Mirrored Retro Square Sunglasses (53)',
 'UV Protection Aviator Sunglasses (60)',
 'Polarized Retro Square Sunglasses (Free Size)',
 'UV Protection Shield Sunglasses (Free Size)',
 'UV Protection, Mirrored Round Sunglasses (Free Size)']
```

#### In [66]:

```
price1=driver.find_elements_by_xpath('//div[@class="_30jeq3"]')
price1[0:40]
```

#### Out[66]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769
a6e7630a38497998", element="f5c02486-acf4-4998-bea7-69f0d890fc27")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="b68b7182-26ba-4a34-b3de-9029a2305c30")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="f72bb485-207d-40dc-a2d7-51afb5933513")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="29937bae-45ea-4d62-8a65-8c33c81b616a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="d94dfcca-d8a0-4ce0-875b-7421de570f50")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="7ac647be-2761-4351-957f-ef32870da9cd")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="4a7d5df4-0b2a-4682-b5c5-91e52b18fe68")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="13d26318-198a-49a0-b252-604a2e054ab3")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="a6d361cf-bf34-4f62-9d00-43a42a461b96")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="be081a19-9ea9-401f-b243-3eb4b3c8bbab")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="e44db16d-d472-4eea-a31a-02e4e848494e")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="d1c0bb5a-85bf-4eb6-a29a-e8a2a7eb62ad")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="c969640b-4d18-4392-a07d-15b2af243cca")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="b96bf335-0947-4fe4-be18-2ef148bea898")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="cf0345ff-f2f5-4fd9-9fbc-bca30d024260")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="ff6699f1-37d2-4025-8e0c-a9f57e55a1bf")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="663e67ba-dc49-4b68-8292-de5ffc455d13")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="fee6adad-d047-4c46-ae23-7b9897407258")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="4c4a98c5-6846-4d1c-a55a-8b4ba312748a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="89cf6845-b7dd-4a89-9c64-316ccdfd17e4")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="92ac10db-1d1c-40f6-bf18-6f9ee7c6a42e")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="09d73479-5a52-4351-80b9-dcf3e341e46a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="d13714bd-4595-4299-98df-7b6097a6ab25")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="32e746c4-304c-49f5-ae8d-e9922582018b")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="93a40119-6a5c-4504-8b61-2d9a5ffc2e42")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="8366cbc4-d03f-4fee-9873-f4a5ed974dc3")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
```

a6e7630a38497998", element="4e2a33d6-41d3-48e0-ba01-844becad10d3")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="ed0a249a-9cee-4756-a79c-640150b5977b")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="ff73726a-6b46-4384-898e-8bcaedb30725")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="9a728ce9-fe0c-444f-8c65-c7494d25abd0")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="9412b077-0618-4be6-8066-778a41e63d55")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="501dbd5f-5006-478a-b6c1-0e11a58fd204")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="e7c5d259-b496-4e62-a743-31bf1b3d93be")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="32c79570-3c78-4d59-845f-409028512e13")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="27b8ae7e-5ed1-4259-a8c5-216003379a2f")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="73aeaee9-8e8b-4a04-9a19-a1bb3949f592")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="39d51576-ae7e-487a-8a9e-92883eff5463")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="24064f25-99f6-41fe-b668-911175445690")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre> a6e7630a38497998", element="7d4c602f-0a97-441f-bc66-9059d8a5d80e")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="17510026-4bb1-472d-83be-9e42fb9dce8b")>]

```
In [67]:
```

```
price_tags1=[]
 2
 3
    for i in price1:
 4
         price_tags1.append(i.text)
    price_tags1[0:40]
Out[67]:
['₹379',
 '₹230',
 '₹175',
 '₹1,349',
 '₹1,009',
 '₹289',
 '₹379',
 '₹799',
 '₹263',
 '₹258',
 '₹155',
 '₹299',
 '₹474',
 '₹307',
 '₹183',
 '₹284',
 '₹474',
 '₹342',
 '₹253',
 '₹165',
 '₹276',
 '₹198',
 '₹176',
 '₹799',
 '₹328',
 '₹258',
 '₹375',
 '₹1,349',
 '₹199',
 '₹616',
 '₹639',
 '₹699',
 '₹664',
 '₹179',
 '₹317',
 '₹1,349',
 '₹639',
 '₹721',
 '₹239',
 '₹899']
In [68]:
 1 len(brand1), len(product_description1),len(price1)
Out[68]:
(40, 39, 40)
```

# In [69]:

```
next_btn=driver.find_element_by_xpath("/html/body/div[1]/div/div[3]/div[1]/div[2]/div[1]
next_btn
```

# Out[69]:

<selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769a
6e7630a38497998", element="e01270c6-8b41-4e9f-9aa2-8a8b4d8f632a")>

# In [70]:

```
1 next_btn.click()
```

# In [71]:

```
url='https://www.flipkart.com/search?q=sunglasses&otracker=search&otracker1=search&mark
driver.get(url)
```

## In [72]:

```
brand2=driver.find_elements_by_xpath('//div[@class="_2WkVRV"]')
brand2[0:40]
```

#### Out[72]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769
a6e7630a38497998", element="4733e6e4-d3c5-4f66-b15e-499ef0ab29d2")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="8867af71-f3f3-49da-9894-927c3be95fbd")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="dfe22fe4-9297-4a49-b14e-26d6bf070308")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="2449a8ce-7e5c-480a-b840-7f2596d83c75")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="1b705c11-efb9-415f-a28d-b3830ce15c1a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="3afe6ee1-915c-4d20-92d5-6cf46f93be16")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="1c7b0cf6-55bf-431d-be97-dc430074afc6")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="98364eae-15fd-4a5f-a96f-7720e4447a50")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="c654f111-c518-467c-ab12-563e503b4268")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="1877b9d7-0756-4ea9-abbf-fdf239bd503c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="f1b92c95-80eb-4586-ba70-79aa50d4323a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="5957c760-12a3-4c21-96b4-19f34673024f")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="d7aabb79-0d75-4442-8fff-c8233bbb8d9e")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="0d40f34d-7172-4639-a33b-75b2577228fa")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="8f0ca969-2ba7-484e-9886-471079da51e6")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="16674199-28bd-48f3-b854-5cff85bcfec1")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="8e8bb1c9-1f22-4262-bf13-e1326d99453f")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="c4822015-bc0d-4c3e-b80b-4250943c92c0")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="016a039a-91aa-441c-a013-40cc63c1d509")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="c79d6e32-f8f9-4015-bc77-d6b364b23ed6")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="0f90b1fb-4c9b-4ca2-83ea-7bcf5b77235e")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="8d0ce9ec-bb1a-4c52-b9af-7db10829e5e9")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="2db3c09a-0743-4241-ac2b-ba425f35e848")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="56eecc22-e561-4d98-873a-00a44571300f")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="a2fcfa50-3a59-4989-b36c-a5938488d00e")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="f5356d23-4254-4d07-8148-f98ebff5a20b")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
```

a6e7630a38497998", element="92d8ddd0-cd99-4e5e-9199-6c9784718023")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="005e3537-521b-45b7-a8db-6512ef9db321")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="7f25a004-0ffb-4593-b3ff-6929add721f8")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="e33d0345-0077-43f6-8fd0-ff7d2aa49b70")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="e42a11ed-9b14-4c9e-915e-b63dddb59baa")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="e53f8bd0-1137-4224-90ef-e275b8074d86")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="15e2eaa6-8c9a-45b8-8edf-1f1ef55b5ef9")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="a216ec4e-ee64-49e0-8507-412d517d3413")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="c982c108-5d03-4436-9edd-7da95dda3c31")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="4b3009bc-bb68-4147-80cb-c6bb779b6f7a")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="afa41b87-cda1-4fea-be73-496a202575a7")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="8928fcc2-06f0-44b2-bef2-8c51b46c0824")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre> a6e7630a38497998", element="ad80a146-7cbc-4fc6-85a1-4b816f8ece4c")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="5ac51c65-5d32-4737-afc6-58a341ac1f20")>]

## In [73]:

```
brand_tags2=[]

for i in brand2:
    brand_tags2.append(i.text)
brand_tags2[0:40]
```

# Out[73]:

```
['kingsunglasses',
 'Elligator',
 'Singco India',
 'VINCENT CHASE',
 'Rich Club',
 'Silver Kartz',
 'Fastrack',
 'VINCENT CHASE',
 'ROYAL SON',
 'Rich Club',
 'Fastrack',
 'VINCENT CHASE',
 'IDEE',
 'hipe',
 'Poloport',
 'LOUIS KOUROS',
 'PIRASO',
 'kingsunglasses',
 'NuVew',
 'ROYAL SON',
 'Fastrack',
 'United Colors of Benetton',
 'Fastrack',
 'VILLAIN',
 'kingsunglasses',
 'ROYAL SON',
 'New Specs',
 'LOUIS KOUROS',
 'hipe',
 'kingsunglasses',
 'Fastrack',
 'Velocity Eyewear',
 'Fastrack',
 'PIRASO',
 'Elligator',
 'ROYAL SON',
 'Elligator',
 'ROZZETTA CRAFT',
 'ROZZETTA CRAFT',
 'ROYAL SON']
```

#### In [74]:

```
product_description2=driver.find_elements_by_xpath('//a[@class="IRpwTa"]')
product_description2[0:20]
```

#### Out[74]:

[<selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769 a6e7630a38497998", element="116fbea5-6bc1-406c-9827-9353ccae112b")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="c1da4c2f-8454-4ce8-ade4-facff8394f74")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="6b8b80ec-0a85-4e97-9dbe-54c6be994ff2")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="2ca7baf9-bc4f-4380-b7df-946767d54859")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="211dcb40-26b2-4926-8f33-a369a1dcb19e")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="bafda66f-7102-44b6-8357-2e4eca5cf95b")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="fdae35cc-d36f-4108-9a49-583f8f4f7893")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="4770acc6-d470-424d-8af9-6ed3f4083627")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre> a6e7630a38497998", element="699e31a5-5798-462e-b9b9-89a6a633aee8")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="b395cc0a-0b9e-419c-923a-82dc6a67b608")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="004fd0d9-bb56-45fe-abb3-e679b412f695")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre> a6e7630a38497998", element="dad3cce2-d9b8-4db2-b956-d429b4ac50e7")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="5aa6a309-b78c-4e06-a5b9-de888591bf72")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="ea7b22f2-1774-48d0-be5e-66d161217c60")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre> a6e7630a38497998", element="fecc499b-711a-4595-b5d7-219d658635b9")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="b02ba7f7-931b-4b67-a547-115453c7686a")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="c41144da-ad3d-4a01-ab28-3860fc1ab0b4")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre> a6e7630a38497998", element="2e6af435-a443-4bdc-beab-492c35dc58f2")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="6fcc696e-8887-4d9d-b2b0-d483fabc6f6d")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="d9b93947-78e3-48f5-9f44-07a4e5776479")>]

#### In [75]:

```
product_description_tags2=[]

for i in product_description2:
    product_description_tags2.append(i.text)

len(product_description_tags2)
product_description_tags2[0:20]
```

#### Out[75]:

```
['Mirrored, UV Protection Aviator Sunglasses (56)',
 'UV Protection Aviator Sunglasses (55)',
 'Mirrored, Riding Glasses, Others Sports Sunglasses (50)',
 'by Lenskart Polarized, UV Protection Aviator Sunglasses...',
 'Polarized Round Sunglasses (48)',
 'UV Protection Oval Sunglasses (56)',
 'UV Protection Aviator Sunglasses (Free Size)',
 'by Lenskart Polarized, UV Protection Round Sunglasses (...',
 'UV Protection Retro Square Sunglasses (58)',
 'UV Protection, Polarized Oval, Retro Square Sunglasses ...',
 'Gradient, UV Protection Wayfarer Sunglasses (Free Size)',
 'by Lenskart Polarized, UV Protection Wayfarer Sunglasse...',
 'UV Protection Cat-eye Sunglasses (17)',
 'UV Protection Sports Sunglasses (Free Size)',
 'UV Protection Wayfarer Sunglasses (Free Size)',
 'UV Protection, Riding Glasses, Mirrored Aviator Sunglas...',
 'UV Protection Aviator Sunglasses (58)',
 'UV Protection, Mirrored Aviator Sunglasses (Free Size)',
 'UV Protection, Mirrored Sports Sunglasses (62)',
 'UV Protection Retro Square Sunglasses (60)']
```

## In [76]:

```
price2=driver.find_elements_by_xpath('//a[@class="_3bPFwb"]')
price2[0:40]
```

#### Out[76]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769
a6e7630a38497998", element="9367e171-319b-413f-b434-859114cf9b79")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="3d848fd5-5213-4d62-8577-4be7d1bd0c4c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="ac0bfb0e-09d5-4ab0-9c4e-5019b4519aee")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="49844a9c-1176-4e3c-b3b1-ac92b56bac37")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="99939680-5247-4168-ba3f-7204b4e4ffb6")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="77fcd83d-5e8c-4174-9cb6-ef245efb6651")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="da24dadd-fe2e-4978-a0eb-414c20cb25d1")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="5670ee86-b0b0-470b-b3c7-b73e772450a7")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="8da228fa-52c2-4ef4-bfd5-8f83254260ad")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="44c29703-f4de-4d80-b129-d39638ff2b18")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="af1bd16c-b8cf-4400-ab86-c4328e031133")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="264f1e23-50fe-4984-ad52-816c42ccbe27")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="73f7a6cb-b0ff-4784-ac55-9636e06e2e55")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="af373d60-277b-49b1-999d-b4264c0c52f7")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="086c819b-fa86-41fa-8eb7-f5dcde55a10c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="4c203690-a43f-4075-94d9-499403e99973")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="e4141dca-ed34-4a9c-8b2e-35db9bfe012d")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="ca36e9b6-87f8-4681-87e4-a22397225d7b")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="e4876cf3-d7c9-440f-9557-762f21ad5f71")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="4484fa58-d7dc-4642-a13e-b09120941bb9")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="ff3644ce-b2d7-4c88-a8c4-7d725e549580")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="cdf78825-e882-4e88-a677-a417307fad05")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="d52abfaa-2d0d-444f-b8c1-bcd951710ec8")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="0c1f2921-5386-4310-802b-277c0c16b773")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="9645f77e-46c7-42e6-b3cd-f34384de3551")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="3e559205-fad6-4ccc-b2c4-e37b9277c297")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
```

a6e7630a38497998", element="824d9c97-2109-4774-9fed-c026dca98c1d")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="5230222f-3c39-4369-aa98-47b78604f76c")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="9a6186e7-ab9a-4d8e-bb86-7890689cb713")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="6e814562-4aa9-4fe1-9bd0-4ceef2c66ec3")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="b9184161-bb1c-4760-8036-585503c61016")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="22dfbc65-7737-41ec-9e10-1f8d9b227621")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="9cc78d16-9ee7-4db8-89c4-3c42fbac70f3")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="0ee21b2b-5a15-4b5a-96ed-36e28ea03342")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="bb8ac70f-bab4-4b49-b8ef-987982ae2a7a")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="e5ada3a5-a802-455b-a290-641e58a2b8ae")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="4179d57a-135a-43d2-a151-5f3b1a52bd38")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="e6a01d75-32a3-4a0d-836f-0e7dadd01795")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre> a6e7630a38497998", element="31ff6ccb-5f4a-40f3-9e6f-98c2dc2bf73b")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="5461d0d3-ddfd-4a20-ab87-a0a59aa5646e")>]

```
In [77]:
```

```
price tags2=[]
 2
 3
    for i in price2:
 4
        price_tags2.append(i.text)
    price tags2[0:40]
Out[77]:
['₹219₹1,29983% off',
 '₹293₹1,99985% off',
 '₹194₹1,49987% off',
 '₹980₹1,99950% off\nFree delivery',
 '₹165₹49966% off'
 '₹284₹1,19976% off',
 '₹546₹79931% off\nFree delivery',
 '₹799₹2,50068% off\nFree delivery',
 '₹474₹1,49968% off',
 '₹179₹49964% off',
 '₹702₹79912% off\nFree delivery',
 '₹799₹2,50068% off\nFree delivery',
 '₹939₹2,25058% off\nFree delivery',
 '₹258₹1,89986% off',
 '₹236₹1,92087% off'
 '₹1,349₹8,00083% off\nFree delivery',
 '₹299₹2,59988% off',
 '₹239₹1,89987% off',
 '₹327₹1,24573% off'
 '₹699₹1,99965% off\nFree delivery',
 '₹929₹1,09915% off\nFree delivery',
 '₹949₹3,70074% off\nFree delivery',
 '₹639₹79920% off\nFree delivery',
 '₹522₹99947% off\nFree delivery',
 '₹162₹1,29987% off',
 '₹711₹1,99964% off\nFree delivery',
 '₹238₹1,29981% off',
 '₹1,349₹8,00083% off\nFree delivery',
 '₹179₹1,39887% off',
 '₹233₹1,49984% off',
 '₹719₹99928% off\nFree delivery',
 '₹899₹2,09957% off\nFree delivery',
 '₹799₹89911% off\nFree delivery',
 '₹250₹1,59984% off',
 '₹311₹1,99984% off',
 '₹699₹1,99965% off\nFree delivery',
 '₹279₹2,49588% off',
 '₹330₹2,25685% off'
 '₹307₹1,99984% off',
 '₹699₹1,99965% off\nFree delivery']
In [78]:
    len(brand2), len(product description2),len(price2)
Out[78]:
(40, 39, 40)
```

## In [79]:

```
next_btn=driver.find_element_by_xpath("/html/body/div/div/div[3]/div[1]/div[2]/div[12]/
next_btn
```

# Out[79]:

<selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769a
6e7630a38497998", element="8a7ddd13-462a-491c-a97c-fc058f3ff3b2")>

# In [80]:

```
1 next_btn.click()
```

# In [81]:

```
url='https://www.flipkart.com/search?q=sunglasses&otracker=search&otracker1=search&mark
driver.get(url)
```

## In [82]:

```
brand3=driver.find_elements_by_xpath('//div[@class="_2WkVRV"]')
brand3[0:40]
```

#### Out[82]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="f6de9c4c-9094-4a8a-a608-d7d287c3695f")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="bcf26510-0a29-4958-925c-566c12eedcfc")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="e6504fd7-c1c9-4d98-bfa6-2441df189b0a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="6508610f-39ea-498e-86f0-c7f134a0b1ed")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="9d726f7a-7352-4f3b-8834-737c75f6c78b")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="277c2a3b-d27d-4102-87c8-877ee4058c73")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="615e837a-86cb-40f5-b41a-519a91a34db8")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="ea468540-bea3-47c0-aca5-7ce741081b91")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="948adf34-f129-4987-8cae-1a8a65c74a5b")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="e647eb97-645d-4a94-b1a8-a54d231c328e")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="21ab0afb-ff1a-4f97-b2ca-0f4353004947")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="ee7be054-a870-464a-b05f-4cb395dfad4e")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="383522d5-d7c8-4836-a677-112261ef8754")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="f6d09913-58c2-48eb-8934-155862dc16df")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="ed72925e-242e-4822-8a7b-2c925cd77244")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="5a586df5-2a02-49a2-adfe-afdaa0d28785")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="5f00917b-e46c-4d17-9cc9-583f001aec36")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="2f12d0bc-c077-441a-981b-95861c31a73f")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="ec49b22c-3a14-4954-97f0-c0a77e9cff9c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="cd5aa1f4-0781-4862-8770-29b1b3de7ec1")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="f078457d-6f3b-4e8f-86ec-6dff0e6eb33a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="bd306449-28d4-4d78-b7d0-5f3094777e9c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="accfd799-91be-4928-bee4-0a321cfc40a6")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="6f8c5703-82df-4970-bcd2-8b5d63182915")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="eb504d61-4d84-43e3-bedd-fae67216ce25")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="057c4b02-4b03-48d7-99b1-10fecb94cba9")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="380363a8-dabb-4841-bbf2-d46781abc496")>,
```

<selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="f5d83d49-a151-4c5d-bad0-fc5802567ff9")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="3647b61e-f2f6-4372-89af-c3ad8a6d6194")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="dd03f01d-64c7-490b-8cff-f1fc2cee8677")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="4bcf9264-fcf5-4482-9751-de2d77ca0719")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="baa6a811-427e-4b6d-8de6-26f01a337c63")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="c999a6cc-4b19-4ff6-85c7-d008211f8292")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="71f1c85d-c148-4359-9e34-a108a2cc0cd2")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="c0dc8b68-9eaf-4b6b-93f1-5d95f178bbd9")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="a6c9730b-0d3b-42c4-866c-df2b4b8d441b")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="5c93445f-b29a-4188-96f7-63713e2066ec")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="8630d123-0705-4c76-8993-49a03b1ac615")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="cfcf73e6-741e-42a8-a73a-a7c6b5f452bc")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre> a6e7630a38497998", element="2071d81b-731f-4adf-9e29-fbdfdc4bbfc9")>]

#### In [83]:

```
brand_tags3=[]

for i in brand3:
    brand_tags3.append(i.text)
brand_tags3[0:40]
```

# Out[83]:

```
['kingsunglasses',
 'ROZZETTA CRAFT',
 'ROZZETTA CRAFT',
 'VINCENT CHASE',
 'Elligator',
 'Fastrack',
 'hipe',
 'VINCENT CHASE',
 'GANSTA',
 'hipe',
 'NuVew',
 'ROYAL SON',
 'IDEE',
 'kingsunglasses',
 'IDEE',
 'VILLAIN',
 'IDEE',
 'Singco',
 'DEIXELS'
 'LOUIS KOUROS',
 'Mi',
 'Lee Topper',
 'Lee Topper',
 'ROYAL SON',
 'AISLIN',
 'Fastrack',
 'Elligator',
 'ROYAL SON',
 'Lee Topper',
 'IDEE',
 'PIRASO',
 'ROYAL SON',
 'ROYAL SON',
 'elegante',
 'ROYAL SON',
 'LOUIS KOUROS',
 'SUNBEE',
 'IDEE',
 'GANSTA',
 'ROYAL SON']
```

#### In [84]:

```
product_description3=driver.find_elements_by_xpath('//a[@class="IRpwTa"]')
product_description3[0:20]
```

## Out[84]:

[<selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="c6c641e8-7e53-4200-9283-a310ff720ad0")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="253100b8-7683-43a5-a37d-815055d8f6b4")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="7203cd81-7367-4dea-b88d-3baad786066a")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre> a6e7630a38497998", element="b46ed415-e3d1-4a51-a77f-1edb824344ef")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="ae482667-c3ea-4861-9591-42b0fdf78c1b")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre> a6e7630a38497998", element="7c7a37c6-f81d-4885-ab94-87b92853fc44")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre> a6e7630a38497998", element="941e4635-051c-4cdc-b3a1-e670ce4095ae")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="44867513-3b11-4ae6-b936-bfe40744db77")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="504623c1-ac93-4830-a759-38e06731dfbd")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre> a6e7630a38497998", element="f6953445-c85d-4cf5-b891-645b91db44dd")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="8f05f015-3cf2-401f-8ae2-e0581f7630e7")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre> a6e7630a38497998", element="593dd52b-a256-4866-ba53-38ce62879096")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre> a6e7630a38497998", element="086d13d2-7064-41f1-90e2-adf3af4cdd7e")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="df2f6ed0-d222-4de5-923e-8f536bcad14a")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="7ff5d861-690b-4787-a3ff-113c2c7d5aa7")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre> a6e7630a38497998", element="45c304f8-9dbf-48d9-8239-e1580ce3ba7d")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="53aceb4d-b7af-4b10-b89f-b6792d69cfcc")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="2c32b837-7acc-4d5a-97ad-d9b6d4e81833")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="a1e314c1-d0b7-4af6-ac17-e60367079c3e")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="659dbffd-bf88-4f0d-a820-7f438e3d8a26")>]

#### In [86]:

```
product_description_tags3=[]

for i in product_description3:
    product_description_tags3.append(i.text)

len(product_description_tags3)
product_description_tags3[0:20]
```

## Out[86]:

```
['UV Protection, Mirrored Wayfarer Sunglasses (Free Size)',
 'UV Protection, Riding Glasses Rectangular Sunglasses (F...',
 'UV Protection Round Sunglasses (Free Size)',
 'by Lenskart Polarized, UV Protection Round Sunglasses (...',
 'UV Protection Aviator Sunglasses (55)',
 'UV Protection Sports Sunglasses (Free Size)',
 'UV Protection Aviator Sunglasses (Free Size)'
 'by Lenskart Polarized, UV Protection Wayfarer Sunglasse...',
 'UV Protection, Riding Glasses Wayfarer Sunglasses (53)',
 'UV Protection, Gradient, Riding Glasses Wayfarer Sungla...',
 'UV Protection, Mirrored Sports Sunglasses (62)',
 'UV Protection Retro Square Sunglasses (60)',
 'UV Protection Rectangular Sunglasses (58)',
 'UV Protection, Mirrored Round Sunglasses (54)',
 'UV Protection Over-sized Sunglasses (57)',
 'Others Wayfarer Sunglasses (Free Size)',
 'UV Protection Wayfarer Sunglasses (50)',
 'UV Protection, Others Aviator Sunglasses (32)',
 'UV Protection Rectangular Sunglasses (Free Size)',
 'UV Protection Aviator Sunglasses (60)']
```

#### In [87]:

```
price3=driver.find_elements_by_xpath('//a[@class="_3bPFwb"]')
price3[0:40]
```

#### Out[87]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769
a6e7630a38497998", element="b7022c19-15e7-4981-8f8f-52af06b55ad6")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="a0403766-976d-4229-aa79-6a9c85208325")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="14cebef4-2d51-4dea-9a8d-97643785ed12")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="9af4ce7e-5d6c-45b3-9a7b-a234b509f599")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="26c115d3-2fb6-4d15-a3df-429c688e8703")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="573eacbb-dc2e-4e0c-a7fb-60ca20b60ce0")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="0ac2aa30-8aeb-4ddb-9edb-c4bdd96d1cba")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="8a62c7c7-b5f7-4234-be14-aed6803c0579")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="da4396bf-691c-4092-b088-d256f3619502")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="6d91c36a-f32d-465e-a06e-1105546db890")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="401f974c-04df-49fa-a92c-b9a0119d2a9f")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="c021778b-af71-4ab5-a4a8-fa80954d5f95")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="3e629034-8668-4bd4-817f-a04e714bce09")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="ef030966-6a88-4d37-b443-8e656f4c80e4")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="9117e37c-aa2d-4cad-8c07-5376dd87fc75")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="fde417a6-6f88-4784-9f72-3642ada57586")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="444451f3-56e5-4af4-a466-38849730cdb0")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="6de3b06a-396b-4fad-b707-e79e006fb315")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="ca7482e2-3ef7-44ff-b6da-02d0f1331432")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="8c79b806-4279-4828-a0f6-9932d9ee8c3f")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="e9347066-09e9-4f10-81c7-33821bd0ed2f")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="20cd0d80-a67e-44be-ac19-67a1d3447f6b")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="013ffb01-51f5-46e7-90db-1243e9ef37ab")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
a6e7630a38497998", element="ca1e1ed1-4146-4d43-85b0-1d45b10bb930")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="92ec55c2-6f20-4f39-bbc3-0f6bf9501a14")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre>
a6e7630a38497998", element="2f146001-d552-4d47-9ac4-6cc1cfd580be")>,
 <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre>
```

a6e7630a38497998", element="6880f946-55af-4131-9b23-7760d4f490d6")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="1079ea24-7de5-4904-beed-40e44f9832fa")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="0b815b2d-362c-4473-85d9-7816420c9057")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="125514c5-6668-4ec2-89a9-19ddad421c01")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="ee8dfebc-61fe-4cb3-ad82-c282871eef40")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="b7b3c84a-04e5-476b-b9c9-a63f634a969f")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="0aae9b4b-8877-451f-80ef-b378d44b02e5")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="62cfdcbd-7c9b-4c70-8287-68d006ad9a72")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="d7ecb96a-dc7d-4672-bbbd-7d042fafc66c")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="4364e405-50da-4378-a9e5-3b3f2d407c7f")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="3e494f45-5338-4801-b067-6a07335e9b46")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="547e1604-906c-4213-863d-03859a755bb5")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769</pre> a6e7630a38497998", element="47bf6cd6-c4dd-475b-b7a7-1108264501dd")>, <selenium.webdriver.remote.webelement.WebElement (session="4d6b383f40954769")</pre> a6e7630a38497998", element="fcc5b7aa-a01d-4074-9866-8c0a30216f89")>]

#### In [88]:

```
price_tags3=[]

for i in price3:
    price_tags3.append(i.text)
price_tags3[0:40]
```

#### Out[88]:

```
['₹159₹99984% off'
 '₹426₹2,22580% off',
 '₹426₹2,66584% off',
 '₹799₹2,50068% off\nFree delivery',
 '₹278₹2,49988% off',
 '₹799₹89911% off\nFree delivery',
 '₹170₹1,39887% off',
 '₹799₹2,50068% off\nFree delivery',
 '₹249₹1,99587% off',
 '₹209₹99979% off',
 '₹327₹1,24573% off'
 '₹699₹1,99965% off\nFree delivery',
 '₹839₹1,95056% off\nFree delivery',
 '₹217₹1,19981% off',
 '₹999₹2,45059% off\nFree delivery',
 '₹522₹99947% off\nFree delivery',
 '₹869₹2,05057% off\nFree delivery',
 '₹325₹1,99983% off',
 '₹199₹1,49986% off'
 '₹1,349₹8,00083% off\nFree delivery',
 '₹1,199\nFree delivery',
 '₹281₹1,29978% off',
 '₹298₹1,29977% off'
 '₹699₹1,99965% off\nFree delivery',
 '₹451₹1,52570% off',
 '₹689₹79913% off\nFree delivery',
 '₹202₹1,29984% off',
 '₹699₹1,99965% off\nFree delivery',
 '₹263₹99973% off',
 '₹939₹2,25058% off\nFree delivery',
 '₹225₹1,59985% off',
 '₹699₹1,99965% off\nFree delivery',
 '₹379₹1,49974% off',
 '₹399₹1,49973% off',
 '₹217₹99978% off',
 '₹1,349₹8,00083% off\nFree delivery',
 '₹248₹1,29980% off',
 '₹1,009₹2,45058% off\nFree delivery',
 '₹199₹1,29984% off',
 '₹759₹1,99962% off\nFree delivery']
```

# In [89]:

```
glasses=pd.DataFrame()
glasses['Brand']=brand_tags[0:30]+brand_tags1[0:30]+brand_tags2[0:30]+brand_tags3[0:10]
glasses['Product Description']= product_description_tags[0:30]+product_description_tags
glasses['Price']=price_tags[0:30]+price_tags1[0:30]+price_tags2[0:30]+price_tags3[0:10]
glasses
```

# Out[89]:

|    | Brand             | Product Description                               | Price                               |
|----|-------------------|---|-------------------------------------|
| 0  | VINCENT CHASE     | by Lenskart Polarized, UV Protection Round<br>Sun | ₹799₹2,50068% off\nFree<br>delivery |
| 1  | VINCENT CHASE     | by Lenskart Polarized, UV Protection Wayfarer     | ₹799₹2,50068% off\nFree<br>delivery |
| 2  | SRPM              | UV Protection Wayfarer Sunglasses (50)            | ₹198₹1,29984% off                   |
| 3  | SUNBEE            | UV Protection, Polarized Wayfarer Sunglasses (    | ₹253₹1,29980% off                   |
| 4  | ROZZETTA<br>CRAFT | Polarized, Night Vision, Riding Glasses<br>Sports | ₹474₹1,99976% off                   |
|    |                   |   |                                     |
| 95 | Fastrack          | UV Protection Sports Sunglasses (Free Size)       | ₹799₹89911% off\nFree delivery      |
| 96 | hipe              | UV Protection Aviator Sunglasses (Free Size)      | ₹170₹1,39887% off                   |
| 97 | VINCENT CHASE     | by Lenskart Polarized, UV Protection Wayfarer     | ₹799₹2,50068% off\nFree<br>delivery |
| 98 | GANSTA            | UV Protection, Riding Glasses Wayfarer<br>Sunglas | ₹249₹1,99587% off                   |
| 99 | hipe              | UV Protection, Gradient, Riding Glasses<br>Wayfar | ₹209₹99979% off                     |
|    |                   |   |                                     |

100 rows × 3 columns

# In [ ]:

1

- Q6: Scrape data for first 100 sneakers you find when you visit flipkart.com andsearch for "sneakers" in the
- 2 search field.
- 3 You have to scrape 4 attributes of each sneaker:
- 4 1. Brand
- 5 2. Product Description
- 6 3. Price
- 7 As shown in the below image, you have to scrape the tick marked attributes.

```
In [90]:
```

```
#lets import all required libraries

import selenium
from selenium import webdriver
import pandas as pd
import warnings
warnings.filterwarnings("ignore")
```

# In [91]:

driver=webdriver.Chrome(r'C:/Users/Acer Aspire 3/Downloads/chromedriver\_win32/chromedri

## In [92]:

```
1 driver = webdriver.Chrome('chromedriver.exe')
```

# In [93]:

```
1 url='https://www.flipkart.com/'
2 driver.get(url)
```

## In [94]:

```
search=driver.find_element_by_class_name("_3704LK")
search
```

# Out[94]:

<selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544d
8cc626aa1174ead", element="5f0833e9-cb3d-421d-88c7-6c56053975ce")>

#### In [95]:

```
1 search.send_keys("sneakers")
```

# In [96]:

```
search_btn=driver.find_element_by_xpath("/html/body/div[1]/div[1]/div[1]/div[2]/div
search_btn
```

#### Out[96]:

<selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544d
8cc626aa1174ead", element="b53e9c5d-3539-406d-a90a-601e4b9d4404")>

# In [97]:

```
1 search_btn.click()
```

# In [132]:

- 1 brand=driver.find\_elements\_by\_xpath('//div[@class="\_2WkVRV"]')
- 2 brand

## Out[132]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="a8651b6f-cbd4-4ce7-9873-fcd6c4830979")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="36fc5768-af37-40c0-8c28-871ad700ea97")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="5e0aab8d-6b7d-4ade-a17e-ffe4012b5734")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="54eaa176-a2e2-4358-b48c-274605f26903")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="c59a1750-d43b-411b-967c-53ba9e6f0a3f")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="7c440ff7-e8d3-465a-859e-7b88952f17dc")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="d0ee3383-dabf-426c-878e-e1df718ef49a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="c78f56c6-b768-40f6-a5d8-5aaa4064e1e4")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="8adf06eb-e655-4f4b-b768-40e51bf9ef50")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="d25ef5fa-9fad-46ee-92ab-41d42c4e4585")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544")</pre>
d8cc626aa1174ead", element="3d5d17c0-105b-4578-aa94-a4857904c826")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544")</pre>
d8cc626aa1174ead", element="d642e9ed-09ed-4fd2-9319-feea96ab099c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="920f411a-882c-4911-bfb5-ceff8aed4e3c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="b54216c1-4d75-4152-b46c-8c53bbf6c48a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="d3bcfc02-0d4f-4120-a083-0bb42c625427")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="4b464a0d-5cc2-4a7a-a1c1-7234a19cc25e")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="5267be71-fc0b-487a-afe7-4a6bd473f0eb")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="44cd6fa0-a143-4131-95aa-4629e77c5810")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="2ec43e1a-9665-468e-820d-252017fb3510")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="b7b99c3e-2f12-477a-8b42-ee244523322f")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="5c5035f5-4131-45ad-b9b7-93d064639bfa")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="07b25dff-544c-4a85-b160-86371498c1c7")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="7e389034-c304-4f0a-962d-6fd38ebf4298")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="e3c7e3da-c0ee-409b-a9a7-907a5fe45004")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="95816c02-3167-4796-af46-f36d0a24c16d")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="ad932b3a-0bd5-4722-8950-32b69e34c735")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="1b09adab-17d1-48aa-a897-e4ccf986c31f")>,
```

<selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544")</pre> d8cc626aa1174ead", element="ab14f32b-acba-48d8-95e8-7b7bf2ece49f")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre> d8cc626aa1174ead", element="78708d48-4a9a-45e2-bfb6-081ece282669")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre> d8cc626aa1174ead", element="ab7dd737-593c-4c35-aff2-adaa07577b40")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre> d8cc626aa1174ead", element="8feaf466-4c3f-4538-bc3c-efa2a3c9bc0a")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre> d8cc626aa1174ead", element="a7fb1bd2-0b90-411d-98d9-7f9383f72aa4")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre> d8cc626aa1174ead", element="4c91f2fd-0c78-42da-a5cf-2ba4d534cb07")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre> d8cc626aa1174ead", element="46da5a37-c843-428e-a848-b2251d20f3de")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre> d8cc626aa1174ead", element="60ace6a1-e122-4a21-9658-6e2bbab42fc7")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre> d8cc626aa1174ead", element="8a6a104d-cf53-475e-be7e-70e64fa8f70d")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre> d8cc626aa1174ead", element="e4e9f555-3131-4a1e-a38a-77b70a9b9f03")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre> d8cc626aa1174ead", element="b0d5ceab-5864-4f84-b829-063464a1b74d")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre> d8cc626aa1174ead", element="d37eba0c-f63e-4b97-aaa6-5e1e3f97dbd2")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre> d8cc626aa1174ead", element="c53c3e8d-9de2-4fe2-9386-e90a04a4d7b9")>]

```
In [99]:
    brand_tags=[]
 2
 3
    for i in brand:
        brand_tags.append(i.text)
 4
    brand_tags[0:30]
Out[99]:
['HIGHLANDER',
 'HIGHLANDER',
 'Chevit',
 'World Wear Footwear',
 'DUNKASTON',
 'Magnolia',
 'BRUTON',
 "LEVI'S",
 'TR',
 'URBANBOX',
 'corsac',
 'EMPTILE',
 'BRUTON',
 'BRUTON',
 'KWIK FIT',
 "LEVI'S",
 'D-SNEAKERZ',
 'World Wear Footwear',
 'Shoes Bank',
 "LEVI'S",
 'aadi',
 'BRUTON',
 'RapidBox',
 'HIGHLANDER',
 'BRUTON',
 'Labbin',
 'Magnolia',
 'HOTSTYLE',
 'Rzisbo',
 'Stefano Rads']
In [100]:
   len(brand tags)
```

# Out[100]:

40

## In [101]:

```
product_description=driver.find_elements_by_xpath('//a[@class="IRpwTa"]')
product_description[0:30]
```

#### Out[101]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="7f5ccbcf-e897-47ec-9156-c3ee9a88808e")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="04c4344d-8410-4717-be85-dfed3341ba3e")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="301578a0-ee42-4748-84b1-3889cd86c3c5")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="f657cc95-b15a-4c45-b6b1-5bae2fcb6266")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="fd75805c-a3b6-4359-a8d6-1d7263e00683")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="2c44612c-beaa-4abe-a1c7-2c5f0d4c4973")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="0d93035d-a19a-4c01-97f4-fc4b2ba884bb")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="5cb538c4-75cf-4ee0-8709-6008d79a3ca9")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="e04d6a5b-c048-4714-9d09-dfb3bec02d5d")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="c63df1f7-ec75-4c35-ae9b-13950c29edfd")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544")</pre>
d8cc626aa1174ead", element="103413eb-b6dd-4f77-a8bd-400432cf0f32")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="f12e1822-7d4e-4db8-8bd2-46150c2b3725")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="f0a797af-2f9d-4cc0-9744-6540cad27af1")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="2f0ed659-68b6-427a-947f-8c2ae6e06676")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="ca670b5b-e403-453a-9dbe-cd848e2158b1")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="4942edde-97ba-4b26-8bc7-fbc21d7c29aa")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="3ad2b34e-54ca-4912-b874-0afbd3a7e3f9")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="64d1e67d-690c-4f81-9da4-4e3942179981")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="9b756929-4244-4f64-b817-6ab115851a0d")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="a4849654-05bd-4b75-8152-cbe72288cb82")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="8d9c1905-bb18-4b63-b96f-847d43cc4cea")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="32f5f80b-9750-45fc-9f80-0906a3db4c77")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="28182960-ff6d-42fe-878c-502d0655be1f")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="1b42de44-4ed7-4bd3-9c9e-ca8404f012a6")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="12c268f0-bec0-4d41-ad93-f40cdd13f7ee")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="56b22961-20a4-4c95-9a37-6d3b59c90658")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="13039df8-4080-4090-b4ef-f16f491e2202")>,
```

## In [102]:

```
product_description_tags=[]
for i in product_description:
    product_description_tags.append(i.text)
product_description_tags[0:30]
```

## Out[102]:

```
['Sneakers For Men',
 'Super Stylish & Trendy Combo Pack of 02 Pairs Sneakers ...',
 'Sneakers For Men',
 'Sneakers For Men',
 'Sneakers For Men',
 'Modern Trendy Sneakers Shoes Sneakers For Men',
 'Sneakers For Men',
 'STYLISH MENS BLACK AND WHITE SNEAKER Sneakers For Men',
 'all white heartbeat casual shoe Sneakers For Men',
 'Sneaker Sneakers For Men',
 'Modern & Trendy Collection Combo Pack of 02 Shoes for M...',
 'Kwik FIT casual sneaker shoes and partywear shoes Casua...',
 "Casual , Partywear Sneakers Shoes For Men's And Boys Wh..."
 '5011-Latest Collection Stylish Casual Loafer Sneakers S...',
 "White Sneaker For Men's/Boy's Sneakers For Men",
 'Sneakers For Men',
 'Modern & Trendy Collection Combo Pack of 02 Shoes for M...',
 'Sneakers For Men',
 'Lattest Sneakers Shoe Sneakers For Men',
 'Sneakers For Men',
 'Sneakers For Men',
 'CR-1 Sneakers For Men',
 'Sneakers For Men',
 'Series 7 Sneakers For Men',
 "Men's Sneakers Fashion Lightweight Running Shoes Tennis...",
 'Sneakers For Men',
 '516 Trendy Star Perfect Sneakers For Men',
 'Casual Loafers, Sneakers Shoes for Men Pack of 5 Combo(...',
 'Sneakers For Men',
 'Sneakers For Men']
```

## In [103]:

```
1 len(product_description)
```

## Out[103]:

32

# In [104]:

```
price=driver.find_elements_by_xpath('//div[@class="_30jeq3"]')
price[0:30]
```

#### Out[104]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="4d958d43-8f57-4047-9990-cd94fc43e79f")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="f73d2f78-586f-4621-8145-14977071802c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="f276ce7e-684b-44e9-a63b-6224175f6bf2")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="f9506ae8-47bc-434e-a580-85430df99206")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="e8c86969-390a-446a-a61e-658d37b53a81")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="2bbd27db-73b8-44ed-b3d4-e20b43d43bad")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="e6584900-fffb-4cc2-9244-d7bc612735ac")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="442a13a6-5b3c-47dd-b63c-e115bc4235db")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="95c67621-94c8-4dc0-bbc9-c510b6c2121c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="a2328d84-3e8f-4d52-aa42-89a7afb1795b")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544")</pre>
d8cc626aa1174ead", element="5420597a-7160-4d2c-b160-4fab9a023d3f")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="e30616a3-c4a1-4469-9303-603699914b92")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="28eaf1ba-8e16-478e-9d76-f7588fbf2e9e")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="393efb0f-cf39-4ba4-840d-fe29f8ca1f35")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="323d8021-49bf-42d2-8d8e-4f612333e854")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="31730669-899b-4e4e-ae5d-612cf75612f1")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="e65ff924-61e5-4666-b4a1-6e54071f9a07")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="e97a1d9f-4593-4695-ab7d-88d1cf6246f3")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="0f6b7a4b-9d85-412d-80d1-2bc362f4cfbc")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="6bde7f98-6ce7-47e9-9f2a-00564937a89f")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="ab1055f4-e824-46c9-8ece-329d42b5b6b0")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="3a99b633-c89b-41a2-a90e-7859e61552d6")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="3feb56ac-3d7a-4374-b7fb-9d0e68a139a3")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="2ba0179d-053a-4507-8ec8-aa9b048273ad")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="eeff602f-2b85-4351-a74c-81c2f1bc6284")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="6a3adfe4-9fa6-4dba-8304-43bcc89f5fe9")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="efdaf7ec-83f1-4ed6-bfa1-3b26087dbe9e")>,
```

## In [105]:

```
price_tags=[]

for i in price:
    price_tags.append(i.text)
price_tags[0:30]
```

# Out[105]:

```
['₹796',
 '₹796',
 '₹649',
 '₹199',
 '₹278',
 '₹448',
 '₹259',
 '₹1,119',
 '₹322',
 '₹198',
 '₹449',
 '₹397',
 '₹299',
 '₹471',
 '₹399',
 '₹1,119',
 '₹299',
 '₹199',
 '₹298',
 '₹1,199',
 '₹339',
 '₹536',
 '₹680',
 '₹995',
 '₹299',
 '₹499',
 '₹448',
 '₹252',
 '₹494',
 '₹240']
```

## In [106]:

```
1 len(price)
```

#### Out[106]:

40

# In [107]:

```
1 next_btn=driver.find_element_by_xpath("/html/body/div[1]/div/div[3]/div[1]/div[2]/div[1
2 next_btn
```

# Out[107]:

<selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544d
8cc626aa1174ead", element="c10f3f89-e05a-42e5-8923-af10b5049314")>

# In [108]:

```
1 next_btn.click()
```

# In [109]:

```
url='https://www.flipkart.com/search?q=sneakers&otracker=search&otracker1=search&market
driver.get(url)
```

## In [110]:

```
brand1=driver.find_elements_by_xpath('//div[@class="_2WkVRV"]')
brand1[0:30]
```

#### Out[110]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="2293f35a-72bc-4d38-b1d8-09d31093c64c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="a48559b9-b4f1-4c32-84be-a56b528735a8")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="79775d48-0c17-4910-a937-a5e73a76f90a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="144a4958-e049-4978-8032-4f77cdd804f2")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="aad92c99-3fab-4d92-b8fa-6b960c338b8f")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="254ff7b8-a3fd-422b-97a1-6276e28500f2")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="bc3df264-4e3d-4bd5-9bd6-cb4113b5570e")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="88ee1ef8-798f-4849-bd61-ed43bdc62ef8")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="275edaa1-5808-4bba-b2de-2a9c0f9b9c56")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="c3eef495-b8cb-401d-9491-2c1e31b6fa7c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544")</pre>
d8cc626aa1174ead", element="ff1c2175-0bff-4a28-9fd5-45646d3bb6d6")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544")</pre>
d8cc626aa1174ead", element="f8ef5229-23dc-4799-b63a-f943c85d9fc4")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="47aae325-f84c-42fe-8c8a-2412d7894d83")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="a2a71a23-5d3b-4b4b-94a9-529680ea4ee9")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="e6daba0d-6db5-43c7-9b3e-2ab29632a37c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="853ef0f1-9f9d-4293-b7e2-deaf08877f26")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="a0ce5fe7-8d73-4293-93aa-e8273a203a14")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="4b8873d6-d5fa-480f-8a22-b52edd63c41c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="49d5a819-5916-4364-a081-50673409dce6")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="032ee1fc-0fa9-4d2d-af9c-0c373d8c865a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="13c40072-f866-4f59-8e5e-cc901a8cf294")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="f8985b51-cf29-4772-a44c-29594498646f")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="fecb2f0c-0038-4e6d-a05a-1db21c48512a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="e2b745e4-06a5-41df-ad5e-fd9a6e4bfecf")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="0c59da50-438d-4022-a518-cd17b56f9eca")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="66745a3c-173f-4ddf-9c16-0762298a043b")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="eda8f266-4973-4582-8959-3095263f09fa")>,
```

## In [111]:

```
brand_tags1=[]

for i in brand1:
    brand_tags1.append(i.text)
brand_tags1[0:30]
```

## Out[111]:

```
['Magnolia',
 'BIRDE',
 'COZY2FOOTWEAR',
 "LEVI'S",
 'India hub',
 'Xtoon',
 'Ktiz',
 "LEVI'S",
 'Chevit',
 'Stinson',
 'CLYMB',
 'EMPTILE',
 'D-SNEAKERZ',
 'RANZAG',
 'Numenzo'
 'KWIK FIT',
 'Robbie jones',
 'ASIAN',
 'Robbie jones',
 "LEVI'S",
 'Dizzler',
 'COZY2FOOTWEAR',
 'Elevarse',
 'HIGHLANDER',
 'Chevit',
 'Robbie jones',
 'asics',
 'HOTSTYLE',
 'Echor',
 'DUNKASTON']
```

#### In [112]:

```
1 len(brand1)
```

# Out[112]:

40

# In [113]:

```
product_description1=driver.find_elements_by_xpath('//a[@class="IRpwTa"]')
product_description1[0:30]
```

## Out[113]:

[<selenium.webdriver.remote.webelement.WebElement (session="e160345add1d25</pre> 44d8cc626aa1174ead", element="78bed5d9-f6fa-4166-bc34-af85bec7b2e8")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d25</pre> 44d8cc626aa1174ead", element="c3346da0-b1bf-43fa-89a5-71eafe7393da")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d25</pre> 44d8cc626aa1174ead", element="6fc2b6b4-11ae-41f5-b8aa-49572d23ccbc")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d25</pre> 44d8cc626aa1174ead", element="b6d64914-a5cc-41f3-8b07-b44678ae8da2")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d25</pre> 44d8cc626aa1174ead", element="0a462764-56fc-4a1e-82af-64970ac5047d")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d25</pre> 44d8cc626aa1174ead", element="1a46bbaf-c6e5-46af-952f-662105149663")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d25</pre> 44d8cc626aa1174ead", element="17e5a20e-28a1-4761-b19e-9931bac23679")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d25</pre> 44d8cc626aa1174ead", element="ce00070e-3f2d-49c6-a0f1-090f04811468")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d25</pre> 44d8cc626aa1174ead", element="ef8719cf-c669-4002-9945-44cf3bbc6d4f")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d25</pre> 44d8cc626aa1174ead", element="0276a773-9e3b-44ed-b563-4325a39d6750")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d25")</pre> 44d8cc626aa1174ead", element="a3893f25-e48f-4a71-9b91-806a03876fb7")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d25</pre> 44d8cc626aa1174ead", element="42dfffa1-b70d-4f32-9ad5-a55ecc825a00")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d25</pre> 44d8cc626aa1174ead", element="83a20fd6-bff6-460d-89fa-b8436adad06f")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d25</pre> 44d8cc626aa1174ead", element="476c9e9a-f6ed-4612-bdd5-f51d17a12ae2")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d25</pre> 44d8cc626aa1174ead", element="7c28f1ce-332c-4209-b0c3-2f6452062a06")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d25</pre> 44d8cc626aa1174ead", element="54fd8bc7-11cd-4e4d-9f10-b2164f433003")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d25</pre> 44d8cc626aa1174ead", element="1912c20c-6a3c-46ed-a6e8-54555d6f6c2a")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d25</pre> 44d8cc626aa1174ead", element="7cb78e36-634f-434e-87dd-5085f8c1712f")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d25</pre> 44d8cc626aa1174ead", element="b7f136fa-bfb3-43df-888b-4b55693b500d")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d25</pre> 44d8cc626aa1174ead", element="93677d9b-f23a-4942-b37f-378c44481bad")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d25</pre> 44d8cc626aa1174ead", element="f171e4a4-83ed-45ae-98d0-b105417d5b1c")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d25</pre> 44d8cc626aa1174ead", element="a8965ac5-01b1-4e44-8181-2a1b79b73c8d")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d25</pre> 44d8cc626aa1174ead", element="42fdc53f-0bf6-4b94-8e7a-9166e18903fc")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d25</pre> 44d8cc626aa1174ead", element="108eebdb-e17d-41b4-8152-b8f548e74b6f")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d25</pre> 44d8cc626aa1174ead", element="56dc49d7-be0f-4e68-9107-df2eda54dfcc")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d25</pre> 44d8cc626aa1174ead", element="f8ab5be8-1e18-4f73-81e6-d72fdee99775")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d25</pre> 44d8cc626aa1174ead", element="a6bbaebf-5227-41ac-b228-4d4b45d7430f")>,

### In [114]:

```
product_description_tags1=[]
for i in product_description1:
    product_description_tags1.append(i.text)
product_description_tags1[0:30]
```

# Out[114]:

```
['Sneakers For Men',
 'Sports Running Shoes Sneakers For Men',
 'casual sneaker shoes for men kardam&sons Sneakers For M...',
 "white Casual shoes, Sneakers for men's Sneakers For Men",
 'Sneakers For Men',
 'Unique & Perfect Collection Combo Pack of 02 Shoes for ...',
 'Sneakers For Men',
 "Perfect Sports Shoes for Men's Running ,Cycling & Trekk...",
 'all white heartbeat casual shoe Sneakers For Men',
 "Casual , Partywear Sneakers Shoes For Men's And Boys Wh...",
 'Running Shoes Stylish Comfortable Shoes For Men Sneaker...',
 '411 Casual Sneakers For Men',
 'Kwik FIT casual sneaker shoes and partywear shoes Casua...',
 'Sneakers For Men'.
 'Skypy-31 Walking Shoes, Training Shoes, Sneakers, Loafers,...',
 'Casual Sneakers White Shoes For Men Sneakers For Men',
 'Sneakers For Men',
 'Sneakers For Men',
 'Perfect & Affordable Combo Pack of 02 Pairs Sneakers Ou...',
 'Sneakers For Men',
 'fuzor B Sneakers For Men',
 'CR-1 Sneakers For Men',
 'Sneakers For Men',
 'Sneakers For Men',
 'Comfortable & Ultra Light Weight Sneaker Sneakers For M...',
 'Fashionable sneaker shoes Sneakers For Men',
 'Casual Sneakrs For Men Sneakers For Men',
 'Casual Loafers, Sneakers Shoes for Men Pack of 5 Combo(...',
 'casual for men Sneakers For Men']
```

# In [115]:

```
price1=driver.find_elements_by_xpath('//div[@class="_25b18c"]')
price1[0:30]
```

#### Out[115]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="bf76ebf3-46f7-444e-b2e0-e15b105f0bd9")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="73ba5790-ddb9-45bb-bede-90bff43bc293")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="54f2ae0c-6424-4630-9012-3b400fdd403c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="d5a1fe10-d3bf-4dd3-a263-988c73143da7")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="2b9284e1-c6df-4360-aea0-ecfbda43000d")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="501275d7-5309-487a-a116-9d9429086ca4")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="8d213201-9e6e-4066-b9cb-388d6a71a2bc")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="ed316d0b-70f3-400e-b781-e61cc08c87ff")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="c62a894e-4df6-4218-8b3a-5aa3318118c8")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="7ba902a1-1b1a-41e3-8371-796f09351812")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="a7ba54db-887a-48a1-afc3-c8fa221b4b1f")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="aebf159e-29f7-478a-9b7e-7f55bb1b8ffe")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="dfe6c883-2277-44f2-9fdb-39b5c651afa9")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544")</pre>
d8cc626aa1174ead", element="b88ba863-f88d-4ded-85d6-372942a074c8")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="adee107d-047b-449e-8366-f7ff7a994ee8")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="bb440713-0774-4202-b3fb-577beeea6f67")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="2c8a073c-c693-4c61-95ee-4cbe7fac4202")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="5f824ad3-1565-40f0-b304-c67f7fcad865")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="42099db3-5187-47ed-9cba-92c944fa9a9f")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="0a75327d-09c8-4c3d-8c0b-57f9f8bf6b09")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="bbad98d6-647c-4773-b03c-b856b6160f05")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="ea76e46c-ad1f-4cb2-928f-d83e4e2b6a4f")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="649b60f0-490c-4ab1-94dd-f29c71e5f6ad")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="aa126d3e-4288-49a8-84d6-cffffb7ebc52")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="81d0f6cd-e5cc-4694-a3a5-b3c104a35b5f")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="c30756be-0e03-4df4-b732-3ebd5da8b921")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="8725b6bc-46b4-4288-9a36-63ccd5475187")>,
```

### In [116]:

```
price_tags1=[]

for i in price1:
    price_tags1.append(i.text)
price_tags1[0:30]
```

# Out[116]:

```
['₹448₹99955% off',
 '₹299₹49940% off'
 '₹499₹1,49966% off'
 '₹1,199₹2,99960% off',
 '₹449₹1,29965% off',
 '₹479₹1,49968% off',
 '₹448₹99955% off',
 '₹1,119₹2,79960% off',
 '₹499₹1,49866% off',
 '₹259₹49948% off',
 '₹249₹99975% off',
 '₹397₹99960% off'
 '₹384₹99961% off'
 '₹395₹99960% off'
 '₹474₹1,99976% off',
 '₹397₹1,99980% off',
 '₹499₹99950% off',
 '₹498₹79937% off'
 '₹499₹99950% off',
 '₹1,119₹2,79960% off',
 '₹495₹71931% off',
 '₹499₹1,49966% off',
 '₹399₹99960% off',
 '₹796₹1,99060% off'
 '₹549₹1,79869% off',
 '₹499₹99950% off',
 '₹2,086₹3,79945% off',
 '₹252₹49949% off',
 '₹499₹1,49966% off'
 '₹399₹1,49973% off']
```

#### In [117]:

```
1 len(price1)
```

#### Out[117]:

45

## In [118]:

```
1 next_btn=driver.find_element_by_xpath("/html/body/div[1]/div/div[3]/div[1]/div[2]/div[1]
2 next_btn.click()
```

# In [119]:

url='https://www.flipkart.com/search?q=sneakers&otracker=search&otracker1=search&market
driver.get(url)

### In [120]:

```
brand2=driver.find_elements_by_xpath('//div[@class="_2WkVRV"]')
brand2[0:30]
3
```

### Out[120]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544
d8cc626aa1174ead", element="a8651b6f-cbd4-4ce7-9873-fcd6c4830979")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="36fc5768-af37-40c0-8c28-871ad700ea97")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="5e0aab8d-6b7d-4ade-a17e-ffe4012b5734")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="54eaa176-a2e2-4358-b48c-274605f26903")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="c59a1750-d43b-411b-967c-53ba9e6f0a3f")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="7c440ff7-e8d3-465a-859e-7b88952f17dc")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="d0ee3383-dabf-426c-878e-e1df718ef49a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="c78f56c6-b768-40f6-a5d8-5aaa4064e1e4")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="8adf06eb-e655-4f4b-b768-40e51bf9ef50")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="d25ef5fa-9fad-46ee-92ab-41d42c4e4585")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="3d5d17c0-105b-4578-aa94-a4857904c826")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="d642e9ed-09ed-4fd2-9319-feea96ab099c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="920f411a-882c-4911-bfb5-ceff8aed4e3c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="b54216c1-4d75-4152-b46c-8c53bbf6c48a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="d3bcfc02-0d4f-4120-a083-0bb42c625427")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544")</pre>
d8cc626aa1174ead", element="4b464a0d-5cc2-4a7a-a1c1-7234a19cc25e")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="5267be71-fc0b-487a-afe7-4a6bd473f0eb")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="44cd6fa0-a143-4131-95aa-4629e77c5810")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="2ec43e1a-9665-468e-820d-252017fb3510")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="b7b99c3e-2f12-477a-8b42-ee244523322f")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544")</pre>
d8cc626aa1174ead", element="5c5035f5-4131-45ad-b9b7-93d064639bfa")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="07b25dff-544c-4a85-b160-86371498c1c7")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="7e389034-c304-4f0a-962d-6fd38ebf4298")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="e3c7e3da-c0ee-409b-a9a7-907a5fe45004")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="95816c02-3167-4796-af46-f36d0a24c16d")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="ad932b3a-0bd5-4722-8950-32b69e34c735")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
```

```
d8cc626aa1174ead", element="1b09adab-17d1-48aa-a897-e4ccf986c31f")>,
  <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544
d8cc626aa1174ead", element="ab14f32b-acba-48d8-95e8-7b7bf2ece49f")>,
  <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544
d8cc626aa1174ead", element="78708d48-4a9a-45e2-bfb6-081ece282669")>,
  <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544
d8cc626aa1174ead", element="ab7dd737-593c-4c35-aff2-adaa07577b40")>]
```

### In [121]:

```
brand_tags2=[]

for i in brand2:
    brand_tags2.append(i.text)
brand_tags2[0:30]
```

## Out[121]:

```
['CAMPUS',
 'COZY2FOOTWEAR',
 'AMICO',
 "LEVI'S",
 'WHITE WALKERS',
 'Nilatin',
 'T-ROCK',
 "LEVI'S",
 'WHITE WALKERS',
 'ADIDAS',
 'RODDICK SHOES'.
 'KWIK FIT',
 'BIRDE',
 'Zorth',
 'SEGA',
 'RapidBox',
 'Brainer',
 'PUMA',
 'PUMA',
 'HIGHLANDER',
 'CLYMB',
 'EMPTILE'
 'Hot & Knot',
 'HOTSTYLE',
 'HOCKWOOD',
 'Robbie jones',
 'Hida',
 "LEVI'S",
 'SPARX',
 'AMICO']
```

# In [122]:

```
1 len(brand2)
```

## Out[122]:

40

### In [123]:

```
product_description2=driver.find_elements_by_xpath('//a[@class="IRpwTa"]')
product_description2[0:30]
```

#### Out[123]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="8ef0d737-d8ca-455e-bd6e-cb6113476ae6")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="0773600a-2cfc-42ff-9a89-be1b4cf19cbe")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="6c0dea53-44e2-484f-920c-8b708d156943")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="7baf483a-c8b3-457c-806f-783a6bc79eee")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="5f67d604-e72a-4f98-9916-50e43b05d768")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="9472ce15-482c-4844-8b0b-a80c20df37a4")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="f7280c3d-a576-497b-affa-56cf1238b745")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="a8f3163b-5f15-4cc1-8464-11db75333979")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="d63a7142-01bb-4e3f-8400-9114a5f6715a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="ab31f245-0b89-4782-a927-4be055482ae3")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544")</pre>
d8cc626aa1174ead", element="cb3e4895-ea21-4b83-bbef-643150f02e2a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="b6c39f67-2f09-494b-9d02-02cc9c0bcfe8")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="0ba7db89-f3d6-4ff3-90f1-1d9d67945bd5")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544")</pre>
d8cc626aa1174ead", element="be4843b9-3845-4aff-94fc-7120c54a09ff")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="b40064fd-2c67-482d-9cbc-dca547eac23d")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="5c81f629-4386-4b6c-991f-f79453251dbf")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="356dd9b3-b567-49bc-8dd3-f6de313732a4")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="245d7471-e2d6-44ec-b9fb-aa476d76a99c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="577fc417-8310-4cf2-950d-67fceefbb257")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="81c9b07e-9dbe-4f0c-a571-5c798b976fbd")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="888f0dec-ccc6-45b6-9530-3940f64342f2")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="78264ef5-3af2-47fa-a949-badde16d2a0a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="6e00b1b7-a6ed-4d2e-aca5-fa2d8fb4d76c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="0aef6511-6b70-45ce-a151-e107261975b3")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="28daf177-06bf-4a63-a074-85cb02ee2b76")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="88462415-6cf6-4d7b-8342-6afccc2953a4")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="1cc9368c-1ec4-4b83-a376-69f77353ec1a")>,
```

<selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544
d8cc626aa1174ead", element="286fbd0c-5416-4e7b-a3a4-4370eabd25bd")>]

# In [124]:

```
product_description_tags2=[]
for i in product_description2:
    product_description_tags2.append(i.text)
product_description_tags2[0:30]
```

# Out[124]:

```
['EXPLORE Sneakers For Men',
 'Sneakers For Men',
 'Stylish & Trending Outdoor Walking Comfortable Sneakers...',
 'Sneakers For Men',
 'Stylish White Casual Sneakers shoes Men and Boys Sneake...',
 'Sneakers For Men',
 'Street Icon M Sneakers For Men',
 'Fashion Outdoor Canvas Casual Light Weight Lace-up Even...',
 'Kwik FIT casual sneaker shoes and partywear shoes Casua...'
 'Stylish Comfortable Lightweight, Breathable Casual Walk...',
 'Sneakers For Men',
 'Sneakers For Men',
 'Electron E Pro Sneakers For Men',
 'RS-X WINTERIZED Sneakers For Men',
 'Sneakers For Men',
 'Khalifa/Walking/Outdoor/Sneakers Sneakers For Men',
 'all white heartbeat casual shoe Sneakers For Men',
 'High Top Casual Party Wear Boot Stylish Sneakers For Me...',
 'CR-1 Sneakers For Men',
 'Sneakers For Men',
 'Sneakers For Men',
 'New Fashion Outdoor Trendy Lightweight Casual, Canvas St...',
 'Sneakers For Men',
 'Sneakers For Men',
 '411 Casual Sneakers For Men',
 'sports shoes for men | Latest Stylish Casual sneakers f...',
 'casual for men Sneakers For Men',
 'Kzaara Sneakers Casual Canvas shoes | Branded Stylish O...']
```

### In [125]:

```
1 len(product_description2)
```

#### Out[125]:

28

# In [126]:

```
price2=driver.find_elements_by_xpath('//div[@class="_25b18c"]')
price2[0:30]
```

#### Out[126]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="9bfc5745-3a9b-49c8-8803-d2590ad14ce4")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="593c4d12-35db-420a-b5b3-b5395f6b03fd")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="1015df81-caff-4156-a0fe-a34b9a9e2aa4")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="6c1fdeb1-88b7-4522-8484-0a73cb8a13c7")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="137b1963-18f2-4066-bb9b-284e7181d867")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="478a27b3-fb7d-4659-8e6c-b896457b6a38")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="423ba645-a848-4777-b1f3-435f026a8ca2")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="51eb10eb-fe38-4e53-9dfc-e6382dbc5362")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="56375a7f-e135-47d4-9cf9-ca14b422d45d")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="65c4ee55-a398-496b-a92d-28efa2781a49")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="9eefd542-dc09-42f9-9c72-0a28b5ee32de")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="47dff7dc-ca8a-4f5b-8338-2ee64c4367a3")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="3a901685-76f9-4b52-9aac-ced9681d2706")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="fd58dd8d-5e92-47c1-b733-39252ff72a94")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="1664b20c-d96c-4133-9e46-10f48c3b84a2")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="6c5394a9-6294-44e9-be3b-234fd5a5e5da")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="760a1b54-89a0-460c-96c1-f97178b6c637")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="d61462d1-26dc-49c4-a540-d8ac2f51cbb8")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="7ebcf55e-cba6-4e93-b3d2-28581252f382")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="462563a5-d79b-46d0-b6dd-7083864fffa6")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="e4b037ed-e5c5-47a7-bf3e-4bc1e1027059")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="cd641633-8e69-473f-986c-7d67a46ab537")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="3c781e12-e9e4-4838-ae29-56716b18c794")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="8aea30b7-da3e-4172-8805-b4984697330e")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="75d11d4b-8dbd-42ef-ac09-90f86b2c065b")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="221f0e14-4e7e-4212-8aed-88c5b4f29536")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="62e82209-0313-41ea-8de0-f37a1b5fab46")>,
```

### In [127]:

```
price_tags2=[]

for i in price2:
    price_tags2.append(i.text)
price_tags2[0:30]
```

#### Out[127]:

```
['₹1,367₹1,89928% off',
 '₹499₹1,49966% off',
 '₹499₹1,49966% off'
 '₹1,119₹2,79960% off',
 '₹599₹1,19850% off',
 '₹649₹2,99978% off',
 '₹399₹99960% off',
 '₹1,199₹2,99960% off',
 '₹599₹1,19950% off',
 '₹2,123₹3,59941% off',
 '₹449₹99955% off',
 '₹397₹1,99980% off',
 '₹399₹99960% off',
 '₹447₹99955% off',
 '₹642₹99935% off',
 '₹630₹99936% off'
 '₹499₹1,29961% off'
 '₹2,749₹4,99945% off',
 '₹4,048₹8,99955% off',
 '₹796₹1,99060% off',
 '₹616₹1,49958% off',
 '₹397₹99960% off',
 '₹588₹99941% off',
 '₹252₹49949% off'
 '₹745₹99925% off'
 '₹499₹99950% off',
 '₹616₹99938% off'
 '₹1,119₹2,79960% off',
 '₹849',
 '₹474₹99952% off']
```

#### In [135]:

```
1 next_btn=driver.find_element_by_xpath("/html/body/div/div/div[3]/div[1]/div[2]/div[12]/
2 next_btn
```

#### Out[135]:

<selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544d
8cc626aa1174ead", element="f77a3690-24ba-4c73-9d7d-555a195af1d8")>

# In [136]:

1 next\_btn.click()

# In [137]:

url='https://www.flipkart.com/search?q=sneakers&otracker=search&otracker1=search&market
driver.get(url)

# In [138]:

```
brand3=driver.find_elements_by_xpath('//div[@class="_2WkVRV"]')
brand3
```

## Out[138]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="91cb1032-7141-4172-922b-fb03b85dd548")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="c9888cb7-7819-475a-a799-7b5c72b49b3c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="4cf8ab66-b19e-46b6-afb5-574709aab31e")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="ca98cb24-5f13-4d65-8e24-1094853dc80c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="33b34039-cc9a-4611-9344-728e81351aba")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="5a8607e8-5bc6-4b74-9ab4-5b438fd72c41")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="6bc73e43-d17e-4f54-ab32-fcff0501a5d1")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="3d913a38-004b-491b-a184-6ef872e42014")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="ab8fcf87-940e-4fec-a0c9-7d37dabb991e")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="3883f968-545a-4538-ae55-dc14efcdd114")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="b2d5ea7e-01db-426c-9441-456916a7cdbf")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544")</pre>
d8cc626aa1174ead", element="9355de3a-2157-4c5d-921f-0c1614459b67")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="de30a92c-bf44-4d16-b8aa-107167820a23")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="53cdd4e5-af74-46db-b13d-15aaa5d56d0f")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="96019333-c0b7-4c0d-9779-f545ee45952e")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="b93cf120-b465-454e-a89a-8bd19981994a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="7d604534-0a1d-42f5-a9b5-6d9a09b98377")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="c1a0a575-3879-43b7-b913-299923257f13")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="b12a7265-708f-4847-b5f8-abba35c39b03")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="2555f34a-250a-45a6-b307-963c89796c99")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="60d4c295-cc2d-40a9-9677-f98a39caaf24")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="a4d3f2cd-19fd-4d0d-a7df-2cca4edc735d")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="280aedfe-675c-46a2-a8bc-e307e54b3ad1")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="25b0043c-3fa8-4cf2-bc78-8632005d952d")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="74ccde92-755b-42c7-9c1b-f7c39f5e774c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="28c59286-10db-4cde-babb-99a73926ff3a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="f32fad2c-237c-43ca-bde4-c4c9fbbd45f1")>,
```

<selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre> d8cc626aa1174ead", element="2d5016a0-6615-4b16-8bcb-4dd0c6d6e879")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre> d8cc626aa1174ead", element="57e75ffe-4d37-4818-9a71-cd1b59b3a272")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre> d8cc626aa1174ead", element="8d3b55fe-e6d9-48bd-9f74-8912a9f92455")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre> d8cc626aa1174ead", element="16a6cb76-7501-48f0-a118-433a1966ecf3")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre> d8cc626aa1174ead", element="510bde41-df51-4166-bee2-1e21bc3dcb9a")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre> d8cc626aa1174ead", element="1ddc4024-24d5-4aa5-8353-1fbe1722cffe")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre> d8cc626aa1174ead", element="4eb75e14-ca29-4745-bfc0-c058bc124bca")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre> d8cc626aa1174ead", element="ec06f386-2629-4ef2-a673-cd9ebed1843d")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre> d8cc626aa1174ead", element="383018f2-2d9c-4e2c-8030-c499905c2233")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre> d8cc626aa1174ead", element="42532a68-fbd7-4382-95cc-8b4f9d81bd1f")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre> d8cc626aa1174ead", element="6623fb59-8bf5-42e6-b335-bf24a6dab7e3")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544")</pre> d8cc626aa1174ead", element="7350209d-9436-46eb-bc25-69e7ca7e1eec")>, <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre> d8cc626aa1174ead", element="951a62a7-5de6-49be-abbf-5b58a984cd77")>]

# In [139]:

```
brand_tags3=[]

for i in brand3:
    brand_tags3.append(i.text)
brand_tags3[0:30]
```

# Out[139]:

```
['Jabra',
 'BIRDE',
 'RODDICK SHOES',
 "LEVI'S",
 'Vans on',
 'Deals4you',
 'ESSENCE',
 "LEVI'S",
 'Chevit',
 'DUNKASTON',
 'LE GREEM',
 'EMPTILE',
 'Airland',
 'SPARX',
 'NIKE',
 "LEVI'S"
 'WHITEHUB',
 'Extoes',
 'RapidBox'
 'HIGHLANDER',
 'PUMA',
 'STF STRONG',
 'SWIGGY',
 'RapidBox',
 'PUMA',
 'BRUTON',
 'PUMA',
 'SWIGGY',
 'HOCKWOOD',
 'NIKE']
```

### In [140]:

```
product_description3=driver.find_elements_by_xpath('//a[@class="IRpwTa"]')
product_description3[0:30]
```

#### Out[140]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="898bd90e-3976-4bd4-ab00-1d6fa06b8726")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="b8aaed56-af09-4da8-902c-937ace2baa54")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="958ddf9d-fca0-45d7-b295-87262051d72b")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="f6c8da4f-b139-4cd6-a963-ae8d88b5dab0")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="9514bdc3-2ad8-4fea-a2da-a573d3be58b0")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="75a3efb2-f0e4-48bd-8873-754b06a3d03d")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="bfaf54a7-a3b4-464b-8937-b6b203f9dc9b")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="239dbfcf-54de-41c3-9852-e135c3488e5b")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="bc77ba2a-8e07-4592-b209-48264c76bccc")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="1b8ad16b-b193-4ad1-9d7e-8c8c102b016c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544")</pre>
d8cc626aa1174ead", element="f2d9ecb9-6c40-4b50-8577-d81c38c1f445")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="8eac03f1-ee11-4392-8162-206a33d68668")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="77ced42c-3f43-423a-8354-5a709376e85a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="2b1269ec-11f2-4c2d-aff0-af838d5b38e7")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="1f0cffba-9ba5-4275-b87b-9c6c64b7f576")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="fccd029c-37f1-4a44-aa4b-29bd88a92b30")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="66468f4c-76b1-416e-aeb0-ea6d9f37acd0")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="d72cef48-e29d-4804-a961-0b427acd265b")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="520a4d0b-f0a3-4a9d-b547-4eab7b5369a4")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="22a0b110-f19f-4a07-801b-f06defdc3746")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="a3d83650-f4c2-4b2a-b796-04d2be63c17f")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="c9eab77f-4440-4b35-9dab-fc9e727f08f2")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="fa6503dc-a505-4206-960e-33533bae62d8")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="243fb1d6-ff25-4db4-adff-bc28c1a5670e")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="03cac6f7-7478-4b18-831f-876a80c26a49")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="d89e711b-42a2-4f54-ab1c-27c7eeb5622c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="c301979c-de51-469a-8ef3-20a0680f41e4")>,
```

<selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544
d8cc626aa1174ead", element="dc573aab-3078-4232-883d-04f521411601")>]

### In [141]:

```
product_description_tags3=[]
for i in product_description3:
    product_description_tags3.append(i.text)
product_description_tags3[0:30]
```

### Out[141]:

```
['Sneakers For Men',
 'Stylish and Trendy New Design Lightweight, Casual shoes ...',
 'Fashion Outdoor Canvas Casual Light Weight Lace-up Even...',
 'Sneakers For Men',
 'Sneakers For Men',
 'Sneakers For Men',
 'Comfortable & Smart Sneakers For Men',
 'all white heartbeat casual shoe Sneakers For Men',
 '1259 smart black lace-ups sneakers for men Sneakers For...',
 'Men White Sneakers Sneakers For Men',
 'Court Vision Low Better Sneakers For Men',
 'Sneakers For Men',
 'Sneakers For Men',
 'Flex R Dual Sneakers For Men',
 'casual sneakers shoes For Mens Multicolor Combo(MR)-179...',
 'Puma Wired Cage Sneakers For Men',
 'Combo Pack Of 3 Latest Casual Shoes Sneakers For Men',
 'Ferrari Electron E Pro Sneakers For Men',
 'Casual Loafers, Sneakers Shoes for Men Pack of 5 Combo(...',
 'Court Royale 2 Next Nature Sneakers For Men',
 "Men's casual shoes sports shoes black sneaker Sneakers ...",
 'Super 445 Fashion Sneakers For Men',
 'Sneakers For Men',
 'PANAL Sneakers For Men',
 'Sneakers For Men',
 'Boys & Men Stylish, Comfortable Comfort Foam Shoes With...',
 'Sneakers For Men',
 'Sneakers For Men'l
```

# In [142]:

```
price3=driver.find_elements_by_xpath('//div[@class="_30jeq3"]')
price3[0:30]
```

### Out[142]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="ddde745e-4b5e-4d49-a98d-850f20641f22")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="d0d7cf25-f59a-48d4-a5a7-34545ac5ffe1")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="100239b8-83ff-4f3c-9698-a26abf64376d")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="7b51ba89-aa68-4918-9d00-417f48af92b4")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="9b78dc88-b99e-4fbe-965a-274d3a2770e1")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="07ee6880-6c12-42d1-b587-e739a7df7db9")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="ca8dd879-9faf-4994-8c41-a49b32471c40")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="2b3f4e16-fb30-4bb6-9d51-5959a4477f30")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="e9e035cb-702c-4a6a-9427-73d42b6abf26")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="4dab1c14-4bcb-44d8-9241-432b5728f858")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544")</pre>
d8cc626aa1174ead", element="c0a126a3-5540-4426-bd94-ba197aec9055")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544")</pre>
d8cc626aa1174ead", element="fdcae730-c529-4414-91f8-b09f3d6bf6a4")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="1c3ad54b-0e48-47a8-b9b1-d589a5fc5ac6")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="323003e3-fd03-489e-9a9a-4f5433cc215c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="9e3d9501-4ab4-4142-bfa6-a849ddbad4ab")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="32e3064b-a008-4445-b60d-1e178fd2c27b")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="3f6dbe3f-55db-4c4a-a17b-b447f00fe5ef")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="e57d45b2-109a-4bbb-b2b6-e69a74991910")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="6bdc839b-a2af-4f3e-b207-19e9b520defe")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="d6e1c520-afd7-43ac-8d4a-aa7fb45d5445")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="101c6b19-3881-46d5-be2b-f7508dbe9024")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="a2e73342-6265-480c-a1d2-a8821d02eaae")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="dbe364c8-cd4a-4ec6-8d6d-8ae689348e3a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="e54b7c76-c7bd-4ad2-aef5-f63b13b72780")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="ee2278c2-5525-4e53-81f1-b24fbf26d37a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="d7bba7ab-323a-4fd4-9dc7-97c51e609eeb")>,
 <selenium.webdriver.remote.webelement.WebElement (session="e160345add1d2544</pre>
d8cc626aa1174ead", element="6170d10e-7a69-4442-bbf5-fe1e264d7018")>,
```

### In [143]:

```
price_tags3=[]

for i in price3:
    price_tags3.append(i.text)
price_tags3[0:30]
```

# Out[143]:

```
['₹249'<sub>,</sub>
 '₹379',
 '₹449',
 '₹1,199',
 '₹1,490',
 '₹399',
 '₹399',
 '₹1,119',
 '₹624',
 '₹399',
 '₹449',
 '₹397',
 '₹231',
 '₹749',
 '₹3,347',
 '₹1,119',
 '₹519',
 '₹259',
 '₹630',
 '₹796',
 '₹1,631',
 '₹251',
 '₹630',
 '₹630',
 '₹1,994',
 '₹447',
 '₹3,769',
 '₹923',
 '₹749',
 '₹2,677']
```

### In [ ]:

```
1
```

# In [144]:

```
sneakers=pd.DataFrame()
sneakers['Brand']=brand_tags[0:25]+brand_tags1[0:25]+brand_tags2[0:25]+brand_tags3[0:25]
sneakers['Product_Description']=product_description_tags[0:25]+product_description_tags
sneakers['Price']=price_tags[0:25]+price_tags1[0:25]+price_tags2[0:25]+price_tags3[0:25]
sneakers
```

# Out[144]:

|    | Brand               | Product_Description                           | Price  |
|----|---------------------|---|--------|
| 0  | HIGHLANDER          | Sneakers For Men                              | ₹796   |
| 1  | HIGHLANDER          | Super Stylish & Trendy Combo Pack of 02 Pairs | ₹796   |
| 2  | Chevit              | Sneakers For Men                              | ₹649   |
| 3  | World Wear Footwear | Sneakers For Men                              | ₹199   |
| 4  | DUNKASTON           | Sneakers For Men                              | ₹278   |
|    |                     |   |        |
| 95 | PUMA                | Men's casual shoes sports shoes black sneaker | ₹1,631 |
| 96 | STF STRONG          | Super 445 Fashion Sneakers For Men            | ₹251   |
| 97 | SWIGGY              | Sneakers For Men                              | ₹630   |
| 98 | RapidBox            | PANAL Sneakers For Men                        | ₹630   |
| 99 | PUMA                | Sneakers For Men                              | ₹1,994 |

100 rows × 3 columns

#create 'rebounds' column df['rebounds'] = pd.Series([(40, 32, 45)]) df

- 1 Q5: Scrape 100 reviews data from flipkart.com for iphone11 phone. You have to go the link:
- https://www.flipkart.com/apple-iphone-11-black-64-gb-includes- earpodspoweradapter/p/itm0f37c2240b217?pid=MOBFKCTSVZAXUHGR&lid=LSTMOBFKC
- 3 TSVZAXUHGREPBFGI&marketplace.
- 4 When you will open the above link you will reach to the below shown webpage .
- 6 As shown in the above page you have to scrape the tick marked attributes. These are:
- 7 1. Rating
  - 0 2 0----
  - 8 2. Review summary
  - 9 3. Full review
- 10 4. You have to scrape this data for first 100 reviews.
- Note: All the steps required during scraping should be done through code only and not manually.

#### In [145]:

- 1 import selenium
  2 from selenium import webdriver
  - 3 **import** pandas **as** pd
  - 4 import warnings
  - 5 warnings.filterwarnings("ignore")

#### In [146]:

```
1 driver=webdriver.Chrome(r'C:/Users/Acer Aspire 3/Downloads/chromedriver_win32/chromedri
```

### In [147]:

```
1 driver = webdriver.Chrome('chromedriver.exe')
```

# In [148]:

### In [149]:

```
rating=driver.find_elements_by_xpath('//div[@class="_3LWZlK _1BLPMq"]')
rating
```

#### Out[149]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="f548e6e4-c0bd-4456-8c8d-652edc0a9a84")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="12b760c7-452a-4945-b60e-225f773bf931")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="ffa1fb01-700a-4d74-96e2-aecbb54b3d7c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="5feb181c-761c-4223-81c7-e152c71be147")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="d008cf91-fa16-45ed-965a-e577e62521bf")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="0ec24718-4d28-45a5-b0b2-ae76352c0644")>,
<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="03a3c365-11bb-4c5f-8c9a-e6fd584709d6")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="77c3ea70-d816-4ea4-adc5-5ec697516a7c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="664798df-2681-4dc0-a747-7403644057b6")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="659665f0-6106-4c34-9460-5a065615abd9")>]
```

### In [150]:

```
1 rating_titles=[]
2 for i in rating:
3 rating_titles.append(i.text)
4 rating_titles
5
```

#### Out[150]:

#### In [151]:

```
1 review_summary=driver.find_elements_by_xpath('//p[@class="_2-N8zT"]')
2 review_summary
```

#### Out[151]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421
b0b40cb885c76e69", element="f95bf90e-a47b-4167-ad31-ce7456cb3ee1")>,
<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="b08e4811-5056-4de8-bb91-6a88dec47ead")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="3bf22549-4b9d-4fa4-9b75-7b422f31b2e0")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="5de8af85-d259-44f2-b56b-723fd2ed7617")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="502122c3-df66-4248-a05a-750f7201c695")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="0158235b-ddd8-4909-ac37-7dc7851b2a57")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="57ffc0a8-2f0d-4e1f-9cdb-2de124c67326")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="3567a2b2-9198-4bf4-9a83-895a8696de7c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="b93e0532-c8d8-4c73-9bb6-2cf229d4bcb0")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="472d69c7-3f73-45a9-93e4-2123f8c5484a")>]
```

### In [152]:

```
review_summary_titles=[]
for i in review_summary:
    review_summary_titles.append(i.text)
review_summary_titles
```

#### Out[152]:

```
['Brilliant',
'Simply awesome',
'Best in the market!',
'Perfect product!',
'Fabulous!',
'Worth every penny',
'Great product',
'Good choice',
'Worth every penny',
'Highly recommended']
```

#### In [153]:

```
full_review=driver.find_elements_by_xpath('//div[@class="t-ZTKy"]')
full_review
3
```

### Out[153]:

[<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421 b0b40cb885c76e69", element="8d2493c9-024d-4fc8-9bdf-aa45dd32d5ed")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="c169906b-5249-4ea7-ac48-aac7af13209b")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="5a132e46-27da-4afe-b1c1-6cd57d756380")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="8dd98144-6b83-4c8a-a4d3-551ad0513f4f")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="a0b75ad9-8d5c-41d1-b83f-8bd81c5232f4")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="0d481204-8d6e-4090-af98-b23d45cbe2eb")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="31817e2f-62b6-4aee-9607-0b5a82d3f863")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="5c2c2cf2-f578-4638-84a9-c3e87aa0d150")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="4227699a-0012-42ee-89bf-da685f195586")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="f4b413cf-18db-4702-b5a3-e81bddb56e48")>]

### In [154]:

```
full_review_titles=[]
for i in full_review:
  full_review_titles.append(i.text)
full_review_titles
```

## Out[154]:

['The Best Phone for the Money\n\nThe iPhone 11 offers superb cameras, a mor e durable design and excellent battery life for an affordable price.\n\nComp elling ultra-wide camera\nNew Night mode is excellent\nLong battery life',

'Really satisfied with the Product I received... It's totally genuine and the packaging was also really good so if ur planning to buy just go for it.', 'Great iPhone very snappy experience as apple kind. Upgraded from iPhone 7.\nPros\n-Camera top class\n- Battery top performed\n-Chipset no need to say as apple kind\n-Security as you expect from apple\n- Display super bright industry leading colour\naccuracy and super responsive\n-Build quality as expect from apple sturdy\npremium durable beautiful stylish.\n-Os most stable os in smartphone industry\n\nCons\n-No 5G\n-Display is not based on OLED technology\n-Charger headphones and 1 apple stic...\nREAD MORE',

'Amazing phone with great cameras and better battery which gives you the be st performance. I just love the camera .',

'This is my first iOS phone. I am very happy with this product. Very much s atisfied with this. I love this phone.',

'Previously I was using one plus 3t it was a great phone\nAnd then I decide d to upgrade I am stuck between Samsung s10 plus or iPhone 11\nI have seen t he specs and everything were good except the display it's somewhere between 720-1080 and it's not even an amoled it's an LCD display\nBut I decided to g o with iPhone because I have never used an IOS device I have Been an android user from the past 9 years I ordered IPhone 11 (128gb) product red\nMy experience after using 3 weeks\n1. The delivery ...\nREAD MORE',

'Amazing Powerful and Durable Gadget.\n\nI'm am very happy with the camera picture quality, Amazing face id unlocked in dark room, Strong battery with perfect screen size as you can carry easily in pocket. This is my third iPho ne.\n\nI shifted from android Samsung Note series to iPhone because of the s trong build quality and peace of mind for next 3-4 years.\n\nDon't think to much just go for it and I suggest you to go for minimum 128gb variant or mor e 256gb.\n\nI've attached my puppy pics and no fi...\nREAD MORE',

'So far it's been an AMAZING experience coming back to iOS after nearly a d ecade but it's not as versatile as android though phone is sturdy dropped it accidentally a couple of times and nothing happened fortunately camera is aw esome',

'ill is worthy to buy, too much happy with the product. Thank u flipkart I received the item on time..loved it..',

'What a camera .....just awesome ..you can feel this iPhone just awesome . Good for gaming also ...try pubg in hd it's just wow']

#### In [155]:

```
1 next_btn=driver.find_element_by_xpath("/html/body/div/div/div[3]/div/div/div[2]/div[13]
2 next_btn
```

#### Out[155]:

<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421b
0b40cb885c76e69", element="01f99b53-fd6d-407e-8dd0-16f9617fa572")>

#### In [156]:

```
1 next_btn.click()
2
```

### In [157]:

```
url='https://www.flipkart.com/apple-iphone-11-black-64-gb-includes-earpods-power-adapte
driver.get(url)
```

## In [158]:

```
1 rating1=driver.find_elements_by_xpath('//div[@class="_3LWZ1K _1BLPMq"]')
2 rating1
```

#### Out[158]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421
b0b40cb885c76e69", element="4eadea6a-99ff-4274-892c-8d9b65e9e1d3")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="6adbad01-eee8-4e2d-8cb7-a4da9a123765")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="a334b613-2842-43f3-b18b-c4ff3f795366")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="7ce9365f-44e0-45f8-9cc0-aa3e9830873c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="7f4c2329-4e75-47ea-86b2-71bfc9669e62")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="93aef42a-335b-4552-9163-12a236e1c42b")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="020c0c06-ec18-4c4f-9fdc-eda8474635fc")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="77df795a-a6e0-44bf-9bfa-2a147c018360")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="3be11638-d5a0-4109-b54f-fef5b12b295f")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="87af5190-ff7e-4aed-99c6-4080dda40d14")>]
```

# In [159]:

```
1 rating_titles1=[]
2
3 for i in rating1:
4    rating_titles1.append(i.text)
5 rating_titles1
```

# Out[159]:

#### In [160]:

```
1 review_summary1=driver.find_elements_by_xpath('//p[@class="_2-N8zT"]')
2 review_summary1
```

#### Out[160]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421
b0b40cb885c76e69", element="7096b4ed-dc57-4b3f-9b1d-6f0ec1b05189")>,
<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="100cd572-ef98-4645-a4dc-ffbd870fa503")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="ca0dbeef-0a2d-4eb2-a387-f35b441615d0")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="3e1f0dc5-0b45-45b8-aa86-26ac2dbd9616")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="702c0710-d74c-4e9b-970f-068e7a1f3911")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="fac8f9b8-9f4c-45bf-ae93-369ecf93a5fb")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="b1b25167-d763-4b08-88a1-3a0eadd8ab8d")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="708f930b-da2e-4021-b6d4-547e676f7073")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="99f25542-4b93-45ea-98b0-837b03c0b88a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="df6be026-9344-46eb-94a9-f9914422166e")>]
```

# In [161]:

```
review_summary_titles1=[]
for i in review_summary1:
    review_summary_titles1.append(i.text)
review_summary_titles1
```

# Out[161]:

```
['Highly recommended',
'Perfect product!',
'Perfect product!',
'Highly recommended',
'Perfect product!',
'Worth every penny',
'Classy product',
'Worth every penny',
'Wonderful',
'Terrific']
```

### In [162]:

```
full_review1=driver.find_elements_by_xpath('//div[@class="t-ZTKy"]')
full_review1
```

#### Out[162]:

[<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="569d396d-9eff-4a62-94ba-38bbfebcd470")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="0c52222e-8e25-452c-99e3-ae9867f2b9fc")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="c9b65635-62b3-47c0-96c6-9d0e0e046b7f")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="c17e2912-2026-4796-b716-0e0aefee3fd2")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="3fc5834d-db7a-40ef-b8d8-760ae44e7f71")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="c60311f7-04c8-4bb9-be3e-e4d7a0a6330b")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="aeaa890f-7365-47e3-b444-b2e5ece29fe0")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="123b227b-e6bb-420e-b147-6922e7623227")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="53f9da6e-de42-4136-bd17-2a5d654e58c2")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="2699d443-23da-4e0f-a60d-6b4c0d6daf27")>]

#### In [163]:

```
full_review_titles1=[]
for i in full_review1:
    full_review_titles1.append(i.text)
full_review_titles1
```

### Out[163]:

['iphone 11 is a very good phone to buy only if you can compromise for the d isplay. The display on this is device is pretty good but you can get other o ptions with better displays in this price segment.\nIf you can survive with an HD+ LCD panel with thicker bezels and a notch up top then this is a very good phone for you.\nCameras are awesome, battery backup excellent, great pe rformance and a decent premium look. Good job Apple !',

'It's a must buy who is looking for an upgrade from previous generation of iPhones. If you are using XR then still you can hold on for sometime and upg rade to 2020 model else this phone is a must buy. Camera quality is amazing and wide angle is something to count upon. Performance wise it's amazing and feels premium while holding in hand. So a big YES for this device. Go for 12 8 GB variant as the 4K videos will occupy lots of space and the storage can get over very quickly. Try to buy it with...\nREAD MORE',

'Value for money \( \bigcap \)\nIts awesome mobile phone in the world ...\nDisplay w as very good and bright ..\nTrust me freinds you r never regret after Buyin g..\nJust go for it....\nI love this phone and i switch to iphone x to 11', "It's my first time to use iOS phone and I am loving my upgradation \( \bigcap \B

"Iphone is just awesome.. battery backup is very very nice.. continuously f or 10 hours we can use it.camera is just awesome.. display is just fab.i lov e it alot..i had to wait 15 days for it as i pre ordered it..overalll it's w orth the price..these all images are clicked by my iPhone..and i love it.",

'Best budget Iphone till date ♥ go for it guys without second thought. Let me explain you guys about Camera, Display, battery, and performance.\n\nCame ra: at this price range there is no comparison of camera, you'll love the pi cture quality as well as video quality. I am a Vlogger I wanted an iPhone wi th 4k video by front camera and I got this phone and I am more than happy \(\bar{\theta}\)\n\nBattery: I use this phone roughly as I am active social media person and I have a youtube channel. so the battery ba...\nREAD MORE',

'Totally in love with this  $\nabla$  the camera quality is amazing just love it itss dammnnnnn amazing... Must buy iPhone 11 this is my best experience ever \*

'It's been almost a month since I have been using this phone. I upgraded fr om an iPhone 8. The main issue with my 8 was battery and this phone is just awesome when it comes to battery. It lasts a day and a half for me with my r egular use , internet connected always with 4g\nCan't move forward without s aying this. Battery of this phone is a life saver when I am traveling or at work when I don't get the option to charge\nCamera is superb. Front cam self ies and back cam photos are just awesome.\n...\nREAD MORE',

'This is my first ever I phone. Before this I was using my google nexus 5. But moving from android to iOS is a great experience. It's worth at this pri ce. I will highly recommend it if you want to move to iOS. The best part of this phone is it's camera and it's battery life. This two things have won my heart. I loved it. Happy to have it in my hand. Still exploring its feature s. And can't forget to mention Flipkart service. Very prompt service and fas t delivery.',

'Really worth of money. i just love it. It is the best phone ever.']

```
In [164]:
```

```
1 len(rating1),len(review summary1),len(full review1)
```

# Out[164]:

(10, 10, 10)

## In [165]:

```
1 next_btn=driver.find_element_by_xpath('/html/body/div/div/div[3]/div/div/div[2]/div[13]
```

2 next btn

#### Out[165]:

<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421b
0b40cb885c76e69", element="b0247a8b-7fdc-44ea-9032-45792e592485")>

### In [166]:

```
1 next_btn.click()
```

#### In [167]:

```
url='https://www.flipkart.com/apple-iphone-11-black-64-gb-includes-earpods-power-adapte
driver.get(url)
```

### In [168]:

```
1 rating2=driver.find_elements_by_xpath('//div[@class="_3LWZlK _1BLPMq"]')
2 rating2
```

# Out[168]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="45e0baf0-f96c-4a75-b0d1-c9fb9c886767")>,
<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="377a5d32-f634-4270-9dbb-94127f72ec8d")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="ebf51eef-4b7c-4528-a4f4-b4aa56bd990c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="bd045a36-87e0-4109-93ba-67bc7dd03097")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="2a5d1403-f7b5-4d13-a3a4-75578b1e7060")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="e4e0d83f-d684-4d5d-84ab-012394c1ceb1")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="b0d20080-1bff-45ca-b3e7-4a4a22f4195d")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="41d76ca2-ae7a-4abb-abd6-5f6cf6a7506e")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="cd462158-5f1c-4e0d-87ee-11867e2b71d0")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="44795d48-6058-406b-a3a3-63e4f0e64a31")>]
```

#### In [169]:

```
rating_titles2=[]
for i in rating2:
    rating_titles2.append(i.text)
rating_titles2
```

# Out[169]:

### In [170]:

```
1 review_summary2=driver.find_elements_by_xpath('//p[@class="_2-N8zT"]')
2 review_summary2
```

#### Out[170]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421
b0b40cb885c76e69", element="a88cc25b-f16b-4303-84ee-5aa463e5e4cd")>,
<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="d814750b-da32-4807-9499-602028b37954")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="23cd7eba-c110-43a9-9013-f81f35503469")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="cf0d4dd2-4bcc-45ba-9af8-e93bda3dc030")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="f43ab820-0a72-4bb6-bd14-9ecd50589533")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="7ab62a9e-f2cd-4345-89b1-66c4520e0b00")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="dec41430-0747-46fb-830b-b7865157f914")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="f7cdf074-9d1f-484e-98a5-b4393fe36bf0")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="d457cf8e-2b35-41d9-8538-e248b6fa2a74")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="5515fcf6-a068-4826-a3e3-d90c57e6b153")>]
```

# In [171]:

```
review_summary_titles2=[]
for i in review_summary2:
    review_summary_titles2.append(i.text)
review_summary_titles2
```

# Out[171]:

```
['Worth every penny',
'Nice product',
'Perfect product!',
'Classy product',
'Brilliant',
'Good choice',
'Perfect product!',
'Wonderful',
'Terrific purchase',
'Terrific purchase']
```

### In [172]:

```
full_review2=driver.find_elements_by_xpath('//div[@class="t-ZTKy"]')
full_review2
```

#### Out[172]:

[<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="0286056f-0484-4730-9036-94bb67801438")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="33636950-949c-4698-874b-32a383b64034")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="5029cb2c-c879-404c-893e-a7dd450a5b33")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="cf23be26-31e5-462d-998f-59a62dad3867")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="842cc826-d9e8-426f-90c3-c01ec46d469d")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="89600928-dd26-4c11-bec2-8730f77df93e")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="de1febc2-8e3f-44ea-aad5-47d955ac64fd")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="87eb6fec-12ec-4c59-aa4a-5e664fbe9eeb")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="70b40000-0bab-4aeb-9ffb-cb1141006a3a")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="c6f8f396-79a8-40fe-96fa-4ef24ffaa831")>]

### In [173]:

```
full_review_titles2=[]
for i in full_review2:
    full_review_titles2.append(i.text)
full_review_titles2
```

### Out[173]:

['Smooth like butter, camera like fantabulous, sound is crystal clear & its red color is damn attractive, i am just loving it. Must buy if you love phot ography.\n\nLucky to get it in sale, thank you Flipkart.',

'Awesome Phone. Slightly high price but worth. Better than iPhone XR.\nCame ra is superb and wide angle camera is very clear.\n12MP selfie camera is als o very good.\nA13 Chip gives a very good and smooth performance.',

'Battery backup is extraordinary, camera is decent & performance offered by A13 bionic is awsome. The display is good in practical usage like the visibi lity of display is very good in direct sun light compare to pro models. Iam extremely satisfied for the money I spent.',

'Superb Product !!!\nA big and worthy upgrade from mi 3S to iphone 11 .\nTo tally loved it !',

'I have migrated from OP 7pro... and trust me, iPhone 11 is totally worth i t.. following are the reasons:-\n1)there is ABSOLUTELY NO ISSUE WITH THE DIS PLAY... its crisp, sharp and I found it to be much much better than OP7 pro. Netflix, Prime video all run crisply... you won't miss a thing. True Tone wo rks flawlessly...the display brightness is perfect. OP have not calibrated t heir screens properly.\n2) iPhone 11 series have really good cameras... othe rs have spoken in depth about them.\n3) bat...\nREAD MORE',

'Looking so good do super stylish to phone\nClean box od delivery fast delivery\nOriginal box Original iphone stylish to the stylish to phone to phone to box of the stylish to box of the styli

'After 1 month use I found camera quality best compared to my previous Sams ung note 10+.Display not good as note 10 also charging too slow.Apple should add fast charger like 11 plus and pro.Best phone for daily use',

'I just directly switch from iphone 6s to iphone 11 .The best premium smart phone I recommend to everyone. Excellent quality and colors the iphone have in 11 series.\nCamera quality is just awesome and the major feel when we hol d in our hands. The sound quality and volume is also higher then the previou s models.\nI will recommend to buy iphone 11 instead of pro models , there is nothing much difference as this model contains everything which fulfill our needs.\n\nOnly one thing that I dislike abo...\nREAD MORE',

'Upgraded from iphone 6 to 11 best phone for iphone users battery is much better than other iphones camera is awesome love to use it.camera is so clear in night.',

'The built quality is not very premium.\nThe battery back is great .\nThe L CD panel is not so sharp but the brightness level is very High .\nCamera is super duper awesome.\nThe red colour which people think is bright is actuall y very soothing and excellent colour to choose from .\nThe A13 Bionic chip is really a flagship processor and can beat any phone which even has 12 gb ra m .\nCamera module is very great and looks very stylish.']

#### In [174]:

```
1 len(rating2),len(review_summary2),len(full_review2)
2
```

#### Out[174]:

(10, 10, 10)

#### In [175]:

```
next_btn=driver.find_element_by_xpath('/html/body/div/div/div[3]/div/div/div[2]/div[13]
next_btn
```

#### Out[175]:

<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421b
0b40cb885c76e69", element="efaac981-c39b-4173-a664-6ce53747c157")>

### In [176]:

```
1 next_btn.click()
```

### In [177]:

```
url='https://www.flipkart.com/apple-iphone-11-black-64-gb-includes-earpods-power-adapte
driver.get(url)
```

### In [178]:

```
1 rating3=driver.find_elements_by_xpath('//div[@class="_3LWZlK _1BLPMq"]')
2 rating3
```

#### Out[178]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="2f75f78a-e7dc-4f56-a48b-fa23ec36ed1a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="bb942254-cc3d-48b9-a5dc-479d6949b0f2")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="58aa3fd8-539d-43aa-8244-d2a38a459792")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="36dd7010-b513-47c3-bb88-490099fb369d")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="6b67928a-bad9-4868-a125-028e947041b2")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="18d00bd5-e621-4f9d-aa59-da92506f42d5")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="6d318a5f-b8e1-4869-aef2-bbfc4d2fd315")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="99fdf5f1-7dba-4a1a-8334-e440d230d2f1")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="b6f35e66-969a-456d-8542-18f6478f4e2a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="d4f5a8b5-e950-4a1b-94ba-12c985e1ba62")>]
```

# In [179]:

```
rating_titles3=[]
for i in rating3:
    rating_titles3.append(i.text)
rating_titles3
```

## Out[179]:

#### In [180]:

```
1 review_summary3=driver.find_elements_by_xpath('//p[@class="_2-N8zT"]')
2 review_summary3
```

#### Out[180]:

[<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421 b0b40cb885c76e69", element="57fc71bb-0615-438f-ad9e-8d57cac26170")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="ea3d8f1f-26a3-4d88-a7ba-c73f04fb059d")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="9f164b7d-308b-4cc0-a520-80a23c69adb0")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="ccb7f88c-9598-43aa-b39e-96284c04649c")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="adab2fad-9be1-477a-859d-f38d54489520")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="d64c587e-abf4-41c9-9737-ee3a9f68337a")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="b5f37670-7a84-43e7-9107-20d4abe6bd00")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="94b0ae2c-e70e-468b-aa55-001b1cbae8c7")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="a634191a-5e49-45b6-a3e8-90b884c14e99")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="f17c5c3f-1230-4aff-a418-30c4c9166105")>]

## In [181]:

```
1 review_summary_titles3=[]
2 for i in review_summary3:
3    review_summary_titles3.append(i.text)
4 review_summary_titles3
```

#### Out[181]:

```
['Great product',
'Very Good',
'Wonderful',
'Classy product',
'Awesome',
'Pretty good',
'Awesome',
'Classy product',
'Awesome',
'Perfect product!']
```

### In [182]:

```
full_review3=driver.find_elements_by_xpath('//div[@class="t-ZTKy"]')
full_review3
```

#### Out[182]:

[<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421 b0b40cb885c76e69", element="f2b6784e-301c-445d-9f70-04e03ae12e5b")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="57d93cde-78d3-4c61-b27c-8a58105d24a3")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="ff415710-0822-4ec9-b488-453c502159a1")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="0758e808-9b35-4e6d-a7f8-fdd7ef381b91")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="08292a02-9b95-40ad-9f8d-796848ee3ad4")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="9775e19f-3569-41d6-ac79-397c7ff458a7")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="f3940647-1dec-4849-8ba9-f2263be63c63")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="538a2bbd-0639-4828-9ea2-051182d1c4d3")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="a4fa1e09-1559-4a77-868d-48974f329ac7")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="b33b2869-3356-46d1-90e5-42dc2e975f40")>]

### In [183]:

```
full_review_titles3=[]
for i in full_review3:
    full_review_titles3.append(i.text)
full_review_titles3
```

### Out[183]:

["Again back to apple iphone after a gap of 2-3 years. It's pleasure to use iOS and the quality product by Apple. Iphone 11 still works like a beast in 2021 also. It really capable of doing day to day usage as well as hard core gaming. Battery is awesome. I'm really too much satisfied with it. Apart fto the very gorgious IPS LCD (AMOLED will be better) everything is mind bogglin g. Iphone .",

'impressive super phone and best in class camera , sound and face unlock is super fast just see and phone is unlock and fast in daily apps use',

'Super and marvellous phone look very cute and nice sound. I love this phon e i think white is good colur. Excellent camer 5\* € ♥♥',

'Well while switching from android to iOS the first thing you need to be ca reful about is that you will loose all your whatsapp chat backups as both ar e different operating systems. Camera clarity is awesome and though being an lcd screen clarity and resolution is good. Battery backup is also good unlik e previous gen iPhone. So far the experience is good will Padre after a few months of usage.\n\nP.S the black is more of a dark grey shade and not jet b lack',

'Very excited to have this phone. This phone has the real power unlike the android phones having SD 855. The battery life is very good and the camera quality is excellent as comapred to redmi and other phones except google pix el. I M enjoying every single bit of it. Would recommed only if you have the budget.',

'I was using Iphone 6s and also Oneplus 6t. Both mobiles were perfectly alr ight in Photos, gaming, and smooth interface. My 6s mobile getting battery issue. thought upgrade to 11. Really like this mobile of its Internal storag e (compare to 6s), camera and its touch feeling. Its a worth buying mobile for me.',

'I am using this phone for 5 days and its one of the best camera out there

the screen is not oled and i am coming from iphone xs so its little bit n
ot up to the mark i would say\nBut overall value for money the battery b
ack up is far better than my iphone xs and its worth in my apple ecosystem

if u are an apple User and have the eco system then go for it though i w
ill be getting the new iphone but its pretty good.

'Best and amazing product....phone looks so premium... battary is also go od as expected .... Wide angle camera is so addictive ...if you are a IOS lo ver....then this phone will be the best choice for you all!! " ,

'Always love the apple products, upgraded from old iPhone 6S plus to this a fter having my first baby. I just love to click baby's photos with it. Overa ll I just love this phone. Battery back up is okay, sound quality is good. H aven't tested yet waterproof yet. Only one thing I hate is apple could have given charger & headphones in box.',

'Value for money\n5 star rating\nExcellent camera\nBattery backup full day in single charge.\n\nTougher and water resistant design, glossy back.\nThe s creen has excellent brightness and contrast.\nApple A13 Bionic is the fastes t smartphone chip on the planet.\nExcellent battery life, fast charging supp ort.\nStereo speakers with great quality.'|

```
In [184]:
```

```
1 len(rating3),len(review_summary3),len(full_review3)
```

#### Out[184]:

(10, 10, 10)

#### In [185]:

```
next_btn=driver.find_element_by_xpath('/html/body/div/div/div[3]/div/div/div[2]/div[13]
next_btn
next_btn
```

## Out[185]:

<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421b
0b40cb885c76e69", element="8d89a46b-7892-48b7-b24e-0aac4afa9f51")>

# In [186]:

```
1 next_btn.click()
```

#### In [187]:

# In [188]:

```
1 rating4=driver.find_elements_by_xpath('//div[@class="_3LWZlK _1BLPMq"]')
2 rating4
```

# Out[188]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="e637326b-9eaf-4d52-ab34-be14affbda87")>,
<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="4cf794d2-aded-4ad2-b67f-8018861ef596")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="9a7b24fe-f691-4897-9445-8fe64f230923")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="6dadebe9-b816-4d0b-875d-3f664b1665d3")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="14519fcb-838f-467e-b961-3135de650444")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="4542dcd0-57a9-47dd-9679-34bb7f12f65c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="2bad35e1-7bd4-40a2-984f-83ba2ad58704")>,
<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="144e5724-0242-4418-907b-aa30784a3ad7")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="1d2bbd23-6a07-48c9-a110-2d9b8ba601a6")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="f86fddf2-d888-4841-8722-e07b0c48c50d")>]
```

#### In [189]:

```
1 rating_titles4=[]
2 for i in rating4:
3    rating_titles4.append(i.text)
4 rating_titles4
```

# Out[189]:

## In [190]:

```
1 review_summary4=driver.find_elements_by_xpath('//p[@class="_2-N8zT"]')
2 review_summary4
```

#### Out[190]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421
b0b40cb885c76e69", element="ad3d131d-a7b0-42c4-9413-23daf620242d")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="c0899f9f-6ced-4ea3-8fc0-67558d20db49")>,
<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="b63afa89-306c-49f7-9c67-0da7fdb5615c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="f271774d-81f9-4df6-9e1f-5b67a018b34e")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="a594f356-9306-41f8-bba6-f55ab19c611c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="9ac0fa19-ed9e-49c2-b564-c48f1dfde582")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="c20973b5-0c7c-427d-8e15-f9b8411ca7b5")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="2c318493-e255-4b06-919e-1c9b052518f1")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="f38e67be-081a-4be3-8c2c-d36c2ebb232f")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="ef928192-998a-41b6-9486-adc0e545164a")>]
```

## In [191]:

```
1 review_summary_titles4=[]
2 for i in review_summary4:
3    review_summary_titles4.append(i.text)
4 review_summary_titles4
```

#### Out[191]:

```
['Terrific',
'Highly recommended',
'Must buy!',
'Worth every penny',
'Excellent',
'Just wow!',
'Perfect product!',
'Fabulous!',
'Wonderful',
'Nice product']
```

## In [192]:

```
full_review4=driver.find_elements_by_xpath('//div[@class="t-ZTKy"]')
full_review4
```

## Out[192]:

[<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421 b0b40cb885c76e69", element="ff4832ec-cba8-49f7-894e-73bc4c0436b9")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="6c4c1ff3-c554-41d2-b80f-c9bf960efd81")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="b9150f64-ccb2-456f-be15-653adc35fde2")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="9246f6e2-d9f8-41ab-a306-13ca6d103f3e")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="9be1294c-3fd6-449d-8260-a2bc65b59a10")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="2ee63ff3-4257-4ca9-8168-23ee4cf029be")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="0dcf157c-5a92-4198-8e39-d86254c95feb")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="aace4c91-099b-4331-b21e-5cfeb8150308")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="b38bea12-9866-4e34-bf25-172ba5aff240")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="2fdbd755-11d9-4878-9afc-b1a2a615932a")>]

#### In [193]:

```
full_review_titles4=[]
for i in full_review4:
    full_review_titles4.append(i.text)
full_review_titles4
```

#### Out[193]:

["I got this beast today. And I must say the picture quality of its camera is awesome. Both the cameras works fine.\n\nAs for as the processing is concerned, it runs without any lag. You can play and do whatever you want without a glitch.\n\nThe battery runs for a day with medium and high workload.\n\nThe display is good and the speakers are working fine.\n\nThe earphones does n't have any base and you can use it for calling mostly.\n\nThe charging time is approximately for 90 minutes for full charging...\nREAD MORE",

'Amazing camera quality as expected, battery also has very good performanc e. Display, body, and touch experience is the best I've ever had. Sound qual ity of speakers is more than sufficient. Apple is known for it's customer fr iendly security services and I can see it how. The A13 processor is the best in its work. So I would definitely recommend it for everyone who are looking for it, just go for it without delay.\n\nThe most amazing thing it the deliv ery. Flipkart has delivered it in the span ...\nREAD MORE',

'Dear friends... I want to share my experience with you about this amazing I phone 11....this is my first iPhone and special things about this mobile is it has great camera, battery backup and awesome display.... I mean everything is perfect.loved it

'Here is the thing\n\nThe only reason why you should buy this phone is for the camera, iOS, and if you have headaches looking at AMOLED display.\n\nI'm not an avid gamer but watch a lot of movies on smartphone. However, my migra ine attacks increased considerably after using AMOLED Smartphone. That's why I made a calculated decision to buy iPhone 11. It has the best LCD display a nd the blacks, though not as natural as an AMOLED, is better than some of the other smartphones.\n\nAdding to this the ste...\nREAD MORE',

"It was amazing experience for me. Honestly i am using iPhone first time so I don't have that much past experience about that. But after using 7 days th is mobile i want to give some honest feedback.\n1- Display 9 out of 10\n2- C amera 9.5 out of 10\n3- Battery 7 out of 10\n4- Performance 9.5 out of 10\n5- Features & Functions 10 out of 10\n6- Outer looks and colour 10 out of 10\nRest i think i will understand after using this for few months.\nI will hi ghly recommend you guys if you have budget then you...\nREAD MORE",

'Not mere a phone , Its more than that for fun and enjoy life. Just grab i t. Best luck',

'MD sufiyan rider Owsm\nMobile nd battery mast h v good',

"Ok, so after almost 3 years I am again back into Apple Ecosystem. Switchin g from Android to iOS has just one disadvantage imo, and that's you can't take your WhatsApp data restored to iOS. Everything starts fresh, pretty sad. I am so glad that I chose iPhone 11 over 12. With 5G nowhere in India for at least an year will have an added advantage to iPhone 11. Spending extra 25k just for A14 chipset and OLED display is not a clever choice. Anyways, a fan tastic phone with everything fit perfectly...\nREAD MORE",

"If you are looking for a premium phone under 55k, this is the one for you. Got the iPhone 11 during the Republic day sale. Performance is top notch in this price range. Camera's do a perfect job in taking good quality photos and videos. Battery backup too is satisfactory. Writing this review after usin g for a week. Any further observations would be updated."]

```
In [194]:
```

```
1 len(rating4),len(review_summary4),len(full_review4)
```

## Out[194]:

(10, 10, 10)

# In [195]:

```
next_btn=driver.find_element_by_xpath('/html/body/div/div/div[3]/div/div/div[2]/div[13]
next_btn
next_btn
```

## Out[195]:

<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421b
0b40cb885c76e69", element="64937e43-fac0-4a2a-beb7-2c66d31ac68a")>

# In [196]:

```
1 next_btn.click()
```

## In [197]:

```
#to open any url follow the below steps
url='https://www.flipkart.com/apple-iphone-11-black-64-gb-includes-earpods-power-adapte
driver.get(url)
```

#### In [198]:

```
1 rating5=driver.find_elements_by_xpath('//div[@class="_3LWZlK _1BLPMq"]')
2 rating5
```

# Out[198]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="350d9d10-3a0b-4744-8da2-1998ecdebca8")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="04f838e6-4fc0-490b-8158-c83192e28989")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="d4b5ea14-36c9-4c95-a318-15fe64ff7df5")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="280b359c-444a-4467-8d1e-74eac42de93a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="87c719a2-5127-439d-9732-8b8ca70a947c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="d336a09c-fde3-45ca-ab1d-36f9d36c96fc")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="381baef7-81e0-422a-986c-677ab3b85a6a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="efa6552c-35bb-4dff-889c-a897d3d7de62")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="1bb70c75-8268-4c64-ba1c-6fad2f13628f")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="f667482c-0a9e-488e-b677-a99bf13e80d4")>]
```

#### In [199]:

```
rating_titles5=[]
for i in rating5:
    rating_titles5.append(i.text)
rating_titles5
```

# Out[199]:

# In [200]:

```
1 review_summary5=driver.find_elements_by_xpath('//p[@class="_2-N8zT"]')
2 review_summary5
```

## Out[200]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421
b0b40cb885c76e69", element="a78cab6f-0b84-4674-ac86-e6ecfa618ab6")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="e494194e-4365-4aff-8416-d92dfa19f78e")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="89b05384-f91f-41f1-a637-504be95a9a3d")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="17e74d84-1765-41ff-9200-5ad92ba3b49d")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="5e93140d-3858-4df0-9ab5-be15d0f0c889")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="bb1eafad-0da1-4815-b78f-5492533155e9")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="b00dbeb2-813a-4598-8c8a-0168cf880a52")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="6cb90aa9-48a0-459f-9de7-f4db57c719c0")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="2c588d93-875b-4b46-81dc-d2b30f4572ce")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="7f8ed418-7e79-4786-8c29-d427b115e311")>]
```

#### In [201]:

```
review_summary_titles5=[]
for i in review_summary5:
    review_summary_titles5.append(i.text)
review_summary_titles5
```

#### Out[201]:

```
['Worth every penny',
  'Wonderful',
  'Super!',
  'Classy product',
  'Must buy!',
  'Wonderful',
  'Mind-blowing purchase',
  'Good quality product',
  'Fabulous!',
  'Worth every penny']
```

## In [202]:

```
full_review5=driver.find_elements_by_xpath('//div[@class="t-ZTKy"]')
full_review5
```

#### Out[202]:

[<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421 b0b40cb885c76e69", element="ab3156fd-4d52-4e2a-baa6-f02498966abd")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="240150de-e6d1-4e5d-b51c-ec6d1eb943b0")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="ef9237ba-0ed9-41c2-9b00-287d6b819b07")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="8995c787-9229-4543-915c-e4054d29c6c7")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="aa0e7239-369d-4fe0-9d8c-d80d1c1442ea")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="4a38ee1d-dc1a-40d9-af86-8011fb5b1c71")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="63c8e273-638e-439f-b2e3-765339a35b2b")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="a7ac3248-db58-4592-917b-8e914f2644b5")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="4dad0d41-cc84-42a3-98a6-6690520b010e")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="711c1ef9-7855-4452-9915-25b52cefb589")>]

## In [203]:

```
full_review_titles5=[]
for i in full_review5:
    full_review_titles5.append(i.text)
full_review_titles5
```

## Out[203]:

['iPhone is delivered on time. Display is great u won't feel that it's a hd panel. Quality is excellent. Sounds is great it has stereo setup. Camera is good. iOS 14.2 comes in the box. U roughly get 113 gb free if u buy 128 gb. This is my second iPhone and i love it. Value for money.',

'Nice value for money good and best price I phone mind blowing camera proce ssor very fast other android mobile I am happy India top selling phone 202 0',

'This is my first ever iPhone.\nAnd I truly don't regret switching to IOS f rom my Android.\n\nIt is easily an alternative to a DSLR camera.\nIf you're obsessed with photos and videos, just don't think twice or don't compare to other androids(Samsung S10 lite or OnePlus 8/8T), as it's far better from th em in every field.\nComparing will only make you confused.\n\nI am getting a n average Screen on Time of around 10 hours with 30 percent left. I haven't let my device discharged below 30 % as it aff...\nREAD MORE',

'I got this phone for good price hence 5 star for it , and over quality is good because the price to buy iphone was worth at 41000',

"Camera is excellent just lack of telephoto mode frankly dose not needed ei ther night mode is just 12 12 12 mp (2back 1 front) camera lover just don't miss the deal\nDisplay lcd but feel like super amoled\nAt46999 with no cost EMI just a best deal",

"I genuinely liked it. One of the best mobile phones I have used. It's sho smooth and it's security is very astonishing. Plus it has a very good camera quality. so overall it's a win win.",

'Flipkart honoured on time delivery, I have used 6s , now I have upgraded a pple 11 . Really great experience for new iPhone. Thank you apple and flipkart.'.

'Awesome camera, smooth and fast UI, display is great (though not LED) but the black area at the top could have been reduced. Battery remains a day eve n if used heavily. Charger in the box is ok, but 12 or 18W could have been n othing like anything. Overall an excellent product and comfortable to use. I have got it almost a month back and so far so good.',

'Good product nice experience with Flipkart but I am unhappy with the packa ging part because such a valuable product comes under normal cover without a ny additional wrapping and that too for Plus customers. Expecting good Packa ging in future from Sellers.',

'Here is the thing\n\nThe only reason why you should buy this phone is for the camera, iOS, and if you have headaches looking at AMOLED display.\n\nI'm not an avid gamer but watch a lot of movies on smartphone. However, my migra ine attacks increased considerably after using AMOLED Smartphone. That's why I made a calculated decision to buy iPhone 11. It has the best LCD display a nd the blacks, though not as natural as an AMOLED, is better than some of the other smartphones.\n\nAdding to this the ste...\nREAD MORE']

#### In [204]:

```
1 len(rating5),len(review_summary5),len(full_review5)
```

# Out[204]:

(10, 10, 10)

#### In [205]:

```
next_btn=driver.find_element_by_xpath('/html/body/div/div/div[3]/div/div/div[2]/div[13]
next_btn
```

## Out[205]:

<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421b
0b40cb885c76e69", element="2f8d3d43-61f8-466b-913d-d8f04340758a")>

## In [206]:

```
1 next_btn.click()
```

# In [207]:

# In [208]:

```
1 rating6=driver.find_elements_by_xpath('//div[@class="_3LWZlK _1BLPMq"]')
2 rating6
3
```

## Out[208]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="8d360297-8818-4c32-b2c4-fcb32e13d8e3")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="0759f982-4b78-4b5b-9cfb-9e04e91e6a47")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="7cc7564f-7d64-4264-a0ad-130a0bdf5a82")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="e69af32e-8741-406d-987f-28481fe96962")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="249902dc-3556-4ae1-8ef2-27ff69b2538b")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="5e708975-9720-43da-b2ed-7bfdb7c7c418")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="458259b9-9411-45f6-bca7-6b9a4bbca425")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="ecb5489c-63e4-4bc4-b6d9-1f05d98ba616")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="1246c59a-dcca-43ad-adcd-564fb6abc270")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="145fad31-6c59-41fb-89b3-d451e6a7c744")>]
```

#### In [209]:

```
rating_titles6=[]
for i in rating6:
    rating_titles6.append(i.text)
rating_titles6
```

#### Out[209]:

#### In [210]:

```
1 review_summary6=driver.find_elements_by_xpath('//p[@class="_2-N8zT"]')
2 review_summary6
```

#### Out[210]:

[<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421 b0b40cb885c76e69", element="aa9e019f-acc3-4130-b830-01da11e80116")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="f3a8a0b4-e267-49fa-8aa9-e66a72fc62a5")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="8b7045ae-66b1-483b-8750-5f803e09f646")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="5d2392e5-2756-4892-8776-56f55f1995c9")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="d561aa04-c870-4636-9b50-45979fa35d87")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="50cf38b7-0e29-4d77-9af7-ad3d95d5a352")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="92e116f4-d61b-4d42-bbb0-03d8c11da274")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="e367674d-365f-4af8-a936-a3033d6dfbe6")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="3e9a70c0-aa00-44ba-88bf-3eaed72264c6")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="0593c48e-2aa8-4e77-a63e-0b6eb9151cc6")>]

#### In [211]:

```
1 review_summary_titles6=[]
2 for i in review_summary6:
3    review_summary_titles6.append(i.text)
4 review_summary_titles6
```

#### Out[211]:

```
['Good quality product',
  'Best in the market!',
  'Excellent',
  'Mind-blowing purchase',
  'Super!',
  'Best in the market!',
  'Mind-blowing purchase',
  'Classy product',
  'Brilliant',
  'Most Price worthy Iphone']
```

## In [212]:

```
full_review6=driver.find_elements_by_xpath('//div[@class="t-ZTKy"]')
full_review6
```

## Out[212]:

[<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421 b0b40cb885c76e69", element="8dc799fd-c7ff-4ba8-93f4-a2a5d872cafd")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="4ab6f3e9-0c52-4041-b3f6-7a51a18cb3a8")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="dff93f5c-3476-4979-a840-df848b30c347")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="5da40c9e-80dd-43b0-8fb3-0aa195bc5883")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="7f99c9bf-58e4-4d9b-951a-fe84e7bf86f1")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="3e8e4b85-dbaf-4d4e-94a4-9213aa797ce3")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="fa90e119-16dd-4fc4-b560-7fae37be8dc2")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="cd621310-48fa-41b6-91aa-38605b7cd26d")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="85f51fbb-64ab-4704-b648-88dbaf740e37")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="b8ab24a2-d527-4efe-8b30-bdd374847325")>]

## In [213]:

```
full_review_titles6=[]
for i in full_review6:
   full_review_titles6.append(i.text)
full_review_titles6
```

## Out[213]:

['I was torn between the oneplus 8 pro and the iphone 11. I had to shell out extra money for this, but I say if you can afford it, this truely is the bes t package.\nMind blowing camera, battery and overall performance. Face Id wo rks like magic even in complete darkness without firing up the screen bright ness. The phones with in display fingerprint scanners do this at night time and it really burns your eyes.\nI wanted the oneplus for its display but the OLEDs on oneplus is really bad. Flick...\nREAD MORE',

'Don't expect much from front camera... especially who loves beauty mode and filters.. back cameras are good...video department is always plus point in iPh ones... battery capacity is really surprising lasts for one day at least... perf ormance always good and smooth... speaker's quality is good...built quality best and haptic feedback is enjoyable...\nNote: images are good after you edit',

'Seller - SuperComNet ( my trust in you has grown deeper. Thanks for the ge nuine product )\nThe package came packed perfectly. The box was sealed which gave me a big relief.\n\nApple needs no introduction since its the dominant market player. I just love the way how IPhone 11 stands out so boldly. The m oment I took it out from the box, I could feel the premium intensity. The bo dy is remarkable and crafted for giving you a elite vibe.\n\nCamera is to die for. There is no other phone that can beat...\nREAD MORE',

"i was confused between 11 and 11 pro. i was going towards 11 pro, but the screen size was not enough for me.\nAnd i saw 11 in the showroom. i didn't f ind much difference in screen quality.And cameras seems to be ok with me. An d i saw offer's in flipkart and made the purchase.\nthe device is fabulous. The hardware and software quality is excellent. The new iOS is something you need to experience yourself. The drawback i found was absence of fast charge r, but the pricing can compensate that. Am...\nREAD MORE",

"It's a great phone. From camera to display everything is best for the pric e.\nBest camera, best performance. I think everyone should buy it. This phone has best battery life so far in iphone series which I had used earlier. Happy to have it. Thanks Flipkart",

'Really very nice... my dad gifted me really I am soo happy with this phone love it  $\center{0}$ ',

'Released in 2019\nIn 2021 still the best in segment\nPros:\nCamera 4/5 nig ht photograph takes -1\nPerformance 5/5\nBattery backup normal usage 5/5 sho uld last more than a day\nHeavy usage battery backup 4/5 as compared have a smaller battery but should give around 5-6h of heavy usage like game play\nB attery charging from 18w charger 3.5/5 not as fast as compared to dash charger but does the job well 0-50% in somewhat takes 40 mins which is ok\n\nCon s:\nNo earpod\nNo 3.5mm jack connector I remember gett...\nREAD MORE',

'Got my iPhone 11 today! It's totally worth it even in 2021. Takes wonderful images and the stabilisation of video on this phone is just awesome although it is a 2019 model. Performance wise it's ultra fast as expected to be. The only drawback per paper is the screen it has, but in usage I noticed nothing bad and the screen was totally fine for me!\nI upgraded from Nokia 6.1 Plus and it's great (),

'Wow wow and wow, in 48k you will not get anything better than this, proces sor is awsome, camera is a beast, display is superb, this is my first iphon e, and I am already in love with these',

'Reviewing within 1st Month\n\n1st Month Review\nThis is my first Iphone. So been new to the Ios Environment i faced some basic issues. Whatever issue s i am facing is because of change in environment.\nVideo Output is amazin g.\nBattery - Typical One Day Battery. 20 W fast charger is amazing which ch

arges the iphone within 40-60 Mins (purchased separately)\nCamera - Good and Natural Colours. (I have Samsung S21+ and not at par with its camera) but the output is same all the time which is good.\n...\nREAD MORE']

```
In [214]:
```

```
1 len(rating6),len(review_summary6),len(full_review6)
```

# Out[214]:

(10, 10, 10)

# In [215]:

```
next_btn=driver.find_element_by_xpath('/html/body/div/div/div[3]/div/div/div[2]/div[13]
next_btn
```

# Out[215]:

< selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421bd40cb885c76e69", element="66432e60-0c7f-4c81-b3de-983f2cffc5df")>

#### In [216]:

```
1 next_btn.click()
```

# In [217]:

```
url='https://www.flipkart.com/apple-iphone-11-black-64-gb-includes-earpods-power-adapte
driver.get(url)
```

#### In [218]:

```
1 rating7=driver.find_elements_by_xpath('//div[@class="_3LWZlK _1BLPMq"]')
2 rating7
```

#### Out[218]:

[<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421 b0b40cb885c76e69", element="0600fa71-de2f-47b3-bf76-04b60cb62d38")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="0bf88664-b85d-4cdb-90b9-a4d3d16de31a")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="b5ab9dff-7d64-4705-9b77-30f9d197ea25")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="f82d4059-7967-4a08-8645-0cfecd66ddf2")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="0206d7c4-0c1f-41eb-8462-8d654d718999")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="b5c6af07-d5b3-4e6b-9f5d-d0f0106d5ebf")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="dbf98bce-e0a1-4689-9d3b-3430793a62a0")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="20aa632a-acdd-4d2f-9847-3a21935500d1")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="f87079d6-2ef8-4a2d-9c7b-9cff55ceba25")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="e45ee125-0f9d-40e3-8f66-2703b0a4dcfe")>]

# In [219]:

```
1 rating_titles7=[]
2 for i in rating7:
3    rating_titles7.append(i.text)
4 rating_titles7
5 6
```

# Out[219]:

#### In [220]:

```
1 review_summary7=driver.find_elements_by_xpath('//p[@class="_2-N8zT"]')
2 review_summary7
```

#### Out[220]:

[<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421 b0b40cb885c76e69", element="f07d6b15-f92d-4e98-bd9b-3f81f10b7e00")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="3b2e325d-8f65-4bae-ba4b-3533e46bee0b")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="f4a4d688-a955-4bb0-b73b-50575fe4f143")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="0bb3f8b7-e251-4d9d-8374-c81fe076ac6c")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="2094d04e-ac9c-4fb0-9c0a-71aaf8ed212d")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="56c54dad-5dd9-4ab9-8129-5d262273a3ff")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="5c888fde-7647-472f-8f00-807550f01966")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="7f32d484-fffa-41dd-8260-743d005d7603")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="2b436935-13d9-436f-b869-73060c3f5411")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="0f345813-e4c0-4621-ac29-7eee3e656683")>]

# In [221]:

```
review_summary_titles7=[]
for i in review_summary7:
    review_summary_titles7.append(i.text)
review_summary_titles7
```

#### Out[221]:

```
['Excellent',
  'Terrific purchase',
  'Fabulous!',
  'Value-for-money',
  'Highly recommended',
  'Excellent',
  'Worth every penny',
  'Really Nice',
  'Great product',
  'Mind-blowing purchase']
```

## In [222]:

```
full_review7=driver.find_elements_by_xpath('//div[@class="t-ZTKy"]')
full_review7
```

#### Out[222]:

[<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421 b0b40cb885c76e69", element="d8441df5-ab0e-430f-ad83-69d7a3720192")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="be3f245e-5851-4740-b652-67ef7ebe2392")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="985e6363-3386-4e0d-910b-fcbe369bd6c0")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="ca73ee11-e72c-4d88-855a-593e82852e17")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="7ac45ece-3a68-4d55-982a-9c6f30692b83")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="a33cb04e-4a8d-47b8-a6dd-ed54d702d9a2")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="611b6089-47d1-401a-ab6a-ee81b13f1b5f")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="f0ca8c52-7f41-4f98-b757-d525a836bdc4")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="91b770c9-facc-4bd0-8532-264dc7b03158")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="3761b66a-ac4e-4785-9a90-33b74e5e9c41")>]

## In [223]:

```
full_review_titles7=[]
for i in full_review7:
    full_review_titles7.append(i.text)
full_review_titles7
```

## Out[223]:

['Value for money product. This iphone 11 is really amazing. Again nice rele ase by apple. Great camera, battery backup is excellent. I just love this phone',

'Well , as we all know if its not an Iphone , its not an iphone . The iphon es are always beast . The camera game has been level up . The A13 Bionic is just fabulous . The update this year are certainly the camera which is damn good with d addition of wide angle lens as well as ultra wide . If anyones p urchasing an iphone for the first time , do opt for the black color . Its just feels more than premium . Battery life is damn good with lasting fully a day . Overall a nice package . Well managed...\nREAD MORE',

"Just an awesome phone...upgraded from 6s to 11 and trust me guys it's supe r cool with amazing features..loved it ♥ and a big thank you to Flipkart for delivering it in just 2 days ?",

'As usual a great product from Apple. but the look wise there were some sco pe to make it more attractive. from the back it looks nice. picture quality is awesome . face id is blazing fast. The lightning fast bionic processor makes the phone butter smooth.Battery back up is unbeatable and best of the released iPhone.full display is still missing. however, a iPhone is a iPhone. The iPhone lovers know the value of an iPhone  $\bigcirc$ ',

'Amazing camera quality as expected, battery also has very good performanc e. Display, body, and touch experience is the best I've ever had. Sound qual ity of speakers is more than sufficient. Apple is known for it's customer fr iendly security services and I can see it how. The A13 processor is the best in its work. So I would definitely recommend it for everyone who are looking for it, just go for it without delay.\n\nThe most amazing thing it the deliv ery. Flipkart has delivered it in the span ...\nREAD MORE',

'⊜⊜⊜⊜⊡ l loved the Phone.. Every time I pick up the phone it makes me happy... The phone is beast b and the camera is fabulous ເວັເວັເວັ.. I think one of my great purchase from Flipkart.. Thank you Filpkart..',

'I upgraded from one plus 6 to iPhone 11 and it's too good. Very smooth, ba ttery also good. I love it. And thanks flipkart for fast delivery.',

"Great phone and camera and timely delivery by Flipkart!\nYou wouldn't love the display if you're coming from a one plus or Samsung, go for iPhone 12. I f display isn't your priority, this is a great choice.",

"Great quality at not so great price, But worth it. Don't go for specs, bet ter performance than so called spec master Chinese phones. The display could have been atleast an smiled one with atleast 90hz at this price point.",

'After using more than a year of using iPhone11 here is my complete revie w:\n1. Camera is almost perfect 8/10 except for some advantages you'll see i n Samsung S20. (Zoom, Better Image stabilisation etc)\n2. Battery performance is 10/10\n3. OS performance is 10/10\n4. Build Quality 9/10 as you need to buy good quality back cover with tampered\n5. Face Lock feature is awesome 1 0/10\n6. You need to buy new charger but don't buy more than 18 watt charger optimum is 15 / 18 watt charger. For fast chargin...\nREAD MORE']

```
In [224]:
```

```
len(rating7),len(review_summary7),len(full_review7)
```

#### Out[224]:

(10, 10, 10)

#### In [225]:

```
next_btn=driver.find_element_by_xpath('/html/body/div/div/div[3]/div/div/div[2]/div[13]
next_btn
next_btn
```

# Out[225]:

<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421b
0b40cb885c76e69", element="96e355d0-95e3-4637-a07c-f46e47c9e131")>

# In [226]:

```
1 next_btn.click()
```

#### In [227]:

```
url='https://www.flipkart.com/apple-iphone-11-black-64-gb-includes-earpods-power-adapte
driver.get(url)
```

#### In [228]:

```
1 rating8=driver.find_elements_by_xpath('//div[@class="_3LWZlK _1BLPMq"]')
2 rating8
3
```

#### Out[228]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="dcc0a696-6ced-4d8e-81b9-98fd04e53201")>,
<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="5f3f0bd4-ac45-4d94-b417-f9f6cfcd159a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="1de304ef-8800-4423-bcc2-9218b6d2777d")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="b0888f4b-978b-4a1c-be72-55b5f45306c7")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="d2966e3b-4928-4d32-bb57-2d37a5a61d63")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="0924670c-bae0-4f13-9146-d92284a92742")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="14536605-7303-4027-bf36-09ee93df72e8")>,
<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="3dc44d5a-922e-43d0-bacd-2468f748086c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="24a3c02a-1e54-45d3-8fa1-eb0fca6d5a05")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="a6d9cfc3-2609-4cd9-86a7-7a39a70f0a92")>]
```

#### In [229]:

```
1 rating_titles8=[]
2 for i in rating8:
3    rating_titles8.append(i.text)
4 rating_titles8
```

# Out[229]:

```
['5', '5', '3', '5', '5', '3', '5', '4', '5', '5']
```

## In [230]:

```
1 review_summary8=driver.find_elements_by_xpath('//p[@class="_2-N8zT"]')
2 review_summary8
```

## Out[230]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421
b0b40cb885c76e69", element="231f118f-6b51-4677-a4ad-41b6d0b8d620")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="3352e85d-da7e-4931-832c-b98bd9f355dd")>,
<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="51f67a95-3f0e-4e61-865c-f22b1cf0298d")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="1fd20f64-0a75-4ca2-82de-0026cfdb2f79")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="1853293e-33ca-4ecd-8305-77a5b593a638")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="0f60ba05-bcbd-4cbf-8691-bbeee99557e3")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="fbc40013-bd6b-4231-95fa-c30a001f8a6e")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="bc098353-f31d-43fb-9c39-39832ce20d5c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="83657c09-88a9-41ba-8c91-2da2fa2936cd")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="08ad8937-2aa5-40b8-a441-f58071efdd8d")>]
```

## In [231]:

```
review_summary_titles8=[]
for i in review_summary8:
    review_summary_titles8.append(i.text)
review_summary_titles8
```

#### Out[231]:

```
['Awesome',
'Perfect product!',
'Just okay',
'Fabulous!',
'Fabulous!',
'Just okay',
'Just wow!',
'Delightful',
'Terrific purchase',
'Perfect product!']
```

## In [232]:

```
full_review8=driver.find_elements_by_xpath('//div[@class="t-ZTKy"]')
full_review8
```

## Out[232]:

[<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421 b0b40cb885c76e69", element="b79a6ef1-8d53-4217-86d4-2a0eb6b6314f")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="0329d0ad-f705-4581-8051-799c8c0281d8")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="e0f301ad-df1c-4fd2-b202-820d5dfc0c5a")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="f5399bcf-d1d7-4812-9081-0ba20766c3a1")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="ab679453-0f35-4acc-9685-492dc16438ea")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="80cd1809-af24-47eb-add9-64e6fc924ecd")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="853ac3e1-af84-48da-b23b-7902ae291c14")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="c710d289-eba6-40b7-b5e3-981f6db74d51")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="fc074b1b-b59e-4e0b-86dd-73a2be4b1e94")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="7cecd04c-8709-498c-b064-7026bfac426e")>]

## In [233]:

```
full_review_titles8=[]
for i in full_review8:
   full_review_titles8.append(i.text)
full_review_titles8
```

## Out[233]:

['Best iphone ever.. best value for money phone.. easy to hold and face unlo ck is very fast and works even in dark.. looks very cool.. delivered in one day.. best flipkart experience and get also the original product. Red one is the .best color and most selling color so I love red one.',

"Genuine review after few weeks.\nDecent camera quality.\nDon't expect to m eet the quality and features of the upcoming brands with cheaper prices and better megapixels. Overall smooth experience and everything seems so good. I f you have used iOS before, you know the ease of using it.\nLooks so secure and fast.\nDefinately it beats my 6GB phones in performance.\nIf you play ga mes don't bother about RAM, the processor kills it.\nOverall a good choice to switch from Android to iOS.\nDon't expect that V...\nREAD MORE",

'I really liked the budget iPhone. First I thought display would be issue a s it is a LCD with less pixels, then after using my perception changed and I never felt like I am using an outdated display. Though I also use S 10+ with Amoled display.\n\nSo this is perfect iPhone and a real value for money.',

'Awesome mobile... Battery Backup is really impressive, getting a solid batte ry life of 1.5 days with a normal usage. Even if u are a heavy user, u will get a day of backup for sure. Excellent audio quality. Overall I'm very much satisfied with the device :)',

'I have been using iphone 11 model since its launch. Here is my review\nPro s:\nPerformance\nPrivacy\nOS Updates\nBuild quality\nSound\n\nCons:\nDisplay issue: After using for nearly a year a small line popped up at left notch an d slowly it spread to right notch. Well it could an exceptional case\n\nAt t his price range \uf8ff could have given OLED screen.\n\nPrice: I strongly be lieve this product has been overpriced.\nSignal Issue: I see this issue acro ss the \uf8ff devices.\nCharging: I takes around 4hrs for 100% wit...\nREAD MORE',

'Not mere a phone , Its more than that for fun and enjoy life. Just grab i t. Best luck',

'Received product before the delivery date performance is very good value f or money no problem till now camera is also good but the screen is lcd which is not good and irritate some time so you have to compromise the screen Flip kart services is good and nice',

'Very good phone. All the apps are running smoothly. Sleek and sturdy design. No more words for apple as it has its own class.',

"Awesome Product. Initially I was looking for green color but wasn't availa ble and then I went for white one and believe me it's really awesome colo r."

```
In [234]:
```

```
1 len(rating8),len(review_summary8),len(full_review8)
```

## Out[234]:

(10, 10, 10)

## In [235]:

```
next_btn=driver.find_element_by_xpath('/html/body/div/div/div[3]/div/div/div[2]/div[13]
next_btn
```

## Out[235]:

<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421b
0b40cb885c76e69", element="6e92efd6-5b24-4a9f-ab6f-cd9c0d347629")>

## In [236]:

```
1 next_btn.click()
```

## In [237]:

```
url='https://www.flipkart.com/apple-iphone-11-black-64-gb-includes-earpods-power-adapte
driver.get(url)
```

## In [238]:

```
1 rating9=driver.find_elements_by_xpath('//div[@class="_3LWZlK _1BLPMq"]')
2 rating9
```

#### Out[238]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421
b0b40cb885c76e69", element="d9703b3e-bb7f-41e6-869c-e46afbc25b65")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="1a01ba61-d382-4b09-ac24-6e35701227fb")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="397bcbaf-f112-43ce-86a2-6ee52cac5d61")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="e4296174-85f7-4207-a7ed-0e416f73c5fc")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="1d714c1e-b111-4906-ad07-50af3fa5eb08")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="b584e135-d16a-40c4-923d-8d894a80ab4c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="f49de3ae-eef2-4059-afa5-4a18623693b3")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="956d3a8f-c392-46b1-a5ab-f5319da2fc3a")>,
<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="fca3f303-65a1-49df-85b6-3a44fa407269")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="2bfdb56f-3011-459f-afed-1a42c6fd2826")>]
```

#### In [239]:

```
1 rating_titles9=[]
2 for i in rating9:
3    rating_titles9.append(i.text)
4 rating_titles9
```

# Out[239]:

# In [240]:

```
1 review_summary9=driver.find_elements_by_xpath('//p[@class="_2-N8zT"]')
2 review_summary9
```

#### Out[240]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421
b0b40cb885c76e69", element="36093cf4-0bf9-4815-beb6-f277131f442f")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="08316072-ea3a-47c8-a41c-ac23f65f6083")>,
<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="2e5c0d19-9fcd-494c-9ee7-040be4797c14")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="113b9f8a-e478-462b-96b4-49bb8f6e30e3")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="4a94a923-2e70-400d-826b-cd8e87f7d618")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="e9bde048-4667-445e-9cf5-f67e61355e8c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="a9325cb1-9cb2-4930-abcc-4d2c9c4ecfc4")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="0e7ff173-1083-4a89-b700-93788583d76e")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="57654b6a-0ee6-4355-9ebe-ed4c79ae3797")>,
 <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre>
b0b40cb885c76e69", element="e357a4ae-6085-43b0-b5e0-1f39ef84212f")>]
```

## In [241]:

```
review_summary_titles9=[]
for i in review_summary9:
    review_summary_titles9.append(i.text)
review_summary_titles9
```

#### Out[241]:

```
['Fabulous!',
  'Classy product',
  'Terrific',
  'Terrific',
  'Just wow!',
  'Fabulous!',
  'Mind-blowing purchase',
  'Just wow!',
  'Worth every penny',
  'Just wow!']
```

#### In [242]:

```
full_review9=driver.find_elements_by_xpath('//div[@class="t-ZTKy"]')
full_review9
3
```

#### Out[242]:

[<selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="3cba0440-b978-48c8-aca0-e5c99d87f8a4")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="df0937a3-b8ed-44ea-aef4-d5677a7899fb")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="170cdd63-42cd-4f39-97bc-b0977b0b87e4")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="587c7634-21bd-4584-9854-0e455d55521b")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="0fd858ff-36f8-4ed9-b74f-4c245a0d7597")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="c7917837-8d8d-48a5-b887-7298b7ebce81")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="077c2771-1049-484d-9c07-050397e5b0ca")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="268115e9-827b-4598-9cba-f6550e6a21d9")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="0d6ad260-4cc7-4095-9f56-acf20a782d32")>, <selenium.webdriver.remote.webelement.WebElement (session="d200717517bbd421</pre> b0b40cb885c76e69", element="70d51d02-bfff-47d9-8043-319b17debda1")>]

#### In [243]:

```
full_review_titles9=[]
for i in full_review9:
    full_review_titles9.append(i.text)
full_review_titles9
```

## Out[243]:

['Gift this to your loved ones fabulous product and amazing super fast delivery by flipkart',

'Finally switched to iOS from android\nThere is some things which u can't d o like using android but it's worth to iOS. Battery backup is good holds for a day in average. Cam quality is okay. Good night mode visibility.',

'Very good smartphone and value for smoother and speedy response and work', 'This is very nice phone with great camera, performance, battery but their display is not good as their price overall best iphone to purchase right no w',

'Got delivered by good packing from Flipkart with a agreed time line. Apple always stood good and great products towards their customers and this is my 2nd Iphone overall experience with phone is great, Especially when it comes battery gives long-standing performance for applications and gaming purpose s, Camera is one of the great features includes in this mobile\n\nI will strongly suggest this !',

'Iphone is best ever but Flipkart delivered is quality on the product is so promising i really satisfied and trust with it by Flipkart assured\nTq.. 'Quite osm more then expected . Purple color truly recommended its lookin so beautiful then others . Someone suggest me and have selected the same color its beautiful.\n\n\nPerformance is far better then my last i phone',

'My first iPhone. Still wondering where was I lost all this while. Always t hought that an iPhone is just to pricey and not worth its cost. Trust me, I didn't regret once for this mighty purchase. It is a different ecosystem all together and I have become an Apple fan instantly. Now all my gadgets ought to be Apple. Just seamless, timeless, super smooth, flamboyant, style statem ent, and the list is endless. The back camera is worth the hype not the self ie camera. Sound quality is surround sound...\nREAD MORE',

'PROS:\n1. Ballistic performance\n2. Amazing image quality from the camera setup\n3. Superb battery performance,\n4. Design\n5. Fit and finish.\n6. iOS 13 integration with the hardware.\nCONS:\n1. Display quality leaves a lot to be desired. The non-1080p display is hardly noticeable during regular usage and is more than a pass. But if you are someone who use their phone for a ma jority of video playback, you're in for a disappointment. Otherwise, it's pe rfect for every other need.\n2. The overall s...\nREAD MORE',

'iPhone 11 is good but if someone want Superior phone then go for 11 pro be cause screen display is too good from iPhone 11 and as well as camera qualit y'l

# In [244]:

```
1 len(rating9),len(review_summary9),len(full_review9)
```

#### Out[244]:

(10, 10, 10)

# In [245]:

```
phone=pd.DataFrame()
phone['Rating']=rating_titles+rating_titles1+rating_titles2+rating_titles3+rating_title
phone['Review']=review_summary_titles+review_summary_titles1+review_summary_titles2+rev
phone['Full Review']=full_review_titles+full_review_titles1+full_review_titles2+full_review_phone
```

# Out[245]:

|    | Rating | Review                | Full Review                                    |
|----|--------|-----------------------|--|
| 0  | 5      | Brilliant             | The Best Phone for the Money\n\nThe iPhone 11  |
| 1  | 5      | Simply awesome        | Really satisfied with the Product I received   |
| 2  | 5      | Best in the market!   | Great iPhone very snappy experience as apple k |
| 3  | 5      | Perfect product!      | Amazing phone with great cameras and better ba |
| 4  | 5      | Fabulous!             | This is my first iOS phone. I am very happy wi |
|    |        |                       |  |
| 95 | 5      | Fabulous!             | Iphone is best ever but Flipkart delivered is  |
| 96 | 5      | Mind-blowing purchase | Quite osm more then expected . Purple color tr |
| 97 | 5      | Just wow!             | My first iPhone. Still wondering where was I I |
| 98 | 5      | Worth every penny     | PROS:\n1. Ballistic performance\n2. Amazing im |
| 99 | 5      | Just wow!             | iPhone 11 is good but if someone want Superior |

100 rows × 3 columns

- 1 Q8: Go to webpage https://www.amazon.in/
- 2 Enter "Laptop" in the search field and then click the search icon.
- Then set CPU Type filter to "Intel Core i7" and "Intel Core i9" as shown in the below image:
- After setting the filters scrape first 10 laptops data. You have to scrape 3 attributesfor each laptop:
- 6 1. Title
- 2. Ratings
- 8 3. Price
- 9 As shown in the below image as the tick marked attributes.

# In [353]:

- 1 import selenium
- 2 **from** selenium **import** webdriver
- 3 import pandas as pd
- 4 import warnings
- 5 warnings.filterwarnings("ignore")

## In [354]:

1 driver=webdriver.Chrome(r'C:/Users/Acer Aspire 3/Downloads/chromedriver\_win32/chromedri

```
3/20/22, 11:21 PM
                                     WEB SCRAPING - ASSIGNMENT 2 Fliprobo - Jupyter Notebook
  In [355]:
     driver = webdriver.Chrome('chromedriver.exe')
  In [356]:
     url='http://www.amazon.in/'
      driver.get(url)
  In [357]:
      search=driver.find_element_by_xpath("/html/body/div[1]/header/div/div[1]/div[2]/div/for
      search
  Out[357]:
  <selenium.webdriver.remote.webelement.WebElement (session="8055e23f181cc48a7</pre>
  e0ecb6bbf681fde", element="27a8b98b-5577-4066-a5e6-8e8c9e4b8a5e")>
  In [358]:
   1
           search.send_keys("Laptop")
  In [359]:
      search_btn=driver.find_element_by_xpath("/html/body/div[1]/header/div/div[1]/div[2]/div
      search btn
  Out[359]:
  <selenium.webdriver.remote.webelement.WebElement (session="8055e23f181cc48a7</pre>
  e0ecb6bbf681fde", element="0fe515a6-931d-4ec8-8023-0ae6d6495e95")>
  In [360]:
   1 search_btn.click()
  In [370]:
    2
      cpu check
```

cpu check=driver.find element by xpath("/html/body/div[1]/div[2]/div[1]/div[2]/div[4]/ 4

#### Out[370]:

<selenium.webdriver.remote.webelement.WebElement (session="8055e23f181cc48a7</pre> e0ecb6bbf681fde", element="605771e6-66b6-46ec-b6ab-0230b5f24e0e")>

# In [371]:

cpu\_check.click()

#### In [375]:

```
title_tags=driver.find_elements_by_xpath('//span[@class="a-size-medium a-color-base a-t
title_tags[0:10]
```

## Out[375]:

[<selenium.webdriver.remote.webelement.WebElement (session="8055e23f181cc48a 7e0ecb6bbf681fde", element="4da4aef8-3ccb-4aa5-8ce1-24b6cc2d23ae")>, <selenium.webdriver.remote.webelement.WebElement (session="8055e23f181cc48a</pre> 7e0ecb6bbf681fde", element="38a5ea23-3e73-4f1f-b290-c135119fca3e")>, <selenium.webdriver.remote.webelement.WebElement (session="8055e23f181cc48a</pre> 7e0ecb6bbf681fde", element="19b4a43d-dadf-4c7c-94a3-7aeb09cef2ab")>, <selenium.webdriver.remote.webelement.WebElement (session="8055e23f181cc48a</pre> 7e0ecb6bbf681fde", element="d342dae3-6219-49de-9d29-b261fc4da5a9")>, <selenium.webdriver.remote.webelement.WebElement (session="8055e23f181cc48a</pre> 7e0ecb6bbf681fde", element="965843f7-7838-4bc5-b03d-5050ff9be778")>, <selenium.webdriver.remote.webelement.WebElement (session="8055e23f181cc48a</pre> 7e0ecb6bbf681fde", element="384de79e-72b1-4fcb-a12f-918a37df4b8f")>, <selenium.webdriver.remote.webelement.WebElement (session="8055e23f181cc48a</pre> 7e0ecb6bbf681fde", element="34c750bf-706e-4797-91a8-6e1b575e3cb3")>, <selenium.webdriver.remote.webelement.WebElement (session="8055e23f181cc48a</pre> 7e0ecb6bbf681fde", element="b9f399bd-4d98-4a8c-b307-68c836c0bfcd")>, <selenium.webdriver.remote.webelement.WebElement (session="8055e23f181cc48a</pre> 7e0ecb6bbf681fde", element="5883f078-a7b7-49f3-b29e-1a835bbd6842")>, <selenium.webdriver.remote.webelement.WebElement (session="8055e23f181cc48a</pre> 7e0ecb6bbf681fde", element="b912afc1-5446-4159-b569-160da8395721")>]

#### In [ ]:

1

# In [377]:

```
titles=[]

for i in title_tags:
    titles.append(i.text)

titles[0:10]
```

# Out[377]:

['Fujitsu UH-X 11th Gen Intel Core i7 13.3" FHD IPS 400Nits Thin & Light Lap top(16GB/512GB SSD/Windows 11/Office 2021/Iris Xe Graphics/Backlit Kb/Finger print Reader/2Yr Warranty/Black/878gms),4ZR1F38024',

'Dell G15 5511 Intel i7-11800H Gaming Laptop,16GB DDR4,512GB SSD, Win 11+MS 0\'21, NVIDIA RTX 3060 6GB GDDR6,15.6" (39.62cm) FHD AG 300 nits 165Hz, Back lit KB RGB, Black (D560670WIN9B), 2.6kg',

'ASUS VivoBook 14 (2021), 14-inch (35.56 cms) FHD, Intel Core i7-1065G7 10th Gen, Thin and Light Laptop (16GB/512GB SSD/Integrated Graphics/Office 202 1/Windows 11/Silver/1.6 Kg), X415JA-EK701WS',

'Mi Notebook Ultra 3.2K Resolution Display Intel Core i7-11370H 11th Gen 1 5.6-inch(39.62 cm) Thin and Light Laptop (16GB/512GB SSD/Iris Xe Graphic/Win 10/MS Office/Backlit KB/Fingerprint Sensor/1.7Kg)',

'LG Gram 16 inches Intel Evo 11th Gen Core i7 Ultra-Light Laptop (16 GB RA M, 512 GB SSD, New Windows 11 Home Preload, Iris Xe Graphics, USC -C x 2 (wi th Power), 1.19 kg, 16Z90P-G.AH85A2, Black)',

'ASUS TUF Gaming F15 (2021), 15.6" (39.62 cms) FHD 144Hz, Intel Core i7-116 00H 11th Gen, 4GB RTX 3050 Graphics, Gaming Laptop (16GB/512GB SSD/Windows 1 0/Office 2019/Gray/2.3 Kg), FX566HCB-HN299TS',

'ASUS ZenBook 13 OLED (2021) Intel Core i7-1165G7 11th Gen 13.3" (33.78 cm s) FHD Thin and Light Laptop (16GB/512GB SSD/Windows 10/Office 2019/Intel Ir is X<sup>e</sup> Graphics/Pine Grey/1.14 kg), UX325EA-KG722TS',

'Lenovo ThinkBook 13s Intel 11th Gen Core i7 13.3"(33.78 cm) WQXGA IPS 300 nits 100% sRGB Dolby Vision Thin and Light Laptop (16GB/512GB SSD/Windows 1 0/MS Office/FPR/Mineral Grey/1.26 Kg), 20V9A05FIH',

'Lenovo ThinkBook Yoga 14s Intel Core i7 11th Gen 14"(35.56cm) FHD IPS 300 nits 100% sRGB Dolby Vision 2-in-1 Touchscreen Laptop (16GB RAM/512GB SSD/Windows 10/MS Office/Active Pen/1.50 kg) 20WEA01EIH',

'ASUS VivoBook K15 OLED (2021), 15.6-inch (39.62 cms) FHD OLED, Intel Core i7-1165G7 11th Gen, Thin and Light Laptop (16GB/512GB SSD/Iris Xe Graphics/O ffice 2021/Windows 11/Silver/1.8 Kg) K513EA-L712WS']

#### In [421]:

```
rating_tags=driver.find_elements_by_xpath('//div[@class="a-row a-size-small"]')
rating_tags[0:10]
```

#### Out[421]:

[<selenium.webdriver.remote.webelement.WebElement (session="8055e23f181cc48a</pre> 7e0ecb6bbf681fde", element="774a7baf-e8cd-4c12-b6f1-026d2308fced")>, <selenium.webdriver.remote.webelement.WebElement (session="8055e23f181cc48a</pre> 7e0ecb6bbf681fde", element="17b1baf8-3c5c-4e63-a2b4-c351c81da407")>, <selenium.webdriver.remote.webelement.WebElement (session="8055e23f181cc48a</pre> 7e0ecb6bbf681fde", element="82eb756d-5445-48bf-8404-6323ea8a27c7")>, <selenium.webdriver.remote.webelement.WebElement (session="8055e23f181cc48a</pre> 7e0ecb6bbf681fde", element="2b0b4d5b-5c0b-4143-98cb-17ed2278400c")>, <selenium.webdriver.remote.webelement.WebElement (session="8055e23f181cc48a</pre> 7e0ecb6bbf681fde", element="456eb5a6-a1e0-413a-9936-ed4697c96cbe")>, <selenium.webdriver.remote.webelement.WebElement (session="8055e23f181cc48a</pre> 7e0ecb6bbf681fde", element="6ddfedd4-6e20-41d2-bcdb-346d4033ca82")>, <selenium.webdriver.remote.webelement.WebElement (session="8055e23f181cc48a</pre> 7e0ecb6bbf681fde", element="b5d7b744-8438-40a4-ba3f-43670ba8ecd8")>, <selenium.webdriver.remote.webelement.WebElement (session="8055e23f181cc48a</pre> 7e0ecb6bbf681fde", element="ca278267-af08-494d-ae48-39500a27941f")>, <selenium.webdriver.remote.webelement.WebElement (session="8055e23f181cc48a</pre> 7e0ecb6bbf681fde", element="7852a824-d8de-4679-a35e-414c4ff90ea3")>, <selenium.webdriver.remote.webelement.WebElement (session="8055e23f181cc48a</pre> 7e0ecb6bbf681fde", element="4d6e1990-fe68-48c3-a6fc-2ac02294c23d")>]

## In [422]:

```
rating=[]

for i in rating_tags:
    rating.append(i.text)
rating[0:10]
```

# Out[422]:

```
['20', '38', '23', '909', '85', '3', '24', '49', '9', '82']
```

#### In [425]:

```
price_tags=driver.find_elements_by_xpath('//span[@class="a-price-whole"]')
price_tags[0:10]
```

#### Out[425]:

[<selenium.webdriver.remote.webelement.WebElement (session="8055e23f181cc48a</pre> 7e0ecb6bbf681fde", element="45895e6d-5571-4e8c-a4cf-49f7a9b19534")>, <selenium.webdriver.remote.webelement.WebElement (session="8055e23f181cc48a</pre> 7e0ecb6bbf681fde", element="21511033-4989-44df-972e-edac5f4a87cc")>, <selenium.webdriver.remote.webelement.WebElement (session="8055e23f181cc48a</pre> 7e0ecb6bbf681fde", element="e27120fc-c74d-484f-a526-ba3b24bb33c6")>, <selenium.webdriver.remote.webelement.WebElement (session="8055e23f181cc48a</pre> 7e0ecb6bbf681fde", element="4fb7458a-a1a5-45a8-b551-ba0d19a238eb")>, <selenium.webdriver.remote.webelement.WebElement (session="8055e23f181cc48a</pre> 7e0ecb6bbf681fde", element="e540eb23-eb9f-4d55-bde9-6ffd38705434")>, <selenium.webdriver.remote.webelement.WebElement (session="8055e23f181cc48a</pre> 7e0ecb6bbf681fde", element="f90fa8b5-645b-4aca-83c2-bb2ab9f4482e")>, <selenium.webdriver.remote.webelement.WebElement (session="8055e23f181cc48a</pre> 7e0ecb6bbf681fde", element="0ec2b170-d788-4c1f-9926-2353116eb33a")>, <selenium.webdriver.remote.webelement.WebElement (session="8055e23f181cc48a</pre> 7e0ecb6bbf681fde", element="0c952a63-dd85-4d4b-b65f-4e1440c05cf2")>, <selenium.webdriver.remote.webelement.WebElement (session="8055e23f181cc48a</pre> 7e0ecb6bbf681fde", element="f55173f0-76b8-48c5-b327-620c644d9090")>, <selenium.webdriver.remote.webelement.WebElement (session="8055e23f181cc48a</pre> 7e0ecb6bbf681fde", element="3d2c25bd-ae83-4ee5-ad2e-f4aaccc36d3e")>]

# In [426]:

```
price=[]

for i in price_tags:
    price.append(i.text)
price[0:10]
```

## Out[426]:

```
['1,16,490',
'89,890',
'57,490',
'77,499',
'89,999',
'89,990',
'89,990',
'87,990',
'85,990']
```

## In [433]:

```
1 laptop_intel_icore7=pd.DataFrame()
2 laptop_intel_icore7['Title']=titles[0:10]
3 laptop_intel_icore7['Rating']= rating[0:10]
4 laptop_intel_icore7['Price']=price[0:10]
5 laptop_intel_icore7
6
```

# Out[433]:

|   | Title  | Rating | Price    |
|---|--|--------|----------|
| 0 | Fujitsu UH-X 11th Gen Intel Core i7 13.3" FHD  | 20     | 1,16,490 |
| 1 | Dell G15 5511 Intel i7-11800H Gaming Laptop,16 | 38     | 89,890   |
| 2 | ASUS VivoBook 14 (2021), 14-inch (35.56 cms) F | 23     | 57,490   |
| 3 | Mi Notebook Ultra 3.2K Resolution Display Inte | 909    | 77,499   |
| 4 | LG Gram 16 inches Intel Evo 11th Gen Core i7 U | 85     | 89,999   |
| 5 | ASUS TUF Gaming F15 (2021), 15.6" (39.62 cms)  | 3      | 89,990   |
| 6 | ASUS ZenBook 13 OLED (2021) Intel Core i7-1165 | 24     | 92,990   |
| 7 | Lenovo ThinkBook 13s Intel 11th Gen Core i7 13 | 49     | 89,990   |
| 8 | Lenovo ThinkBook Yoga 14s Intel Core i7 11th G | 9      | 87,990   |
| 9 | ASUS VivoBook K15 OLED (2021), 15.6-inch (39.6 | 82     | 85,990   |

# In [ ]:

```
Q9: Write a python program to scrape data for first 10 job results for Data Scientist I location. You have to scrape company name, No. of days ago when job was posted, Rating This task will be done in following steps:

1. First get the webpage https://www.ambitionbox.com/

2. Click on the Job option as shown in the image
```

## In [100]:

```
#lets import all required libraries

import selenium
from selenium import webdriver
import pandas as pd
import warnings
warnings.filterwarnings("ignore")
```

## In [101]:

driver=webdriver.Chrome(r'C:/Users/Acer Aspire 3/Downloads/chromedriver\_win32/chromedri

## In [102]:

```
1 driver = webdriver.Chrome('chromedriver.exe')
```

```
In [103]:
```

```
url='http://www.ambitionbox.com/'
driver.get(url)
```

## In [105]:

```
job_option=driver.find_element_by_xpath('//a[@class="link jobs"]')
job_option.click()
```

## In [106]:

- 2 search\_job

# Out[106]:

<selenium.webdriver.remote.webelement.WebElement (session="7f5a0be2ab3662c66
4bea1c87c8732c3", element="3da54152-7442-499c-acea-1245137c325f")>

# In [107]:

```
1 search_job.send_keys("Data Scientist")
```

## In [108]:

# Out[108]:

<selenium.webdriver.remote.webelement.WebElement (session="7f5a0be2ab3662c66
4bea1c87c8732c3", element="8648b798-ff10-4c19-ab7f-42c2815b0757")>

#### In [109]:

```
1 search_btn.click()
```

#### In [111]:

```
earch_locn=driver.find_element_by_xpath("/html/body/div/div/div/div[2]/div[2]/div[1]/div/div
earch_locn

◆
```

## Out[111]:

<selenium.webdriver.remote.webelement.WebElement (session="7f5a0be2ab3662c66
4bea1c87c8732c3", element="fbc132b1-122f-4a8c-a498-3e9b21483d70")>

#### In [112]:

```
1 search locn.send keys("Noida")
```

#### In [115]:

```
Ind_element_by_xpath("/html/body/div/div/div[2]/div[2]/div[1]/div/div/div/div[2]/div[2]/
```

# Out[115]:

<selenium.webdriver.remote.webelement.WebElement (session="7f5a0be2ab3662c66
4bea1c87c8732c3", element="28c599b1-dee8-4a60-b05b-23724557fadc")>

# In [116]:

```
1 check_noida.click()
```

# In [35]:

```
company_tags=driver.find_elements_by_xpath('//p[@class="company body-medium"]')
company_tags[0:10]
```

# Out[35]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1
49507c9d5ad5ad06", element="3f8d7c22-93e8-4d73-b86f-4e3e6167c52e")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="a8ee713f-c038-4afc-b60a-c788ced7df08")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="0e1a75ce-789d-463d-b419-62d596e6da4e")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="7820c9ba-0b29-4695-9db6-db7c62dedaf1")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="0b28fb11-ecad-4ce8-861f-e13c2b7cd824")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="62773946-8d2d-425e-8f70-d1839c213f1a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="051149c2-b03d-4d22-b45a-74a77e3ebc23")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="0b7f057a-a8b2-42b5-b896-1567db6721df")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="9330f576-745b-40ab-9da0-7195cdbfd046")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="6ce7f346-e6a6-46bc-b30d-ed08521c23c2")>]
```

#### In [36]:

```
company_names=[]
for i in company_tags:
    company_names.append(i.text)
company_names[0:10]
```

#### Out[36]:

```
['NTT DATA GLOBAL DELIVERY SERVICES PRIVATE LIMITED',
'HCL Technologies Limited',
'WSP CONSULTANTS INDIA PRIVATE LIMITED',
'Microsoft India (R and D) Pvt Ltd',
'HCL Technologies Ltd',
'Jubilant Foodworks Limited',
'HCL Technologies',
'RATEGAIN TRAVEL TECHNOLOGIES LIMITED',
'Hanu Software Solutions Pvt Ltd',
'Tavant Technologies India Pvt. Ltd.']
```

# In [41]:

```
job_posted_tags=driver.find_elements_by_xpath('//span[@class="body-small-l"]')
job_posted_tags[0:10]
```

#### Out[41]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="0a1f053b-4d60-4d8f-99b5-e8ccae5be7e1")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="13f78c72-27df-4b52-9ae4-03e059bad4c8")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="3de00001-5018-463c-9c65-219afbd101c5")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="e619b1f4-bc0d-4756-9807-b637a602a0fa")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="c980ad29-0b34-4e1e-9291-f812225f6221")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="5e13be74-58d4-43a9-aaa8-f17d69c54acd")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="7ee863f9-55dc-4398-a15a-ddade0f3b0d4")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="20199837-c369-4f17-8f6e-5af164820856")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="6d3caaa0-9b7e-4546-9604-42905920ebc3")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="cd02b9ed-ff1f-4133-8fea-64d8f01741c3")>]
```

# In [44]:

```
job_posted=[]

for i in job_posted_tags:
    job_posted.append(i.text)

job_posted

job_posted
```

# Out[44]:

```
['10d ago',
 'via naukri.com',
 '11d ago',
 'via naukri.com',
 '11d ago',
 'via naukri.com',
 '22d ago',
 'via naukri.com',
 '19d ago',
 'via naukri.com',
 '9d ago',
 'via naukri.com',
 '26d ago',
 'via naukri.com',
 '4d ago',
 'via naukri.com',
 '11d ago',
 'via naukri.com',
 '1mon ago',
 'via naukri.com']
```

#### In [46]:

```
1 rating_tags=driver.find_elements_by_xpath('//span[@class="body-small"]')
2 rating_tags
```

#### Out[46]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="2763b243-b095-4311-a14b-d5700efa5f4e")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="cc7b5e78-23a1-48d1-987c-45a875afd1a4")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="3f201d76-bc9a-4f42-850c-0f993110e269")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="ba33eff5-0359-403e-8efa-50f8fc06673a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="f68f2e95-e8f4-4e40-b7ce-acd7b1a87bf1")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="41a5e11f-64de-49f1-bb0d-5534a5e14a1b")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="61be7278-39ea-4ca7-a5a6-890c1e908fe7")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="7435f54a-4503-4f35-9fec-ccf845a3f266")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="c763bab7-3bed-412e-972b-c4b4e89eb6b1")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="8d30d801-ec79-47bc-a3a3-1b894517e556")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="ca071089-a081-437f-b197-9d7287a90474")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="57741c33-04db-47af-8bf4-92a447ce0eaa")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="80064837-55b1-4b8a-aa8f-3eddb64a5543")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="38d88f2d-3185-4279-9f6d-72018b1827db")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="1829dbab-0b45-471c-9cb2-2022e526f36d")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="ba03de2c-6167-4cee-8a56-b3a7a1b4c027")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="e7049da2-5b1c-4de9-8273-3861f111dadb")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="2fe06aea-18eb-4cb9-88be-a601c7e648f4")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="b2e4f620-4593-49c2-afbf-26dc9264073b")>,
 <selenium.webdriver.remote.webelement.WebElement (session="32c98a9ae44331b1</pre>
49507c9d5ad5ad06", element="05631819-cafd-491e-a75a-11907b9c1b8b")>]
```

#### In [48]:

```
1 ratings=[]
2
3 for i in rating_tags:
4   ratings.append(i.text)
5
6 ratings[0:10]
```

#### Out[48]:

```
['3.9', '3.8', '4.2', '4.2', '3.8', '3.9', '3.8', '3.7', '3.7', '4.0']
```

#### In [51]:

```
jobs=pd.DataFrame()
jobs['Company']=company_names[0:10]
jobs['Days_Posted']=job_posted[0:10]
jobs['Ratings']=ratings[0:10]
jobs
```

# Out[51]:

|   | Company   | Days_Posted    | Ratings |
|---|---|----------------|---------|
| 0 | NTT DATA GLOBAL DELIVERY SERVICES PRIVATE LIMITED | 10d ago        | 3.9     |
| 1 | HCL Technologies Limited                          | via naukri.com | 3.8     |
| 2 | WSP CONSULTANTS INDIA PRIVATE LIMITED             | 11d ago        | 4.2     |
| 3 | Microsoft India (R and D) Pvt Ltd                 | via naukri.com | 4.2     |
| 4 | HCL Technologies Ltd                              | 11d ago        | 3.8     |
| 5 | Jubilant Foodworks Limited                        | via naukri.com | 3.9     |
| 6 | HCL Technologies                                  | 22d ago        | 3.8     |
| 7 | RATEGAIN TRAVEL TECHNOLOGIES LIMITED              | via naukri.com | 3.7     |
| 8 | Hanu Software Solutions Pvt Ltd                   | 19d ago        | 3.7     |
| 9 | Tavant Technologies India Pvt. Ltd.               | via naukri.com | 4.0     |

- # Q10: Write a python program to scrape the salary data for Data Scientist
  designation.
- 2 You have to scrape Company name, Number of salaries, Average salary, Minsalary, Max Salary.
- The above task will be, done as shown in the below steps:
- 1. First get the webpage https://www.ambitionbox.com/
- 5 2. Click on the salaries option as shown in the image.
- 7 You have to scrape the data ticked in the above image.
- 4. Scrape the data for the first 10 companies. Scrape the company name, total salary record, average
- 9 salary, minimum salary, maximum salary, experience required.
- 10 5. Store the data in a dataframe.

11

## In [44]:

```
#lets import all required libraries

import selenium
from selenium import webdriver
import pandas as pd
import warnings
warnings.filterwarnings("ignore")
```

# In [45]:

1 driver=webdriver.Chrome(r'C:/Users/Acer Aspire 3/Downloads/chromedriver\_win32/chromedri

#### In [46]:

```
1 driver = webdriver.Chrome('chromedriver.exe')
```

# In [47]:

```
1 url='http://www.ambitionbox.com/'
2 driver.get(url)
3
```

## In [48]:

```
salary_option= driver.find_element_by_xpath('//a[@class="link salaries"]')
salary_option.click()
```

## In [49]:

```
job_profile= driver.find_element_by_xpath('/html/body/div/div/main/section[1]/div[2
job_profile.send_keys('Data Scientist')
```

#### In [51]:

```
select_DS=driver.find_element_by_xpath('/html/body/div/div/div/main/section[1]/div[2]/div[2]/div[DS.click
```

#### Out[51]:

<bound method WebElement.click of <selenium.webdriver.remote.webelement.WebE
lement (session="0eaaeffdc1f47964cfe4b7ea30c4abdd", element="cc46b4d0-0e24-4
a1b-ae64-af7a7134d417")>>

#### In [52]:

```
company_tags=driver.find_elements_by_xpath('//div[@class="name"]/a')
company_tags[0:10]
```

# Out[52]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964
cfe4b7ea30c4abdd", element="2d0b780e-bac1-4b87-9677-a7706488f88b")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="5849f038-b86e-4673-92db-77c1fa003dc7")>,
<selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="02e89eae-9ffd-451c-9ad9-fce505508f93")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="955ecc43-3695-47d4-bc50-6613f155ae55")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="8351d381-3fac-465e-82cb-ae842ecb3da5")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="f0e7ae6c-380f-4556-8cdc-6b881cb13c51")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="3821f0b9-cc60-4cd5-8e85-94de7f94faaa")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="abfd20e8-ff21-428f-ab60-5a16f0db9e7c")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="a72ebbe9-a513-41ee-926c-c655c8eb1c70")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="0814a6a2-f78a-4d82-9fd2-76db181e74a9")>]
```

#### In [56]:

```
company_names=[]
for i in company_tags:
    company_names.append(i.text)
company_names[0:10]
```

#### Out[56]:

```
['Ab Inbev',
  'ZS',
  'Optum',
  'Fractal Analytics',
  'Tiger Analytics',
  'UnitedHealth',
  'Verizon',
  'Ganit Business Solutions',
  'Ericsson',
  'Deloitte']
```

#### In [57]:

```
1 salary=driver.find_elements_by_xpath('//div[@class="name"]/span')
2 salary
```

## Out[57]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964
cfe4b7ea30c4abdd", element="af199850-f51e-4d89-aab2-0d788f9de226")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="c8235a69-2620-4d0b-b0c5-8b089345e00a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="bbc652a9-0f36-4353-9a27-19da4dddb168")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="9577d05c-2fe5-48fe-ad18-6df6930fcc49")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="cd21df61-c437-4ecf-b20a-080797d0c49d")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964")</pre>
cfe4b7ea30c4abdd", element="29485397-4ec3-44a0-a3be-c512bb4034e2")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="54c42126-ef41-42c4-bbba-649664f1dd11")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="b7c5208c-e814-4169-aa55-1a64179deeef")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="3465db3d-154c-447f-ade4-091a8ecad4fa")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="e883be4b-0183-4b34-a7f4-418e7a4304a1")>]
```

#### In [55]:

```
salary_tags=[]
for i in salary:
    salary_tags.append(i.text)
salary_tags[0:10]
```

#### Out[55]:

```
['based on 28 salaries',
'based on 15 salaries',
'based on 25 salaries',
'based on 77 salaries',
'based on 33 salaries',
'based on 52 salaries',
'based on 14 salaries',
'based on 13 salaries',
'based on 43 salaries',
'based on 57 salaries']
```

## In [59]:

```
average_salary_tags=driver.find_elements_by_xpath('//p[@class="averageCtc"]')
average_salary_tags
```

## Out[59]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964
cfe4b7ea30c4abdd", element="a0e4ade3-d0cc-434e-8b70-5123c28b8280")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="8b1fcd6c-f132-4e94-90cd-188e13a5c267")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="78baff32-e152-4b4d-983a-28f0f4af243d")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="07a446c3-1c71-4aaa-a8d1-6f9b7f97efa2")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="c4c715b3-89d3-43e5-b156-a3ed34ae6ac7")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="50dd22ee-7512-4a7e-845f-9594778fc6b3")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="98f6e551-e866-4ed7-bd77-6afe4877b7b4")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="9e9bf746-c9c1-44dd-9753-b7584eec2a26")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="b741deed-561c-4425-b33a-c65a4eb60cf8")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="058e116f-f877-47b1-ad31-3691514e9f0e")>]
```

#### In [60]:

```
1 average_salary=[]
2
3 for i in average_salary_tags:
    average_salary.append(i.text)
5 average_salary[0:10]
```

# Out[60]:

```
['₹ 20.3L',
'₹ 15.3L',
'₹ 15.1L',
'₹ 15.1L',
'₹ 14.4L',
'₹ 13.9L',
'₹ 12.7L',
'₹ 12.4L',
'₹ 11.9L',
'₹ 11.7L']
```

#### In [61]:

```
min_salary_tags=driver.find_elements_by_xpath('//div[@class="salary-values"]/div[1]')
min_salary_tags[0:10]
```

# Out[61]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964"
cfe4b7ea30c4abdd", element="6af42587-adac-41c6-a03b-993b2dad704d")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="cd6dd8e2-5a8d-4b81-be12-4866f92689dd")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="fc4e784f-4b84-435c-8542-78a545782c04")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="36c67b92-3724-47a8-a1a7-461696e6a631")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="b29e0d81-d005-40df-80af-446181ded286")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="90891fda-1f1d-4f3f-984c-1aa6a2dea326")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="9d458528-0e51-4fb5-b16c-fd8acea16445")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="673e5e3e-0193-4e35-b98a-b7d2b02d4b17")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="f69cc09c-c84f-4a71-bc30-2984b0445f8d")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="59a05463-a1e2-4934-a5df-8cdaddc93e49")>]
```

#### In [62]:

```
min_salary=[]

for i in min_salary_tags:
    min_salary.append(i.text)
min_salary[0:10]
```

# Out[62]:

```
['₹ 15.0L',
'₹ 9.5L',
'₹ 11.0L',
'₹ 9.5L',
'₹ 8.3L',
'₹ 8.3L',
'₹ 10.0L',
'₹ 8.5L',
'₹ 5.8L',
'₹ 6.9L']
```

#### In [63]:

```
max_salary_tags=driver.find_elements_by_xpath('//div[@class="salary-values"]/div[2]')
max_salary_tags[0:10]
```

# Out[63]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964"
cfe4b7ea30c4abdd", element="05d79270-d556-4943-afd8-b66fbfcab10b")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="9075536d-8fdf-4d24-93b9-441cbe5db769")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="046c80c0-4b52-43a5-84aa-eed52ad02d87")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="ca0431f9-062f-4394-9407-21cf40a8c2d5")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="11561a18-e1d3-4855-8088-404a31ccfe37")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="2c004d62-6339-4c2b-aad2-88a8f9116ee5")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="cbdd4b28-abfc-42de-a2fb-87db4d83d0bf")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="3fbb97a7-3c77-4671-84ee-7b40e859b6d0")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="46f98f66-6928-464b-860d-8c116c94c82a")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="e727f742-eeae-4809-813e-f76cbe36f189")>]
```

#### In [64]:

```
max_salary=[]

for i in max_salary_tags:
    max_salary.append(i.text)
max_salary[0:10]
```

# Out[64]:

```
['₹ 25.5L',

'₹ 20.0L',

'₹ 21.3L',

'₹ 22.0L',

'₹ 20.0L',

'₹ 20.5L',

'₹ 21.0L',

'₹ 15.0L',

'₹ 24.0L',

'₹ 23.4L']
```

## In [78]:

```
1 exp_tags=driver.find_elements_by_xpath('//div[@class="salaries sbold-list-header"]')
2 exp_tags
```

# Out[78]:

```
[<selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964
cfe4b7ea30c4abdd", element="7320994c-5730-4b05-b9a4-2b302d97b5b8")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="d80c0d30-5675-4cda-908a-1527ce4e4dc4")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="ffb8d730-3849-4b6f-a07e-e05f2144ae73")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="fa5c3bea-bef9-437d-a10d-7eaf2ea056f1")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="8d4253dd-3e6e-4b0a-98d3-2fe2597cc94f")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="f08aa5f9-9695-434b-b3ab-4d7d770cef64")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="d86907bc-c4d3-4d59-a1a2-e36925a96fd3")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="913cddde-0cf7-4fc8-b5f2-2f88ae7767be")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="c6a37f14-24db-4a2d-a883-2fcecc56e360")>,
 <selenium.webdriver.remote.webelement.WebElement (session="0eaaeffdc1f47964</pre>
cfe4b7ea30c4abdd", element="16c56758-8024-489e-b005-8176d7cdd37c")>]
```

## In [79]:

```
1 experience=[]
2
3 for i in exp_tags:
4   experience.append(i.text)
5
6 experience[0:10]
```

# Out[79]:

```
['Data Scientist\n . \n3-4 yrs exp',
'Data Scientist\n . \n2 yrs exp',
'Data Scientist\n . \n3-4 yrs exp',
'Data Scientist\n . \n2-4 yrs exp',
'Data Scientist\n . \n3-4 yrs exp',
'Data Scientist\n . \n2-4 yrs exp',
'Data Scientist\n . \n4 yrs exp',
'Data Scientist\n . \n4 yrs exp',
'Data Scientist\n . \n4 yrs exp',
'Data Scientist\n . \n3-4 yrs exp',
'Data Scientist\n . \n2-4 yrs exp']
```

# In [80]:

```
salary=pd.DataFrame()
salary['company names with total salary']=company_names[0:10]
salary['average salary']=average_salary[0:10]
salary['minimum salary']=min_salary[0:10]
salary['maximum salary']=max_salary[0:10]
salary['experience']=experience[0:10]
salary
```

# Out[80]:

|   | company names with total salary | average<br>salary | minimum<br>salary | maximum<br>salary | experience                          |
|---|---------------------------------|-------------------|-------------------|-------------------|-------------------------------------|
| 0 | Ab Inbev                        | ₹ 20.3L           | ₹ 15.0L           | ₹ 25.5L           | Data Scientist\n . \n3-4<br>yrs exp |
| 1 | ZS                              | ₹ 15.3L           | ₹ 9.5L            | ₹ 20.0L           | Data Scientist\n . \n2 yrs<br>exp   |
| 2 | Optum                           | ₹ 15.1L           | ₹ 11.0L           | ₹ 21.3L           | Data Scientist\n . \n3-4<br>yrs exp |
| 3 | Fractal Analytics               | ₹ 15.1L           | ₹ 9.5L            | ₹ 22.0L           | Data Scientist\n . \n2-4<br>yrs exp |
| 4 | Tiger Analytics                 | ₹ 14.4L           | ₹ 8.3L            | ₹ 20.0L           | Data Scientist\n . \n3-4<br>yrs exp |
| 5 | UnitedHealth                    | ₹ 13.9L           | ₹ 8.3L            | ₹ 20.5L           | Data Scientist\n . \n2-4<br>yrs exp |
| 6 | Verizon                         | ₹ 12.7L           | ₹ 10.0L           | ₹ 21.0L           | Data Scientist\n . \n4 yrs<br>exp   |
| 7 | Ganit Business Solutions        | ₹ 12.4L           | ₹ 8.5L            | ₹ 15.0L           | Data Scientist\n . \n4 yrs<br>exp   |
| 8 | Ericsson                        | ₹ 11.9L           | ₹ 5.8L            | ₹ 24.0L           | Data Scientist\n . \n3-4<br>yrs exp |
| 9 | Deloitte                        | ₹ 11.7L           | ₹ 6.9L            | ₹ 23.4L           | Data Scientist\n . \n2-4<br>yrs exp |

# Thank you

| In [    | ]: |  |  |  |
|---------|----|--|--|--|
| 1       |    |  |  |  |
| In [ ]: |    |  |  |  |
| 1       |    |  |  |  |