In [2]:
```
#Downloading web driver
#import all the required libraries
import selenium
import pandas as pd
from selenium import webdriver

import warnings
warnings.filterwarnings('ignore')
```

1. Write a python program which searches all the product under a particular product from www.amazon.in (http://www.amazon.in). The product to be searched will be taken as input from user. For e.g. If user input is 'guitar'. Then search for guitars.

In [3]:
```
#Let's first connect to web driver
driver=webdriver.Chrome(r"C:/Users/Gamya/Downloads/chromedriver_win32/chromedrive
```

In [91]:
```
driver.get('https://www.amazon.in/')
```

In [92]:
```
search=input()
```

```
bottles
```

In [93]:
```
s=driver.find_element_by_xpath("//input[@id='twotabsearchtextbox']")
s.send_keys(search)
```

In [94]:
```
src=driver.find_element_by_xpath("//input[@id='nav-search-submit-button']")
src.click()
```

2. In the above question, now scrape the following details of each product listed in first 3 pages of your search results and save it in a data frame and csv. In case if any product has less than 3 pages in search results then scrape all the products available under that product name. Details to be scraped are: "Brand Name", "Name of the Product", "Price", "Return/Exchange", "Expected Delivery", "Availability" and "Product URL". In case, if any of the details are missing for any of the product then replace it by "-"

In [99]:
```
bname=[]
name=[]
price=[]
exchange=[]
avail=[]
purl=[]
```

In [100]:
```
for i in driver.find_elements_by_xpath("//span[@class='rush-component']"):
    purl.append(i.get_attribute("href"))
n=driver.find_element_by_xpath("//li[@class='a-last']")
for i in driver.find_elements_by_xpath("//span[@class='rush-component']"):
    purl.append(i.get_attribute("href"))
n=driver.find_element_by_xpath("//li[@class='a-last']")
for i in driver.find_elements_by_xpath("//span[@class='rush-component']"):
    purl.append(i.get_attribute("href"))
```

In [105]:
```
for j in purl:
    try:
        b=driver.find_elements_by_xpath("//span[@class='a-size-base-plus a-color-
        for i in b:
            bname.append(i.text)
    except:
        bname.append('-')

    try:
        p=driver.find_elements_by_xpath("//span[@class='a-price-whole']")
        for i in p:
            price.append(i.text)
    except:
        price.append('-')

    try:
        e=driver.find_elements_by_xpath("//span[@class='a-text-bold']")
        for i in e:
            exchange.append(i.text)
    except:
        exchange.append('-')

    try:
        a=driver.find_elements_by_xpath("//span[@class='a-size-base a-color-price
        for i in a:
            avail.append(i.text)
    except:
        avail.append('-')
```

In [108]:
```
bname[0:2]
```

Out[108]:
```
['Amazon Brand - Solimo Plastic Water Bottle, 800ml, 6 Pieces, White',
 'Ikai Asai Earthenware Bottle, Brown']
```

In [109]:
```
price[0:2]
```

Out[109]:
```
['577', '800']
```

In [107]:
```
exchange[0:2]
```

Out[107]:
```
['Tomorrow 3PM', 'Tuesday, December 28']
```

3. Write a python program to access the search bar and search button on images.google.com and scrape 10 images each for keywords ‘fruits’, ‘cars’ and ‘Machine Learning’, ‘Guitar’, ‘Cakes’.

In [59]:
```
driver.get('https://images.google.com/')
```

In [60]:
```
s=driver.find_element_by_xpath("//input[@class='gLFyf gsfi']")
s.send_keys('fruits')
```

In [61]:
```
src=driver.find_element_by_xpath("//span[@class='z1asCe MZy1Rb']")
src.click()
```

In [62]:
```
f=driver.find_elements_by_xpath("//a[@class='wXeWr islib nfEiy']")
```

In [63]:
```
f_l=f[0:10]
```

In [64]:
```
fruits=[]
```

In [65]:
```
for i in f_l:
    j=i.get_attribute('href')
    fruits.append(j)
```

In [66]:
```
driver.get('https://images.google.com/')
s=driver.find_element_by_xpath("//input[@class='gLFyf gsfi']")
s.send_keys('cars')
src=driver.find_element_by_xpath("//span[@class='z1asCe MZy1Rb']")
src.click()
c=driver.find_elements_by_xpath("//a[@class='wXeWr islib nfEiy']")
c_l=c[0:10]
cars=[]
for i in c_l:
    cars.append(i.get_attribute('href'))
```

In [67]:
```
driver.get('https://images.google.com/')
s=driver.find_element_by_xpath("//input[@class='gLFyf gsfi']")
s.send_keys('Machine Learning')
src=driver.find_element_by_xpath("//span[@class='z1asCe MZy1Rb']")
src.click()
m=driver.find_elements_by_xpath("//a[@class='wXeWr islib nfEiy']")
m_l=m[0:10]
machinelearning=[]
for i in m_l:
    machinelearning.append(i.get_attribute('href'))
```

In [68]:
```
driver.get('https://images.google.com/')
s=driver.find_element_by_xpath("//input[@class='gLFyf gsfi']")
s.send_keys('guitar')
src=driver.find_element_by_xpath("//span[@class='z1asCe MZy1Rb']")
src.click()
g=driver.find_elements_by_xpath("//a[@class='wXeWr islib nfEiy']")
g_l=g[0:10]
guitars=[]
for i in g_l:
    guitars.append(i.get_attribute('href'))
```

In [69]:
```
driver.get('https://images.google.com/')
s=driver.find_element_by_xpath("//input[@class='gLFyf gsfi']")
s.send_keys('cakes')
src=driver.find_element_by_xpath("//span[@class='z1asCe MZy1Rb']")
src.click()
ca=driver.find_elements_by_xpath("//a[@class='wXeWr islib nfEiy']")
ca_l=ca[0:10]
cakes=[]
for i in ca_l:
    cakes.append(i.get_attribute('href'))
```

In [70]:
```
print(len(cars),len(fruits),len(machinelearning),len(guitars),len(cakes))
```

```
10 10 10 10 10
```

4. Write a python program to search for a smartphone(e.g.: Oneplus Nord, pixel 4A, etc.) on www.flipkart.com (http://www.flipkart.com) and scrape following details for all the search results displayed on 1st page. Details to be scraped: “Brand Name”, “Smartphone name”, “Colour”, “RAM”, “Storage(ROM)”, “Primary Camera”, “Secondary Camera”, “Display Size”, “Battery Capacity”, “Price”, “Product URL”. Incase if any of the details is missing then replace it by “- “. Save your results in a dataframe and CSV

In [92]:
```
driver.get('https://www.flipkart.com/')
```

In [83]:
```
cut=driver.find_element_by_xpath("//button[@class='_2KpZ6l _2doB4z']")
cut.click()
```

In [93]:
```
search=input()
```

```
smartphones
```

In [94]:
```
s=driver.find_element_by_xpath("//input[@type='text']")
s.send_keys(search)
```

In [95]:
```
src=driver.find_element_by_xpath("//button[@class='L0Z3Pu']")
src.click()
```

In [98]:
```
url=[]
for i in driver.find_elements_by_xpath("//a[@class='_1fQZEK']"):
    url.append(i.get_attribute('href'))
```

In [125]:
```
bname=[]
for j in url:
    try:
        b=driver.find_elements_by_xpath("//div[@class='_4rR01T']")
        b_l=b[0:24]
        for i in b_l:
            bname.append(i.text)
    except:
        bname.append('-')
    try:

        ram=[]
        dis=[]
        cam=[]
        bat=[]
        des=[]

        h=driver.find_elements_by_xpath("//li[@class='rgWa7D']")
        for i in h:
            des.append(i.text)
        for i in range(0,len(des)-1,7):
            ram.append(des[i])
            dis.append(des[i+1])
            cam.append(des[i+2])
            bat.append(des[i+3])
    except:
        des.append('-')
    try:
        price=[]
        p=driver.find_elements_by_xpath("//div[@class='_30jeq3 _1_WHN1']")
        for i in p:
            price.append(i.text)
    except:
        price.append('-')
```

In [135]:
```
print(len(bname),len(des),len(price),len(url))
```

```
24 24 24 24
```

In [137]:
```
phones=pd.DataFrame({})
phones['brand']=bname
phones['des']=des
phones['price']=price
phones['purl']=url
```

In [138]:
```
phones
```

Out[138]:

	brand	des	price	purl
0	realme C25Y (Glacier Blue, 64 GB)	4 GB RAM | 64 GB ROM | Expandable Upto 256 GB	₹10,999	https://www.flipkart.com/realme-c25y-glacier-b...
1	realme 8i (Space Black, 128 GB)	16.51 cm (6.5 inch) HD+ Display	₹15,999	https://www.flipkart.com/realme-8i-space-black...
2	realme 8i (Space Purple, 64 GB)	50MP + 2MP + 2MP | 8MP Front Camera	₹13,999	https://www.flipkart.com/realme-8i-space-purpl...
3	GIONEE Max Pro (Red, 32 GB)	5000 mAh Battery	₹9,999	https://www.flipkart.com/gionee-max-pro-red-32...
4	realme 8i (Space Purple, 128 GB)	Unisoc T610 Octa Core Processor	₹15,999	https://www.flipkart.com/realme-8i-space-purpl...
5	realme Narzo 50A (Oxygen Blue, 128 GB)	1 Year Warranty for Mobile and 6 Months for Ac...	₹12,499	https://www.flipkart.com/realme-narzo-50a-oxyg...
6	realme C25Y (Metal Grey, 64 GB)	6 GB RAM | 128 GB ROM | Expandable Upto 256 GB	₹10,999	https://www.flipkart.com/realme-c25y-metal-gre...
7	realme 8i (Space Black, 64 GB)	16.76 cm (6.6 inch) Full HD+ Display	₹13,999	https://www.flipkart.com/realme-8i-space-black...
8	realme Narzo 50A (Oxygen Green, 128 GB)	50MP + 2MP + 2MP | 16MP Front Camera	₹12,499	https://www.flipkart.com/realme-narzo-50a-oxyg...
9	realme Narzo 50A (Oxygen Green, 64 GB)	5000 mAh Battery	₹11,499	https://www.flipkart.com/realme-narzo-50a-oxyg...
10	realme Narzo 50A (Oxygen Blue, 64 GB)	MediaTek Helio G96 Processor	₹11,499	https://www.flipkart.com/realme-narzo-50a-oxyg...
11	REDMI 9i (Nature Green, 64 GB)	1 Year Warranty for Mobile and 6 Months for Ac...	₹8,799	https://www.flipkart.com/redmi-9i-nature-green...
12	REDMI 9i (Midnight Black, 64 GB)	4 GB RAM | 64 GB ROM | Expandable Upto 256 GB	₹8,799	https://www.flipkart.com/redmi-9i-midnight-bla...
13	realme C21Y (Cross Black, 32 GB)	16.76 cm (6.6 inch) Full HD+ Display	₹9,499	https://www.flipkart.com/realme-c21y-cross-bla...
14	realme C21Y (Cross Black, 64 GB)	50MP + 2MP + 2MP | 16MP Front Camera	₹10,499	https://www.flipkart.com/realme-c21y-cross-bla...
15	realme C21Y (Cross Blue, 64 GB)	5000 mAh Battery	₹10,499	https://www.flipkart.com/realme-c21y-cross-blu...
16	realme 8 5G (Supersonic Blue, 64 GB)	MediaTek Helio G96 Processor	₹15,499	https://www.flipkart.com/realme-8-5g-supersoni...
17	realme Narzo 50i (Carbon Black, 32 GB)	1 Year Warranty for Mobile and 6 Months for Ac...	₹7,499	https://www.flipkart.com/realme-narzo-50i-carb...
18	realme Narzo 50i (Mint Green, 32 GB)	3 GB RAM | 32 GB ROM | Expandable Upto 256 GB	₹7,499	https://www.flipkart.com/realme-narzo-50i-mint...
19	REDMI 9i (Sea Blue, 64 GB)	16.56 cm (6.52 inch) HD+ Display	₹8,799	https://www.flipkart.com/redmi-9i-sea-blue-64-...
20	realme 8s 5G (Universe Purple, 128 GB)	13MP + 2MP | 8MP Front Camera	₹19,999	https://www.flipkart.com/realme-8s-5g-universe...
21	realme 8s 5G (Universe Blue, 128 GB)	6000 mAh Lithium Polymer Battery	₹19,999	https://www.flipkart.com/realme-8s-5g-universe...

	brand	des	price	purl
22	realme C21Y (Cross Blue, 32 GB)	Octa Core Processor	₹9,499	https://www.flipkart.com/realme-c21y-cross-blu...
23	POCO C31 (Royal Blue, 64 GB)	One Year for Handset, 6 Months for Accessories	₹9,499	https://www.flipkart.com/poco-c31-royal-blue-6...

5. Write a program to scrap geospatial coordinates (latitude, longitude) of a city searched on google maps.

In [156]:
```
driver.get('https://www.google.com/')
```

In [144]:
```
#s=driver.find_element_by_xpath("//input[@class='gLFyf gsfi']")
#s.send_keys('geographical coordinates')
#src=driver.find_element_by_xpath("//div[@class='wM6W7d']")
#src.click()
```

In [145]:
```
#g=driver.find_element_by_xpath("//h3[@class='LC20lb MBeuO DKV0Md']")
#g.click()
```

In [159]:
```
search=input()
```

```
hyderabad
```

In [160]:
```
search=search+' coordinates'
search
```

Out[160]:
```
'hyderabad coordinates'
```

In [161]:
```
place=s=driver.find_element_by_xpath("//input[@class='gLFyf gsfi']")
place.send_keys(search)
```

In [162]:
```
src=driver.find_element_by_xpath("//div[@class='wM6W7d']")
src.click()
```

In [171]:
```
cor=driver.find_element_by_xpath("//div[@class='Z0LcW']")
c=[]
c.append(cor.text)
c
```

Out[171]:
```
['17.3850° N, 78.4867° E']
```

In [173]:
```
print("Latitude and Logitude of "+search +" is ")
c
```

```
Latitude and Logitude of hyderabad coordinates is
```

Out[173]:
```
['17.3850° N, 78.4867° E']
```

6. Write a program to scrap details of all the funding deals for second quarter (i.e Jan 21 – March 21) from trak.in.

In [174]:
```
driver.get('https://trak.in/')
```

In [175]:
```
f=driver.find_element_by_xpath("//li[@id='menu-item-51510']")
f.click()
```

In [208]:
```
date=[]
d=driver.find_elements_by_xpath("//td[@class='column-2']")
for i in d[5:29]:
    date.append(i.text)
date=date[::-1]
```

In [209]:
```
startup=[]
s=driver.find_elements_by_xpath("//td[@class='column-3']")
for i in s[5:29]:
    startup.append(i.text)
startup=startup[::-1]
```

In [210]:
```
industry=[]
ii=driver.find_elements_by_xpath("//td[@class='column-4']")
for i in ii[5:29]:
    industry.append(i.text)
industry=industry[::-1]
```

In [211]:
```
sub_vertical=[]
su=driver.find_elements_by_xpath("//td[@class='column-5']")
for i in su[5:29]:
    sub_vertical.append(i.text)
sub_vertical=sub_vertical[::-1]
```

In [212]:
```
city=[]
c=driver.find_elements_by_xpath("//td[@class='column-6']")
for i in c[5:29]:
    city.append(i.text)
city=city[::-1]
```

In [213]:
```
inv_name=[]
inn=driver.find_elements_by_xpath("//td[@class='column-7']")
for i in inn[5:29]:
    inv_name.append(i.text)
inv_name=inv_name[::-1]
```

In [214]:
```
inv_type=[]
inty=driver.find_elements_by_xpath("//td[@class='column-8']")
for i in inty[5:29]:
    inv_type.append(i.text)
inv_type=inv_type[::-1]
```

In [215]:
```
amount=[]
a=driver.find_elements_by_xpath("//td[@class='column-9']")
for i in a[5:29]:
    amount.append(i.text)
amount=amount[::-1]
```

In [217]:
```
print("Funding Investment between Jan21-Mar21:")
f_inv=pd.DataFrame({})
f_inv['date']=date
f_inv['startup_name']=startup
f_inv['Industry']=industry
f_inv['Sub_vertical']=sub_vertical
f_inv['City']=city
f_inv['Investor_name']=inv_name
f_inv['Investor_type']=inv_type
f_inv['Amount']=amount
f_inv
```

```
Funding Investment between Jan21-Mar21:
```

Out[217]:

	date	startup_name	Industry	Sub_vertical	City	Investor_name	Investor_type
0	13/01/2021	Saveo	B2B E-commerce	Pharmacies	Bengaluru	Matrix Partners India, RTP Global, others	Seed
1	11/01/2021	True Elements	Food Startup	Whole Food plant based Nashta	Pune	SIDBI Venture Capital	Series
2	18/01/2021	Udayy	EdTech	Online learning platform for kids in class 1-5	Gurgaon	Sequoia Capital	Seed Funding
3	18/01/2021	mfine	Health Tech Startup	AI-powered telemedicine mobile app	Bengaluru	Heritas Capital Management	Venture Round
4	19/01/2021	Darwinbox	SaaS	HR Tech	Mumbai	Salesforce Ventures	Seed
5	19/01/2021	DeHaat	AgriTech Startup	online marketplace for farm products and services	Patna	Prosus Ventures	Series C
6	28/01/2021	Bombay Shaving Company	Consumer Goods Company	Shave care, beard care, and skincare products	New Delhi	Reckitt Benckiser	Venture
7	15/01/2021	Digit Insurance	Financial Services	Insurance Services	Bengaluru	A91 Partners, Faering Capital, TVS Capital Funds	Venture
8	09/02/2021	SplashLearn	EdTech	Game-based learning programme	Gurgaon	Owl Ventures	Series C
9	09/02/2021	Nothing	Technology	Consumer Technology Venture	London	GV	Series A
10	12/02/2021	Grofers	E-Commerce	Online supermarket	Gurgaon	SoftBank Vision Fund (SVF)	Unspecified
11	12/02/2021	Pepperfry	E-commerce	Multi-brand furniture brand	Mumbai	InnoVen Capital	Debt Financing

	date	startup_name	Industry	Sub_vertical	City	Investor_name	Investor_type
12	15/02/2021	KreditBee	Finance	Digital lending platform	Bengaluru	Azim Premji's PremjiInvest and South Korea's M...	Series C
13	17/02/2021	Zolve	FinTech	Global Neobank Venture	Mumbai	Accel Partners and Lightspeed Venture Partners	Seed
14	19/02/2021	Fingerlix	Hospitality	Semi-cooked food delivery app	Mumbai	Rhodium Trust, Accel Partners and Swiggy	Series C
15	22/02/2021	Zomato	Hospitality	Online Food Delivery Platform	Gurgaon	Tiger Global, Kora	Venture
16	11/02/2021	Doubtnut	Edu Tech	E-Learning Platform	Gurgaon	SIG Global, Sequoia Capital, WaterBridge Ventu...	Series B
17	26/03/2021	DotPe	FinTech	Commerce and payments platform to offline ente...	Gurgaon	PayU	Series A
18	25/03/2021	CityMall	E-commerce	Social ecommerce and online grocery platform	Gurgaon	Accel Partners	Series A
19	23/03/2021	SkilloVilla	Edu-tech	Career and job-oriented upskilling.	Bengaluru	Titan Capital, others	Seed
20	30/03/2021	BYJU'S	Edu-tech	Online tutoring	Bengaluru	MC Global Edtech, B Capital, Baron, others	Series F
21	30/03/2021	Dunzo	E-commerce	Hyper-local delivery app	Bengaluru	Krishtal Advisors Pte Ltd	Series E
22	31/03/2021	Uniphore	Technology	Conversational Service Automation (CSA)	Palo Alto	Sorenson Capital Partners	Series D
23	04/03/2021	DealShare	E-commerce	Online shopping platform	Jaipur, Rajasthan	Innoven Capital	Debt Financing

7. Write a program to scrap all the available details of best gaming laptops from digit.in.

In [4]:
```
driver.get('https://www.digit.in/')
```

In [5]:
```
f=driver.find_element_by_xpath("//div[@class='search']")
f.click()
```

In [6]:
```
s=driver.find_element_by_xpath("//input[@id='globalPageSearchText']")
s.send_keys('gaming laptops')
```

In [15]:
```
driver.get('https://www.digit.in/search/?keyword=gaming%20laptops')
```

In [19]:
```
products=[]
p=driver.find_elements_by_xpath("//div[@class='searchProduct-desc']")
for i in p:
    products.append(i.text)
```

In [21]:
```
products[0:2]
```

Out[21]:
```
["ASUS G53J - A 3D gamer's delight but we want more", 'HP Envy 15-k006tx']
```

8. Write a python program to scrape the details for all billionaires from www.forbes.com (http://www.forbes.com). Details to be scrapped: “Rank”, “Name”, “Net worth”, “Age”, “Citizenship”, “Source”, “Industry”.

In [22]:
```
driver.get('https://www.forbes.com/billionaires/')
```

In [24]:
```
rank=[]
r=driver.find_elements_by_xpath("//div[@class='rank']")
for i in r:
    rank.append(i.text)
```

In [25]:
```
name=[]
n=driver.find_elements_by_xpath("//div[@class='personName']")
for i in n:
    name.append(i.text)
name[0:2]
```

Out[25]:
```
['Jeff Bezos', 'Elon Musk']
```

In [26]:
```
net_worth=[]
nn=driver.find_elements_by_xpath("//div[@class='netWorth']")
for i in nn:
    net_worth.append(i.text)
net_worth[0:2]
```

Out[26]:
```
['$177 B', '$151 B']
```

In [28]:
```
age=[]
a=driver.find_elements_by_xpath("//div[@class='age']")
for i in a:
    age.append(i.text)
age[0:2]
```

Out[28]:
```
['57', '49']
```

In [29]:
```
citizenship=[]
c=driver.find_elements_by_xpath("//div[@class='countryOfCitizenship']")
for i in c:
    citizenship.append(i.text)
citizenship[0:2]
```

Out[29]:
```
['United States', 'United States']
```

In [30]:
```
source=[]
s=driver.find_elements_by_xpath("//div[@class='source']")
for i in s:
    source.append(i.text)
source[0:2]
```

Out[30]:
```
['Amazon', 'Tesla, SpaceX']
```

In [31]:
```
industry=[]
ii=driver.find_elements_by_xpath("//div[@class='category']")
for i in ii:
    industry.append(i.text)
industry[0:2]
```

Out[31]:
```
['Technology', 'Automotive']
```

In [32]:
```
bill=pd.DataFrame({})
bill['Rank']=rank[0:10]
bill['Name']=name[0:10]
bill['Net Worth']=net_worth[0:10]
bill['Age']=age[0:10]
bill['Citizenship']=citizenship[0:10]
bill['Souce']=source[0:10]
bill['Industry']=industry[0:10]
bill
```

Out[32]:

	Rank	Name	Net Worth	Age	Citizenship	Souce	Industry
0	1.	Jeff Bezos	$177 B	57	United States	Amazon	Technology
1	2.	Elon Musk	$151 B	49	United States	Tesla, SpaceX	Automotive
2	3.	Bernard Arnault & family	$150 B	72	France	LVMH	Fashion & Retail
3	4.	Bill Gates	$124 B	65	United States	Microsoft	Technology
4	5.	Mark Zuckerberg	$97 B	36	United States	Facebook	Technology
5	6.	Warren Buffett	$96 B	90	United States	Berkshire Hathaway	Finance & Investments
6	7.	Larry Ellison	$93 B	76	United States	software	Technology
7	8.	Larry Page	$91.5 B	48	United States	Google	Technology
8	9.	Sergey Brin	$89 B	47	United States	Google	Technology
9	10.	Mukesh Ambani	$84.5 B	63	India	diversified	Diversified

9. Write a program to extract at least 500 Comments, Comment upvote and time when comment was posted from any YouTube Video.

In [34]:
```
driver.get('https://www.youtube.com/watch?v=S50SYJbyXY4')
```

In [52]:
```
comments=[]
c=driver.find_elements_by_xpath("//yt-formatted-string[@id='content-text']")
for i in c[0:500]:
    comments.append(i.text)
comments[0:2]
```

Out[52]:
```
['This holiday choreography was smooth as butter',
 'От  BTS  исходит только позитив и много энергии ']
```

In [53]:
```
commentsupvote=[]
try:
    cc=driver.find_elements_by_xpath("//span[@id='vote-count-middle']")
    for i in cc[0:500]:
        commentsupvote.append(i.text)
except:
    commentsupvote.append('-')
commentsupvote[0:2]
```

Out[53]:
```
['11K', '72']
```

In [55]:
```
posted=[]
t=driver.find_elements_by_xpath("//yt-formatted-string[@class='published-time-tex
for i in t[0:500]:
    posted.append(i.text)
posted[0:2]
```

Out[55]:
```
['21 hours ago', '2 hours ago']
```

In [56]:
```
print(len(comments),len(commentsupvote),len(posted))
```

```
500 500 500
```

10. Write a python program to scrape a data for all available Hostels from https://www.hostelworld.com/ (https://www.hostelworld.com/) in “London” location. You have to scrape hostel name, distance from city centre, ratings, total reviews, overall reviews, privates from price, dorms from price, facilities and property description.

In [58]:
```
driver.get('https://www.hostelworld.com/')
```

In [59]:
```
driver.find_element_by_xpath("//input[@id='search-input-field']").send_keys('Lond
```

In [60]:
```
driver.find_element_by_xpath("//button[@id='search-button']").click()
```

In [62]:
```
hostel_name=[]
h=driver.find_elements_by_xpath("//h2[@class='title title-6']")
for i in h:
    hostel_name.append(i.text)
hostel_name[0:2]
```

Out[62]:
```
['Mornington Camden', 'Smart Russell Square Hostel']
```

In [63]:
```
dist=[]
d=driver.find_elements_by_xpath("//span[@class='description']")
for i in d:
    dist.append(i.text)
dist[0:2]
```

Out[63]:
```
['Hostel - 4.1km from city centre', 'Hostel - 2.6km from city centre']
```

In [64]:
```
ratings=[]
r=driver.find_elements_by_xpath("//div[@class='score orange big']")
for i in r:
    ratings.append(i.text)
ratings[0:2]
```

Out[64]:
```
['8.3', '6.6']
```

In [65]:
```
total_reviews=[]
t=driver.find_elements_by_xpath("//div[@class='reviews']")
for i in t:
    total_reviews.append(i.text)
total_reviews[0:2]
```

Out[65]:
```
['44 Total Reviews', '9558 Total Reviews']
```

In [66]:
```
overall_reviews=[]
o=driver.find_elements_by_xpath("//div[@class='keyword']")
for i in o:
    overall_reviews.append(i.text)
overall_reviews[0:2]
```

Out[66]:
```
['Superb', 'Fabulous']
```

In [75]:
```
prices=[]
privates=[]
dorm=[]
p=driver.find_elements_by_xpath("//a[@class='prices']")
for i in p[3:]:
    prices.append(i.text)
for i in range(0,len(prices)-1,2):
    privates.append(prices[i])
    dorm.append(prices[i+1])
```

In [85]:
```
facilities=[]
f=driver.find_elements_by_xpath("//div[@class='facilities-label facilities']")
for i in f:
    facilities.append(i.text)
facilities[0:2]
```

Out[85]:
```
['Free WiFi', 'Free WiFi\nFollows Covid-19 sanitation guidance']
```

In [86]:
```
props=[]
p=driver.find_elements_by_xpath("//div[@class='rating-factors prop-card-tablet ra
for i in p:
    props.append(i.text)
props[0:2]
```

Out[86]:
```
['Perfect Location\nSuperb Staff\nFantastic Cleanliness',
 'Perfect Location\nBrilliant Staff\nAwesome Cleanliness']
```