

```
In [55]: import selenium
import pandas as pd
from selenium import webdriver
import warnings
warnings.filterwarnings('ignore')
from selenium.webdriver.common.by import By
import time
from selenium.webdriver.support.ui import WebDriverWait
from selenium.webdriver.support import expected_conditions as EC
from selenium.common.exceptions import StaleElementReferenceException
import requests
from bs4 import BeautifulSoup
import pandas as pd
```

Write a python program to search for a smartphone(e.g.: Oneplus Nord, pixel 4A, etc.) on 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

```
In [12]: driver = webdriver.Chrome()
```

```
In [14]: driver.get('https://www.flipkart.com/')
```

```
In [15]: mobiles = driver.find_element(By.CLASS_NAME, "Pke_EE")
mobiles.send_keys('smartphones')
```

```
In [16]: search = driver.find_element(By.CLASS_NAME, "_2iLD__")
search.click()
```

```
In [17]: Brand_Name=[]
Colour=[]
Storage_RAM_ROM=[]
P_F_Camera=[]
Display_size_Resolution=[]
ProcessorAndCores=[]
Battery=[]
Price=[]
Product_URL=[]
```

```
In [19]: BName = driver.find_elements(By.XPATH, "//*[@class='_4rR01T']")
for i in BName:
    if i.text is None :
        Brand_Name.append("--")
    else:
        Brand_Name.append(i.text)
print(len(Brand_Name), Brand_Name)
```

```
24 ['MOTOROLA G32 (Mineral Gray, 128 GB)', 'SAMSUNG Galaxy F04 (Opal Green, 64 GB)', 'MOTOROLA Edge 40 Neo (Black Beauty, 256 GB)', 'MOTOROLA g84 5G (Viva Magneta, 256 GB)', 'MOTOROLA Edge 40 Neo (Caneel Bay, 256 GB)', 'MOTOROLA e13 (Aurora Green, 128 GB)', 'OnePlus Nord CE 2 Lite 5G (Blue Tide, 128 GB)', 'MOTOROLA Edge 40 Neo (Black Beauty, 128 GB)', 'Infinix SMART 7 (Azure Blue, 64 GB)', 'POCO M5 (Icy Blue, 64 GB)', 'SAMSUNG Galaxy F13 (Waterfall Blue, 64 GB)', 'MOTOROLA e13 (Aurora Green, 64 GB)', 'Infinix SMART 7 (Emerald Green, 64 GB)', 'Infinix SMART 7 (Night Black, 64 GB)', 'Infinix SMART 7 (Azure Blue, 128 GB)', 'Infinix SMART 7 (Night Black, 128 GB)', 'Infinix SMART 7 (Emerald Green, 128 GB)', 'MOTOROLA G32 (Satin Silver, 128 GB)', 'SAMSUNG Galaxy F04 (Jade Purple, 64 GB)', 'MOTOROLA Edge 40 Neo (Caneel Bay, 128 GB)', 'MOTOROLA g84 5G (Marshmallow Blue, 256 GB)', 'MOTOROLA Edge 40 Neo (Soothing Sea, 256 GB)', 'SAMSUNG Galaxy F13 (Sunrise Copper, 64 GB)', 'OnePlus Nord CE 2 Lite 5G (Black Dusk, 128 GB)']
```

```
In [20]: ram=driver.find_elements(By.XPATH,"//ul[@class='_1xgFaf']//li[1]")
for i in ram:
    if i.text is None :
        Storage_RAM_ROM.append("--")
    else:
        Storage_RAM_ROM.append(i.text)
print(len(Storage_RAM_ROM),Storage_RAM_ROM)
```

```
24 ['8 GB RAM | 128 GB ROM', '4 GB RAM | 64 GB ROM | Expandable Upto 1 TB', '12 GB RAM | 256 GB ROM', '12 GB RAM | 256 GB ROM', '12 GB RAM | 256 GB ROM', '8 GB RAM | 128 GB ROM | Expandable Upto 1 TB', '6 GB RAM | 128 GB ROM', '8 GB RAM | 128 GB ROM', '4 GB RAM | 64 GB ROM | Expandable Upto 2 TB', '4 GB RAM | 64 GB ROM | Expandable Upto 512 GB', '4 GB RAM | 64 GB ROM | Expandable Upto 1 TB', '4 GB RAM | 64 GB ROM | Expandable Upto 1 TB', '4 GB RAM | 64 GB ROM | Expandable Upto 2 TB', '4 GB RAM | 64 GB ROM | Expandable Upto 2 TB', '4 GB RAM | 128 GB ROM | Expandable Upto 512 GB', '4 GB RAM | 128 GB ROM | Expandable Upto 512 GB', '4 GB RAM | 128 GB ROM | Expandable Upto 512 GB', '8 GB RAM | 128 GB ROM', '4 GB RAM | 64 GB ROM | Expandable Upto 1 TB', '8 GB RAM | 128 GB ROM', '12 GB RAM | 256 GB ROM', '12 GB RAM | 256 GB ROM', '4 GB RAM | 64 GB ROM | Expandable Upto 1 TB', '6 GB RAM | 128 GB ROM']
```

```
In [21]: #scraping the P_F Camera
PC=driver.find_elements(By.XPATH,"//ul[@class='_1xgFaf']//li[3]")
for i in PC:
    if i.text is None :
        P_F_Camera.append("--")
    else:
        P_F_Camera.append(i.text)
print(len(P_F_Camera),P_F_Camera)
```

```
24 ['50MP + 8MP + 2MP | 16MP Front Camera', '13MP + 2MP | 5MP Front Camera', '50MP + 13MP | 32MP Front Camera', '50MP (OIS) + 8MP | 16MP Front Camera', '50MP + 13MP | 32MP Front Camera', '13MP Rear Camera | 5MP Front Camera', '64MP Rear Camera | 16MP Front Camera', '50MP + 13MP | 32MP Front Camera', '13MP + AI Lens | 5MP Front Camera', '50MP + 2MP Depth Sensor + 2MP Macro Sensor | 8MP Front Camera', '50MP + 5MP + 2MP | 8MP Front Camera', '13MP Rear Camera | 5MP Front Camera', '13MP + AI Lens | 5MP Front Camera', '13MP + AI Lens | 5MP Front Camera', '13MP + AI Lens | 5MP Front Camera', '13MP + AI Lens | 5MP Front Camera', '50MP + 8MP + 2MP | 16MP Front Camera', '13MP + 2MP | 5MP Front Camera', '50MP + 13MP | 32MP Front Camera', '50MP (OIS) + 8MP | 16MP Front Camera', '50MP + 13MP | 32MP Front Camera', '50MP + 5MP + 2MP | 8MP Front Camera', '64MP Rear Camera | 16MP Front Camera']
```

```
In [24]: #scraping the Display_size_Resolution
DS=driver.find_elements(By.XPATH,"//ul[@class='_1xgFaf']//li[2]")
for i in DS:
    if i.text is None :
        Display_size_Resolution.append("--")
    else:
        Display_size_Resolution.append(i.text)
print(len(Display_size_Resolution),Display_size_Resolution)
```

```
24 ['16.51 cm (6.5 inch) Full HD+ Display', '16.51 cm (6.5 inch) HD Display', '16.64 cm (6.55 inch) Full HD+ Display', '16.64 cm (6.55 inch) Full HD+ Display', '16.64 cm (6.55 inch) Full HD+ Display', '16.51 cm (6.5 inch) HD+ Display', '16.74 cm (6.59 inch) Display', '16.64 cm (6.55 inch) Full HD+ Display', '16.76 cm (6.6 inch) HD+ Display', '16.71 cm (6.58 inch) Full HD+ Display', '16.76 cm (6.6 inch) Full HD+ Display', '16.51 cm (6.5 inch) HD+ Display', '16.76 cm (6.6 inch) HD+ Display', '16.76 cm (6.6 inch) HD+ Display', '16.76 cm (6.6 inch) HD+ Display', '16.76 cm (6.6 inch) HD+ Display', '16.51 cm (6.5 inch) Full HD+ Display', '16.51 cm (6.5 inch) HD Display', '16.64 cm (6.55 inch) Full HD+ Display', '16.64 cm (6.55 inch) Full HD+ Display', '16.64 cm (6.55 inch) Full HD+ Display', '16.76 cm (6.6 inch) Full HD+ Display', '16.74 cm (6.59 inch) Display']
```

```
In [26]: #scraping the ProcessorAndCores
P=driver.find_elements(By.XPATH,"//ul[@class='_1xgFaf']//li[5]")
for i in P:
```

```

        if i.text is None :
            ProcessorAndCores.append("--")
        else:
            ProcessorAndCores.append(i.text)
print(len(ProcessorAndCores),ProcessorAndCores)

```

```

24 ['Qualcomm Snapdragon 680 Processor', 'Mediatek Helio P35 Processor', 'Dimensity 7030 Processor', 'Snapdragon 695 Processor', 'Dimensity 7030 Processor', 'Unisoc T606 Processor', '12 Months', 'Dimensity 7030 Processor', 'Unisoc Spreadtrum SC9863A1 Processor', 'Mediatek Helio G99 Processor', 'Exynos 850 Processor', 'Unisoc T606 Processor', 'Unisoc Spreadtrum SC9863A1 Processor', 'Unisoc Spreadtrum SC9863A1 Processor', 'Unisoc Spreadtrum SC9863A1 Processor', 'Unisoc Spreadtrum SC9863A1 Processor', 'Qualcomm Snapdragon 680 Processor', 'Mediatek Helio P35 Processor', 'Dimensity 7030 Processor', 'Snapdragon 695 Processor', 'Dimensity 7030 Processor', 'Exynos 850 Processor', '12 months']

```

```

In [27]: #scraping the Battery
B=driver.find_elements(By.XPATH,"//ul[@class='_1xgFaf']//li[4]")
for i in B:
    if i.text is None :
        Battery.append("--")
    else:
        Battery.append(i.text)
print(len(Battery),Battery)

```

```

24 ['5000 mAh Lithium Polymer Battery', '5000 mAh Lithium-Ion Battery', '5000 mAh Battery', '5000 mAh Battery', '5000 mAh Battery', '5000 mAh Battery', '5000 mAh Battery', '6000 mAh Battery', '5000 mAh Lithium-ion Polymer Battery', '6000 mAh Lithium Ion Battery', '5000 mAh Battery', '6000 mAh Battery', '6000 mAh Battery', '6000 mAh Battery', '6000 mAh Battery', '5000 mAh Lithium Polymer Battery', '5000 mAh Lithium-Ion Battery', '5000 mAh Battery', '5000 mAh Battery', '5000 mAh Battery', '6000 mAh Lithium Ion Battery', '5000 mAh Battery']

```

```

In [28]: #scraping the Price
price=driver.find_elements(By.XPATH,"//div[@class='_30jeq3 _1_WHN1']")
for i in price:
    if i.text is None :
        Price.append("--")
    else:
        Price.append(i.text)
print(len(Price),Price)

```

```

24 ['₹9,999', '₹6,499', '₹22,999', '₹17,999', '₹22,999', '₹7,499', '₹17,079', '₹20,999', '₹6,699', '₹7,777', '₹9,199', '₹6,499', '₹6,699', '₹6,699', '₹6,799', '₹6,799', '₹6,799', '₹9,999', '₹6,499', '₹20,999', '₹17,999', '₹22,999', '₹9,199', '₹16,976']

```

```

In [29]: FlipKart=pd.DataFrame([])
FlipKart['Brand_Name']=Brand_Name
FlipKart['Storage_RAM_ROM']=Storage_RAM_ROM
FlipKart['Amount_P_F_Camera']=P_F_Camera
FlipKart['Display_size_Resolution']=Display_size_Resolution
FlipKart['ProcessorAndCores']=ProcessorAndCores
FlipKart['Battery']=Battery
FlipKart['Price']=Price

FlipKart

```

Out[29]:

	Brand_Name	Storage_RAM_ROM	Amount_P_F_Camera	Display_size_Resolution	ProcessorAndCores	Battery	Price
0	MOTOROLA G32 (Mineral Gray, 128 GB)	8 GB RAM 128 GB ROM	50MP + 8MP + 2MP 16MP Front Camera	16.51 cm (6.5 inch) Full HD+ Display	Qualcomm Snapdragon 680 Processor	5000 mAh Lithium Polymer Battery	₹9,999
1	SAMSUNG	4 GB RAM 64 GB	13MP +	16.51 cm (6.5 inch) HD	Mediatek Helio P35	5000	₹6,499

	Galaxy F04 (Opal Green, 64 GB)	ROM Expandable Upto 1 TB	2MP 5MP Front Camera	Display	Processor	mAh Lithium-Ion Battery	
2	MOTOROLA Edge 40 Neo (Black Beauty, 256 GB)	12 GB RAM 256 GB ROM	50MP + 13MP 32MP Front Camera	16.64 cm (6.55 inch) Full HD+ Display	Dimensity 7030 Processor	5000 mAh Battery	₹22,999
3	MOTOROLA g84 5G (Viva Magneta, 256 GB)	12 GB RAM 256 GB ROM	50MP (OIS) + 8MP 16MP Front Camera	16.64 cm (6.55 inch) Full HD+ Display	Snapdragon 695 Processor	5000 mAh Battery	₹17,999
4	MOTOROLA Edge 40 Neo (Caneel Bay, 256 GB)	12 GB RAM 256 GB ROM	50MP + 13MP 32MP Front Camera	16.64 cm (6.55 inch) Full HD+ Display	Dimensity 7030 Processor	5000 mAh Battery	₹22,999
5	MOTOROLA e13 (Aurora Green, 128 GB)	8 GB RAM 128 GB ROM Expandable Upto 1 TB	13MP Rear Camera 5MP Front Camera	16.51 cm (6.5 inch) HD+ Display	Unisoc T606 Processor	5000 mAh Battery	₹7,499
6	OnePlus Nord CE 2 Lite 5G (Blue Tide, 128 GB)	6 GB RAM 128 GB ROM	64MP Rear Camera 16MP Front Camera	16.74 cm (6.59 inch) Display	12 Months	5000 mAh Battery	₹17,079
7	MOTOROLA Edge 40 Neo (Black Beauty, 128 GB)	8 GB RAM 128 GB ROM	50MP + 13MP 32MP Front Camera	16.64 cm (6.55 inch) Full HD+ Display	Dimensity 7030 Processor	5000 mAh Battery	₹20,999
8	Infinix SMART 7 (Azure Blue, 64 GB)	4 GB RAM 64 GB ROM Expandable Upto 2 TB	13MP + AI Lens 5MP Front Camera	16.76 cm (6.6 inch) HD+ Display	Unisoc Spreadtrum SC9863A1 Processor	6000 mAh Battery	₹6,699
9	POCO M5 (Icy Blue, 64 GB)	4 GB RAM 64 GB ROM Expandable Upto 512 GB	50MP + 2MP Depth Sensor + 2MP Macro Sensor 8...	16.71 cm (6.58 inch) Full HD+ Display	Mediatek Helio G99 Processor	5000 mAh Lithium-ion Polymer Battery	₹7,777
10	SAMSUNG Galaxy F13 (Waterfall Blue, 64 GB)	4 GB RAM 64 GB ROM Expandable Upto 1 TB	50MP + 5MP + 2MP 8MP Front Camera	16.76 cm (6.6 inch) Full HD+ Display	Exynos 850 Processor	6000 mAh Lithium Ion Battery	₹9,199
11	MOTOROLA e13 (Aurora Green, 64 GB)	4 GB RAM 64 GB ROM Expandable Upto 1 TB	13MP Rear Camera 5MP Front Camera	16.51 cm (6.5 inch) HD+ Display	Unisoc T606 Processor	5000 mAh Battery	₹6,499
12	Infinix SMART 7 (Emerald Green, 64 GB)	4 GB RAM 64 GB ROM Expandable Upto 2 TB	13MP + AI Lens 5MP Front Camera	16.76 cm (6.6 inch) HD+ Display	Unisoc Spreadtrum SC9863A1 Processor	6000 mAh Battery	₹6,699
13	Infinix SMART 7 (Night Black, 64 GB)	4 GB RAM 64 GB ROM Expandable Upto 2 TB	13MP + AI Lens 5MP Front Camera	16.76 cm (6.6 inch) HD+ Display	Unisoc Spreadtrum SC9863A1 Processor	6000 mAh Battery	₹6,699
14	Infinix SMART	4 GB RAM 128 GB	13MP + AI	16.76 cm (6.6 inch) HD+	Unisoc Spreadtrum	6000	₹6,799

	7 (Azure Blue, 128 GB)	ROM Expandable Upto 512 GB	Lens 5MP Front Camera	Display	SC9863A1 Processor	mAh Battery	
15	Infinix SMART 7 (Night Black, 128 GB)	4 GB RAM 128 GB ROM Expandable Upto 512 GB	13MP + AI Lens 5MP Front Camera	16.76 cm (6.6 inch) HD+ Display	Unisoc Spreadtrum SC9863A1 Processor	6000 mAh Battery	₹6,799
16	Infinix SMART 7 (Emerald Green, 128 GB)	4 GB RAM 128 GB ROM Expandable Upto 512 GB	13MP + AI Lens 5MP Front Camera	16.76 cm (6.6 inch) HD+ Display	Unisoc Spreadtrum SC9863A1 Processor	6000 mAh Battery	₹6,799
17	MOTOROLA G32 (Satin Silver, 128 GB)	8 GB RAM 128 GB ROM	50MP + 8MP + 2MP 16MP Front Camera	16.51 cm (6.5 inch) Full HD+ Display	Qualcomm Snapdragon 680 Processor	5000 mAh Lithium Polymer Battery	₹9,999
18	SAMSUNG Galaxy F04 (Jade Purple, 64 GB)	4 GB RAM 64 GB ROM Expandable Upto 1 TB	13MP + 2MP 5MP Front Camera	16.51 cm (6.5 inch) HD Display	Mediatek Helio P35 Processor	5000 mAh Lithium-Ion Battery	₹6,499
19	MOTOROLA Edge 40 Neo (Caneel Bay, 128 GB)	8 GB RAM 128 GB ROM	50MP + 13MP 32MP Front Camera	16.64 cm (6.55 inch) Full HD+ Display	Dimensity 7030 Processor	5000 mAh Battery	₹20,999
20	MOTOROLA g84 5G (Marshmallow Blue, 256 GB)	12 GB RAM 256 GB ROM	50MP (OIS) + 8MP 16MP Front Camera	16.64 cm (6.55 inch) Full HD+ Display	Snapdragon 695 Processor	5000 mAh Battery	₹17,999
21	MOTOROLA Edge 40 Neo (Soothing Sea, 256 GB)	12 GB RAM 256 GB ROM	50MP + 13MP 32MP Front Camera	16.64 cm (6.55 inch) Full HD+ Display	Dimensity 7030 Processor	5000 mAh Battery	₹22,999
22	SAMSUNG Galaxy F13 (Sunrise Copper, 64 GB)	4 GB RAM 64 GB ROM Expandable Upto 1 TB	50MP + 5MP + 2MP 8MP Front Camera	16.76 cm (6.6 inch) Full HD+ Display	Exynos 850 Processor	6000 mAh Lithium Ion Battery	₹9,199
23	OnePlus Nord CE 2 Lite 5G (Black Dusk, 128 GB)	6 GB RAM 128 GB ROM	64MP Rear Camera 16MP Front Camera	16.74 cm (6.59 inch) Display	12 months	5000 mAh Battery	₹16,976

```

In [33]: # opening google maps
driver.get("https://www.google.co.in/maps")
time.sleep(3)

city = input('Enter City Name : ') # Enter city
search = driver.find_element(By.ID,"searchboxinput") # locating se
search.clear() # clearing se
time.sleep(2)
search.send_keys(city) # entering va
button = driver.find_element(By.ID,"searchbox-searchbutton") # locating se
button.click() # clicking se
time.sleep(3)

try:
    url_string = driver.current_url

```

```

print("URL Extracted: ", url_string)
lat_lng = re.findall(r'@(.*?)data',url_string)
if len(lat_lng):
    lat_lng_list = lat_lng[0].split(",")
    if len(lat_lng_list)>=2:
        lat = lat_lng_list[0]
        lng = lat_lng_list[1]
        print("Latitude = {}, Longitude = {}".format(lat, lng))

except Exception as e:
    print("Error: ", str(e))

```

Enter City Name : Nagpur

URL Extracted: <https://www.google.co.in/maps/place/Nagpur,+Maharashtra/@23.7862912,86.3961088,14z/data=!4m6!3m5!1s0x3bd4c0a5a31faf13:0x19b37d06d0bb3e2b!8m2!3d21.1458004!4d79.0881546!16zL20vMDJjOTht?entry=ttu>
Error: name 're' is not defined

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

```

In [47]: url=("https://www.digit.in/top-products/best-gaming-laptops-40.html")
driver.get(url)

```

```

In [44]: Brands=[]
Products_Description=[]
Specification=[]
Price=[]

```

```

In [50]: Brands=[]
product_discription=[]

```

```

In [48]: BName=driver.find_elements(By.XPATH,"//div[@class='woocommerce']/h3")
for i in BName:
    if i.text is None :
        Brands.append("--")
    else:
        Brands.append(i.text)
print(len(Brands),Brands)

```

```

7 ['HP Omen 17-ck2008TX 13th Gen Core i7-13700HX', 'MSI GT77 Titan 12UHS-054IN 12th Gen
Core i9-12900HX', 'Lenovo Legion 5i Pro 12th Gen Core i7-12700H (82RF00E1IN)', 'ASUS ROG
Strix Scar 18 G834JZ-N5041WS 13th Gen Core i9-13980HX', 'Acer Predator Helios Neo 16 13t
h Gen Core i7-13700HX (PHN16-71)', 'ASUS ROG Zephyrus G14 Ryzen 9-6900HS (GA402RJZ-L4136
WS)', 'MSI Cyborg 15 12th Gen Core i7-12650H (A12VF-205IN)']

```

```

In [52]: pd=driver.find_elements(By.XPATH,"//div[@class='woo_code_zone_loop clearfix']")
for i in pd:
    if i.text is None:
        product_discription.append("--")
    else:
        product_discription.append(i.text)
print(len(product_discription),product_discription)

```

```

7 ['Operating System:\nWindows 11 Home\nDisplay Size :\n17.3\nResolution :\n2560 x 1440
\nProcessor :\n13th Gen Intel Core i7-13700HX', '', 'Operating System:\nWindows 11 Home
\nDisplay Size :\n16\nResolution :\n2560 x 1600\nProcessor :\n12th Gen Intel Core i7-127
00H', '', 'Operating System:\nWindows 11 Home\nDisplay Size :\n16\nResolution :\n2560 x
1600\nProcessor :\n13th Gen Intel Core i7-13700HX', '', '']

```

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 [56]: driver = webdriver.Chrome()

```

```
driver.get("https://images.google.com/")
```

```
search_bar = driver.find_element(By.XPATH, '/html/body/div[1]/div[3]/form/div[1]/div[1]/div[1]/input')
search_bar.send_keys("fruits")
```

```
search_button = driver.find_element(By.XPATH, '//div[@class="zgAlFc"]') # Finding the
search_button.click()
```

```
print("start scrolling to generate more images on the page...")
# 500 time we scroll down by 10000 in order to generate more images on the website
for _ in range(500):
    driver.execute_script("window.scrollTo(0,10000)")
```

start scrolling to generate more images on the page...

```
url = driver.find_elements(By.XPATH, '//a[@class="iGVLPd kQAp BqKtob lNHeqe"]')
url[0:10]
```

```
<selenium.webdriver.remote.webelement.WebElement (session="9914c6016dc98b36597a9dc9131d
cdb3", element="C6AFDDF51F604CA708E584072CFE724A_element_438")>,
<selenium.webdriver.remote.webelement.WebElement (session="9914c6016dc98b36597a9dc9131d
cdb3", element="C6AFDDF51F604CA708E584072CFE724A_element_442")>,
<selenium.webdriver.remote.webelement.WebElement (session="9914c6016dc98b36597a9dc9131d
cdb3", element="C6AFDDF51F604CA708E584072CFE724A_element_446")>,
<selenium.webdriver.remote.webelement.WebElement (session="9914c6016dc98b36597a9dc9131d
cdb3", element="C6AFDDF51F604CA708E584072CFE724A_element_451")>,
<selenium.webdriver.remote.webelement.WebElement (session="9914c6016dc98b36597a9dc9131d
cdb3", element="C6AFDDF51F604CA708E584072CFE724A_element_455")>,
<selenium.webdriver.remote.webelement.WebElement (session="9914c6016dc98b36597a9dc9131d
cdb3", element="C6AFDDF51F604CA708E584072CFE724A_element_595")>,
<selenium.webdriver.remote.webelement.WebElement (session="9914c6016dc98b36597a9dc9131d
cdb3", element="C6AFDDF51F604CA708E584072CFE724A_element_599")>,
<selenium.webdriver.remote.webelement.WebElement (session="9914c6016dc98b36597a9dc9131d
cdb3", element="C6AFDDF51F604CA708E584072CFE724A_element_603")>,
<selenium.webdriver.remote.webelement.WebElement (session="9914c6016dc98b36597a9dc9131d
cdb3", element="C6AFDDF51F604CA708E584072CFE724A_element_484")>,
<selenium.webdriver.remote.webelement.WebElement (session="9914c6016dc98b36597a9dc9131d
cdb3", element="C6AFDDF51F604CA708E584072CFE724A_element_485")>]
```

```
for i in url[0:10]:
    print(i.get_attribute('href'))
```

<https://www.geeksforgeeks.org/list-of-all-fruits-names-in-english/>
<https://www.healthyeating.org/nutrition-topics/general/food-groups/fruits>
<https://englishstudyonline.org/list-of-fruits/>
<https://www.amazon.in/Fruits-All-One-Dreamland-Publications/dp/8184510594>
<https://onlymyenglish.com/fruits-name-english/>
<https://www.vecteezy.com/vector-art/6521988-colorful-simple-fruit-drawing-perfect-for-children-s-illustration-and-teaching>
<https://byjus.com/english/fruits-names/>
<https://in.pinterest.com/pin/50-fruit-names-list--762445411927228365/>
<https://www.medicalnewstoday.com/articles/325253>
<https://www.memozor.com/memory-games/printable-memory-games/for-kids/fruits>

```
search_bar = driver.find_element(By.XPATH, '/html/body/c-wiz/c-wiz/div/div[3]/div[2]/div/
search_bar.send_keys("cars")
```

```
search_button = driver.find_element(By.XPATH, '//div[@class="XZ5MVe"]') # Finding the
search_button.click()
```

```
url = driver.find_elements(By.XPATH, '//a[@class="iGVLpd kQAp BqKtob lNHeqe"]')
url[0:10]
```

```
[<selenium.webdriver.remote.webelement.WebElement (session="9914c6016dc98b36597a9dc9131d
```



```
Out[82]: cdb3", element="0BC841D92141E410276FD0BD1D4FFB4A_element_2045")>,
<selenium.webdriver.remote.webelement.WebElement (session="9914c6016dc98b36597a9dc9131d
cdb3", element="0BC841D92141E410276FD0BD1D4FFB4A_element_2051")>,
<selenium.webdriver.remote.webelement.WebElement (session="9914c6016dc98b36597a9dc9131d
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cdb3", element="0BC841D92141E410276FD0BD1D4FFB4A_element_2053")>,
<selenium.webdriver.remote.webelement.WebElement (session="9914c6016dc98b36597a9dc9131d
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<selenium.webdriver.remote.webelement.WebElement (session="9914c6016dc98b36597a9dc9131d
cdb3", element="0BC841D92141E410276FD0BD1D4FFB4A_element_2055")>,
<selenium.webdriver.remote.webelement.WebElement (session="9914c6016dc98b36597a9dc9131d
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<selenium.webdriver.remote.webelement.WebElement (session="9914c6016dc98b36597a9dc9131d
cdb3", element="0BC841D92141E410276FD0BD1D4FFB4A_element_2057")>,
<selenium.webdriver.remote.webelement.WebElement (session="9914c6016dc98b36597a9dc9131d
cdb3", element="0BC841D92141E410276FD0BD1D4FFB4A_element_2058")>,
<selenium.webdriver.remote.webelement.WebElement (session="9914c6016dc98b36597a9dc9131d
cdb3", element="0BC841D92141E410276FD0BD1D4FFB4A_element_2059")>]
```

```
In [83]: for i in url[0:10]:
        print(i.get_attribute('href'))
```

```
https://www.google.com/url?sa=i&url=https%3A%2F%2Fwww.forbes.com%2Fsites%2Fjimgorzelay%
2F2019%2F07%2F23%2Fhere-are-the-coolest-new-cars-for-2020%2F&psig=AOvVaw1WHiFUFzKhkrnySM
09dH_V&ust=1696325814968000&source=images&cd=vfe&opi=89978449&ved=2ahUKEwiJ_qGeiNeBAxXtv
2MGHam4BVcQr4kDegQIARBs
https://www.carwow.co.uk/best/best-supercars
https://www.roadandtrack.com/car-culture/g6404/nine-of-the-greatest-modern-v10-cars/
https://english.alarabiya.net/variety/2023/04/12/Bugatti-to-Rolls-Royce-5-of-the-most-ex
pensive-cars-in-the-world
https://theprint.in/opinion/dashboard/indias-appetite-for-luxury-cars-is-entering-the-fa
st-lane-mercedes-benz-audi-bmw-gearing-up/1304087/
https://www.motor1.com/features/308149/most-expensive-new-cars-ever/
https://www.cardekho.com/new-coupe+cars
https://www.zee5.com/articles/top-5-fastest-cars-in-the-world-right-now
https://www.autocarindia.com/cars/hyundai
https://www.cardekho.com/cars/Mercedes-Benz
```

```
In [84]: driver.get('https://www.amazon.in/')
```

```
In [85]: inputU = input('please enter product here--->')
```

```
please enter product here--->headphones
```

```
In [87]: search_bar = driver.find_element(By.XPATH, '//*[@id="twotabsearchtextbox"]') # Finding
search_bar.send_keys(inputU) # Inputting keyword to search
search_button = driver.find_element(By.XPATH, '//*[@id="nav-search-submit-button"]') #
search_button.click() # Clicking the search button
```

```
In [88]: productName=[]
```

```
In [90]: PName=driver.find_elements(By.XPATH, "//*[@class='a-size-medium a-color-base a-text-no
for i in PName:
    if i.text is None :
        productName.append("--")
    else:
        productName.append(i.text)
print(len(productName),productName)
```

```
24 ['boAt Nirvana 751 ANC Hybrid Active Noise Cancelling Bluetooth Wireless Over Ear Hea
dphones with Up to 65H Playtime, ASAP Charge, Ambient Sound Mode, Immersive Sound, Carry
Pouch(Gunmetal Grey)', "KEJBYKEJ® India's 1st & Only Studio headphone brand created by a
Grammy® winning artist | AV900 ANC | Beige Color | Designed by 3X Grammy® Award winner R
icky Kej | 20 hours of Playtime| Android or iOS", 'boAt Rockerz 450 Bluetooth On Ear Hea
```


phones with Mic, Upto 15 Hours Playback, 40MM Drivers, Padded Ear Cushions, Integrated Controls and Dual Modes(Luscious Black)', 'boAt Rockerz 400 Bluetooth On Ear Headphones With Mic With Upto 8 Hours Playback & Soft Padded Ear Cushions(Grey/Green)', 'boAt Rockerz 450 Bluetooth On Ear Headphones with Mic, Upto 15 Hours Playback, 40MM Drivers, Padded Ear Cushions, Integrated Controls and Dual Modes(Aqua Blue)', 'EDYELL C6 Bluetooth Earphones Wireless Neckband Earphone in Ear, 100Hrs Playtime with Type-C Quick Charge, Magnetic, v5.3 Bluetooth Headphones with Mic, 10mm Drivers, IPX5 Waterproof Neckband', 'Zebronics Zeb-Thunder Bluetooth Wireless Over Ear Headphone FM, mSD, 9 hrs Playback with Mic (Black)', 'boAt Rockerz 370 On Ear Bluetooth Headphones with Upto 12 Hours Playtime, Cozy Padded Earcups and Bluetooth v5.0, with Mic (Buoyant Black)', 'Logitech H111 Wired On Ear Headphones With Mic Black', 'PTron Pride Lite HBE (High Bass Earphones) in Ear Wired Earphones with Mic, 10mm Powerful Driver for Stereo Audio, Noise Cancelling Headset with 1.2m Tangle-Free Cable & 3.5mm Aux - (Blue)', 'ZEBSTER Z -Aura Over The Ear Headphones with Foldable Design and Bluetooth v4.1 Headphones', 'PTron Tangent Duo Bluetooth 5.2 Wireless in-Ear Headphones, 13mm Driver, Deep Bass, HD Calls, Fast Charging Type-C Wireless Neckband, Dual Pairing, Voice Assistant & IPX4 Water Resistant (Red/Black)', 'ZEBRONICS Zeb-Bang Pro Bluetooth Wireless On Ear Headphones with Mic V5.0, 30H Backup, Foldable, Call Function, Voice Assistant, Built-in Rechargeable Battery, Type C, 40Mm Driver and Aux (Orange)', 'JBL C100SI Wired In Ear Headphones with Mic, JBL Pure Bass Sound, One Button Multi-function Remote, Angled Buds for Comfort fit (Black)', 'JBL Tune 510BT, On Ear Wireless Headphones with Mic, up to 40 Hours Playtime, Pure Bass, Quick Charging, Dual Pairing, Bluetooth 5.0 & Voice Assistant Support for Mobile Phones (Black)', 'Zebronics Zeb-Bang Foldable Wireless BT Headphone Comes with 40mm Drivers, AUX Connectivity, Call Function, 16Hrs* Playback time & Supports Voice Assistant (Green)', 'boAt Rockerz 558 Bluetooth Wireless Over Ear Headphones with Mic Upto 20 Hours Playback, 50MM Drivers, Soft Padded Ear Cushions and Physical Noise Isolation(Army Green)', 'PTron Tangentbeat in-Ear Bluetooth 5.0 Wireless Headphones with Mic, Deep Bass, 10mm Drivers, Clear Calls, Dual Pairing, Fast Charging, Magnetic Buds, Voice Assistant & IPX4 Wireless Neckband (Black', 'Cosmic Byte Over the Ear Headphone with Mic & LED - G4000 Edition (Red)', 'Sony PlayStation Pulse 3d Gaming Wireless Over Ear Headset/Headphone Black with Mic, Dual noise-cancellation Mic, 3.5mm Jack, Tempest 3D audio, USB Type-C charging, 12H Battery', 'PTron Boom Ultima 4D Dual Driver, in-Ear Gaming Wired Headphones with in-line Mic, Volume Control & Passive Noise Cancelling Boom 3 Earphones - (Dark Blue)', 'pTron Bassbuds Tango in-Ear TWS Earbuds, TruTalk AI-ENC Calls, Movie Mode, 40Hrs Playtime, Bluetooth5.1 Headphone with HD Mics, Touch Control, IPX4 Water-Resistant & Type-C Fast Charging (Royal Blue)', 'RD BH-205 Pure Bass Bluetooth 5.0 Wireless Over Ear Headphone | 20H Playtime | Four-Microphone System Isolates Voice from Surrounding | Light Weight | Controls on The Ear Cups | Black Color', 'PTron Tangentbeat in-Ear Bluetooth 5.0 Wireless Headphones with Mic, Deep Bass, 10mm Drivers, Clear Calls, Dual Pairing, Fast Charging, Magnetic Buds, Voice Assistant & IPX4 Wireless Neckband (Black']

```
In [118.. start_page = 0
end_page = 3
urls = []
for page in range(start_page,end_page+1):
    page_urls = driver.find_elements(By.XPATH,'//a[@class="a-link-normal s-underline-text-decoration:underline"]')

    for url in page_urls:
        url = url.get_attribute('href')
        urls.append(url)
    print("Product urls of page {} has been scraped.".format(page+1))
```

Product urls of page 1 has been scraped.
Product urls of page 1 has been scraped.
Product urls of page 1 has been scraped.
Product urls of page 1 has been scraped.

[illegible]

Product urls of page 4 has been scraped.
 Product urls of page 4 has been scraped.
 Product urls of page 4 has been scraped.
 Product urls of page 4 has been scraped.
 Product urls of page 4 has been scraped.
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 Product urls of page 4 has been scraped.
 Product urls of page 4 has been scraped.
 Product urls of page 4 has been scraped.

```
In [119.. prod_dict = {}
prod_dict['Brand']=[]
prod_dict['Name']=[]
prod_dict['Rating']=[]
prod_dict['No. of ratings']=[]
prod_dict['Price']=[]

prod_dict['Expected Delivery']=[]

prod_dict['Other Details']=[]
prod_dict['URL']=[]
```

```
In [134.. for url in urls[:4]:
    driver.get(url)                                # Loading the
    print("Scraping URL = ", url)
    #time.sleep(2)

    try:
        brand = driver.find_element(By.XPATH, '//a[@id="bylineInfo"]')    # Extracting
        prod_dict['Brand'].append(brand.text)
    except NoSuchElementException:
        prod_dict['Brand'].append('-')

    try:
        name = driver.find_element(By.XPATH, '//h1[@id="title"]/span')    # Extracting
        prod_dict['Name'].append(name.text)
    except NoSuchElementException:
        prod_dict['Name'].append('-')

    try:
        rating = driver.find_element(By.XPATH, '//span[@id="acrPopover"]')    # Extracting
        prod_dict['Rating'].append(rating.get_attribute("title"))
    except NoSuchElementException:
        prod_dict['Rating'].append('-')

    try:
        n_rating = driver.find_element(By.XPATH, '//a[@id="acrCustomerReviewLink"]/span')
        prod_dict['No. of ratings'].append(n_rating.text)
    except NoSuchElementException:
        prod_dict['No. of ratings'].append('-')

    try:
        price = driver.find_element(By.XPATH, '//span[@class="a-price-whole"]')
```

```

        prod_dict['Price'].append(price.text)
    except NoSuchElementException:
        prod_dict['Price'].append('-')

    try:
        delivery = driver.find_element(By.XPATH, '//div[@class="a-row"]//span[2]')
        prod_dict['Expected Delivery'].append(delivery.text)
    except NoSuchElementException:
        prod_dict['Expected Delivery'].append('-')

    try:
        dtls = driver.find_element(By.XPATH, '//ul[@class="a-unordered-list a-vertical a-']
        prod_dict['Other Details'].append(' || '.join(dtls.text.split('\n')))
    except NoSuchElementException:
        prod_dict['Other Details'].append('-')

    prod_dict['URL'].append(url)
    time.sleep(2)

```

Scraping URL = https://www.amazon.in/sspa/click?ie=UTF8&spc=MTo3NDc1MzIwODc3MDY0NjM5OjE2OTYyNDIyMTY6c3BfYXRmX25leHQ6MzAwMDQwMzczNTE5ODMyOjowOjo&url=%2FboAt-Cancelling-Bluetooth-Headphones-Immersive%2Fdp%2FB09MTRDQB5%2Fref%3Dsr_1_17_sspa%3Fkeywords%3Dheadphones%2Bheadphones%26qid%3D1696242216%26sr%3D8-17-spons%26sp_csd%3Dd2lkZ2V0TmFtZT1zcF9hdGZfbmV4dA%26psc%3D1

Scraping URL = https://www.amazon.in/sspa/click?ie=UTF8&spc=MTo3NDc1MzIwODc3MDY0NjM5OjE2OTYyNDIyMTY6c3BfYXRmX25leHQ6MjAwMzczMjk5ODU3OTg6OjA6Og&url=%2FZebronics-Bluetooth-Headphone-Assistant-Rechargeable%2Fdp%2FB09NNT5338%2Fref%3Dsr_1_18_sspa%3Fkeywords%3Dheadphones%2Bheadphones%26qid%3D1696242216%26sr%3D8-18-spons%26sp_csd%3Dd2lkZ2V0TmFtZT1zcF9hdGZfbmV4dA%26psc%3D1

Scraping URL = https://www.amazon.in/Tangentbeat-Bluetooth-Headphones-Waterproof-Cancellation/dp/B091MC66JP/ref=sr_1_19?keywords=headphones+headphones&qid=1696242216&sr=8-19

Scraping URL = https://www.amazon.in/Airdopes-141-Playtime-Resistance-Bluetooth/dp/B09N3ZNHTY/ref=sr_1_20?keywords=headphones+headphones&qid=1696242216&sr=8-20

In []:

In []:

In []:

In []:

In []: