Web Scraping Samsung Mobiles Data from Flipkart

In case of any queries you can reach out to me on Linkedin

Sandeep Kumar Mahato

Importing Libraries

```
import pandas as pd
import requests
from bs4 import BeautifulSoup
import numpy as np
import re
```

Original url:

https://www.flipkart.com/search?q=mobiles&as=on&as-show=on&otracker=AS_Query_TrendingAutoSuggest_1_0_na_na_na&otracker1=AS_Query_TrendingAutoSuggest_1_0_na_na_na&as-pos=1&as-type=TRENDING&suggestionId=mobiles&requestId=b87edce2-2302-4ed2-87db-5e11533453f2&p%5B%5D=facets.brand%255B%255D%3DSAMSUNG&p%5B%5D=facets.availability%255B%255D%3DExclude%2BOut%2Bof%2BStock&page=1

Breaking the long URL link String into Multiple Lines

By using parentheses to concatenate the string over multiple lines in your code., we can keep the text from exceeding the cell width.

```
# URL link of 1st page of Samsung Mobiles on Flipkart excluding out of stack devices

url = ("https://www.flipkart.com/search?q=mobiles&as=on&as-show=on&"
      "otracker=AS_Query_TrendingAutoSuggest_1_0_na_na_na&"
      "otracker1=AS_Query_TrendingAutoSuggest_1_0_na_na_na&"
      "as-pos=1&as-type=TRENDING&suggestionId=mobiles&"
```

```
       "requestId=b87edce2-2302-4ed2-87db-5e11533453f2&p%5B%5D=facets.brand%255B%255D%3DSAMSUNG&"
       "p%5B%5D=facets.availability%255B%255D%3DExclude%2BOut%2Bof%2BStock&page=1")
```

'User-Agent':'Mozilla/5.0 (Windows NT 10; Win64; x64) AppleWebKit/533.361 (KHTML, like Gecko) Chrome/95.0.0.0 Safari/533.31'}

```
headers = ({'User-Agent': ' -----insert your user agent here which will be of the form given in above cell----------------'})
```

```
webpage = requests.get(url,headers)
```

```
webpage.status_code
```

```
200
```

```
webpage.text[:1000]
```

```
'<!doctype html><html lang="en"><head><link href="https://rukminim2.flixcart.com" rel="preconnect"/><link rel="stylesheet" href="//static-assets-web.fl
ixcart.com/fk-p-linchpin-web/fk-cp-zion/css/atlas.chunk.8dd48d.css"/><link rel="stylesheet" href="//static-assets-web.flixcart.com/fk-p-linchpin-web/fk
-cp-zion/css/app_modules.chunk.c48a12.css"/><link rel="stylesheet" href="//static-assets-web.flixcart.com/fk-p-linchpin-web/fk-cp-zion/css/app.chunk.1d
ef6f.css"/><meta http-equiv="Content-type" content="text/html; charset=utf-8"/><meta http-equiv="X-UA-Compatible" content="IE=Edge"/><meta property="f
b:page_id" content="102988293558"/><meta property="fb:admins" content="658873552,624500995,100000233612389"/><link rel="shortcut icon" href="https:///w
ww/promos/new/20150528-140547-favicon-retina.ico"/><link type="application/opensearchdescription+xml" rel="search" href="/osdd.xml?v=2"/><meta property
="og:type" content="website"/><meta name="og_site_name" property="og:site_name" content="Flipkar'
```

```
len(webpage.text)
```

```
143620
```

```
soup = BeautifulSoup(webpage.text, 'lxml')
```

```
print(len(soup.prettify()))
```

```
213554
```

```
print(soup.prettify()[:3000])
```

```
<!DOCTYPE html>
<html lang="en">
 <head>
  <link href="https://rukminim2.flixcart.com" rel="preconnect"/>
```

```
<link href="//static-assets-web.flixcart.com/fk-p-linchpin-web/fk-cp-zion/css/atlas.chunk.8dd48d.css" rel="stylesheet"/>
<link href="//static-assets-web.flixcart.com/fk-p-linchpin-web/fk-cp-zion/css/app_modules.chunk.c48a12.css" rel="stylesheet"/>
<link href="//static-assets-web.flixcart.com/fk-p-linchpin-web/fk-cp-zion/css/app.chunk.1def6f.css" rel="stylesheet"/>
<meta content="text/html; charset=utf-8" http-equiv="Content-type"/>
<meta content="IE=Edge" http-equiv="X-UA-Compatible"/>
<meta content="102988293558" property="fb:page_id"/>
<meta content="658873552,624500995,100000233612389" property="fb:admins"/>
<link href="https://www/promos/new/20150528-140547-favicon-retina.ico" rel="shortcut icon"/>
<link href="/osdd.xml?v=2" rel="search" type="application/opensearchdescription+xml"/>
<meta content="website" property="og:type"/>
<meta content="Flipkart.com" name="og_site_name" property="og:site_name"/>
<link href="/apple-touch-icon-57x57.png" rel="apple-touch-icon" sizes="57x57"/>
<link href="/apple-touch-icon-72x72.png" rel="apple-touch-icon" sizes="72x72"/>
<link href="/apple-touch-icon-114x114.png" rel="apple-touch-icon" sizes="114x114"/>
<link href="/apple-touch-icon-144x144.png" rel="apple-touch-icon" sizes="144x144"/>
<link href="/apple-touch-icon-57x57.png" rel="apple-touch-icon"/>
<meta content="app" name="twitter:card"/>
<meta content="@flipkart" name="twitter:site"/>
<meta content="@flipkart" name="twitter:creator"/>
<meta content="Mobiles- Buy Products Online at Best Price in India - All Categories | Flipkart.com" name="twitter:title"/>
<meta content="Shop for electronics, apparels &amp; more using our Flipkart app Free shipping &amp; COD." name="twitter:description"/>
<meta content="in" name="twitter:app:country"/>
<meta content="Flipkart" name="al:ios:app_name"/>
<meta content="742044692" name="al:ios:app_store_id"/>
<meta content="Flipkart" name="twitter:app:name:iphone"/>
<meta content="742044692" name="twitter:app:id:iphone"/>
<meta content="http://dl.flipkart.com/dl/home?" name="twitter:app:url:iphone"/>
<meta content="Flipkart" name="twitter:app:name:ipad"/>
<meta content="742044692" name="twitter:app:id:ipad"/>
<meta content="http://dl.flipkart.com/dl/home?" name="twitter:app:url:ipad"/>
<meta content="Flipkart" name="twitter:app:name:googleplay"/>
<meta content="com.flipkart.android" name="twitter:app:id:googleplay"/>
<meta content="http://dl.flipkart.com/dl/home?" name="twitter:app:url:googleplay"/>
<style>
 #container {
                      height: 100%;
              }
</style>
<link href="///fk-cp-zion/css/Browse.chunk.591bab.css" rel="stylesheet"/>
<title>
 Mobiles- Buy Products Online at Best Price in India - All Categories | Flipkart.com
</title>
<meta content="Mobiles- Buy Products Online at Best Price in India - All Categories | Flipkart.com" name="og_title"
```

```
soup.title
```

```
<title>Mobiles- Buy Products Online at Best Price in India - All Categories | Flipkart.com</title>
```

```
soup.text
```

```
' Mobiles- Buy Products Online at Best Price in India - All Categories | Flipkart.com    Explore PlusLoginBecome a Seller More CartFiltersClear all✕Exc
lude Out of Stock✕SAMSUNGShow  moreCATEGORIESMobiles & AccessoriesMobilesPrice......Min₹10000₹15000₹20000₹30000to₹10000₹15000₹20000₹30000₹30000+Brand✕
Clear allSAMSUNGAppleGoogleMOTOROLAvivoOPPO87 MORE?Customer Ratings4★ & above3★ & aboveGST Invoice AvailableRAM4 GB3 GB2 GB8 GB and Above6 GB1GB and B
elow6 GB  AboveInternal StorageBattery CapacityScreen SizePrimary CameraSecondary CameraProcessor BrandSpecialityResolution TypeOperating SystemNetwork
TypeSim TypeOffersSpecial PriceBuy More, Save MoreFeaturesTypeNumber of CoresAvailabilityDiscount50% or more40% or more30% or more20% or more10% or mor
eOperating System Version NameClock SpeedNeed help?Help me decideHomeMobiles & AccessoriesMobilesShowing 1 – 24 of 351 results for "mobiles"Sort ByRele
vancePopularityPrice -- Low to HighPrice -- High to LowNewest FirstAdd to CompareSAMSUNG Galaxy   '
```

```
len(soup.text)
```

```
11207
```

```
soup.find_all('title')

# It will return a python List. Only 1 item exists in this List
# [ ] symbol denotes the list.
```

```
[<title>Mobiles- Buy Products Online at Best Price in India - All Categories | Flipkart.com</title>]
```

```
soup.find_all('title')[0]

# To access 1st element from the list. [ ] symbol is removed now.
```

```
<title>Mobiles- Buy Products Online at Best Price in India - All Categories | Flipkart.com</title>
```

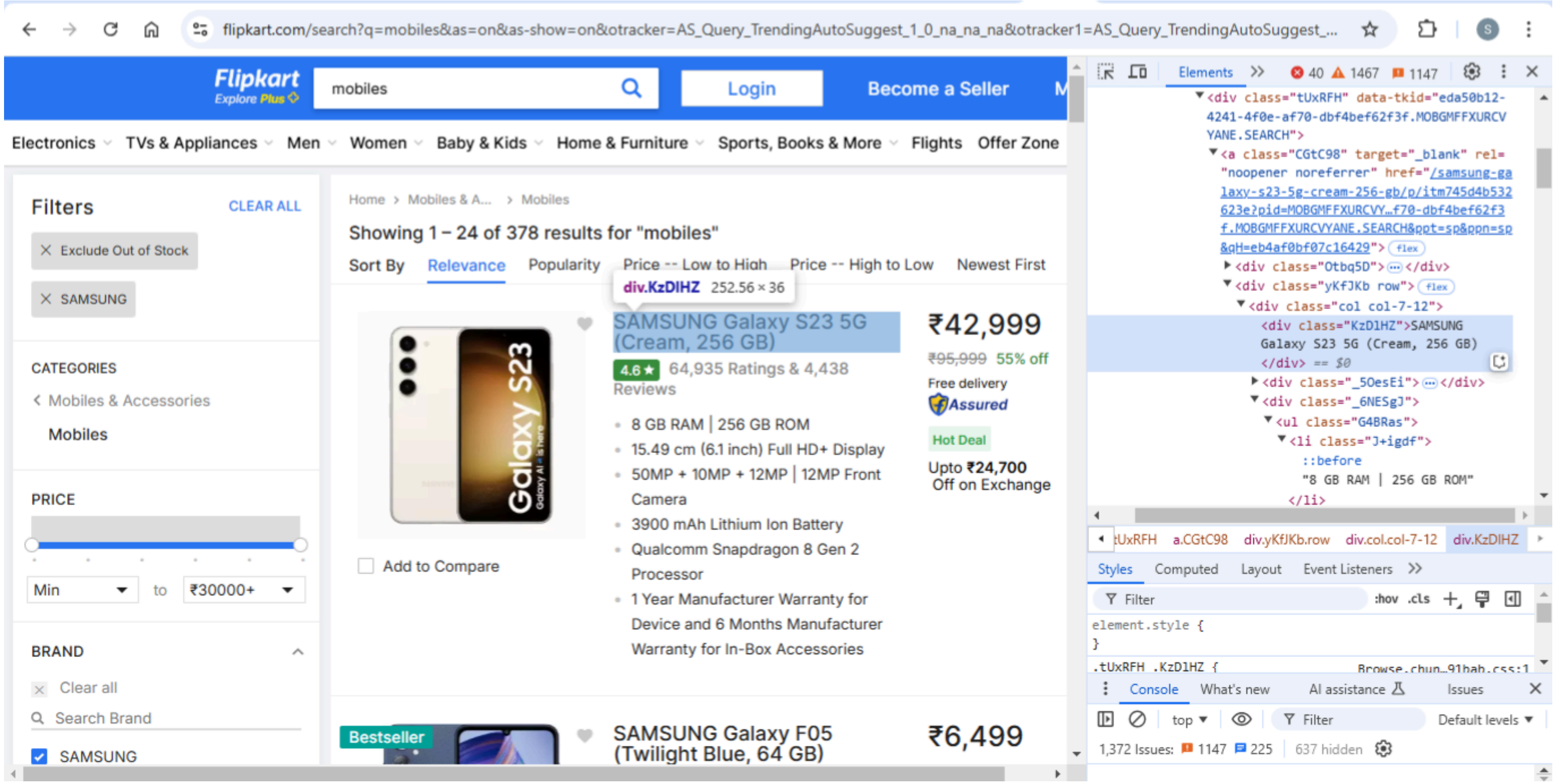
```
soup.find_all('title')[0].text

# to extract our target text element
```

```
'Mobiles- Buy Products Online at Best Price in India - All Categories | Flipkart.com'
```

```
len(soup.find_all('div', class_ ="KzDlHZ"))
```

```
24
```

Total `24` mobile phones are listed in a page in the url



flipkart.com/search?q=mobiles&as=on&as-show=on&otracker=AS_Query_TrendingAutoSuggest_1_0_na_na_na&otracker1=AS_Query_TrendingAutoSuggest_...

Home › Mobiles & A... › Mobiles

Showing 1 – 24 of 378 results for "mobiles"

Sort By Relevance Popularity Price -- Low to High Price -- High to Low Newest First

div.KzDlHZ 252.56 × 36

SAMSUNG Galaxy S23 5G (Cream, 256 GB)

4.6 ★ 64,935 Ratings & 4,438 Reviews

- 8 GB RAM | 256 GB ROM
- 15.49 cm (6.1 inch) Full HD+ Display
- 50MP + 10MP + 12MP | 12MP Front Camera
- 3900 mAh Lithium Ion Battery
- Qualcomm Snapdragon 8 Gen 2 Processor
- 1 Year Manufacturer Warranty for Device and 6 Months Manufacturer Warranty for In-Box Accessories

₹42,999 ~~₹95,999~~ 55% off

Free delivery

Assured

Hot Deal

Upto ₹24,700 Off on Exchange

□ Add to Compare

Bestseller

SAMSUNG Galaxy F05 (Twilight Blue, 64 GB) ₹6,499

```
<div class="tUxRFH" data-tkid="eda50b12-4241-4f0e-af70-dbf4bef62f3f.MOBGMFFXURCVYANE.SEARCH">
  <a class="CGtC98" target="_blank" rel="noopener noreferrer" href="/samsung-galaxy-s23-5g-cream-256-gb/p/itm745d4b532623e?pid=MOBGMFFXURCVY…f70-dbf4bef62f3f.MOBGMFFXURCVYANE.SEARCH&ppt=sp&ppn=sp&qH=eb4af0bf07c16429"> flex
    <div class="Otbq5D">…</div>
    <div class="yKfJKb row"> flex
      <div class="col col-7-12">
        <div class="KzDlHZ">SAMSUNG Galaxy S23 5G (Cream, 256 GB)</div> == $0
        <div class="_5OesEi">…</div>
        <div class="_6NESgJ">
          <ul class="G4BRas">
            <li class="J+igdf">
              ::before
              "8 GB RAM | 256 GB ROM"
            </li>
```

```
element.style {
}
.tUxRFH .KzDlHZ {                Browse.chun…91bah.css:1
```

1,372 Issues: 1147 225 637 hidden

```
soup.find_all('div', class_ ="KzDlHZ")
```

```
[<div class="KzDlHZ">SAMSUNG Galaxy F05 (Twilight Blue, 64 GB)</div>,
 <div class="KzDlHZ">SAMSUNG Galaxy S23 5G (Cream, 256 GB)</div>,
 <div class="KzDlHZ">SAMSUNG Galaxy S23 5G (Green, 256 GB)</div>,
 <div class="KzDlHZ">SAMSUNG Galaxy S23 5G (Green, 128 GB)</div>,
 <div class="KzDlHZ">SAMSUNG Galaxy A14 5G (Dark Red, 128 GB)</div>,
 <div class="KzDlHZ">SAMSUNG Galaxy S23 5G (Lavender, 256 GB)</div>,
 <div class="KzDlHZ">SAMSUNG Galaxy S23 5G (Phantom Black, 128 GB)</div>,
 <div class="KzDlHZ">SAMSUNG Galaxy S24+ 5G (Onyx Black, 256 GB)</div>,
 <div class="KzDlHZ">SAMSUNG Galaxy S23 FE (Graphite, 128 GB)</div>,
 <div class="KzDlHZ">SAMSUNG Galaxy S24+ 5G (Cobalt Violet, 256 GB)</div>,
 <div class="KzDlHZ">SAMSUNG Galaxy S23 5G (Cream, 128 GB)</div>,
 <div class="KzDlHZ">SAMSUNG Galaxy A35 5G (Awesome Iceblue, 128 GB)</div>,
 <div class="KzDlHZ">SAMSUNG Galaxy A35 5G (Awesome Navy, 128 GB)</div>,
 <div class="KzDlHZ">SAMSUNG Galaxy S23 5G (Phantom Black, 256 GB)</div>,
 <div class="KzDlHZ">SAMSUNG Galaxy S24 5G (Onyx Black, 256 GB)</div>,
 <div class="KzDlHZ">SAMSUNG Galaxy S23 5G (Lavender, 128 GB)</div>,
 <div class="KzDlHZ">SAMSUNG Galaxy A55 5G (Awesome Iceblue, 256 GB)</div>,
 <div class="KzDlHZ">SAMSUNG Galaxy A25 5G (Blue Black, 256 GB)</div>,
 <div class="KzDlHZ">SAMSUNG Galaxy A35 5G (Awesome Navy, 256 GB)</div>,
 <div class="KzDlHZ">SAMSUNG Galaxy F15 5G (Groovy Violet, 128 GB)</div>,
 <div class="KzDlHZ">SAMSUNG Galaxy A35 5G (Awesome Iceblue, 256 GB)</div>,
 <div class="KzDlHZ">SAMSUNG Galaxy M35 5G (DayBreak Blue, 256 GB)</div>,
 <div class="KzDlHZ">SAMSUNG Galaxy A16 5G (Gold, 256 GB)</div>,
 <div class="KzDlHZ">SAMSUNG Galaxy A16 5G (Gold, 128 GB)</div>]
```

```
soup.find_all('div', class_ ="KzDlHZ")[0:2]
```

```
[<div class="KzDlHZ">SAMSUNG Galaxy F05 (Twilight Blue, 64 GB)</div>,
 <div class="KzDlHZ">SAMSUNG Galaxy S23 5G (Cream, 256 GB)</div>]
```

```
mobile_name = soup.find_all('div', class_ ="KzDlHZ")
```

```
for i in mobile_name:
    print(i)
```

```
<div class="KzDlHZ">SAMSUNG Galaxy F05 (Twilight Blue, 64 GB)</div>
<div class="KzDlHZ">SAMSUNG Galaxy S23 5G (Cream, 256 GB)</div>
<div class="KzDlHZ">SAMSUNG Galaxy S23 5G (Green, 256 GB)</div>
<div class="KzDlHZ">SAMSUNG Galaxy S23 5G (Green, 128 GB)</div>
<div class="KzDlHZ">SAMSUNG Galaxy A14 5G (Dark Red, 128 GB)</div>
<div class="KzDlHZ">SAMSUNG Galaxy S23 5G (Lavender, 256 GB)</div>
<div class="KzDlHZ">SAMSUNG Galaxy S23 5G (Phantom Black, 128 GB)</div>
<div class="KzDlHZ">SAMSUNG Galaxy S24+ 5G (Onyx Black, 256 GB)</div>
<div class="KzDlHZ">SAMSUNG Galaxy S23 FE (Graphite, 128 GB)</div>
<div class="KzDlHZ">SAMSUNG Galaxy S24+ 5G (Cobalt Violet, 256 GB)</div>
<div class="KzDlHZ">SAMSUNG Galaxy S23 5G (Cream, 128 GB)</div>
<div class="KzDlHZ">SAMSUNG Galaxy A35 5G (Awesome Iceblue, 128 GB)</div>
<div class="KzDlHZ">SAMSUNG Galaxy A35 5G (Awesome Navy, 128 GB)</div>
<div class="KzDlHZ">SAMSUNG Galaxy S23 5G (Phantom Black, 256 GB)</div>
<div class="KzDlHZ">SAMSUNG Galaxy S24 5G (Onyx Black, 256 GB)</div>
<div class="KzDlHZ">SAMSUNG Galaxy S23 5G (Lavender, 128 GB)</div>
```

```
 <div class="KzDlHZ">SAMSUNG Galaxy A55 5G (Awesome Iceblue, 256 GB)</div>
 <div class="KzDlHZ">SAMSUNG Galaxy A25 5G (Blue Black, 256 GB)</div>
 <div class="KzDlHZ">SAMSUNG Galaxy A35 5G (Awesome Navy, 256 GB)</div>
 <div class="KzDlHZ">SAMSUNG Galaxy F15 5G (Groovy Violet, 128 GB)</div>
 <div class="KzDlHZ">SAMSUNG Galaxy A35 5G (Awesome Iceblue, 256 GB)</div>
 <div class="KzDlHZ">SAMSUNG Galaxy M35 5G (DayBreak Blue, 256 GB)</div>
 <div class="KzDlHZ">SAMSUNG Galaxy A16 5G (Gold, 256 GB)</div>
 <div class="KzDlHZ">SAMSUNG Galaxy A16 5G (Gold, 128 GB)</div>
```

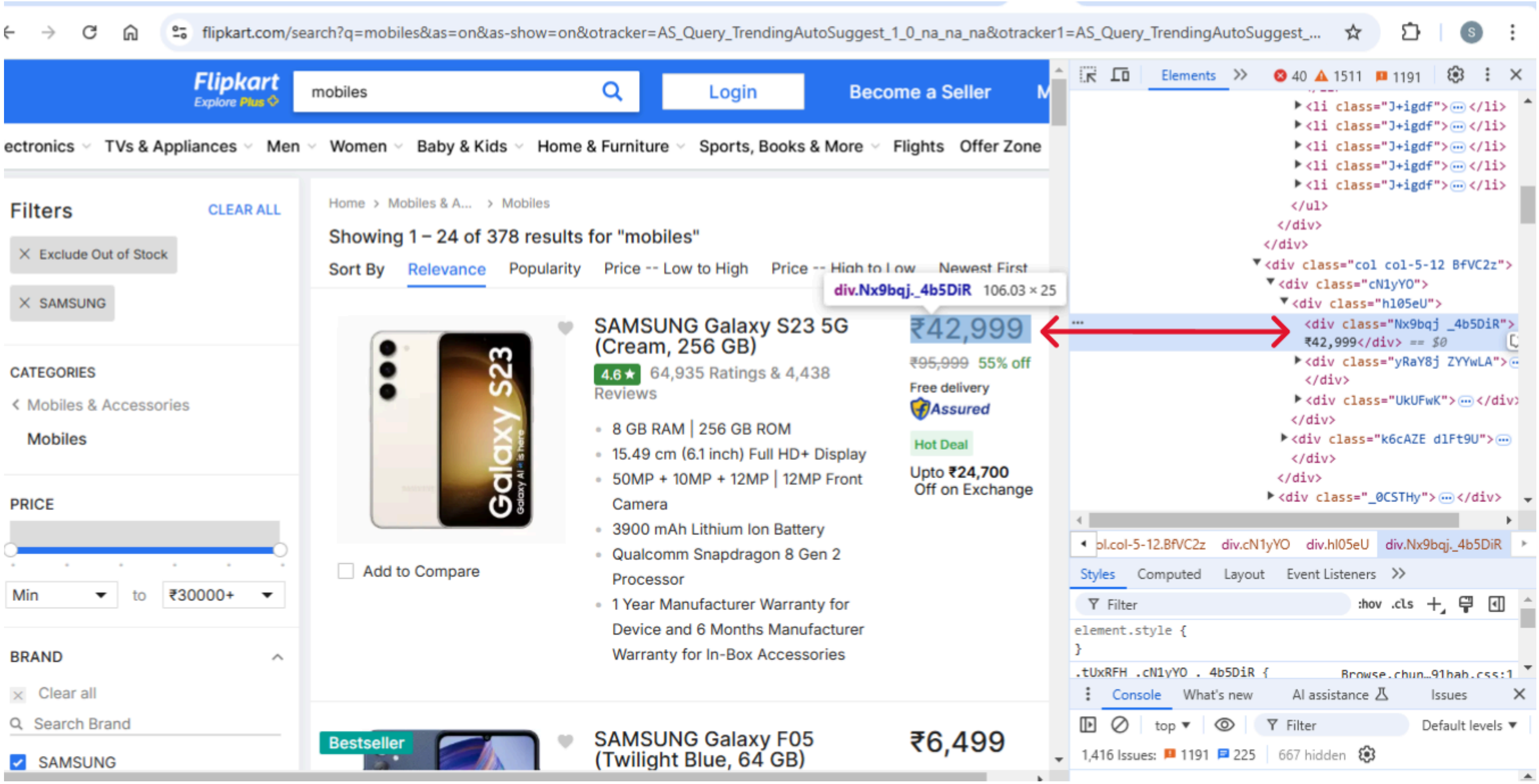
```
for i in mobile_name:
    print(i.text)
```

```
SAMSUNG Galaxy F05 (Twilight Blue, 64 GB)
SAMSUNG Galaxy S23 5G (Cream, 256 GB)
SAMSUNG Galaxy S23 5G (Green, 256 GB)
SAMSUNG Galaxy S23 5G (Green, 128 GB)
SAMSUNG Galaxy A14 5G (Dark Red, 128 GB)
SAMSUNG Galaxy S23 5G (Lavender, 256 GB)
SAMSUNG Galaxy S23 5G (Phantom Black, 128 GB)
SAMSUNG Galaxy S24+ 5G (Onyx Black, 256 GB)
SAMSUNG Galaxy S23 FE (Graphite, 128 GB)
SAMSUNG Galaxy S24+ 5G (Cobalt Violet, 256 GB)
SAMSUNG Galaxy S23 5G (Cream, 128 GB)
SAMSUNG Galaxy A35 5G (Awesome Iceblue, 128 GB)
SAMSUNG Galaxy A35 5G (Awesome Navy, 128 GB)
SAMSUNG Galaxy S23 5G (Phantom Black, 256 GB)
SAMSUNG Galaxy S24 5G (Onyx Black, 256 GB)
SAMSUNG Galaxy S23 5G (Lavender, 128 GB)
SAMSUNG Galaxy A55 5G (Awesome Iceblue, 256 GB)
SAMSUNG Galaxy A25 5G (Blue Black, 256 GB)
SAMSUNG Galaxy A35 5G (Awesome Navy, 256 GB)
SAMSUNG Galaxy F15 5G (Groovy Violet, 128 GB)
SAMSUNG Galaxy A35 5G (Awesome Iceblue, 256 GB)
SAMSUNG Galaxy M35 5G (DayBreak Blue, 256 GB)
SAMSUNG Galaxy A16 5G (Gold, 256 GB)
SAMSUNG Galaxy A16 5G (Gold, 128 GB)
```

```
mobile_list = [ ]
for i in mobile_name:
    for j in i:
        mobile_list.append(j.text)
mobile_list
```

```
['SAMSUNG Galaxy F05 (Twilight Blue, 64 GB)',
 'SAMSUNG Galaxy S23 5G (Cream, 256 GB)',
 'SAMSUNG Galaxy S23 5G (Green, 256 GB)',
 'SAMSUNG Galaxy S23 5G (Green, 128 GB)',
 'SAMSUNG Galaxy A14 5G (Dark Red, 128 GB)',
 'SAMSUNG Galaxy S23 5G (Lavender, 256 GB)',
 'SAMSUNG Galaxy S23 5G (Phantom Black, 128 GB)',
 'SAMSUNG Galaxy S24+ 5G (Onyx Black, 256 GB)',
 'SAMSUNG Galaxy S23 FE (Graphite, 128 GB)',
 'SAMSUNG Galaxy S24+ 5G (Cobalt Violet, 256 GB)',
 'SAMSUNG Galaxy S23 5G (Cream, 128 GB)',
 'SAMSUNG Galaxy A35 5G (Awesome Iceblue, 128 GB)',
 'SAMSUNG Galaxy A35 5G (Awesome Navy, 128 GB)',
 'SAMSUNG Galaxy S23 5G (Phantom Black, 256 GB)',
 'SAMSUNG Galaxy S24 5G (Onyx Black, 256 GB)',
 'SAMSUNG Galaxy S23 5G (Lavender, 128 GB)',
 'SAMSUNG Galaxy A55 5G (Awesome Iceblue, 256 GB)',
 'SAMSUNG Galaxy A25 5G (Blue Black, 256 GB)',
 'SAMSUNG Galaxy A35 5G (Awesome Navy, 256 GB)',
 'SAMSUNG Galaxy F15 5G (Groovy Violet, 128 GB)',
 'SAMSUNG Galaxy A35 5G (Awesome Iceblue, 256 GB)',
 'SAMSUNG Galaxy M35 5G (DayBreak Blue, 256 GB)',
 'SAMSUNG Galaxy A16 5G (Gold, 256 GB)',
 'SAMSUNG Galaxy A16 5G (Gold, 128 GB)']
```

Price Card



Showing 1 – 24 of 378 results for "mobiles"

SAMSUNG Galaxy S23 5G (Cream, 256 GB)

4.6 ★ 64,935 Ratings & 4,438 Reviews

- 8 GB RAM | 256 GB ROM
- 15.49 cm (6.1 inch) Full HD+ Display
- 50MP + 10MP + 12MP | 12MP Front Camera
- 3900 mAh Lithium Ion Battery
- Qualcomm Snapdragon 8 Gen 2 Processor
- 1 Year Manufacturer Warranty for Device and 6 Months Manufacturer Warranty for In-Box Accessories

□ Add to Compare

₹42,999

~~₹95,999~~ 55% off

Free delivery

Assured

Hot Deal

Upto ₹24,700 Off on Exchange

Bestseller

SAMSUNG Galaxy F05 (Twilight Blue, 64 GB)

₹6,499

```
▶<li class="J+igdf">…</li>
▶<li class="J+igdf">…</li>
▶<li class="J+igdf">…</li>
▶<li class="J+igdf">…</li>
▶<li class="J+igdf">…</li>
</ul>
</div>
</div>
▼<div class="col col-5-12 BfVC2z">
 ▼<div class="cN1yYO">
  ▼<div class="hl05eU">
     <div class="Nx9bqj _4b5DiR">
     ₹42,999</div> == $0
    ▶<div class="yRaY8j ZYYwLA">…
     </div>
    ▶<div class="UkUFwK">…</div>
    </div>
   ▶<div class="k6cAZE dlFt9U">…
    </div>
   </div>
  ▶<div class="_0CSTHy">…</div>
```

```
element.style {
}
.tUxRFH .cN1yYO ._4b5DiR {        Browse.chun…91bab.css:1
```

```
price = soup.find_all('div', class_ ="Nx9bqj _4b5DiR")
```

```
price
```

```
[<div class="Nx9bqj _4b5DiR">₹6,499</div>,
 <div class="Nx9bqj _4b5DiR">₹42,999</div>,
 <div class="Nx9bqj _4b5DiR">₹42,999</div>,
 <div class="Nx9bqj _4b5DiR">₹37,999</div>,
 <div class="Nx9bqj _4b5DiR">₹10,999</div>,
 <div class="Nx9bqj _4b5DiR">₹42,999</div>,
 <div class="Nx9bqj _4b5DiR">₹37,999</div>,
 <div class="Nx9bqj _4b5DiR">₹64,999</div>,
 <div class="Nx9bqj _4b5DiR">₹30,999</div>,
 <div class="Nx9bqj _4b5DiR">₹64,999</div>,
 <div class="Nx9bqj _4b5DiR">₹37,999</div>,
 <div class="Nx9bqj _4b5DiR">₹30,999</div>,
 <div class="Nx9bqj _4b5DiR">₹30,999</div>,
 <div class="Nx9bqj _4b5DiR">₹42,999</div>,
 <div class="Nx9bqj _4b5DiR">₹58,466</div>,
 <div class="Nx9bqj _4b5DiR">₹37,999</div>,
 <div class="Nx9bqj _4b5DiR">₹42,999</div>,
 <div class="Nx9bqj _4b5DiR">₹20,490</div>,
 <div class="Nx9bqj _4b5DiR">₹33,999</div>,
 <div class="Nx9bqj _4b5DiR">₹12,499</div>,
 <div class="Nx9bqj _4b5DiR">₹33,999</div>,
 <div class="Nx9bqj _4b5DiR">₹26,990</div>,
 <div class="Nx9bqj _4b5DiR">₹19,208</div>,
 <div class="Nx9bqj _4b5DiR">₹17,999</div>]
```

```
for p in price:
    print(p.text)
```

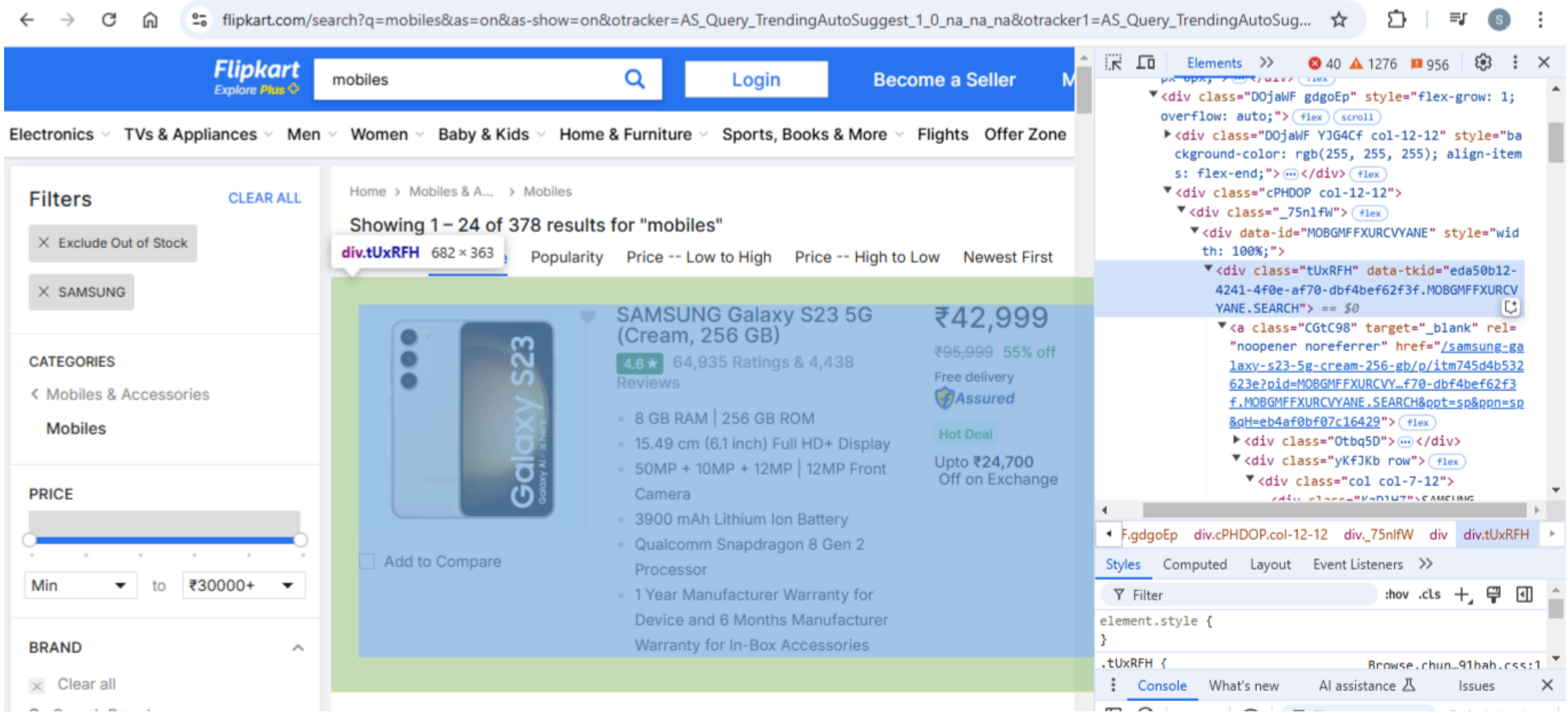
```
₹6,499
₹42,999
₹42,999
₹37,999
₹10,999
₹42,999
₹37,999
₹64,999
₹30,999
₹64,999
₹37,999
₹30,999
₹30,999
₹42,999
₹58,466
₹37,999
₹42,999
₹20,490
₹33,999
₹12,499
₹33,999
₹26,990
₹19,208
₹17,999
```

```
price_list = [ ]
for p in price:
    cleaned_price = int(p.text.replace('₹', '').replace(',', '').strip())
    price_list.append(cleaned_price)
```

```
price_list
```

```
[6499,
 42999,
 42999,
 37999,
 10999,
 42999,
 37999,
 64999,
 30999,
 64999,
 37999,
 30999,
 30999,
 42999,
 58466,
 37999,
 42999,
 20490,
 33999,
 12499,
 33999,
 26990,
 19208,
 17999]
```

Product Card



flipkart.com/search?q=mobiles&as=on&as-show=on&otracker=AS_Query_TrendingAutoSuggest_1_0_na_na_na&otracker1=AS_Query_TrendingAutoSug...

Showing 1 – 24 of 378 results for "mobiles"

SAMSUNG Galaxy S23 5G (Cream, 256 GB)

4.6★ 64,935 Ratings & 4,438 Reviews

- 8 GB RAM | 256 GB ROM
- 15.49 cm (6.1 inch) Full HD+ Display
- 50MP + 10MP + 12MP | 12MP Front Camera
- 3900 mAh Lithium Ion Battery
- Qualcomm Snapdragon 8 Gen 2 Processor
- 1 Year Manufacturer Warranty for Device and 6 Months Manufacturer Warranty for In-Box Accessories

₹42,999
~~₹95,999~~ 55% off
Free delivery
Assured
Hot Deal
Upto ₹24,700 Off on Exchange

```
▼<div class="DOjaWF gdgoEp" style="flex-grow: 1; overflow: auto;"> flex scroll
  ▶<div class="DOjaWF YJG4Cf col-12-12" style="background-color: rgb(255, 255, 255); align-items: flex-end;">⋯</div> flex
  ▼<div class="cPHDOP col-12-12">
    ▼<div class="_75nlfW"> flex
      ▼<div data-id="MOBGMFFXURCVYANE" style="width: 100%;">
        ▼<div class="tUxRFH" data-tkid="eda50b12-4241-4f0e-af70-dbf4bef62f3f.MOBGMFFXURCVYANE.SEARCH"> == $0
          ▼<a class="CGtC98" target="_blank" rel="noopener noreferrer" href="/samsung-galaxy-s23-5g-cream-256-gb/p/itm745d4b532623e?pid=MOBGMFFXURCVY…f70-dbf4bef62f3f.MOBGMFFXURCVYANE.SEARCH&ppt=sp&ppn=sp&qH=eb4af0bf07c16429"> flex
            ▶<div class="Otbq5D">⋯</div>
            ▼<div class="yKfJKb row"> flex
              ▼<div class="col col-7-12">
```

F.gdgoEp div.cPHDOP.col-12-12 div._75nlfW div div.tUxRFH

```
element.style {
}
.tUxRFH {                                   Browse.chun…91bab.css:1
```

```
product = soup.find_all('div',class_ = "tUxRFH")
```

```
len(product)
```

```
24
```

```
for i in product:
    print(i.find('div', class_ ="KzDlHZ").text.strip())
```

```
SAMSUNG Galaxy F05 (Twilight Blue, 64 GB)
SAMSUNG Galaxy S23 5G (Cream, 256 GB)
SAMSUNG Galaxy S23 5G (Green, 256 GB)
SAMSUNG Galaxy S23 5G (Green, 128 GB)
SAMSUNG Galaxy A14 5G (Dark Red, 128 GB)
SAMSUNG Galaxy S23 5G (Lavender, 256 GB)
SAMSUNG Galaxy S23 5G (Phantom Black, 128 GB)
SAMSUNG Galaxy S24+ 5G (Onyx Black, 256 GB)
SAMSUNG Galaxy S23 FE (Graphite, 128 GB)
SAMSUNG Galaxy S24+ 5G (Cobalt Violet, 256 GB)
SAMSUNG Galaxy S23 5G (Cream, 128 GB)
SAMSUNG Galaxy A35 5G (Awesome Iceblue, 128 GB)
SAMSUNG Galaxy A35 5G (Awesome Navy, 128 GB)
SAMSUNG Galaxy S23 5G (Phantom Black, 256 GB)
SAMSUNG Galaxy S24 5G (Onyx Black, 256 GB)
SAMSUNG Galaxy S23 5G (Lavender, 128 GB)
SAMSUNG Galaxy A55 5G (Awesome Iceblue, 256 GB)
SAMSUNG Galaxy A25 5G (Blue Black, 256 GB)
SAMSUNG Galaxy A35 5G (Awesome Navy, 256 GB)
SAMSUNG Galaxy F15 5G (Groovy Violet, 128 GB)
SAMSUNG Galaxy A35 5G (Awesome Iceblue, 256 GB)
SAMSUNG Galaxy M35 5G (DayBreak Blue, 256 GB)
SAMSUNG Galaxy A16 5G (Gold, 256 GB)
SAMSUNG Galaxy A16 5G (Gold, 128 GB)
```

```
name=[]
price=[]
rating=[]
for i in product:
    name.append(i.find('div', class_ ="KzDlHZ").text.strip())
    price.append(int(i.find('div', class_ ="Nx9bqj _4b5DiR").text.replace('₹', '').replace(',', '').strip()))
    rating.append(float(i.find('div', class_= "XQDdHH").text.strip()))

    # Regular expression pattern to extract two numbers
    pattern = r'(\d{1,3}(?:,\d{3})*)\s*Ratings.*&\s*(\d{1,3}(?:,\d{3})*)\s*Reviews'
    text = i.find('span', class_="Wphh3N").text.strip()

    # Using re.search to find the numbers
    match = re.search(pattern, text)
```

```
print(f'Name: {name}\nPrice: {price}\nRating: {rating}')
```

```
Name: ['SAMSUNG Galaxy F05 (Twilight Blue, 64 GB)', 'SAMSUNG Galaxy S23 5G (Cream, 256 GB)', 'SAMSUNG Galaxy S23 5G (Green, 256 GB)', 'SAMSUNG Galaxy S2
Price: [6499, 42999, 42999, 37999, 10999, 42999, 37999, 64999, 30999, 64999, 37999, 30999, 30999, 42999, 58466, 37999, 42999, 20490, 33999, 12499, 33999
Rating: [4.2, 4.6, 4.6, 4.6, 4.2, 4.6, 4.6, 4.5, 4.4, 4.5, 4.6, 4.3, 4.3, 4.6, 4.5, 4.6, 4.4, 4.3, 4.3, 4.2, 4.3, 4.4, 4.2, 4.2]
```

```
soup.find('span',class_ ="Wphh3N").text.strip()
```

```
'21,063 Ratings\xa0&\xa01,148 Reviews'
```

```
import re
from bs4 import BeautifulSoup

# Function to extract ratings and reviews numbers
def extract_ratings_and_reviews(feedback):
    # Regular expression pattern to extract two numbers
    pattern = r'(\d{1,3}(?:,\d{3})*)\s*Ratings.*&\s*(\d{1,3}(?:,\d{3})*)\s*Reviews'

    # Using re.search to find the numbers
    match = re.search(pattern, feedback)

    if match:
        # Extract the two numbers as strings and remove commas ,
        number_of_ratings = match.group(1).replace(',', '')
        number_of_reviews = match.group(2).replace(',', '')

        # Converting into integers
        number_of_ratings = int(number_of_ratings)
        number_of_reviews = int(number_of_reviews)

        return number_of_ratings, number_of_reviews
    else:
        return None, None  # Return None if no match is found

# Initializing Empty lists for name, price, rating, ratings_count, reviews_count
name = []
price = []
rating = []
ratings_count = []
reviews_count = []

# Here 'product' is a list of BeautifulSoup objects for each product
for i in product:
    # Extracting product name
    name.append(i.find('div', class_="KzDlHZ").text.strip())

    # Extracting product price and converting to integer
    price.append(int(i.find('div', class_="Nx9bqj _4b5DiR").text.replace('₹', '').replace(',', '').strip()))

    # Extracting product rating and converting to float
    rating.append(float(i.find('div', class_="XQDdHH").text.strip()))

    # Extracting ratings_before and ratings_after using the function
    feedback = i.find('span', class_="Wphh3N").text  # Extract the text for ratings & reviews
    ratings, reviews = extract_ratings_and_reviews(feedback)  # Extract both numbers

    # Append extracted values to the respective lists
    ratings_count.append(ratings)
    reviews_count.append(reviews)
```

```
print(f'Name: {name}\nPrice: {price}\nRating: {rating}\nRatings_count: {ratings_count}\nReviews: {reviews_count}')
```

```
Name: ['SAMSUNG Galaxy F05 (Twilight Blue, 64 GB)', 'SAMSUNG Galaxy S23 5G (Cream, 256 GB)', 'SAMSUNG Galaxy S23 5G (Green, 256 GB)', 'SAMSUNG Galaxy S2
Price: [6499, 42999, 42999, 37999, 10999, 42999, 37999, 64999, 30999, 64999, 37999, 30999, 30999, 42999, 58466, 37999, 42999, 20490, 33999, 12499, 33999
Rating: [4.2, 4.6, 4.6, 4.6, 4.2, 4.6, 4.6, 4.5, 4.4, 4.5, 4.6, 4.3, 4.3, 4.6, 4.5, 4.6, 4.4, 4.3, 4.3, 4.2, 4.3, 4.4, 4.2, 4.2]
Ratings_count: [21063, 65179, 65179, 65179, 63583, 65179, 65179, 3747, 62125, 3747, 65179, 3286, 3286, 65179, 1476, 65179, 741, 180, 3286, 28068, 3286,
Reviews: [1148, 4462, 4462, 4462, 3046, 4462, 4462, 280, 3783, 280, 4462, 244, 244, 4462, 162, 4462, 75, 9, 244, 2279, 244, 22, 31, 31]
```

```
soup.find_all('ul',class_= "G4BRas")
```

```
[<ul class="G4BRas"><li class="J+igdf">4 GB RAM | 64 GB ROM | Expandable Upto 1 TB</li><li class="J+igdf">17.12 cm (6.74 inch) HD+ Display</li><li
class="J+igdf">50MP + 2MP | 8MP Front Camera</li><li class="J+igdf">5000 mAh Battery</li><li class="J+igdf">Helio G85 Processor</li><li
class="J+igdf">1 Year Manufacturer Warranty for Device and 6 Months for In-Box Accessories</li></ul>,
 <ul class="G4BRas"><li class="J+igdf">8 GB RAM | 256 GB ROM</li><li class="J+igdf">15.49 cm (6.1 inch) Full HD+ Display</li><li class="J+igdf">50MP
+ 10MP + 12MP | 12MP Front Camera</li><li class="J+igdf">3900 mAh Lithium Ion Battery</li><li class="J+igdf">Qualcomm Snapdragon 8 Gen 2
Processor</li><li class="J+igdf">1 Year Manufacturer Warranty for Device and 6 Months Manufacturer Warranty for In-Box Accessories</li></ul>,
 <ul class="G4BRas"><li class="J+igdf">8 GB RAM | 256 GB ROM</li><li class="J+igdf">15.49 cm (6.1 inch) Full HD+ Display</li><li class="J+igdf">50MP
+ 10MP + 12MP | 12MP Front Camera</li><li class="J+igdf">3900 mAh Lithium Ion Battery</li><li class="J+igdf">Qualcomm Snapdragon 8 Gen 2
Processor</li><li class="J+igdf">1 Year Manufacturer Warranty for Device and 6 Months Manufacturer Warranty for In-Box Accessories</li></ul>,
 <ul class="G4BRas"><li class="J+igdf">8 GB RAM | 128 GB ROM</li><li class="J+igdf">15.49 cm (6.1 inch) Full HD+ Display</li><li class="J+igdf">50MP
+ 10MP + 12MP | 12MP Front Camera</li><li class="J+igdf">3900 mAh Lithium Ion Battery</li><li class="J+igdf">Qualcomm Snapdragon 8 Gen 2
Processor</li><li class="J+igdf">1 Year Manufacturer Warranty for Device and 6 Months Manufacturer Warranty for In-Box Accessories</li></ul>,
 <ul class="G4BRas"><li class="J+igdf">6 GB RAM | 128 GB ROM | Expandable Upto 1 TB</li><li class="J+igdf">16.76 cm (6.6 inch) Full HD+ Display</li>
<li class="J+igdf">50MP + 2MP + 2MP | 13MP Front Camera</li><li class="J+igdf">5000 mAh Lithium Ion Battery</li><li class="J+igdf">Exynos 1330
Processor</li><li class="J+igdf">1 Year Manufacturer Warranty for Device and 6 Months Manufacturer Warranty for In-Box Accessories</li></ul>,
 <ul class="G4BRas"><li class="J+igdf">8 GB RAM | 256 GB ROM</li><li class="J+igdf">15.49 cm (6.1 inch) Full HD+ Display</li><li class="J+igdf">50MP
+ 10MP + 12MP | 12MP Front Camera</li><li class="J+igdf">3900 mAh Lithium Ion Battery</li><li class="J+igdf">Qualcomm Snapdragon 8 Gen 2
Processor</li><li class="J+igdf">1 Year Manufacturer Warranty for Device and 6 Months Manufacturer Warranty for In-Box Accessories</li></ul>,
 <ul class="G4BRas"><li class="J+igdf">8 GB RAM | 128 GB ROM</li><li class="J+igdf">15.49 cm (6.1 inch) Full HD+ Display</li><li class="J+igdf">50MP
+ 10MP + 12MP | 12MP Front Camera</li><li class="J+igdf">3900 mAh Lithium Ion Battery</li><li class="J+igdf">Qualcomm Snapdragon 8 Gen 2
Processor</li><li class="J+igdf">1 Year Manufacturer Warranty for Device and 6 Months Manufacturer Warranty for In-Box Accessories</li></ul>,
 <ul class="G4BRas"><li class="J+igdf">12 GB RAM | 256 GB ROM</li><li class="J+igdf">17.02 cm (6.7 inch) Quad HD+ Display</li><li class="J+igdf">50MP
+ 10MP + 12MP | 12MP Front Camera</li><li class="J+igdf">4900 mAh Battery</li><li class="J+igdf">Exynos 2400 Processor</li><li class="J+igdf">1 Year
Manufacturer Warranty for Device and 6 Months for In-Box Accessories</li></ul>,
 <ul class="G4BRas"><li class="J+igdf">8 GB RAM | 128 GB ROM</li><li class="J+igdf">16.26 cm (6.4 inch) Full HD+ Display</li><li class="J+igdf">50MP
+ 12MP | 10MP Front Camera</li><li class="J+igdf">4500 mAh Battery</li><li class="J+igdf">Samsung Exynos 2200 Processor</li><li class="J+igdf">1 Year
Manufacturer Warranty for Device and 6 Months for In-Box Accessories</li></ul>,
 <ul class="G4BRas"><li class="J+igdf">12 GB RAM | 256 GB ROM</li><li class="J+igdf">17.02 cm (6.7 inch) Quad HD+ Display</li><li class="J+igdf">50MP
```

```
+ 10MP + 12MP | 12MP Front Camera</li><li class="J+igdf">4900 mAh Battery</li><li class="J+igdf">Exynos 2400 Processor</li><li class="J+igdf">1 Year
Manufacturer Warranty for Device and 6 Months for In-Box Accessories</li></ul>,
 <ul class="G4BRas"><li class="J+igdf">8 GB RAM | 128 GB ROM</li><li class="J+igdf">15.49 cm (6.1 inch) Full HD+ Display</li><li class="J+igdf">50MP
+ 10MP + 12MP | 12MP Front Camera</li><li class="J+igdf">3900 mAh Lithium Ion Battery</li><li class="J+igdf">Qualcomm Snapdragon 8 Gen 2
Processor</li><li class="J+igdf">1 Year Manufacturer Warranty for Device and 6 Months Manufacturer Warranty for In-Box Accessories</li></ul>,
 <ul class="G4BRas"><li class="J+igdf">8 GB RAM | 128 GB ROM | Expandable Upto 1 TB</li><li class="J+igdf">16.76 cm (6.6 inch) Full HD+ Display</li>
<li class="J+igdf">50MP + 8MP + 5MP | 13MP Front Camera</li><li class="J+igdf">5000 mAh Battery</li><li class="J+igdf">Samsung Exynos 1380
Processor</li><li class="J+igdf">1 Year Manufacturer Warranty for Device and 6 Months for In-Box Accessories</li></ul>,
 <ul class="G4BRas"><li class="J+igdf">8 GB RAM | 128 GB ROM | Expandable Upto 1 TB</li><li class="J+igdf">16.76 cm (6.6 inch) Full HD+ Display</li>
<li class="J+igdf">50MP + 8MP + 5MP | 13MP Front Camera</li><li class="J+igdf">5000 mAh Battery</li><li class="J+igdf">Samsung Exynos 1380
Processor</li><li class="J+igdf">1 Year Manufacturer Warranty for Device and 6 Months for In-Box Accessories</li></ul>,
 <ul class="G4BRas"><li class="J+igdf">8 GB RAM | 256 GB ROM</li><li class="J+igdf">15.49 cm (6.1 inch) Full HD+ Display</li><li class="J+igdf">50MP
+ 10MP + 12MP | 12MP Front Camera</li><li class="J+igdf">3900 mAh Lithium Ion Battery</li><li class="J+igdf">Qualcomm Snapdragon 8 Gen 2
Processor</li><li class="J+igdf">1 Year Manufacturer Warranty for Device and 6 Months Manufacturer Warranty for In-Box Accessories</li></ul>,
 <ul class="G4BRas"><li class="J+igdf">8 GB RAM | 256 GB ROM</li><li class="J+igdf">15.75 cm (6.2 inch) Full HD+ Display</li><li class="J+igdf">50MP
+ 10MP + 12MP | 12MP Front Camera</li><li class="J+igdf">4000 mAh Battery</li><li class="J+igdf">Exynos 2400 Processor</li><li class="J+igdf">1 Year
Manufacturer Warranty for Device and 6 Months for In-Box Accessories</li></ul>,
 <ul class="G4BRas"><li class="J+igdf">8 GB RAM | 128 GB ROM</li><li class="J+igdf">15.49 cm (6.1 inch) Full HD+ Display</li><li class="J+igdf">50MP
+ 10MP + 12MP | 12MP Front Camera</li><li class="J+igdf">3900 mAh Lithium Ion Battery</li><li class="J+igdf">Qualcomm Snapdragon 8 Gen 2
Processor</li><li class="J+igdf">1 Year Manufacturer Warranty for Device and 6 Months Manufacturer Warranty for In-Box Accessories</li></ul>,
 <ul class="G4BRas"><li class="J+igdf">8 GB RAM | 256 GB ROM | Expandable Upto 1 TB</li><li class="J+igdf">16.76 cm (6.6 inch) Full HD+ Display</li>
<li class="J+igdf">50MP + 12MP + 5MP | 32MP Front Camera</li><li class="J+igdf">5000 mAh Battery</li><li class="J+igdf">Samsung Exynos 1480
Processor</li><li class="J+igdf">1 Year Manufacturer Warranty for Device and 6 Months for In-Box Accessories</li></ul>,
 <ul class="G4BRas"><li class="J+igdf">8 GB RAM | 256 GB ROM | Expandable Upto 1 TB</li><li class="J+igdf">16.51 cm (6.5 inch) Full HD+ Display</li>
<li class="J+igdf">50MP + 8MP + 2MP | 13MP Front Camera</li><li class="J+igdf">5000 mAh Battery</li><li class="J+igdf">Exynos 1280 Processor</li><li
class="J+igdf">1 Year Manufacturer Warranty for Device and 6 Months for In-Box Accessories</li></ul>,
 <ul class="G4BRas"><li class="J+igdf">8 GB RAM | 256 GB ROM | Expandable Upto 1 TB</li><li class="J+igdf">16.76 cm (6.6 inch) Full HD+ Display</li>
<li class="J+igdf">50MP + 8MP + 5MP | 13MP Front Camera</li><li class="J+igdf">5000 mAh Battery</li><li class="J+igdf">Samsung Exynos 1380
Processor</li><li class="J+igdf">1 Year Manufacturer Warranty for Device and 6 Months for In-Box Accessories</li></ul>,
 <ul class="G4BRas"><li class="J+igdf">6 GB RAM | 128 GB ROM | Expandable Upto 1 TB</li><li class="J+igdf">16.51 cm (6.5 inch) Full HD+ Display</li>
```

```python
for i in soup.find_all('ul',class_= "G4BRas"):
    print(i.text)
```

```
4 GB RAM | 64 GB ROM | Expandable Upto 1 TB17.12 cm (6.74 inch) HD+ Display50MP + 2MP | 8MP Front Camera5000 mAh BatteryHelio G85 Processor1 Year Manufa
8 GB RAM | 256 GB ROM15.49 cm (6.1 inch) Full HD+ Display50MP + 10MP + 12MP | 12MP Front Camera3900 mAh Lithium Ion BatteryQualcomm Snapdragon 8 Gen 2 P
8 GB RAM | 256 GB ROM15.49 cm (6.1 inch) Full HD+ Display50MP + 10MP + 12MP | 12MP Front Camera3900 mAh Lithium Ion BatteryQualcomm Snapdragon 8 Gen 2 P
8 GB RAM | 128 GB ROM15.49 cm (6.1 inch) Full HD+ Display50MP + 10MP + 12MP | 12MP Front Camera3900 mAh Lithium Ion BatteryQualcomm Snapdragon 8 Gen 2 P
6 GB RAM | 128 GB ROM | Expandable Upto 1 TB16.76 cm (6.6 inch) Full HD+ Display50MP + 2MP + 2MP | 13MP Front Camera5000 mAh Lithium Ion BatteryExynos 1
8 GB RAM | 256 GB ROM15.49 cm (6.1 inch) Full HD+ Display50MP + 10MP + 12MP | 12MP Front Camera3900 mAh Lithium Ion BatteryQualcomm Snapdragon 8 Gen 2 P
8 GB RAM | 128 GB ROM15.49 cm (6.1 inch) Full HD+ Display50MP + 10MP + 12MP | 12MP Front Camera3900 mAh Lithium Ion BatteryQualcomm Snapdragon 8 Gen 2 P
12 GB RAM | 256 GB ROM17.02 cm (6.7 inch) Quad HD+ Display50MP + 10MP + 12MP | 12MP Front Camera4900 mAh BatteryExynos 2400 Processor1 Year Manufacturer
8 GB RAM | 128 GB ROM16.26 cm (6.4 inch) Full HD+ Display50MP + 12MP | 10MP Front Camera4500 mAh BatterySamsung Exynos 2200 Processor1 Year Manufacturer
12 GB RAM | 256 GB ROM17.02 cm (6.7 inch) Quad HD+ Display50MP + 10MP + 12MP | 12MP Front Camera4900 mAh BatteryExynos 2400 Processor1 Year Manufacturer
8 GB RAM | 128 GB ROM15.49 cm (6.1 inch) Full HD+ Display50MP + 10MP + 12MP | 12MP Front Camera3900 mAh Lithium Ion BatteryQualcomm Snapdragon 8 Gen 2 P
8 GB RAM | 128 GB ROM | Expandable Upto 1 TB16.76 cm (6.6 inch) Full HD+ Display50MP + 8MP + 5MP | 13MP Front Camera5000 mAh BatterySamsung Exynos 1380
8 GB RAM | 128 GB ROM | Expandable Upto 1 TB16.76 cm (6.6 inch) Full HD+ Display50MP + 8MP + 5MP | 13MP Front Camera5000 mAh BatterySamsung Exynos 1380
8 GB RAM | 256 GB ROM15.49 cm (6.1 inch) Full HD+ Display50MP + 10MP + 12MP | 12MP Front Camera3900 mAh Lithium Ion BatteryQualcomm Snapdragon 8 Gen 2 P
```

```
8 GB RAM | 256 GB ROM15.75 cm (6.2 inch) Full HD+ Display50MP + 10MP + 12MP | 12MP Front Camera4000 mAh BatteryExynos 2400 Processor1 Year Manufacturer
8 GB RAM | 128 GB ROM15.49 cm (6.1 inch) Full HD+ Display50MP + 10MP + 12MP | 12MP Front Camera3900 mAh Lithium Ion BatteryQualcomm Snapdragon 8 Gen 2 P
8 GB RAM | 256 GB ROM | Expandable Upto 1 TB16.76 cm (6.6 inch) Full HD+ Display50MP + 12MP + 5MP | 32MP Front Camera5000 mAh BatterySamsung Exynos 1480
8 GB RAM | 256 GB ROM | Expandable Upto 1 TB16.51 cm (6.5 inch) Full HD+ Display50MP + 8MP + 2MP | 13MP Front Camera5000 mAh BatteryExynos 1280 Processo
8 GB RAM | 256 GB ROM | Expandable Upto 1 TB16.76 cm (6.6 inch) Full HD+ Display50MP + 8MP + 5MP | 13MP Front Camera5000 mAh BatterySamsung Exynos 1380
6 GB RAM | 128 GB ROM | Expandable Upto 1 TB16.51 cm (6.5 inch) Full HD+ Display50MP + 5MP + 2MP | 13MP Front Camera6000 mAh Lithium ion BatteryMediaTek
8 GB RAM | 256 GB ROM | Expandable Upto 1 TB16.76 cm (6.6 inch) Full HD+ Display50MP + 8MP + 5MP | 13MP Front Camera5000 mAh BatterySamsung Exynos 1380
8 GB RAM | 256 GB ROM16.76 cm (6.6 inch) Display50MP Rear Camera6000 mAh Battery1 YEAR
8 GB RAM | 256 GB ROM17.02 cm (6.7 inch) Full HD+ Display50MP + 5MP + 2MP | 13MP Front Camera5000 mAh BatteryDimensity 6300 Processor1 Year Manufacturer
8 GB RAM | 128 GB ROM17.02 cm (6.7 inch) Full HD+ Display50MP + 5MP + 2MP | 13MP Front Camera5000 mAh BatteryDimensity 6300 Processor1 Year Manufacturer
```

```python
import re
import pandas as pd

# Function to convert MB to GB if applicable
def convert_mb_to_gb(mb_value):
    if mb_value.endswith("MB"):
        # Convert MB to GB (round to 4 decimal places)
        return round(int(mb_value.replace('MB', '').strip()) / 1024, 4)
    return float(mb_value)

# Empty lists to collect data
names = []
ram_list = []
rom_list = []
display_list = []
battery_list = []

# Loop through each 'ul' with the class 'G4BRas'
for i in soup.find_all('ul', class_="G4BRas"):
    text = i.text.strip()

    # Extract RAM (GB), ROM (GB), Display (inch), and Battery Capacity (mAh)
    ram_match = re.search(r'(\d+)\s*GB\s*RAM', text)  # Match RAM
    rom_match = re.search(r'(\d+)\s*GB\s*ROM', text)  # Match ROM
    display_match = re.search(r'\((\d+(\.\d+)?)\s*inch\)', text)  # Match Display size inside parentheses
    battery_match = re.search(r'(\d+)\s*mAh', text)  # Match battery capacity in mAh

    # Handle missing values and append to lists
    ram = float(ram_match.group(1)) if ram_match else None
    rom = float(rom_match.group(1)) if rom_match else None
    display = float(display_match.group(1)) if display_match else None
    battery = convert_mb_to_gb(battery_match.group(1)) if battery_match else None
    # Append extracted values to the lists
    #names.append('Product')  # Add placeholder product names (modify as needed)
    ram_list.append(ram)
    rom_list.append(rom)
    display_list.append(display)
    battery_list.append(battery)

# Create a DataFrame
df = pd.DataFrame({
    #'Product Name': names,
    'RAM (GB)': ram_list,
    'ROM (GB)': rom_list,
    'Display (inch)': display_list,
    'Battery Capacity (GB)': battery_list
})

# Show the DataFrame
print(df)
```

```
    RAM (GB)  ROM (GB)  Display (inch)  Battery Capacity (GB)
0        4.0      64.0            6.74                 5000.0
1        8.0     256.0            6.10                 3900.0
2        8.0     256.0            6.10                 3900.0
3        8.0     128.0            6.10                 3900.0
4        6.0     128.0            6.60                 5000.0
5        8.0     256.0            6.10                 3900.0
6        8.0     128.0            6.10                 3900.0
7       12.0     256.0            6.70                 4900.0
8        8.0     128.0            6.40                 4500.0
9       12.0     256.0            6.70                 4900.0
10       8.0     128.0            6.10                 3900.0
11       8.0     128.0            6.60                 5000.0
12       8.0     128.0            6.60                 5000.0
13       8.0     256.0            6.10                 3900.0
14       8.0     256.0            6.20                 4000.0
15       8.0     128.0            6.10                 3900.0
16       8.0     256.0            6.60                 5000.0
17       8.0     256.0            6.50                 5000.0
18       8.0     256.0            6.60                 5000.0
19       6.0     128.0            6.50                 6000.0
20       8.0     256.0            6.60                 5000.0
21       8.0     256.0            6.60                 6000.0
22       8.0     256.0            6.70                 5000.0
23       8.0     128.0            6.70                 5000.0
```

DataFrame from Page 1

```
import re
import pandas as pd
from bs4 import BeautifulSoup
import numpy as np

url = ("https://www.flipkart.com/search?q=mobiles&as=on&as-show=on&"
      "otracker=AS_Query_TrendingAutoSuggest_1_0_na_na_na&"
      "otracker1=AS_Query_TrendingAutoSuggest_1_0_na_na_na&"
      "as-pos=1&as-type=TRENDING&suggestionId=mobiles&"
      "requestId=b87edce2-2302-4ed2-87db-5e11533453f2&p%5B%5D=facets.brand%255B%255D%3DSAMSUNG&"
      "p%5B%5D=facets.availability%255B%255D%3DExclude%2BOut%2Bof%2BStock&page=1")

# Function to extract ratings and reviews numbers
def extract_ratings_and_reviews(feedback):
    pattern = r'(\d{1,3}(?:,\d{3})*)\s*Ratings.*&\s*(\d{1,3}(?:,\d{3})*)\s*Reviews'
    match = re.search(pattern, feedback)
    if match:
        # Remove commas and convert to integers
        number_of_ratings = int(match.group(1).replace(',', ''))
        number_of_reviews = int(match.group(2).replace(',', ''))
        return number_of_ratings, number_of_reviews
    else:
        return None, None

# Function to convert MB to GB if applicable (for battery capacity in MB only)
def convert_mb_to_gb(mb_value):
    if mb_value.endswith("MB"):
        return round(int(mb_value.replace('MB', '').strip()) / 1024, 4)  # Convert MB to GB
    return int(mb_value)  # Return as integer if it's already in mAh

# Empty lists to collect data
names = []
prices = []
ratings = []  # Make sure this is a list
ratings_count = []  # To store the number before Ratings
reviews_count = []  # To store the number after Ratings
ram_list = []
rom_list = []
display_list = []
battery_list = []  # Store battery capacity (mAh)
```

```
# Assuming 'soup' is the BeautifulSoup object containing the HTML
for i in soup.find_all('div',class_ = "tUxRFH"):
    # Extract product name (handle missing data)
    product_name = i.find('div', class_="KzDlHZ")
    names.append(product_name.text.strip() if product_name else np.nan)

    # Extract product price and convert to integer (handle missing data)
    price_tag = i.find('div', class_="Nx9bqj _4b5DiR")
    prices.append(int(price_tag.text.replace('₹', '').replace(',', '').strip()) if price_tag else np.nan)

    # Extract product rating and convert to float (handle missing data)
    rating_tag = i.find('div', class_="XQDdHH")
    ratings.append(float(rating_tag.text.strip()) if rating_tag else np.nan)

    # Extract ratings_before and ratings_after using the function
    feedback_tag = i.find('span', class_="Wphh3N")
    feedback = feedback_tag.text if feedback_tag else None
    rating_value, review_value = extract_ratings_and_reviews(feedback)
    ratings_count.append(rating_value)
    reviews_count.append(review_value)

    # Extract RAM, ROM, Display (inch), and Battery Capacity (mAh)
    text = i.find('ul', class_="G4BRas").text.strip()

    ram_match = re.search(r'(\d+)\s*GB\s*RAM', text)
    rom_match = re.search(r'(\d+)\s*GB\s*ROM', text)
    display_match = re.search(r'\((\d+(\.\d+)?)\s*inch\)', text)
    battery_match = re.search(r'(\d+)\s*(mAh|MB)', text)

    # Handle missing values and append to lists
    ram = float(ram_match.group(1)) if ram_match else np.nan
    rom = float(rom_match.group(1)) if rom_match else np.nan
    display = float(display_match.group(1)) if display_match else np.nan

    # Extract the battery capacity (only in mAh)
    if battery_match:
        battery = int(battery_match.group(1))  # Always keep it in mAh
    else:
        battery = np.nan  # Handle missing battery data

    # Append extracted values to the lists
    ram_list.append(ram)
    rom_list.append(rom)
    display_list.append(display)
    battery_list.append(battery)

# Create a DataFrame from the collected data
df = pd.DataFrame({
    'Product Name': names,
    'Price': prices,
    'Rating': ratings,
    'Ratings Count': ratings_count,
    'Reviews Count': reviews_count,
    'RAM (GB)': ram_list,
    'ROM (GB)': rom_list,
    'Display (inch)': display_list,
    'Battery Capacity (mAh)': battery_list  # Keep battery in mAh
})

# Handle missing data: replace np.nan for missing numerical values
# You can fill missing values with 'NaN' in pandas to handle it correctly
df.fillna({
    'Price': np.nan,
    'Rating': np.nan,
    'Ratings Count': np.nan,
    'Reviews Count': np.nan,
    'RAM (GB)': np.nan,
    'ROM (GB)': np.nan,
    'Display (inch)': np.nan,
    'Battery Capacity (mAh)': np.nan
}, inplace=True)

# Show the DataFrame
print(df)
```

```
                                      Product Name  Price  Rating  \
0          SAMSUNG Galaxy F05 (Twilight Blue, 64 GB)   6499     4.2   
1              SAMSUNG Galaxy S23 5G (Cream, 256 GB)  42999     4.6   
2              SAMSUNG Galaxy S23 5G (Green, 256 GB)  42999     4.6   
3              SAMSUNG Galaxy S23 5G (Green, 128 GB)  37999     4.6   
4           SAMSUNG Galaxy A14 5G (Dark Red, 128 GB)  10999     4.2   
5           SAMSUNG Galaxy S23 5G (Lavender, 256 GB)  42999     4.6   
6      SAMSUNG Galaxy S23 5G (Phantom Black, 128 GB)  37999     4.6   
7        SAMSUNG Galaxy S24+ 5G (Onyx Black, 256 GB)  64999     4.5   
8           SAMSUNG Galaxy S23 FE (Graphite, 128 GB)  30999     4.4   
9    SAMSUNG Galaxy S24+ 5G (Cobalt Violet, 256 GB)  64999     4.5   
10             SAMSUNG Galaxy S23 5G (Cream, 128 GB)  37999     4.6   
```

```
11  SAMSUNG Galaxy A35 5G (Awesome Iceblue, 128 GB)  30999     4.3
12     SAMSUNG Galaxy A35 5G (Awesome Navy, 128 GB)  30999     4.3
13    SAMSUNG Galaxy S23 5G (Phantom Black, 256 GB)  42999     4.6
14       SAMSUNG Galaxy S24 5G (Onyx Black, 256 GB)  58466     4.5
15         SAMSUNG Galaxy S23 5G (Lavender, 128 GB)  37999     4.6
16  SAMSUNG Galaxy A55 5G (Awesome Iceblue, 256 GB)  42999     4.4
17       SAMSUNG Galaxy A25 5G (Blue Black, 256 GB)  20490     4.3
18     SAMSUNG Galaxy A35 5G (Awesome Navy, 256 GB)  33999     4.3
19    SAMSUNG Galaxy F15 5G (Groovy Violet, 128 GB)  12499     4.2
20  SAMSUNG Galaxy A35 5G (Awesome Iceblue, 256 GB)  33999     4.3
21    SAMSUNG Galaxy M35 5G (DayBreak Blue, 256 GB)  26990     4.4
22             SAMSUNG Galaxy A16 5G (Gold, 256 GB)  19208     4.2
23             SAMSUNG Galaxy A16 5G (Gold, 128 GB)  17999     4.2

    Ratings Count  Reviews Count  RAM (GB)  ROM (GB)  Display (inch)  \
0           21063           1148       4.0      64.0            6.74   
1           65179           4462       8.0     256.0            6.10   
2           65179           4462       8.0     256.0            6.10   
3           65179           4462       8.0     128.0            6.10   
4           63583           3046       6.0     128.0            6.60   
5           65179           4462       8.0     256.0            6.10   
6           65179           4462       8.0     128.0            6.10   
7            3747            280      12.0     256.0            6.70   
8           62125           3783       8.0     128.0            6.40   
9            3747            280      12.0     256.0            6.70   
10          65179           4462       8.0     128.0            6.10   
11           3286            244       8.0     128.0            6.60   
12           3286            244       8.0     128.0            6.60   
13          65179           4462       8.0     256.0            6.10   
14           1476            162       8.0     256.0            6.20   
15          65179           4462       8.0     128.0            6.10   
16            741             75       8.0     256.0            6.60   
17            180              9       8.0     256.0            6.50   
18           3286            244       8.0     256.0            6.60   
19          28068           2279       6.0     128.0            6.50   
20           3286            244       8.0     256.0            6.60   
21            396             22       8.0     256.0            6.60   
22            467             31       8.0     256.0            6.70   
23            467             31       8.0     128.0            6.70   

    Battery Capacity (mAh)  
0                     5000  
1                     3900  
2                     3900  
3                     3900  
4                     5000  
```

```
df.shape
```

```
(24, 9)
```

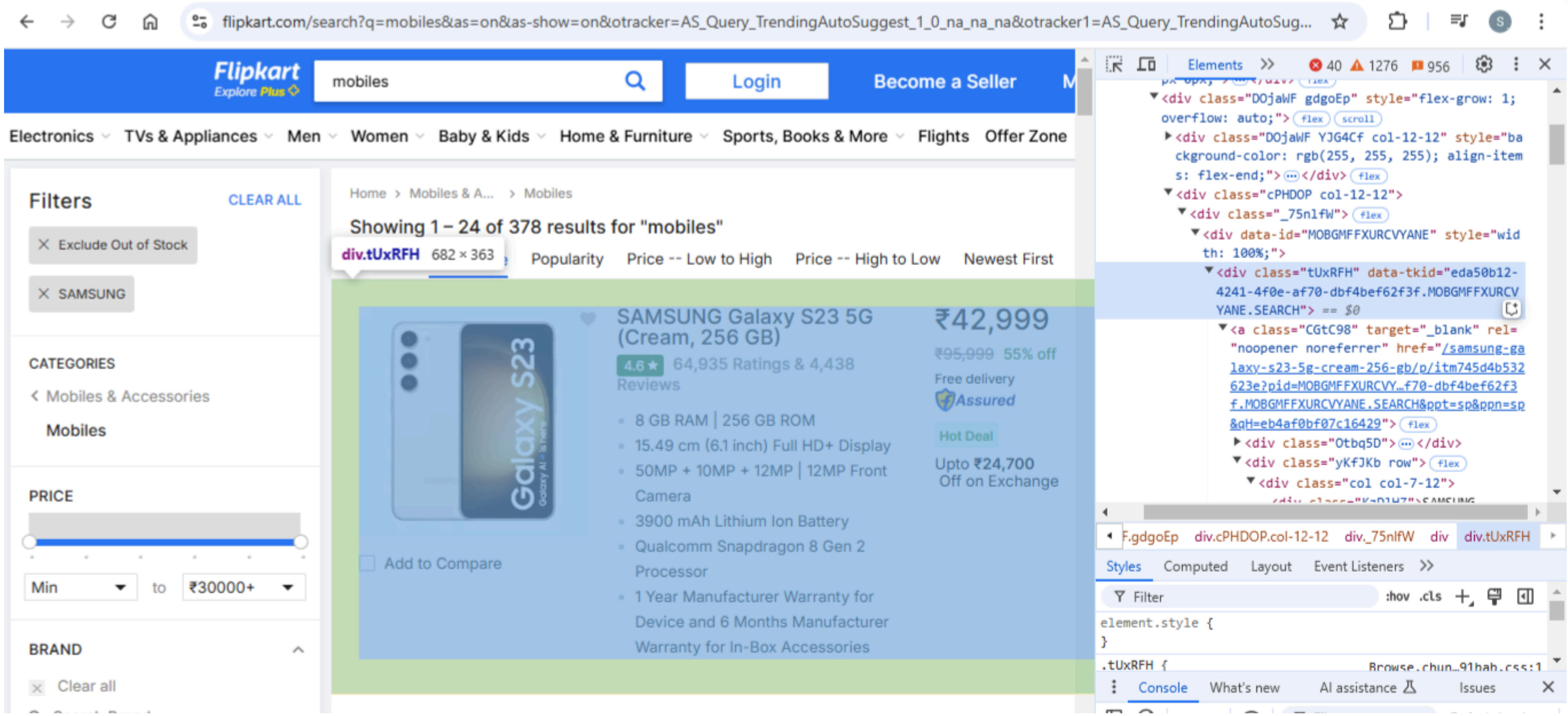
```
print(df.isnull().sum().sum())
```

```
0
```

No missing data in the 1st webpage

```
df.isnull().sum()
```

```
                           0
         Product Name      0
                Price      0
               Rating      0
        Ratings Count      0
        Reviews Count      0
             RAM (GB)      0
             ROM (GB)      0
      Display (inch)       0
Battery Capacity (mAh)     0

dtype: int64
```



Showing 1 – 24 of 378 results for "mobiles"

SAMSUNG Galaxy S23 5G (Cream, 256 GB)

4.6 ★ 64,935 Ratings & 4,438 Reviews

- 8 GB RAM | 256 GB ROM
- 15.49 cm (6.1 inch) Full HD+ Display
- 50MP + 10MP + 12MP | 12MP Front Camera
- 3900 mAh Lithium Ion Battery
- Qualcomm Snapdragon 8 Gen 2 Processor
- 1 Year Manufacturer Warranty for Device and 6 Months Manufacturer Warranty for In-Box Accessories

₹42,999
~~₹95,999~~ 55% off
Free delivery
Assured
Hot Deal
Upto ₹24,700
Off on Exchange

```
▼<div class="DOjaWF gdgoEp" style="flex-grow: 1; overflow: auto;"> flex scroll
  ▶<div class="DOjaWF YJG4Cf col-12-12" style="background-color: rgb(255, 255, 255); align-items: flex-end;"> ⋯ </div> flex
  ▼<div class="cPHDOP col-12-12">
    ▼<div class="_75nlfW"> flex
      ▼<div data-id="MOBGMFFXURCVYANE" style="width: 100%;">
        ▼<div class="tUxRFH" data-tkid="eda50b12-4241-4f0e-af70-dbf4bef62f3f.MOBGMFFXURCVYANE.SEARCH"> == $0
          ▼<a class="CGtC98" target="_blank" rel="noopener noreferrer" href="/samsung-galaxy-s23-5g-cream-256-gb/p/itm745d4b532623e?pid=MOBGMFFXURCVY…f70-dbf4bef62f3f.MOBGMFFXURCVYANE.SEARCH&ppt=sp&ppn=sp&qH=eb4af0bf07c16429"> flex
            ▶<div class="Otbq5D"> ⋯ </div>
            ▼<div class="yKfJKb row"> flex
              ▼<div class="col col-7-12">
```

F.gdgoEp div.cPHDOP.col-12-12 div._75nlfW div div.tUxRFH

```
element.style {
}
.tUxRFH {                                   Browse.chun…91bab.css:1
```

Product Card

```
product = soup.find_all('div',class_ = "tUxRFH")
```

```
for i in product:
    #print(i.find('div', class_ ="KzDlHZ").text.strip())
    #print(i.find('ul', class_="G4BRas"))
    print(i.find_all('li', class_="J+igdf"))
```

```
[<li class="J+igdf">4 GB RAM | 64 GB ROM | Expandable Upto 1 TB</li>, <li class="J+igdf">17.12 cm (6.74 inch) HD+ Display</li>, <li class="J+igdf">50MP
[<li class="J+igdf">8 GB RAM | 256 GB ROM</li>, <li class="J+igdf">15.49 cm (6.1 inch) Full HD+ Display</li>, <li class="J+igdf">50MP + 10MP + 12MP | 12
[<li class="J+igdf">8 GB RAM | 256 GB ROM</li>, <li class="J+igdf">15.49 cm (6.1 inch) Full HD+ Display</li>, <li class="J+igdf">50MP + 10MP + 12MP | 12
[<li class="J+igdf">8 GB RAM | 128 GB ROM</li>, <li class="J+igdf">15.49 cm (6.1 inch) Full HD+ Display</li>, <li class="J+igdf">50MP + 10MP + 12MP | 12
[<li class="J+igdf">6 GB RAM | 128 GB ROM | Expandable Upto 1 TB</li>, <li class="J+igdf">16.76 cm (6.6 inch) Full HD+ Display</li>, <li class="J+igdf">
[<li class="J+igdf">8 GB RAM | 256 GB ROM</li>, <li class="J+igdf">15.49 cm (6.1 inch) Full HD+ Display</li>, <li class="J+igdf">50MP + 10MP + 12MP | 12
[<li class="J+igdf">8 GB RAM | 128 GB ROM</li>, <li class="J+igdf">15.49 cm (6.1 inch) Full HD+ Display</li>, <li class="J+igdf">50MP + 10MP + 12MP | 12
```

```
[<li class="J+igdf">12 GB RAM | 256 GB ROM</li>, <li class="J+igdf">17.02 cm (6.7 inch) Quad HD+ Display</li>, <li class="J+igdf">50MP + 10MP + 12MP | 1
[<li class="J+igdf">8 GB RAM | 128 GB ROM</li>, <li class="J+igdf">16.26 cm (6.4 inch) Full HD+ Display</li>, <li class="J+igdf">50MP + 12MP | 10MP Fron
[<li class="J+igdf">12 GB RAM | 256 GB ROM</li>, <li class="J+igdf">17.02 cm (6.7 inch) Quad HD+ Display</li>, <li class="J+igdf">50MP + 10MP + 12MP | 1
[<li class="J+igdf">8 GB RAM | 128 GB ROM</li>, <li class="J+igdf">15.49 cm (6.1 inch) Full HD+ Display</li>, <li class="J+igdf">50MP + 10MP + 12MP | 12
[<li class="J+igdf">8 GB RAM | 128 GB ROM | Expandable Upto 1 TB</li>, <li class="J+igdf">16.76 cm (6.6 inch) Full HD+ Display</li>, <li class="J+igdf">
[<li class="J+igdf">8 GB RAM | 128 GB ROM | Expandable Upto 1 TB</li>, <li class="J+igdf">16.76 cm (6.6 inch) Full HD+ Display</li>, <li class="J+igdf">
[<li class="J+igdf">8 GB RAM | 256 GB ROM</li>, <li class="J+igdf">15.49 cm (6.1 inch) Full HD+ Display</li>, <li class="J+igdf">50MP + 10MP + 12MP | 12
[<li class="J+igdf">8 GB RAM | 256 GB ROM</li>, <li class="J+igdf">15.75 cm (6.2 inch) Full HD+ Display</li>, <li class="J+igdf">50MP + 10MP + 12MP | 12
[<li class="J+igdf">8 GB RAM | 128 GB ROM</li>, <li class="J+igdf">15.49 cm (6.1 inch) Full HD+ Display</li>, <li class="J+igdf">50MP + 10MP + 12MP | 12
[<li class="J+igdf">8 GB RAM | 256 GB ROM | Expandable Upto 1 TB</li>, <li class="J+igdf">16.76 cm (6.6 inch) Full HD+ Display</li>, <li class="J+igdf">
[<li class="J+igdf">8 GB RAM | 256 GB ROM | Expandable Upto 1 TB</li>, <li class="J+igdf">16.51 cm (6.5 inch) Full HD+ Display</li>, <li class="J+igdf">
[<li class="J+igdf">8 GB RAM | 256 GB ROM | Expandable Upto 1 TB</li>, <li class="J+igdf">16.76 cm (6.6 inch) Full HD+ Display</li>, <li class="J+igdf">
[<li class="J+igdf">6 GB RAM | 128 GB ROM | Expandable Upto 1 TB</li>, <li class="J+igdf">16.51 cm (6.5 inch) Full HD+ Display</li>, <li class="J+igdf">
[<li class="J+igdf">8 GB RAM | 256 GB ROM | Expandable Upto 1 TB</li>, <li class="J+igdf">16.76 cm (6.6 inch) Full HD+ Display</li>, <li class="J+igdf">
[<li class="J+igdf">8 GB RAM | 256 GB ROM</li>, <li class="J+igdf">16.76 cm (6.6 inch) Display</li>, <li class="J+igdf">50MP Rear Camera</li>, <li class
[<li class="J+igdf">8 GB RAM | 256 GB ROM</li>, <li class="J+igdf">17.02 cm (6.7 inch) Full HD+ Display</li>, <li class="J+igdf">50MP + 5MP + 2MP | 13MP
[<li class="J+igdf">8 GB RAM | 128 GB ROM</li>, <li class="J+igdf">17.02 cm (6.7 inch) Full HD+ Display</li>, <li class="J+igdf">50MP + 5MP + 2MP | 13MP
```

Device Specification details

```
# 1st mobile details

product[0].find_all('li', class_ ="J+igdf")
```

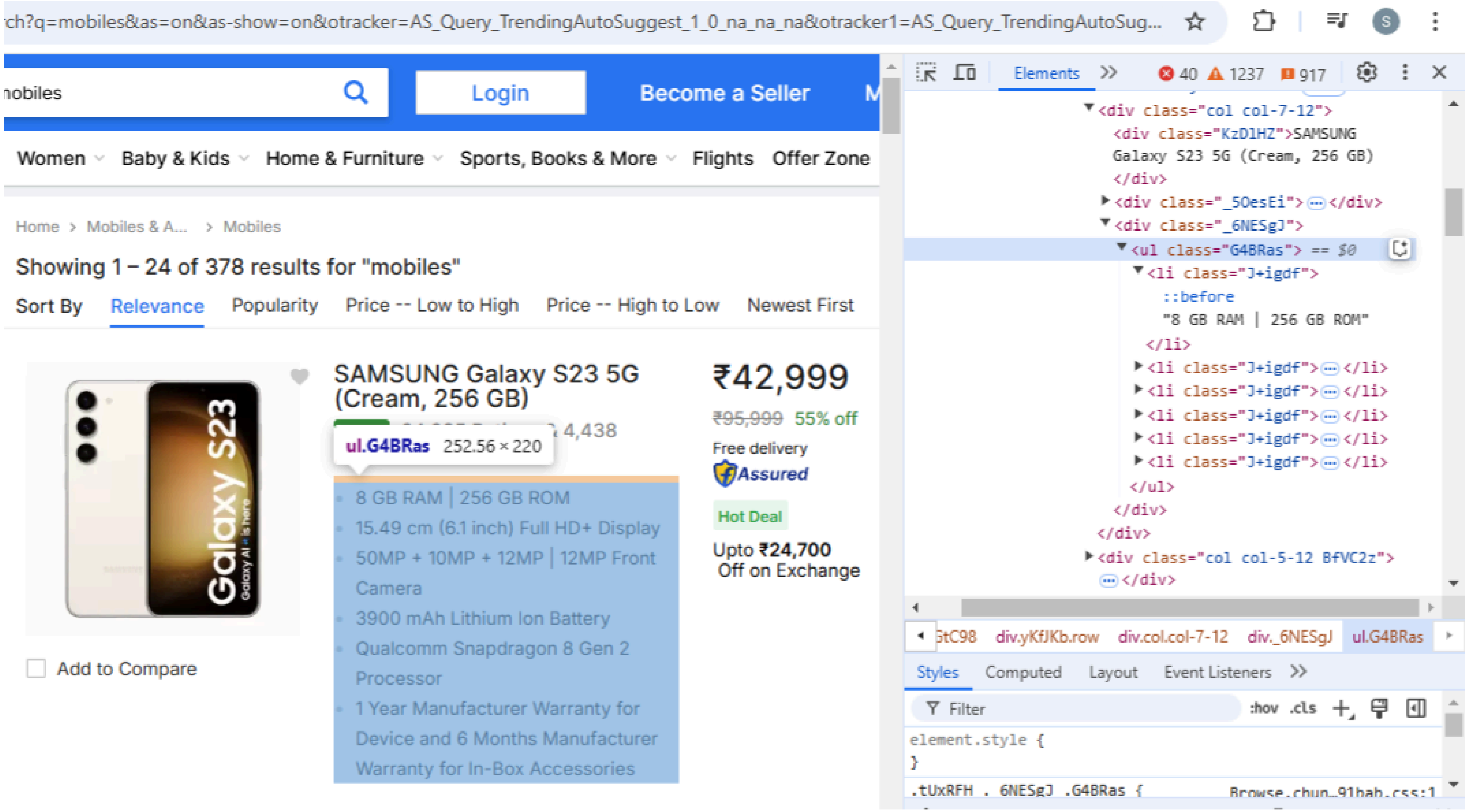
```
[<li class="J+igdf">4 GB RAM | 64 GB ROM | Expandable Upto 1 TB</li>,
 <li class="J+igdf">17.12 cm (6.74 inch) HD+ Display</li>,
 <li class="J+igdf">50MP + 2MP | 8MP Front Camera</li>,
 <li class="J+igdf">5000 mAh Battery</li>,
 <li class="J+igdf">Helio G85 Processor</li>,
 <li class="J+igdf">1 Year Manufacturer Warranty for Device and 6 Months for In-Box Accessories</li>]
```

```
soup.find_all('div',class_ = "tUxRFH")[0].find_all('li', class_ ="J+igdf")
```

```
[<li class="J+igdf">4 GB RAM | 64 GB ROM | Expandable Upto 1 TB</li>,
 <li class="J+igdf">17.12 cm (6.74 inch) HD+ Display</li>,
 <li class="J+igdf">50MP + 2MP | 8MP Front Camera</li>,
 <li class="J+igdf">5000 mAh Battery</li>,
 <li class="J+igdf">Helio G85 Processor</li>,
 <li class="J+igdf">1 Year Manufacturer Warranty for Device and 6 Months for In-Box Accessories</li>]
```

```
soup.find_all('div',class_ = "tUxRFH")[0].find_all('li', class_ ="J+igdf")[0]
```

```
<li class="J+igdf">4 GB RAM | 64 GB ROM | Expandable Upto 1 TB</li>
```



Showing 1 – 24 of 378 results for "mobiles"

Sort By Relevance Popularity Price -- Low to High Price -- High to Low Newest First

SAMSUNG Galaxy S23 5G (Cream, 256 GB)

4,438

ul.G4BRas 252.56 × 220

- 8 GB RAM | 256 GB ROM
- 15.49 cm (6.1 inch) Full HD+ Display
- 50MP + 10MP + 12MP | 12MP Front Camera
- 3900 mAh Lithium Ion Battery
- Qualcomm Snapdragon 8 Gen 2 Processor
- 1 Year Manufacturer Warranty for Device and 6 Months Manufacturer Warranty for In-Box Accessories

₹42,999

~~₹95,999~~ 55% off

Free delivery

Assured

Hot Deal

Upto ₹24,700 Off on Exchange

□ Add to Compare

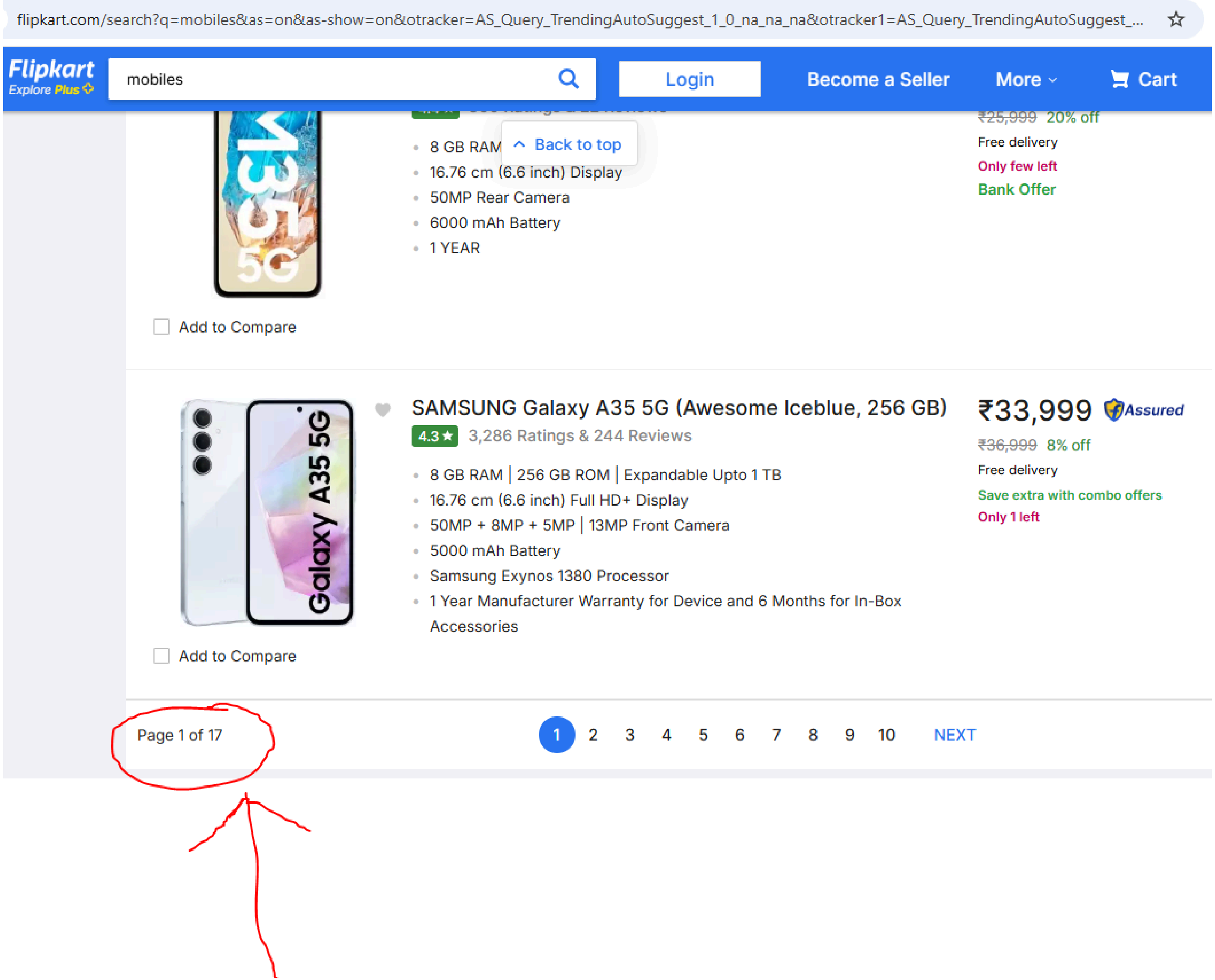
```
▼<div class="col col-7-12">
  <div class="KzDlHZ">SAMSUNG Galaxy S23 5G (Cream, 256 GB)
  </div>
 ▶<div class="_5OesEi"> ⋯ </div>
 ▼<div class="_6NESgJ">
  ▼<ul class="G4BRas"> == $0
    ▼<li class="J+igdf">
       ::before
       "8 GB RAM | 256 GB ROM"
     </li>
    ▶<li class="J+igdf"> ⋯ </li>
    ▶<li class="J+igdf"> ⋯ </li>
    ▶<li class="J+igdf"> ⋯ </li>
    ▶<li class="J+igdf"> ⋯ </li>
    ▶<li class="J+igdf"> ⋯ </li>
   </ul>
  </div>
 </div>
▶<div class="col col-5-12 BfVC2z">
 ⋯ </div>
```

3tC98 div.yKfJKb.row div.col.col-7-12 div._6NESgJ ul.G4BRas

```
element.style {
}
.tUxRFH ._6NESgJ .G4BRas {     Browse.chun…91bab.css:1
```

```
soup.find_all('div',class_ = "tUxRFH")[0].find_all('li', class_ ="J+igdf")[0].text
```

```
'4 GB RAM | 64 GB ROM | Expandable Upto 1 TB'
```



flipkart.com/search?q=mobiles&as=on&as-show=on&otracker=AS_Query_TrendingAutoSuggest_1_0_na_na_na&otracker1=AS_Query_TrendingAutoSuggest_...

~~₹25,999~~ 20% off
Free delivery
Only few left
Bank Offer

- 8 GB RAM
- 16.76 cm (6.6 inch) Display
- 50MP Rear Camera
- 6000 mAh Battery
- 1 YEAR

□ Add to Compare

SAMSUNG Galaxy A35 5G (Awesome Iceblue, 256 GB)

4.3★ 3,286 Ratings & 244 Reviews

- 8 GB RAM | 256 GB ROM | Expandable Upto 1 TB
- 16.76 cm (6.6 inch) Full HD+ Display
- 50MP + 8MP + 5MP | 13MP Front Camera
- 5000 mAh Battery
- Samsung Exynos 1380 Processor
- 1 Year Manufacturer Warranty for Device and 6 Months for In-Box Accessories

₹33,999 Assured
~~₹36,999~~ 8% off
Free delivery
Save extra with combo offers
Only 1 left

□ Add to Compare

Page 1 of 17

1 2 3 4 5 6 7 8 9 10 NEXT

Web Sraping Samsung Mobiles Data on Flipkart from total 17 Pages excluding out of stock items

```
# Importing required libraries
import re
import pandas as pd
from bs4 import BeautifulSoup
import requests
import numpy as np

# Initializing empty lists to collect data
device_names = []
colors = []
prices = []
ratings = []
ratings_count = []
reviews_count = []
ram_list = []
rom_list = []
display_list = []
battery_list = []

# Function to extract ratings and reviews numbers
def extract_ratings_and_reviews(feedback):
    pattern = r'(\d{1,3}(?:,\d{3})*)\s*Ratings.*&\s*(\d{1,3}(?:,\d{3})*)\s*Reviews'
    match = re.search(pattern, feedback)
    if match:
        number_of_ratings = int(match.group(1).replace(',', ''))
        number_of_reviews = int(match.group(2).replace(',', ''))
        return number_of_ratings, number_of_reviews
    else:
        return None, None

# Looping through pages from 1 to 17
for page in range(1, 18):
    print(f"Scraping page {page}...") # To observe the scrapping of each page

    # Constructing the webpage URL
    url = ("https://www.flipkart.com/search?q=mobiles&as=on&as-show=on&"
           "otracker=AS_Query_TrendingAutoSuggest_1_0_na_na_na&"
           "otracker1=AS_Query_TrendingAutoSuggest_1_0_na_na_na&"
           "as-pos=1&as-type=TRENDING&suggestionId=mobiles&"
           "requestId=b87edce2-2302-4ed2-87db-5e11533453f2&p%5B%5D=facets.brand%255B%255D%3DSAMSUNG&"
           "p%5B%5D=facets.availability%255B%255D%3DExclude%2BOut%2Bof%2BStock&page={}").format(page)

    headers = {'User-Agent': 'insert your user agent here'}
    webpage = requests.get(url, headers=headers)

    # To check if request was successful
    if webpage.status_code != 200:
        print(f"Failed to retrieve page {page}. Status code: {webpage.status_code}")
        continue

    soup = BeautifulSoup(webpage.text, 'html.parser')

    for i in soup.find_all('div', class_="tUxRFH"):
        # Extracting product name
        device_name_tag = i.find('div', class_="KzDlHZ")

        if device_name_tag:
            product_list = [device_name_tag.text.strip()]  # Wrapped in list for iteration

            for product in product_list:
                # Extracting Device Name (everything before the first opening parenthesis )
                name_match = re.match(r'(.*?)(?=\s*\()', product)
                device_name = name_match.group(1).strip() if name_match else product.strip()
                device_names.append(device_name)  # Appending directly as it's already a string

                # Extracting Color (text between the opening and closing parenthesis, excluding GB info)
                color_match = re.search(r'\((.*?),\s*\d+\s*GB\)', product)
                color = color_match.group(1).strip() if color_match else None
                colors.append(color)
        else:
            device_names.append(np.nan)  # Handle missing device name
            colors.append(np.nan)  # Handle missing color

        # Extracting product price and convert to integer (also, handling any missing data)
        price_tag = i.find('div', class_="Nx9bqj _4b5DiR")
        prices.append(int(price_tag.text.replace('₹', '').replace(',', '').strip()) if price_tag else np.nan)

        # Extract product rating and convert to float (also, handling any missing data)
        rating_tag = i.find('div', class_="XQDdHH")
        ratings.append(float(rating_tag.text.strip()) if rating_tag else np.nan)
        # Extract number of ratings and reviews using the function (also, handling any missing data)
        feedback_tag = i.find('span', class_="Wphh3N")
        feedback = feedback_tag.text if feedback_tag else None

        if feedback:
            rating_value, review_value = extract_ratings_and_reviews(feedback)
        else:
            rating_value, review_value = None, None

        ratings_count.append(rating_value)
        reviews_count.append(review_value)

        # Extracting RAM, ROM, Display (inch), and Battery Capacity (mAh)
        mobile_specifications_tag = i.find('ul', class_="G4BRas")

        if mobile_specifications_tag:
            mobile_specifications = mobile_specifications_tag.text.strip()

            ram_match = re.search(r'(\d+)\s*GB\s*RAM', mobile_specifications)
            rom_match = re.search(r'(\d+)\s*GB\s*ROM', mobile_specifications)
            display_match = re.search(r'\((\d+(\.\d+)?)\s*inch\)', mobile_specifications)
            battery_match = re.search(r'(\d+)\s*(mAh|MB)', mobile_specifications)

            ram = float(ram_match.group(1)) if ram_match else np.nan
            rom = float(rom_match.group(1)) if rom_match else np.nan
            display = float(display_match.group(1)) if display_match else np.nan

            battery = int(battery_match.group(1)) if battery_match else np.nan
        else:
            ram, rom, display, battery = np.nan, np.nan, np.nan, np.nan

        ram_list.append(ram)
        rom_list.append(rom)
        display_list.append(display)
        battery_list.append(battery)

# Create a DataFrame from the collected data
df = pd.DataFrame({
    'Product Name': device_names,
    'Colours': colors,
    'Price': prices,
    'Rating': ratings,
    'Ratings Count': ratings_count,
    'Reviews Count': reviews_count,
    'RAM (GB)': ram_list,
    'ROM (GB)': rom_list,
    'Display (inch)': display_list,
    'Battery Capacity (mAh)': battery_list
})

# Handle missing data: replace np.nan for missing numerical values
df.fillna({
    'Price': np.nan,
    'Rating': np.nan,
    'Ratings Count': np.nan,
    'Reviews Count': np.nan,
    'RAM (GB)': np.nan,
    'ROM (GB)': np.nan,
    'Display (inch)': np.nan,
    'Battery Capacity (mAh)': np.nan
}, inplace=True)

# Show the DataFrame
print(df)

# Check if DataFrame is empty or not after scraping all pages
if df.empty:
    print("No data was scraped.")
else:
    print(f"Scraped {len(df)} products.")
```

```
Scraping page 14...
Scraping page 15...
Scraping page 16...
Scraping page 17...
                  Product Name  \
0                                              Dark Red  10999.0     4.2
1                                           Light Green  10999.0     4.2
2                                                 Cream  42999.0     4.6
3                                         Twilight Blue   6499.0     4.2
4                                                 Black  10999.0     4.2
..                                                  ...      ...     ...
375                                                None   1999.0     2.8
376                                         Marble Gray  63999.0     4.5
377                                     Deep Ocean Blue      NaN     4.1
378                                       Phantom Black      NaN     3.2
379  Refurbished) SAMSUNG Galaxy S23 5G (Phantom Black  43999.0     3.5

     Ratings Count  Reviews Count  RAM (GB)  ROM (GB)  Display (inch)  \
0          63583.0         3046.0       6.0     128.0            6.60   
1          63583.0         3046.0       6.0     128.0            6.60   
2          65179.0         4462.0       8.0     256.0            6.10   
3          21063.0         1148.0       4.0      64.0            6.74   
4          63583.0         3046.0       6.0     128.0            6.60   
..             ...            ...       ...       ...             ...   
375         1028.0           61.0       NaN       NaN            2.00   
376         1476.0          162.0       8.0     128.0            6.20   
377          733.0           58.0       8.0     128.0            6.70   
378           93.0            9.0      12.0     256.0            7.60   
379            6.0            0.0       8.0     256.0             NaN   

     Battery Capacity (mAh)  
0                      5000  
1                      5000  
2                      3900  
3                      5000  
4                      5000  
..                      ...  
375                      32  
376                    4000  
377                    5000  
378                    4400  
379                    3900  

[380 rows x 10 columns]
Scraped 380 products.
```

Shape of DataFrame

```
df.shape
```

```
(380, 10)
```

Total **380** *rows/records* and **10** *columns/features* are present in the Samsung Mobile dataset

To save this Data as a CSV file

```
df.to_csv('Samsung Mobiles Data.csv', header=True, index=False)
```

Data types of different features

```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
```