

WebScraping Google PlayStore Apps

Importing Required libraries

```
In [1]: import requests  
        from bs4 import BeautifulSoup  
        import re
```

Scraping data from google playstore website using 'request library'

```
In [2]: page = requests.get('https://play.google.com/store/apps/details?id=com.healthifyme')
```

Checking whether the given website is allowed to scrape data or not

In [3]: page

Out[3]: <Response [200]>

Reading the Scrapped Data

In [4]: page.text

Cleaning the Scraped Data Using the Beautiful Soup Library

```
In [5]: soup = BeautifulSoup(page.text)
```

```
In [6]: soup
```

```
e/linkbuilder","/store/linkbuilder/","/store/movies/device","/store/movies/device/","/web/store/ereview","/web/store/ereview/","/web/store/linkbuilder","/web/store/linkbuilder/","/web/store/movies/device","/web/store/movies/device/"], "FdrJFe": "-9013616580329258360", "G8C1sd": "%.@.[[true],null,[[[[]]]],null,null,null,[null,2],null,null,null,null,[1]], [null,[[[[]]]],[null,[[[[]]]],null,[[[[]]]],null,[true]], [null,[[[[]]]],null,null,null,null,[[[[]]]], [[[[]]]]]]", "GwsdKe": "en-US", "IjaTqd": "%.@.]", "Im6cmf": "/_PlayStoreUi", "LVIXXb": 1, "LoQv7e": false, "MT7f9b": ["/PlayStoreDataService.PlayAcquireItemNewSession", "Fho1U"], "/PlayStoreDataService.PlayAcquireItemExistingSession", "Ngbm"], "QEwZ9c": "%.@.[10,[10,50]], true, null, [96,27,8,57,30,110,11,16,49,1,9,12,104,55,56,51,10,34,31,145], [null,null,[[[true],null,[[[[]]]],null,null,null,null,[null,2],null,null,null,null,null,[1]], [null,[[[[]]]],[null,[[[[]]]],null,[true]], [null,[[[[]]]],null,null,null,[[[[]]]], [[[7,1],[[1,73,96,103,97,58,50,92,52,112,69,19,31,101,123,74,49,80,20,10,14,79,43,42]]], [[7,31],[[1,73,96,103,97,58,50,92,52,112,69,19,31,101,123,74,49,80,20,10,14,79,43,42]]], [[7,104],[[1,73,96,103,97,58,50,92,52,112,69,19,31,101,123,74,49,80,20,10,14,79,43,42]]], [[7,9],[[1,73,96,103,97,58,50,92,52,112,69,19,31,101,123,74,49,80,20,10,14,79,43,42]]], [[7,8],[[1,73,96,103,97,58,50,92,52,112,69,19,31,101,123,74,49,80,20,10,14,79,43,42]]], [[7,27],[[1,73,96,103,97,58,50,92,52,112,69,19,31,101,123,74,49,80,20,10,14,79,43,42]]], [[7,49],[[1,73,96,103,97,58,
```

Arranging the order of the column

```
In [7]: # 3.Rating
# 1.App Name
# 4.Category
# 5.Review
# 6.Size
# 2.Installs
# 7.Last Update
# 8.Developer
# 9.Current Version
# 10.Required Android
```

Extracting the data for the respective columns

```
In [8]: Ratings = soup.find_all("div", class_= 'BHMmbe')[0]
# Rating = Ratings[0].text
Ratings
```

```
Out[8]: <div aria-label="Rated 4.5 stars out of five stars" class="BHMmbe">4.5</div>
```

```
In [9]: Rating = []
for i in Ratings:
    Rating.append(i)

Rating
```

```
Out[9]: ['4.5']
```

```
In [10]: App_names = soup.find_all('h1', class_='AHFaub')
App_names
```

```
Out[10]: [<h1 class="AHFaub" itemprop="name"><span>Calorie Counter, Diet Plan, Dietitians, Trainers</span></h1>]
```

```
In [11]: App_name = []
for i in App_names:
    a = i.text
    App_name.append(a)

App_name
```

```
Out[11]: ['Calorie Counter, Diet Plan, Dietitians, Trainers']
```

```
In [12]: Categories = soup.find_all('a', class_='r20sbf')[15]
# Category = Categories.text
Categories
```

```
Out[12]: <a class="r20sbf" href="/store/apps/category/HEALTH_AND_FITNESS" title="Health & Fitness">Health & Fitness</a>
```

```
In [13]: Category = []
for i in Categories:
    Category.append(i)

Category
```

```
Out[13]: ['Health & Fitness']
```

```
In [14]: Reviews = soup.find_all('span', class_='EymY4b')

Reviews
```

```
Out[14]: [<span class="EymY4b"><span class="O3QoBc hzfjkd"></span><span aria-label="283,466 ratings" class="">283,466</span> total</span>]
```

```
In [15]: Review = []
for i in Reviews:
    Review.append(i.text.split(' ')[0])

Review
```

```
Out[15]: ['283,466']
```

```
In [16]: Sizes = soup.find_all('span', class_='htlgb')[3]
# Size = Sizes[3].text
Sizes
```

```
Out[16]: <span class="htlgb">45M</span>
```

```
In [17]: Size = []
for i in Sizes:
    Size.append(i)

Size
```

```
Out[17]: ['45M']
```

```
In [18]: Installss = soup.find_all('span', class_='htlgb')[5]
# Installs = Installss[5].text
Installss
```

```
Out[18]: <span class="htlgb">10,000,000+</span>
```

```
In [19]: Installs = []
for i in Installss:
    Installs.append(i)

Installs
```

```
Out[19]: ['10,000,000+']
```

```
In [20]: Last_Update1 = soup.find_all('span', class_='htlgb')[1]

# Last_Update = Last_Update1[1].text
Last_Update1
```

```
Out[20]: <span class="htlgb">September 19, 2021</span>
```

```
In [21]: Last_Update = []
for i in Last_Update1:
    Last_Update.append(i)

Last_Update
```

```
Out[21]: ['September 19, 2021']
```

```
In [22]: Developers = soup.find_all('a',class_="hrTbp R8zArc")[0]
# Developer = Developers[21].text
Developers
```

```
Out[22]: <a class="hrTbp R8zArc" href="/store/apps/developer?id=HealthifyMe%28Calorie+Counter,+Weight+Loss+Coach%29">HealthifyMe (Calorie Counter, Weight Loss Coach)
</a>
```

```
In [23]: Developer = []
for i in Developers:
    Developer.append(i)
```

Developer

```
Out[23]: ['HealthifyMe (Calorie Counter, Weight Loss Coach)']
```

```
In [24]: Current_Versions = soup.find_all('span',class_='htlgb')[7]
# Current_Version = Current_Versions[7].text
Current_Versions
```

```
Out[24]: <span class="htlgb">v16.5</span>
```

```
In [25]: Current_Version = []
for i in Current_Versions:
    Current_Version.append(i)
```

Current_Version

```
Out[25]: ['v16.5']
```

```
In [26]: Required_Androids = soup.find_all('span',class_='htlgb')[8]
# Required_Android = Required_Androids[8].text
Required_Androids
```

```
Out[26]: <span class="htlgb"><div class="IQ1z0d"><span class="htlgb">5.0 and up</span></div></span>
```

```
In [27]: Required_Android = []
for i in Required_Androids:
    Required_Android.append(i.text)
```

Required_Android

```
Out[27]: ['5.0 and up']
```

```
In [28]: import pandas as pd
```

Making Dataframe for different categories of google playstore apps

Here we have considered 34 different categories like health and fitness , food apps , shopping apps etc

From each category we have considered top 10 apps url's and on the basis of which we have created a database

All the database from each category we have merged and made a big dataframe with around 310 rows and 10 columns

```
In [29]: List_Url = ['https://play.google.com/store/apps/details?id=women.workout.female','https://play.google.com/store/apps/details?id=com.popularapp.thirtydayworkout','https://play.google.com/store/apps/details?id=com.healthifyme.basic','https://play.google.com/store/apps/details?id=com.healthkart.healthkart']
App_name = []
Installs = []
Rating = []
Category = []
Review = []
Size = []
Last_Update = []
Developer = []
Current_Version = []
Required_Android = []

for i in List_Url:

    page = requests.get(i)
    page.text
    soup = BeautifulSoup(page.text)

    Ratings = soup.find_all("div", class_= 'BHMmbe')[0]
    # Rating = Ratings[0].text
    for i in Ratings:
        Rating.append(i)

    App_names = soup.find_all('h1',class_= 'AHFaub')[0]
    for i in App_names:
        a = i.text
        App_name.append(a)

    Categories = soup.find_all('a',class_= 'r20sbf')[15]
    for i in Categories:
        Category.append(i)

    Reviews = soup.find_all('span',class_= 'EymY4b')
    for i in Reviews:
        Review.append(i.text.split(' ')[0])

    Sizes = soup.find_all('span', class_= 'htlgb')[3]
    for i in Sizes:
        Size.append(i)

    Installss = soup.find_all('span',class_= 'htlgb')[5]
    for i in Installss:
        Installs.append(i)

    Last_Update1 = soup.find_all('span',class_= 'htlgb')[1]
    for i in Last_Update1:
        Last_Update.append(i)
```

```

Developers = soup.find_all('a',class_="hrTbp R8zArc")[0]
for i in Developers:
    Developer.append(i)

Current_Versions = soup.find_all('span',class_='htlgb')[7]
for i in Current_Versions:
    Current_Version.append(i)

Required_Androids = soup.find_all('span',class_='htlgb')[8]
for i in Required_Androids:
    Required_Android.append(i.text)

```

```

import pandas as pd
Google1 = pd.DataFrame({'App_Names':App_name,
                        'No_Of_Installs':Installs,
                        'Rating':Rating,
                        'Category':Category,
                        'No_Of_Review':Review,
                        'Size':Size,
                        'Last_Update':Last_Update,
                        'Developer':Developer,
                        'Current_Version':Current_Version,
                        'Required_Android':Required_Android})

```

Google1

Out[29]:

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Devel
0	Women Workout at Home - Female Fitness	50,000,000+	4.8	Health & Fitness	474,119	17M	September 18, 2021	Leap Fit G
1	cult.fit Fitness, Meditation, Healthy food, Do...	5,000,000+	4.6	Health & Fitness	97,727	Varies with device	September 24, 2021	Curefit Health Pvt
2	Google Fit: Activity Tracking	100,000,000+	3.9	Health & Fitness	469,685	Varies with device	September 23, 2021	Google
3	30 Day Fitness Challenge - Workout at Home	10,000,000+	4.8	Health & Fitness	598,899	21M	August 20, 2021	Leap Fit G
4	FitOn - Free Fitness Workouts & Personalized P...	5,000,000+	4.6	Health & Fitness	50,594	50M	September 5, 2021	F
5	Health Diet Foods Fitness Help	500,000+	4.6	Health & Fitness	7,306	29M	February 24, 2021	Data Recco Software RecoveryBull

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Devel
6	Calorie Counter, Diet Plan, Dietitians, Trainers	10,000,000+	4.5	Health & Fitness	283,458	45M	September 19, 2021	Healthi (Calorie Counter, Dietitians, Trainers)
7	FITTR: Fat-loss plan, workout & personal training	1,000,000+	4.2	Health & Fitness	17,223	85M	September 24, 2021	
8	Home Workout - No Equipment	100,000,000+	4.9	Health & Fitness	2,183,906	17M	August 3, 2021	Leap Fit G
9	HealthKart: Health & Bodybuilding Supplements App	1,000,000+	4.2	Health & Fitness	51,124	34M	September 25, 2021	Brightlife



```
In [30]: List_Url = ['https://play.google.com/store/apps/details?id=in.org.npci.upiapp','https://play.google.com/store/apps/details?id=com.smartsPENDS']

App_name = []
Installs = []
Rating = []
Category = []
Review = []
Size = []
Last_Update = []
Developer = []
Current_Version = []
Required_Android = []

for i in List_Url:

    page = requests.get(i)
    page.text
    soup = BeautifulSoup(page.text)

    Ratings = soup.find_all("div", class_= 'BHMmbe')[0]
    # Rating = Ratings[0].text
    for i in Ratings:
        Rating.append(i)

    App_names = soup.find_all('h1',class_='AHFaub')[0]
    for i in App_names:
        a = i.text
        App_name.append(a)

    Categories = soup.find_all('a',class_='r20sbF')[13]
    for i in Categories:
        Category.append(i)

    Reviews = soup.find_all('span',class_='EymY4b')
    for i in Reviews:
        Review.append(i.text.split(' ')[0])

    Sizes = soup.find_all('span', class_='htlgb')[3]
    for i in Sizes:
        Size.append(i)

    Installss = soup.find_all('span',class_='htlgb')[5]
    for i in Installss:
        Installs.append(i)

    Last_Update1 = soup.find_all('span',class_='htlgb')[1]
    for i in Last_Update1:
        Last_Update.append(i)
```

```

Developers = soup.find_all('a',class_="hrTbp R8zArcc")[0]
for i in Developers:
    Developer.append(i)

Current_Versions = soup.find_all('span',class_='htlgb')[7]
for i in Current_Versions:
    Current_Version.append(i)

Required_Androids = soup.find_all('span',class_='htlgb')[8]
for i in Required_Androids:
    Required_Android.append(i.text)

import pandas as pd
Google2 = pd.DataFrame({'App_Names':App_name,
                        'No_Of_Installs':Installs,
                        'Rating':Rating,
                        'Category':Category,
                        'No_Of_Review':Review,
                        'Size':Size,
                        'Last_Update':Last_Update,
                        'Developer':Developer,
                        'Current_Version':Current_Version,
                        'Required_Android':Required_Android})

```

Google2

Out[30]:

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Developer
0	BHIM - MAKING INDIA CASHLESS	50,000,000+	4.2	Finance	870,085	Varies with device	September 24, 2021	National Payments Corporation of India (NF
1	Google Pay: Save, Pay, Manage	500,000,000+	4.2	Finance	6,743,758	Varies with device	September 23, 2021	Google
2	CRED: Credit Card Bills, Credit Score & Pay Rent	10,000,000+	4.7	Finance	674,015	49M	September 10, 2021	CRED - rewarding credit card payment
3	PhonePe: UPI, Recharge, Investment, Insurance	100,000,000+	4.3	Finance	7,132,435	Varies with device	September 23, 2021	PhonePe
4	Paytm -UPI, Money Transfer, Recharge, Bill Pay...	100,000,000+	4.6	Finance	9,949,314	43M	September 15, 2021	Paytm - Online Communications
5	PayPal Mobile Cash: Send and Request Money Fast	100,000,000+	4.3	Finance	2,174,584	116M	September 23, 2021	PayPal Mobile
6	Kuvera Personal Finance App	500,000+	4.5	Finance	10,867	36M	September 2, 2021	Kuvera

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Develc
7	Groww - Stocks, Demat, Mutual Fund, SIP	10,000,000+	4.3	Finance	355,781	Varies with device	September 23, 2021	Groww - S Trading, De Mutual Fu
8	Moneycontrol - Share Market News Portfolio	10,000,000+	4.1	Finance	363,082	Varies with device	September 22, 2021	Netwoi
9	ETMONEY: Mutual Funds, SIP, Portfolio Tracking...	5,000,000+	4.5	Finance	123,002	27M	September 23, 2021	Times Inte Lim



In [31]: Categories = soup.find_all('li', class_='KZnDLd')[28]

```
Category = []
```

```
for i in Categories:
    Category.append(i.text)
```

```
Category
```

Out[31]: ['Social']


```

Developers = soup.find_all('a',class_="hrTbp R8zArcc")[0]
for i in Developers:
    Developer.append(i)

Current_Versions = soup.find_all('span',class_='htlgb')[7]
for i in Current_Versions:
    Current_Version.append(i)

Required_Androids = soup.find_all('span',class_='htlgb')[8]
for i in Required_Androids:
    Required_Android.append(i.text)

```

```

import pandas as pd
Google3 = pd.DataFrame({'App_Names':App_name,
                        'No_Of_Installs':Installs,
                        'Rating':Rating,
                        'Category':Category,
                        'No_Of_Review':Review,
                        'Size':Size,
                        'Last_Update':Last_Update,
                        'Developer':Developer,
                        'Current_Version':Current_Version,
                        'Required_Android':Required_Android})

```

Google3

Out[32]:

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Developer
0	Instagram	1,000,000,000+	3.8	Social	124,926,417	Varies with device	September 22, 2021	Instagram
1	Facebook	5,000,000,000+	2.4	Social	121,031,089	Varies with device	September 22, 2021	Facebook
2	Twitter	1,000,000,000+	3.4	Social	18,655,234	Varies with device	September 20, 2021	Twitter
3	YouTube	10,000,000,000+	4.3	Social	123,129,731	Varies with device	September 24, 2021	Google LLC
4	WhatsApp Messenger	5,000,000,000+	4.1	Social	145,593,486	Varies with device	September 14, 2021	WhatsApp LLC
5	Reddit	50,000,000+	4.4	Social	2,247,394	Varies with device	September 21, 2021	reddit Inc
6	Telegram X	50,000,000+	4.2	Social	386,077	Varies with device	May 15, 2020	Telegram FZ-L
7	MX TakaTak Short Video App Made in India for...	100,000,000+	4.2	Social	760,820	Varies with device	September 23, 2021	MX Media (formerly Interacti
8	Pinterest Lite	10,000,000+	4.3	Social	90,049	2.1M	October 22, 2020	Pinterest

App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Develop
9 Snapchat	1,000,000,000+	4.2	Social	27,309,926	76M	September 25, 2021	Snap

```
In [33]: List_Url = ['https://play.google.com/store/apps/details?id=com.makemytrip','https://play.google.com/store/apps/details?id=com.ixigo','https://pla
App_name = []
Installs = []
Rating = []
Category = []
Review = []
Size = []
Last_Update = []
Developer = []
Current_Version = []
Required_Android = []

for i in List_Url:

    page = requests.get(i)
    page.text
    soup = BeautifulSoup(page.text)

    Ratings = soup.find_all("div", class_= 'BHMmbe')[0]
    # Rating = Ratings[0].text
    for i in Ratings:
        Rating.append(i)

    App_names = soup.find_all('h1',class_='AHFaub')[0]
    for i in App_names:
        a = i.text
        App_name.append(a)

    Categories = soup.find_all('a',class_='r20sbf')[31]
    for i in Categories:
        Category.append(i)

    Reviews = soup.find_all('span',class_='EymY4b')
    for i in Reviews:
        Review.append(i.text.split(' ')[0])

    Sizes = soup.find_all('span', class_='htlgb')[3]
    for i in Sizes:
        Size.append(i)

    Installss = soup.find_all('span',class_='htlgb')[5]
    for i in Installss:
        Installs.append(i)

    Last_Update1 = soup.find_all('span',class_='htlgb')[1]
    for i in Last_Update1:
        Last_Update.append(i)

    Developers = soup.find_all('a',class_="hrTbp R8zArc")[0]
```

```

for i in Developers:
    Developer.append(i)

Current_Versions = soup.find_all('span',class_='htlgb')[7]
for i in Current_Versions:
    Current_Version.append(i)

Required_Androids = soup.find_all('span',class_='htlgb')[8]
for i in Required_Androids:
    Required_Android.append(i.text)

import pandas as pd
Google4 = pd.DataFrame({'App_Names':App_name,
                        'No_Of_Installs':Installs,
                        'Rating':Rating,
                        'Category':Category,
                        'No_Of_Review':Review,
                        'Size':Size,
                        'Last_Update':Last_Update,
                        'Developer':Developer,
                        'Current_Version':Current_Version,
                        'Required_Android':Required_Android})

```

Google4

Out[33]:

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Develc
0	MakeMyTrip Travel Booking: Flights, Hotels, Tr...	50,000,000+	4.4	Travel & Local	1,072,705	56M	September 22, 2021	MakeMy —H Fli IR Autho P
1	Google Maps	5,000,000,000+	3.8	Travel & Local	14,215,173	Varies with device	September 22, 2021	Google
2	Goibibo Travel App- Hotel, Flight, IRCTC Train,...	50,000,000+	4.4	Travel & Local	939,769	44M	September 22, 2021	Goibib Hi Flight, & IR Boo P
3	Yatra - Flights, Hotels, Bus, Trains & Cabs	10,000,000+	4.2	Travel & Local	301,415	27M	September 18, 2021	Yatra.
4	trivago: Compare hotel prices	50,000,000+	4.4	Travel & Local	308,318	22M	September 20, 2021	triv
5	TravelTriangle - Holiday Travel & Tour Packages	1,000,000+	4.3	Travel & Local	14,989	Varies with device	August 9, 2021	Hol Tri Travel

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Develc
6	Cheap Flight Booking & Compare Flights - ixigo	10,000,000+	4.5	Travel & Local	100,724	14M	September 26, 2021	ixi IR Author Par
7	Kesari Tours	100,000+	3.6	Travel & Local	1,124	28M	February 11, 2021	Kes Tours
8	Travel Planner App To Plan Trips By Tripoto	500,000+	4.5	Travel & Local	19,504	42M	September 14, 2021	Trip
9	Trip Planner: India's Best Travel App by Holidify	100,000+	4.5	Travel & Local	4,908	12M	November 5, 2019	Holidify.



```
In [34]: Categories = soup.find_all('li',class_='KZnDLd')
Categories

Category = []

for i in Categories:
    Category.append(i.text)

Category
```

```
Out[34]: ['Art & Design',
 'Augmented reality',
 'Auto & Vehicles',
 'Beauty',
 'Books & Reference',
 'Business',
 'Comics',
 'Communication',
 'Dating',
 'Daydream',
 'Education',
 'Entertainment',
 'Events',
 'Finance',
 'Food & Drink',
 'Health & Fitness',
 'House & Home',
 'Libraries & Demo',
 'Lifestyle',
 'Maps & Navigation',
 'Medical',
 'Music & Audio',
 'News & Magazines',
 'Parenting',
 'Personalization',
 'Photography',
 'Productivity',
 'Shopping',
 'Social',
 'Sports',
 'Tools',
 'Travel & Local',
 'Video Players & Editors',
 'Watch apps',
 'Watch faces',
 'Weather',
 'Action',
 'Adventure',
 'Arcade',
 'Board',
 'Card',
 'Casino',
 'Casual',
 'Educational',
 'Music',
```

```
'Puzzle',
'Racing',
'Role Playing',
'Simulation',
'Sports',
'Strategy',
'Trivia',
'Word',
'Ages up to 5',
'Ages 6-8',
'Ages 9-12']
```

```
In [35]: List_Url = ['https://play.google.com/store/apps/details?id=com.jio.jioplay.tv','https://play.google.com/store/apps/details?id=com.ryzmedia.tatasky',  
App_name = []  
Installs = []  
Rating = []  
Category = []  
Review = []  
Size = []  
Last_Update = []  
Developer = []  
Current_Version = []  
Required_Android = []  
  
for i in List_Url:  
  
    page = requests.get(i)  
    page.text  
    soup = BeautifulSoup(page.text)  
  
    Ratings = soup.find_all("div", class_= 'BHMmbe')[0]  
    # Rating = Ratings[0].text  
    for i in Ratings:  
        Rating.append(i)  
  
    App_names = soup.find_all('h1',class_='AHFaub')[0]  
    for i in App_names:  
        a = i.text  
        App_name.append(a)  
  
    Categories = soup.find_all('a',class_='r20sbf')[11]  
    for i in Categories:  
        Category.append(i)  
  
    Reviews = soup.find_all('span',class_= 'EymY4b')  
    for i in Reviews:  
        Review.append(i.text.split(' '))[0])  
  
    Sizes = soup.find_all('span', class_='htlgb')[3]  
    for i in Sizes:  
        Size.append(i)  
  
    Installss = soup.find_all('span',class_= 'htlgb')[5]  
    for i in Installss:  
        Installs.append(i)  
  
    Last_Update1 = soup.find_all('span',class_= 'htlgb')[1]  
    for i in Last_Update1:  
        Last_Update.append(i)  
  
    Developers = soup.find_all('a',class_="hrTbp R8zArc")[0]
```

```

for i in Developers:
    Developer.append(i)

Current_Versions = soup.find_all('span',class_='htlgb')[7]
for i in Current_Versions:
    Current_Version.append(i)

Required_Androids = soup.find_all('span',class_='htlgb')[8]
for i in Required_Androids:
    Required_Android.append(i.text)

import pandas as pd
Google5 = pd.DataFrame({'App_Names':App_name,
                        'No_Of_Installs':Installs,
                        'Rating':Rating,
                        'Category':Category,
                        'No_Of_Review':Review,
                        'Size':Size,
                        'Last_Update':Last_Update,
                        'Developer':Developer,
                        'Current_Version':Current_Version,
                        'Required_Android':Required_Android})

```

Google5

Out[35]:

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	I
0	JioTV – News, Movies, Entertainment, LIVE TV	100,000,000+	4.0	Entertainment	3,439,859	16M	June 30, 2021	Jic
1	ZEE5: Movies, TV Shows, Web Series, News	100,000,000+	3.4	Entertainment	1,147,298	Varies with device	September 23, 2021	Z
2	Hotstar	500,000,000+	3.9	Entertainment	9,487,993	Varies with device	September 24, 2021	H
3	SonyLIV: Originals, Hollywood, LIVE Sport, TV ...	100,000,000+	4.1	Entertainment	1,553,207	Varies with device	September 21, 2021	Sor Inc
4	Candy, Bigg Boss OTT, Voot Select, Colors	100,000,000+	3.7	Entertainment	2,415,312	23M	September 20, 2021	Dig
5	Amazon Prime Video	100,000,000+	4.3	Entertainment	3,004,249	Varies with device	September 23, 2021	N
6	Netflix	1,000,000,000+	4.3	Entertainment	12,101,864	Varies with device	September 23, 2021	N

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	
7	MX Player Online: Web Series, Games, Movies, M...	10,000,000+	4.1	Entertainment	63,170	27M	September 14, 2021	(f)
8	Tata Sky – Live TV & Recharge	50,000,000+	4.1	Entertainment	511,426	25M	September 1, 2021	Ta
9	ALTBalaji - Watch Web Series, Originals & Movies	10,000,000+	3.2	Entertainment	319,694	Varies with device	September 9, 2021	Ent

In [36]: Categories = soup.find_all('li', class_='KZnDLd')[14]
Categories

```
# Category = []

# for i in Categories:
#     Category.append(i.text)

# Category
```

Out[36]: <li class="KZnDLd">Food & Drink

```
In [37]: List_Url=[ "https://play.google.com/store/apps/details?id=in.amazon.mShop.android",
    "https://play.google.com/store/apps/details?id=com.ril.ajio",
    "https://play.google.com/store/apps/details?id=com.flipkart.android",
    "https://play.google.com/store/apps/details?id=com.myntra.android",
    "https://play.google.com/store/apps/details?id=com.olx.southasia",
    "https://play.google.com/store/apps/details?id=com.meesho.supply",
    "https://play.google.com/store/apps/details?id=com.snapdeal.main",
    "https://play.google.com/store/apps/details?id=com.fsn.nykaa",
    "https://play.google.com/store/apps/details?id=com.bigbasket.mobileapp",
    "https://play.google.com/store/apps/details?id=com.manash.purplle"]

App_name = []
Installs = []
Rating = []
Category = []
Review = []
Size = []
Last_Update = []
Developer = []
Current_Version = []
Required_Android = []

for i in List_Url:

    page = requests.get(i)
    page.text
    soup = BeautifulSoup(page.text)

    Ratings = soup.find_all("div", class_= 'BHMmbe')[0]
    # Rating = Ratings[0].text
    for i in Ratings:
        Rating.append(i)

    App_names = soup.find_all('h1',class_='AHFaub')[0]
    for i in App_names:
        a = i.text
        App_name.append(a)

    Categories = soup.find_all('a',class_='r20sbf')[27]
    for i in Categories:
        Category.append(i)

    Reviews = soup.find_all('span',class_='EymY4b')
    for i in Reviews:
        Review.append(i.text.split(' ')[0])

    Sizes = soup.find_all('span', class_='htlgb')[3]
    for i in Sizes:
        Size.append(i)

    Installss = soup.find_all('span',class_='htlgb')[5]
```

```

for i in Installss:
    Installs.append(i)

Last_Update1 = soup.find_all('span',class_='htlgb')[1]
for i in Last_Update1:
    Last_Update.append(i)

Developers = soup.find_all('a',class_="hrTbp R8zArc")[0]
for i in Developers:
    Developer.append(i)

Current_Versions = soup.find_all('span',class_='htlgb')[7]
for i in Current_Versions:
    Current_Version.append(i)

Required_Androids = soup.find_all('span',class_='htlgb')[8]
for i in Required_Androids:
    Required_Android.append(i.text)

import pandas as pd
Google7 = pd.DataFrame({'App_Names':App_name,
                        'No_Of_Installs':Installs,
                        'Rating':Rating,
                        'Category':Category,
                        'No_Of_Review':Review,
                        'Size':Size,
                        'Last_Update':Last_Update,
                        'Developer':Developer,
                        'Current_Version':Current_Version,
                        'Required_Android':Required_Android})

```

Google7

Out[37]:

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Developer
0	Amazon Shopping, UPI, Money Transfer, Bill Pay...	100,000,000+	4.3	Shopping	7,525,721	Varies with device	September 10, 2021	Amazon Mobile LLC
1	AJIO Online Shopping - Handpicked Curated Fashion	50,000,000+	4.3	Shopping	1,681,335	19M	September 20, 2021	Reliance Retail Ltd
2	Flipkart Online Shopping App	100,000,000+	4.3	Shopping	22,445,445	97M	August 18, 2021	Flipkart
3	Myntra Online Shopping App - Shop Fashion & more	100,000,000+	4.3	Shopping	3,482,732	Varies with device	September 25, 2021	Myntra

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Developer
4	OLX: Buy & Sell Near You with Online Classifieds	100,000,000+	4.2	Shopping	2,434,758	22M	September 21, 2021	OLX Global B.V.
5	Meesho: Online Shopping App	100,000,000+	4.4	Shopping	903,862	16M	September 21, 2021	Meesho
6	Snapdeal Shopping App -Free Delivery on all or...	100,000,000+	4.3	Shopping	2,241,650	30M	September 16, 2021	Snapdeal Private Limited
7	Nykaa: Beauty Shopping App. Buy Makeup & Cosme...	10,000,000+	4.6	Shopping	699,145	70M	September 22, 2021	Nykaa.com
8	bigbasket- Online Grocery Shopping, Home Delivery	10,000,000+	4.4	Shopping	632,870	20M	September 9, 2021	Bigbasket.com
9	Purple: Beauty Shopping App. Buy Cosmetics On...	10,000,000+	4.5	Shopping	144,828	17M	September 23, 2021	Purple.com



```
In [38]: List_Url = ["https://play.google.com/store/apps/details?id=in.goindigo.android",
                  "https://play.google.com/store/apps/details?id=com.timesgroup.magicbridge",
                  "https://play.google.com/store/apps/details?id=com.nnacres.app",
                  "https://play.google.com/store/apps/details?id=com.nobroker.app",
                  "https://play.google.com/store/apps/details?id=com.locon.housing",
                  "https://play.google.com/store/apps/details?id=com.makemytrip",
                  "https://play.google.com/store/apps/details?id=com.airbnb.android",
                  "https://play.google.com/store/apps/details?id=com.ixigo",
                  "https://play.google.com/store/apps/details?id=com.booking",
                  "https://play.google.com/store/apps/details?id=com.goibibo"]
App_name = []
Installs = []
Rating = []
Category = []
Review = []
Size = []
Last_Update = []
Developer = []
Current_Version = []
Required_Android = []

for i in List_Url:

    page = requests.get(i)
    page.text
    soup = BeautifulSoup(page.text)

    Ratings = soup.find_all("div", class_= 'BHMmbe')[0]
    # Rating = Ratings[0].text
    for i in Ratings:
        Rating.append(i)

    App_names = soup.find_all('h1',class_='AHFaub')[0]
    for i in App_names:
        a = i.text
        App_name.append(a)

    Categories = soup.find_all('a',class_='r20sbf')[16]
    for i in Categories:
        Category.append(i)

    Reviews = soup.find_all('span',class_='EymY4b')
    for i in Reviews:
        Review.append(i.text.split(' ')[0])

    Sizes = soup.find_all('span', class_='htlgb')[3]
    for i in Sizes:
        Size.append(i)

    Installss = soup.find_all('span',class_='htlgb')[5]
```

```

for i in Installss:
    Installs.append(i)

Last_Update1 = soup.find_all('span',class_='htlgb')[1]
for i in Last_Update1:
    Last_Update.append(i)

Developers = soup.find_all('a',class_="hrTbp R8zArc")[0]
for i in Developers:
    Developer.append(i)

Current_Versions = soup.find_all('span',class_='htlgb')[7]
for i in Current_Versions:
    Current_Version.append(i)

Required_Androids = soup.find_all('span',class_='htlgb')[8]
for i in Required_Androids:
    Required_Android.append(i.text)

import pandas as pd
Google8 = pd.DataFrame({'App_Names':App_name,
                        'No_Of_Installs':Installs,
                        'Rating':Rating,
                        'Category':Category,
                        'No_Of_Review':Review,
                        'Size':Size,
                        'Last_Update':Last_Update,
                        'Developer':Developer,
                        'Current_Version':Current_Version,
                        'Required_Android':Required_Android})

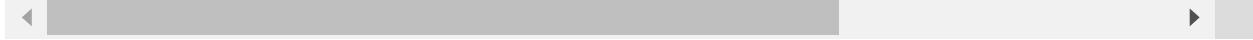
```

Google8

Out[38]:

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Devel
0	IndiGo-Flight Ticket Booking App	10,000,000+	4.5	House & Home	170,149	14M	August 24, 2021	InterG Avi Lir
1	Magicbricks Property Search & Real Estate App	10,000,000+	4.2	House & Home	171,138	52M	September 23, 2021	MagicB Re Service
2	99acres Real Estate & Property	10,000,000+	4.3	House & Home	123,040	52M	September 25, 2021	infoedge
3	NoBroker Flat, Apartment, House, Rent, Buy & Sell	10,000,000+	4.7	House & Home	105,906	15M	September 20, 2021	NoBro Technolo Solution
4	Housing App: Buy, Rent, Sell Property & Pay Rent	5,000,000+	4.3	House & Home	104,068	Varies with device	September 14, 2021	Hou

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Devel
5	MakeMyTrip Travel Booking: Flights, Hotels, Tr...	50,000,000+	4.4	House & Home	1,072,705	56M	September 22, 2021	MakeMyTrip Flight, IR Auto
6	Airbnb - Vacation Rentals & Experiences	50,000,000+	4.6	House & Home	1,173,373	149M	September 22, 2021	Airbnb
7	Cheap Flight Booking & Compare Flights - ixigo	10,000,000+	4.5	House & Home	100,724	14M	September 26, 2021	ixigo - IR Auto Pa
8	Booking.com: Hotels and more	100,000,000+	4.7	House & Home	3,112,731	Varies with device	September 24, 2021	Booking Hotel Vac Re
9	Goibibo Travel App- Hotel, Flight, IRCTC Train,...	50,000,000+	4.4	House & Home	939,764	44M	September 22, 2021	Goibibo Hotel, F C IR Book



```
In [39]: List_Url=[ "https://play.google.com/store/apps/details?id=com.maskofficial.allspor
              "https://play.google.com/store/apps/details?id=com.yahoo.mobile.client",
              "https://play.google.com/store/apps/details?id=com.fivemobile.thescore",
              "https://play.google.com/store/apps/details?id=com.sofascore.results",
              "https://play.google.com/store/apps/details?id=com.allfootball.news",
              "https://play.google.com/store/apps/details?id=com.espn.score_center",
#
              "https://play.google.com/store/apps/details?id=com.allfootballapp.go
              "https://play.google.com/store/apps/details?id=com.scores365",
              "https://play.google.com/store/apps/details?id=com.beinsports.andconte
              "https://play.google.com/store/apps/details?id=com.stt.android",
              "https://play.google.com/store/apps/details?id=com.asr.dheeraj_pc.all
App_name = []
Installs = []
Rating = []
Category = []
Review = []
Size = []
Last_Update = []
Developer = []
Current_Version = []
Required_Android = []

for i in List_Url:

    page = requests.get(i)
    page.text
    soup = BeautifulSoup(page.text)

    Ratings = soup.find_all("div", class_= 'BHMmbe')[0]
    # Rating = Ratings[0].text
    for i in Ratings:
        Rating.append(i)

    App_names = soup.find_all('h1',class_='AHFaub')[0]
    for i in App_names:
        a = i.text
        App_name.append(a)

    Categories = soup.find_all('a',class_='r20sbf')[29]
    for i in Categories:
        Category.append(i)

    Reviews = soup.find_all('span',class_='EymY4b')
    for i in Reviews:
        Review.append(i.text.split(' ')[0])

    Sizes = soup.find_all('span', class_='htlgb')[3]
    for i in Sizes:
        Size.append(i)
```

```

Installss = soup.find_all('span',class_='htlgb')[5]
for i in Installss:
    Installs.append(i)

Last_Update1 = soup.find_all('span',class_='htlgb')[1]
for i in Last_Update1:
    Last_Update.append(i)

Developers = soup.find_all('a',class_="hrTbp R8zArc")[0]
for i in Developers:
    Developer.append(i)

Current_Versions = soup.find_all('span',class_='htlgb')[7]
for i in Current_Versions:
    Current_Version.append(i)

Required_Androids = soup.find_all('span',class_='htlgb')[8]
for i in Required_Androids:
    Required_Android.append(i)

import pandas as pd
Google9 = pd.DataFrame({'App_Names':App_name,
                        'No_Of_Installs':Installs,
                        'Rating':Rating,
                        'Category':Category,
                        'No_Of_Review':Review,
                        'Size':Size,
                        'Last_Update':Last_Update,
                        'Developer':Developer,
                        'Current_Version':Current_Version,
                        'Required_Android':Required_Android})

```

Google9

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Develo
0	All Sports	1,000+	4.3	Sports	6	4.8M	July 30, 2021	MASK
1	Yahoo Sports: sports scores, live NFL games & ...	5,000,000+	4.6	Sports	115,553	Varies with device	September 3, 2021	Ya
2	theScore: Live Scores, News, Stats & Vi...	10,000,000+	4.6	Sports	190,369	Varies with device	September 7, 2021	Score Me Ventures
3	Soccer live scores - SofaScore	10,000,000+	4.7	Sports	605,752	Varies with device	August 26, 2021	SofaSc
4	All Football - Live Scores & News for Euro 2020	10,000,000+	4.2	Sports	67,591	21M	September 24, 2021	Footbal

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Develo
5	ESPN	50,000,000+	4.1	Sports	701,200	Varies with device	September 9, 2021	Dis
6	365Scores: Live Scores & Sports News	10,000,000+	3.7	Sports	1,167,258	21M	September 14, 2021	365Sco
7	beIN SPORTS	10,000,000+	4.0	Sports	78,647	34M	September 15, 2021	beIN ME GRC
8	Sports Tracker Running Cycling	10,000,000+	4.3	Sports	224,408	62M	September 14, 2021	Amer Sp Di
9	All Sports Rules	10,000+	4.6	Sports	87	2.0M	October 1, 2016	Dhe Chellaran

```
In [40]: List_Url=[ "https://play.google.com/store/apps/details?id=com.accurate.live.weather",
    "https://play.google.com/store/apps/details?id=tools.weather.forecast",
    "https://play.google.com/store/apps/details?id=com.accuweather.android",
    "https://play.google.com/store/apps/details?id=com.yarafarmweather.farm",
    "https://play.google.com/store/apps/details?id=com.macropinch.swan",
    "https://play.google.com/store/apps/details?id=com.nice.accurate.weather",
    "https://play.google.com/store/apps/details?id=com.graph.weather.forecast",
    "https://play.google.com/store/apps/details?id=de.wetteronline.wetterapp",
    "https://play.google.com/store/apps/details?id=com.chanel.weather.forecast",
    "https://play.google.com/store/apps/details?id=com.skymet.indianweather"

App_name = []
Installs = []
Rating = []
Category = []
Review = []
Size = []
Last_Update = []
Developer = []
Current_Version = []
Required_Android = []

for i in List_Url:

    page = requests.get(i)
    page.text
    soup = BeautifulSoup(page.text)

    Ratings = soup.find_all("div", class_= 'BHMmbe')[0]
    # Rating = Ratings[0].text
    for i in Ratings:
        Rating.append(i)

    App_names = soup.find_all('h1',class_='AHFaub')[0]
    for i in App_names:
        a = i.text
        App_name.append(a)

    Categories = soup.find_all('a',class_='r20sbf')[35]
    for i in Categories:
        Category.append(i)

    Reviews = soup.find_all('span',class_='EymY4b')
    for i in Reviews:
        Review.append(i.text.split(' ')[0])

    Sizes = soup.find_all('span', class_='htlgb')[3]
    for i in Sizes:
        Size.append(i)
```

```

Installss = soup.find_all('span',class_='htlgb')[5]
for i in Installss:
    Installs.append(i)

Last_Update1 = soup.find_all('span',class_='htlgb')[1]
for i in Last_Update1:
    Last_Update.append(i)

Developers = soup.find_all('a',class_="hrTbp R8zArc")[0]
for i in Developers:
    Developer.append(i)

Current_Versions = soup.find_all('span',class_='htlgb')[7]
for i in Current_Versions:
    Current_Version.append(i)

Required_Androids = soup.find_all('span',class_='htlgb')[8]
for i in Required_Androids:
    Required_Android.append(i)

import pandas as pd
Google10 = pd.DataFrame({'App_Names':App_name,
                         'No_Of_Installs':Installs,
                         'Rating':Rating,
                         'Category':Category,
                         'No_Of_Review':Review,
                         'Size':Size,
                         'Last_Update':Last_Update,
                         'Developer':Developer,
                         'Current_Version':Current_Version,
                         'Required_Android':Required_Android})

```

Google10

Out[40]:

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Devel
0	Weather Forecast - Weather Live & Radar & Widget	5,000,000+	4.7	Weather	52,820	15M	August 13, 2021	We Forec Wid F
1	Local Weather Forecast	5,000,000+	4.4	Weather	28,768	21M	September 24, 2021	Tools
2	AccuWeather: Weather alerts & live forecast info	100,000,000+	4.1	Weather	2,531,911	Varies with device	September 15, 2021	AccuWe
3	FarmGo - Your farm, your weather	5,000,000+	4.0	Weather	7,123	41M	September 8, 2021	Internal
4	Weather	10.000.000+	4.4	Weather	1.313.598	8.8M	September 15, 2021	Macrof

```
In [41]: List_Url = [
    'https://play.google.com/store/apps/details?id=com.brakefield.idfree',
    'https://play.google.com/store/apps/details?id=com.bhima.stylishnamede',
    'https://play.google.com/store/apps/details?id=id.akusantri.artdrawing',
    'https://play.google.com/store/apps/details?id=com.canva.editor',
    'https://play.google.com/store/apps/details?id=com.bytestorm.artflow',
    'https://play.google.com/store/apps/details?id=com.cool.stylish.text.a',
    'https://play.google.com/store/apps/details?id=mehndi.ka.design',
    'https://play.google.com/store/apps/details?id=jp.ne.ibis.ibispaintx.a',
    'https://play.google.com/store/apps/details?id=com.BorderDesign.sitd21',
    'https://play.google.com/store/apps/details?id=com.duhnnae.drawingpair'
]

App_name = []
Installs = []
Rating = []
Category = []
Review = []
Size = []
Last_Update = []
Developer = []
Current_Version = []
Required_Android = []

for i in List_Url:

    page = requests.get(i)
    page.text
    soup = BeautifulSoup(page.text)

    Ratings = soup.find_all("div", class_= 'BHMmbe')[0]
    # Rating = Ratings[0].text
    for i in Ratings:
        Rating.append(i)

    App_names = soup.find_all('h1',class_='AHFaub')[0]
    for i in App_names:
        a = i.text
        App_name.append(a)

    Categories = soup.find_all('a',class_='r20sbf')[0]
    for i in Categories:
        Category.append(i)

    Reviews = soup.find_all('span',class_='EymY4b')
    for i in Reviews:
        Review.append(i.text.split(' ')[0])

    Sizes = soup.find_all('span', class_='htlgb')[3]
    for i in Sizes:
```

```

        Size.append(i)

Installss = soup.find_all('span',class_='htlgb')[5]
for i in Installss:
    Installs.append(i)

Last_Update1 = soup.find_all('span',class_='htlgb')[1]
for i in Last_Update1:
    Last_Update.append(i)

Developers = soup.find_all('a',class_="hrTbp R8zArc")[0]
for i in Developers:
    Developer.append(i)

Current_Versions = soup.find_all('span',class_='htlgb')[7]
for i in Current_Versions:
    Current_Version.append(i)

Required_Androids = soup.find_all('span',class_='htlgb')[8]
for i in Required_Androids:
    Required_Android.append(i)

import pandas as pd
Google101 = pd.DataFrame({'App_Names':App_name,
                           'No_Of_Installs':Installs,
                           'Rating':Rating,
                           'Category':Category,
                           'No_Of_Review':Review,
                           'Size':Size,
                           'Last_Update':Last_Update,
                           'Developer':Developer,
                           'Current_Version':Current_Version,
                           'Required_Android':Required_Android})

```

Google101

Out[41]:

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Developer	C
0	Infinite Design	10,000,000+	3.7	Art & Design	68,234	17M	October 29, 2020	Infinite Studio LLC	
1	Stylish Name Maker and Quote Designs	500,000+	4.2	Art & Design	2,321	32M	April 12, 2020	Bhima Apps	
2	Art Drawing Ideas	500,000+	4.1	Art & Design	1,562	6.8M	June 4, 2021	AKU SANTRI	
3	Canva: Graphic Design, Video Collage, Logo Maker	100,000,000+	4.7	Art & Design	5,971,090	32M	September 23, 2021	Canva	
4	ArtFlow: Paint Draw Sketchbook	1,000,000+	3.7	Art & Design	31,600	12M	July 13, 2020	Artflow Studio	

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Developer	C
5	Text Art - Style Text On Photo & Your Name Art	1,000,000+	4.4	Art & Design	2,819	15M	August 28, 2021	Image Crop n Wallpaper Changer	
6	Mehandi Ka Design - Mehndi Designs 2021	500,000+	4.2	Art & Design	874	14M	September 17, 2021	Trends App	
7	ibis Paint X	100,000,000+	4.5	Art & Design	1,750,024	28M	August 4, 2021	ibis inc.	
8	Border Design	100,000+	3.0	Art & Design	551	9.6M	September 15, 2020	Sitd212	
9	Drawing & Painting Lessons	500,000+	4.2	Art & Design	1,724	6.4M	September 8, 2021	duhnnae	



```
In [42]: List_Url = ['https://play.google.com/store/apps/details?id=io.spoton.viewer', 'https://play.google.com/store/apps/details?id=com.ibosoninnov.unitear', 'https://play.google.com/store/apps/details?id=com.ptc.hbrar', 'https://play.google.com/store/apps/details?id=com.ptc.hbrar', 'https://play.google.com/store/apps/details?id=com.ptc.hbrar']

App_name = []
Installs = []
Rating = []
Category = []
Review = []
Size = []
Last_Update = []
Developer = []
Current_Version = []
Required_Android = []

for i in List_Url:

    page = requests.get(i)
    page.text
    soup = BeautifulSoup(page.text)

    Ratings = soup.find_all("div", class_= 'BHMmbe')[0]
    # Rating = Ratings[0].text
    for i in Ratings:
        Rating.append(i)

    App_names = soup.find_all('h1',class_='AHFaub')[0]
    for i in App_names:
        a = i.text
        App_name.append(a)

    Categories = soup.find_all('a',class_='r20sbf')[1]
    for i in Categories:
        Category.append(i)

    Reviews = soup.find_all('span',class_='EymY4b')
    for i in Reviews:
        Review.append(i.text.split(' ')[0])

    Sizes = soup.find_all('span', class_='htlgb')[3]
    for i in Sizes:
        Size.append(i)

    Installss = soup.find_all('span',class_='htlgb')[5]
    for i in Installss:
        Installs.append(i)

    Last_Update1 = soup.find_all('span',class_='htlgb')[1]
    for i in Last_Update1:
```

```
Last_Update.append(i)

Developers = soup.find_all('a',class_="hrTbp R8zArc")[0]
for i in Developers:
    Developer.append(i)

Current_Versions = soup.find_all('span',class_='htlgb')[7]
for i in Current_Versions:
    Current_Version.append(i)

Required_Androids = soup.find_all('span',class_='htlgb')[8]
for i in Required_Androids:
    Required_Android.append(i.text)

import pandas as pd
Google102 = pd.DataFrame({'App_Names':App_name,
                           'No_Of_Installs':Installs,
                           'Rating':Rating,
                           'Category':Category,
                           'No_Of_Review':Review,
                           'Size':Size,
                           'Last_Update':Last_Update,
                           'Developer':Developer,
                           'Current_Version':Current_Version,
                           'Required_Android':Required_Android})
```

Google102

Out[42]:

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Deve
0	Augmented Reality AR Studio & 3D Learning: Fectar	1,000,000+	3.9	Augmented reality	9,785	103M	July 21, 2021	Fec
1	Augment - 3D Augmented Reality	1,000,000+	3.9	Augmented reality	32,116	47M	August 10, 2021	Aud
2	ARLOOPA: Augmented Reality 3D AR Camera & Scanner	1,000,000+	4.5	Augmented reality	19,118	90M	September 3, 2021	ARLOOP Augmente Virtual F
3	AR Ruler App – Tape Measure & Camera To Plan	1,000,000+	4.5	Augmented reality	52,999	51M	March 30, 2021	Gr
4	UniteAR - Augmented Reality App	100,000+	3.5	Augmented reality	968	66M	September 17, 2021	i l Innov
5	Halo AR - Augmented Reality, VR & 3D Lens Crea...	1,000+	3.6	Augmented reality	10	64M	September 11, 2021	Augmented/ Reality L Creator (

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Deve
6	ImagineAR - Augmented Reality	10,000+	4.1	Augmented reality	69	92M	June 29, 2021	Imag
7	Genesis Augmented Reality	10,000+	2.6	Augmented reality	332	35M	October 30, 2018	Ge Augm F
8	HBR Augmented Reality	50,000+	4.0	Augmented reality	250	72M	October 25, 2017	PT
9	LandscapAR augmented reality	100,000+	3.0	Augmented reality	1,804	2.5M	July 25, 2018	S



```
In [43]: List_Url = ['https://play.google.com/store/apps/details?id=com.linecorp.b612.android','https://play.google.com/store/apps/details?id=com.arcsoft.perfect365','https://play.google.com/store/apps/details?id=us.pinguo.selfie','http://www.apkVenue.com/line-cam-apk']

App_name = []
Installs = []
Rating = []
Category = []
Review = []
Size = []
Last_Update = []
Developer = []
Current_Version = []
Required_Android = []

for i in List_Url:

    page = requests.get(i)
    page.text
    soup = BeautifulSoup(page.text)

    Ratings = soup.find_all("div", class_= 'BHMmbe')[0]
    # Rating = Ratings[0].text
    for i in Ratings:
        Rating.append(i)

    App_names = soup.find_all('h1',class_='AHFaub')[0]
    for i in App_names:
        a = i.text
        App_name.append(a)

    Categories = soup.find_all('a',class_='r20sbf')[3]
    for i in Categories:
        Category.append(i)

    Reviews = soup.find_all('span',class_='EymY4b')
    for i in Reviews:
        Review.append(i.text.split(' ')[0])

    Sizes = soup.find_all('span', class_='htlgb')[3]
    for i in Sizes:
        Size.append(i)

    Installss = soup.find_all('span',class_='htlgb')[5]
    for i in Installss:
        Installs.append(i)

    Last_Update1 = soup.find_all('span',class_='htlgb')[1]
```

```

for i in Last_Update1:
    Last_Update.append(i)

Developers = soup.find_all('a',class_="hrTbp R8zArc")[0]
for i in Developers:
    Developer.append(i)

Current_Versions = soup.find_all('span',class_='htlgb')[7]
for i in Current_Versions:
    Current_Version.append(i)

Required_Androids = soup.find_all('span',class_='htlgb')[8]
for i in Required_Androids:
    Required_Android.append(i.text)

import pandas as pd
Google104 = pd.DataFrame({'App_Names':App_name,
                           'No_Of_Installs':Installs,
                           'Rating':Rating,
                           'Category':Category,
                           'No_Of_Review':Review,
                           'Size':Size,
                           'Last_Update':Last_Update,
                           'Developer':Developer,
                           'Current_Version':Current_Version,
                           'Required_Android':Required_Android})

```

Google104

Out[43]:

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Developer
0	B612 - Best Free Camera & Photo/Video Editor	500,000,000+	4.3	Beauty	7,207,923	Varies with device	September 7, 2021	SNOW, Inc.
1	Purple: Beauty Shopping App. Buy Cosmetics On...	10,000,000+	4.5	Beauty	144,828	17M	September 23, 2021	Purple.co
2	Nykaa: Beauty Shopping App. Buy Makeup & Cosme...	10,000,000+	4.6	Beauty	699,149	70M	September 22, 2021	Nykaa.co
3	Artistry Virtual Beauty	1,000,000+	4.0	Beauty	5,314	Varies with device	May 9, 2021	Perfect Co
4	Perfect365: One-Tap Makeover	50,000,000+	4.3	Beauty	781,360	178M	September 16, 2021	Perfect365 Inc.

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Develop
5	SUGAR Cosmetics: Beauty and Makeup Shopping App	1,000,000+	4.6	Beauty	26,216	19M	July 30, 2021	SUG/Cosmeti
6	YouCam Perfect - Best Photo Editor & Selfie Ca...	100,000,000+	4.4	Beauty	2,030,274	Varies with device	September 26, 2021	Perf Mob Co
7	MyGlamm: Shop Makeup Products & Beauty Cosmetics	1,000,000+	4.4	Beauty	30,440	56M	September 17, 2021	MyGlam
8	Bestie - Camera360 Selfie	50,000,000+	4.4	Beauty	634,169	Varies with device	July 13, 2021	PinGuo Ir
9	Foxy. Beauty Shopping 2.0. Buy Skincare & Makeup.	1,000,000+	4.4	Beauty	3,721	Varies with device	September 24, 2021	Fox Beauty Groomi shoppi



```
In [44]: List_Url = ['https://play.google.com/store/apps/details?id=com.amazon.kindle','https://play.google.com/store/apps/details?id=bookaz.storiesbook.eng','https://play.google.com/store/apps/details?id=qoutes.app','https://p...  
  
App_name = []  
Installs = []  
Rating = []  
Category = []  
Review = []  
Size = []  
Last_Update = []  
Developer = []  
Current_Version = []  
Required_Android = []  
  
for i in List_Url:  
  
    page = requests.get(i)  
    page.text  
    soup = BeautifulSoup(page.text)  
  
  
    Ratings = soup.find_all("div", class_= 'BHMmbe')[0]  
    # Rating = Ratings[0].text  
    for i in Ratings:  
        Rating.append(i)  
  
  
    App_names = soup.find_all('h1',class_= 'AHFaub')[0]  
    for i in App_names:  
        a = i.text  
        App_name.append(a)  
  
  
    Categories = soup.find_all('a',class_= 'r20sbf')[4]  
    for i in Categories:  
        Category.append(i)  
  
  
    Reviews = soup.find_all('span',class_= 'EymY4b')  
    for i in Reviews:  
        Review.append(i.text.split(' ' )[0])  
  
    Sizes = soup.find_all('span', class_= 'htlgb')[3]  
    for i in Sizes:  
        Size.append(i)  
  
    Installss = soup.find_all('span',class_= 'htlgb')[5]  
    for i in Installss:  
        Installs.append(i)  
  
    Last_Update1 = soup.find_all('span',class_= 'htlgb')[1]  
    for i in Last_Update1:
```

```
Last_Update.append(i)

Developers = soup.find_all('a',class_="hrTbp R8zArc")[0]
for i in Developers:
    Developer.append(i)

Current_Versions = soup.find_all('span',class_='htlgb')[7]
for i in Current_Versions:
    Current_Version.append(i)

Required_Androids = soup.find_all('span',class_='htlgb')[8]
for i in Required_Androids:
    Required_Android.append(i)

import pandas as pd
Google105 = pd.DataFrame({'App_Names':App_name,
                           'No_Of_Installs':Installs,
                           'Rating':Rating,
                           'Category':Category,
                           'No_Of_Review':Review,
                           'Size':Size,
                           'Last_Update':Last_Update,
                           'Developer':Developer,
                           'Current_Version':Current_Version,
                           'Required_Android':Required_Android})
```

Google105

Out[44]:

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Develop
0	Amazon Kindle	100,000,000+	4.7	Books & Reference	1,956,627	Varies with device	September 13, 2021	Amaz Mob LL
1	Google Play Books & Audiobooks	1,000,000,000+	4.1	Books & Reference	1,845,020	Varies with device	September 8, 2021	Goog LL
2	Life Changing Inspiring Books	10,000+	4.5	Books & Reference	46	6.3M	March 6, 2021	SkyBl Inc S
3	Motivational Success Books	10,000+	4.5	Books & Reference	409	3.3M	March 19, 2021	SkyBl Inc S
4	English Stories - Books Offline	500,000+	4.3	Books & Reference	1,700	19M	July 2, 2021	Book/
5	Free Books - anybooks app free books download	1,000,000+	3.8	Books & Reference	15,351	22M	September 1, 2021	App Stor

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Develop
6	Novels & Books in English	1,000,000+	4.4	Books & Reference	13,740	23M	July 17, 2021	Banal
7	Greatest Books Of Success	10,000+	4.4	Books & Reference	185	4.9M	March 19, 2021	SkyBlu Inc S.
8	Free Books – Novels, Fiction Books, & Audiobooks	1,000,000+	3.9	Books & Reference	28,499	Varies with device	September 27, 2020	Digital Pre Publishing s.r.
9	PDF Downloader - Free books Pdf Download	500,000+	4.2	Books & Reference	3,631	21M	September 25, 2021	App Store

```
In [45]: List_Url = ['https://play.google.com/store/apps/details?id=com.google.android.apps.nexuslauncher','https://play.google.com/store/apps/details?id=com.paytm.business','https://play.google.com/store/apps/details?id=com.videobird.vbplayer']

App_name = []
Installs = []
Rating = []
Category = []
Review = []
Size = []
Last_Update = []
Developer = []
Current_Version = []
Required_Android = []

for i in List_Url:

    page = requests.get(i)
    page.text
    soup = BeautifulSoup(page.text)

    Ratings = soup.find_all("div", class_= 'BHMmbe')[0]
    # Rating = Ratings[0].text
    for i in Ratings:
        Rating.append(i)

    App_names = soup.find_all('h1',class_='AHFaub')[0]
    for i in App_names:
        a = i.text
        App_name.append(a)

    Categories = soup.find_all('a',class_='r20sbf')[5]
    for i in Categories:
        Category.append(i)

    Reviews = soup.find_all('span',class_='EymY4b')
    for i in Reviews:
        Review.append(i.text.split(' ')[0])

    Sizes = soup.find_all('span', class_='htlgb')[3]
    for i in Sizes:
        Size.append(i)

    Installss = soup.find_all('span',class_='htlgb')[5]
    for i in Installss:
        Installs.append(i)

    Last_Update1 = soup.find_all('span',class_='htlgb')[1]
    for i in Last_Update1:
        Last_Update.append(i)
```

```

Developers = soup.find_all('a',class_="hrTbp R8zArcc")[0]
for i in Developers:
    Developer.append(i)

Current_Versions = soup.find_all('span',class_='htlgb')[7]
for i in Current_Versions:
    Current_Version.append(i)

Required_Androids = soup.find_all('span',class_='htlgb')[8]
for i in Required_Androids:
    Required_Android.append(i.text)

import pandas as pd
Google106 = pd.DataFrame({'App_Names':App_name,
                           'No_Of_Installs':Installs,
                           'Rating':Rating,
                           'Category':Category,
                           'No_Of_Review':Review,
                           'Size':Size,
                           'Last_Update':Last_Update,
                           'Developer':Developer,
                           'Current_Version':Current_Version,
                           'Required_Android':Required_Android})

```

Google106

Out[45]:

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Develo
0	Google My Business	10,000,000+	4.3	Business	261,634	Varies with device	September 9, 2021	Google LLC
1	IndiaMART: Online Marketplace of Indian Exporters	10,000,000+	4.7	Business	455,942	24M	September 14, 2021	IndiaMART InterMESH I
2	WhatsApp Business	500,000,000+	4.2	Business	5,766,283	Varies with device	September 20, 2021	WhatsApp LLC
3	PhonePe Business	10,000,000+	4.3	Business	218,718	13M	September 25, 2021	PhonePe
4	QuickBooks Online Accounting, Invoicing & Expenses	1,000,000+	4.0	Business	42,158	Varies with device	September 21, 2021	Intuit
5	Paytm for Business: Accept Payments for Merchants	10,000,000+	4.5	Business	319,410	42M	September 9, 2021	Paytm - One Communications Pvt. Ltd.
6	Invoicing, Billing, GST, Inventory, Accounting	5,000,000+	4.7	Business	73,282	Varies with device	September 20, 2021	Invoicing, Billing, GST, Inventory, Accounting

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Develo
7	Dukaan - Create Online Dukan. Grow Your Business	5,000,000+	4.5	Business	80,904	21M	September 24, 2021	Dukaan - Dic Store App M in Ir
8	Shop101: Resell, Work From Home, Make Money App	10,000,000+	4.3	Business	78,033	15M	September 8, 2021	Shop101: W from Hc Jobs, E Money On
9	Google Primer	10,000,000+	4.7	Business	135,265	9.2M	September 3, 2021	Google Le A



```
In [46]: List_Url = ['https://play.google.com/store/apps/details?id=com.naver.linewebtoon','https://play.google.com/store/apps/details?id=com.toomics.global.google','https://play.google.com/store/apps/details?id=com.marvel.comics']  
  
App_name = []  
Installs = []  
Rating = []  
Category = []  
Review = []  
Size = []  
Last_Update = []  
Developer = []  
Current_Version = []  
Required_Android = []  
  
for i in List_Url:  
  
    page = requests.get(i)  
    page.text  
    soup = BeautifulSoup(page.text)  
  
    Ratings = soup.find_all("div", class_= 'BHMmbe')[0]  
    # Rating = Ratings[0].text  
    for i in Ratings:  
        Rating.append(i)  
  
    App_names = soup.find_all('h1',class_='AHFaub')[0]  
    for i in App_names:  
        a = i.text  
        App_name.append(a)  
  
    Categories = soup.find_all('a',class_='r20sbf')[6]  
    for i in Categories:  
        Category.append(i)  
  
    Reviews = soup.find_all('span',class_='EymY4b')  
    for i in Reviews:  
        Review.append(i.text.split(' ')[0])  
  
    Sizes = soup.find_all('span', class_='htlgb')[3]  
    for i in Sizes:  
        Size.append(i)  
  
    Installss = soup.find_all('span',class_='htlgb')[5]  
    for i in Installss:  
        Installs.append(i)  
  
    Last_Update1 = soup.find_all('span',class_='htlgb')[1]  
    for i in Last_Update1:
```

```
Last_Update.append(i)

Developers = soup.find_all('a',class_="hrTbp R8zArc")[0]
for i in Developers:
    Developer.append(i)

Current_Versions = soup.find_all('span',class_='htlgb')[7]
for i in Current_Versions:
    Current_Version.append(i)

Required_Androids = soup.find_all('span',class_='htlgb')[8]
for i in Required_Androids:
    Required_Android.append(i.text)

import pandas as pd
Google107 = pd.DataFrame({'App_Names':App_name,
                           'No_Of_Installs':Installs,
                           'Rating':Rating,
                           'Category':Category,
                           'No_Of_Review':Review,
                           'Size':Size,
                           'Last_Update':Last_Update,
                           'Developer':Developer,
                           'Current_Version':Current_Version,
                           'Required_Android':Required_Android})
```

Google107

Out[46]:

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	D
0	WEBTOON	50,000,000+	4.5	Comics	1,795,398	24M	September 9, 2021	WEBTOON
1	Free Comics - Pratilipi Comics	5,000,000+	4.4	Comics	32,499	9.6M	September 18, 2021	
2	MangaToon-Good comics, Great stories	10,000,000+	4.2	Comics	530,463	Varies with device	September 18, 2021	MANGATOON
3	Comics	10,000,000+	3.8	Comics	60,607	9.3M	August 23, 2021	comics
4	Toomics - Read unlimited comics	1,000,000+	3.5	Comics	20,853	21M	July 19, 2021	Toomics
5	Manta Comics	1,000,000+	4.5	Comics	12,840	41M	September 14, 2021	RIDI CO.
6	WebComics	5,000,000+	4.0	Comics	203,334	29M	September 11, 2021	WEE HOLD
7	Astonishing Comic Reader	1,000,000+	4.5	Comics	25,684	Varies with device	May 17, 2019	St

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	D
8	Tappytoon Comics & Novels	1,000,000+	4.1	Comics	32,517	Varies with device	September 8, 2021	Cont
9	Marvel Comics	10,000,000+	3.9	Comics	56,110	7.2M	August 23, 2021	Marvel

```
In [47]: List_Url = ['https://play.google.com/store/apps/details?id=com.tinder','https://play.google.com/store/apps/details?id=com.whatsapp']

App_name = []
Installs = []
Rating = []
Category = []
Review = []
Size = []
Last_Update = []
Developer = []
Current_Version = []
Required_Android = []

for i in List_Url:

    page = requests.get(i)
    page.text
    soup = BeautifulSoup(page.text)

    Ratings = soup.find_all("div", class_= 'BHMmbe')[0]
    # Rating = Ratings[0].text
    for i in Ratings:
        Rating.append(i)

    App_names = soup.find_all('h1',class_='AHFaub')[0]
    for i in App_names:
        a = i.text
        App_name.append(a)

    Categories = soup.find_all('a',class_='r20sbf')[8]
    for i in Categories:
        Category.append(i)

    Reviews = soup.find_all('span',class_='EymY4b')
    for i in Reviews:
        Review.append(i.text.split(' ')[0])

    Sizes = soup.find_all('span', class_='htlgb')[3]
    for i in Sizes:
        Size.append(i)

    Installss = soup.find_all('span',class_='htlgb')[5]
    for i in Installss:
        Installs.append(i)

    Last_Update1 = soup.find_all('span',class_='htlgb')[1]
    for i in Last_Update1:
        Last_Update.append(i)
```

```

Developers = soup.find_all('a',class_="hrTbp R8zArc")[0]
for i in Developers:
    Developer.append(i)

Current_Versions = soup.find_all('span',class_='htlgb')[7]
for i in Current_Versions:
    Current_Version.append(i)

Required_Androids = soup.find_all('span',class_='htlgb')[8]
for i in Required_Androids:
    Required_Android.append(i.text)

import pandas as pd
Google109 = pd.DataFrame({'App_Names':App_name,
                           'No_Of_Installs':Installs,
                           'Rating':Rating,
                           'Category':Category,
                           'No_Of_Review':Review,
                           'Size':Size,
                           'Last_Update':Last_Update,
                           'Developer':Developer,
                           'Current_Version':Current_Version,
                           'Required_Android':Required_Android})

```

Google109

Out[47]:

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Develop
0	Tinder - Dating, Make Friends and Meet New People	100,000,000+	3.3	Dating	4,407,076	113M	September 13, 2021	Tind
1	OkCupid: Online Dating App for Every Single Pe...	10,000,000+	3.8	Dating	483,965	38M	September 20, 2021	okcupid.co
2	Bumble – Dating, Make New Friends & Networking	10,000,000+	3.2	Dating	263,492	89M	September 24, 2021	Bumt Holding Limite
3	Badoo — The Dating App to Chat, Date & Meet Pe...	100,000,000+	4.0	Dating	5,632,653	51M	September 21, 2021	Bado
4	Zoosk - Online Dating App to Meet New People	10,000,000+	3.6	Dating	611,867	Varies with device	September 24, 2021	Zoosk Ir

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Develop
5	QuackQuack Dating App in India – Meet, Chat, Date	5,000,000+	3.9	Dating	304,023	15M	September 6, 2021	QuackQuack.
6	Plenty of Fish Free Dating App	50,000,000+	3.7	Dating	1,590,813	Varies with device	September 20, 2021	Plentyoffi- Media UL
7	happn: Cross paths, Crush, Date and Meet Up!	50,000,000+	3.9	Dating	1,602,964	72M	September 8, 2021	happn
8	Woo - The Dating App Women Love	10,000,000+	4.1	Dating	107,227	45M	September 23, 2021	DoubleYou P L1
9	Coffee Meets Bagel Free Dating App	1,000,000+	4.1	Dating	92,153	88M	September 22, 2021	Coffee Mee Bagel



```
In [48]: List_Url = ['https://play.google.com/store/apps/details?id=com.google.android.vr','https://play.google.com/store/apps/details?id=in.fulldive.shell','https://play.google.com/store/apps/details?id=com.shakingearthdigital']

App_name = []
Installs = []
Rating = []
Category = []
Review = []
Size = []
Last_Update = []
Developer = []
Current_Version = []
Required_Android = []

for i in List_Url:

    page = requests.get(i)
    page.text
    soup = BeautifulSoup(page.text)

    Ratings = soup.find_all("div", class_= 'BHMmbe')[0]
    # Rating = Ratings[0].text
    for i in Ratings:
        Rating.append(i)

    App_names = soup.find_all('h1',class_='AHFaub')[0]
    for i in App_names:
        a = i.text
        App_name.append(a)

    Categories = soup.find_all('a',class_='r20sbf')[9]
    for i in Categories:
        Category.append(i)

    Reviews = soup.find_all('span',class_='EymY4b')
    for i in Reviews:
        Review.append(i.text.split(' ')[0])

    Sizes = soup.find_all('span', class_='htlgb')[3]
    for i in Sizes:
        Size.append(i)

    Installss = soup.find_all('span',class_='htlgb')[5]
    for i in Installss:
        Installs.append(i)
```

```
Last_Update1 = soup.find_all('span',class_='htlgb')[1]
for i in Last_Update1:
    Last_Update.append(i)

Developers = soup.find_all('a',class_="hrTbp R8zArc")[0]
for i in Developers:
    Developer.append(i)

Current_Versions = soup.find_all('span',class_='htlgb')[7]
for i in Current_Versions:
    Current_Version.append(i)

Required_Androids = soup.find_all('span',class_='htlgb')[8]
for i in Required_Androids:
    Required_Android.append(i)

import pandas as pd
Google110 = pd.DataFrame({'App_Names':App_name,
                           'No_Of_Installs':Installs,
                           'Rating':Rating,
                           'Category':Category,
                           'No_Of_Review':Review,
                           'Size':Size,
                           'Last_Update':Last_Update,
                           'Developer':Developer,
                           'Current_Version':Current_Version,
                           'Required_Android':Required_Android})
```

Google110

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Developer
0	Daydream	10,000,000+	3.4	Daydream	5,090	35M	September 10, 2019	Google LLC
1	Google VR Services	100,000,000+	3.9	Daydream	42,519	Varies with device	September 10, 2019	Google LLC
2	Lucid - DayDream Screensaver	100,000+	3.9	Daydream	3,243	1.2M	August 2, 2020	j4ve
3	YouTube VR	10,000,000+	3.7	Daydream	4,127	24M	October 8, 2020	Google LLC
4	Fulldive VR - Virtual Reality	5,000,000+	4.1	Daydream	78,359	Varies with device	February 20, 2021	Brows by Fulldive LLC
5	Daydream Keyboard	10,000,000+	3.9	Daydream	2,347	46M	September 10, 2019	Google LLC

```
In [49]: List_Url = ['https://play.google.com/store/apps/details?id=haygot.togyah.app','https://play.google.com/store/apps/details?id=com.unacademyapp','http://play.google.com/store/apps/details?id=com.byjus.thelearningap  
  
App_name = []  
Installs = []  
Rating = []  
Category = []  
Review = []  
Size = []  
Last_Update = []  
Developer = []  
Current_Version = []  
Required_Android = []  
  
for i in List_Url:  
  
    page = requests.get(i)  
    page.text  
    soup = BeautifulSoup(page.text)  
  
    Ratings = soup.find_all("div", class_= 'BHMmbe')[0]  
    # Rating = Ratings[0].text  
    for i in Ratings:  
        Rating.append(i)  
  
    App_names = soup.find_all('h1',class_='AHFaub')[0]  
    for i in App_names:  
        a = i.text  
        App_name.append(a)  
  
    Categories = soup.find_all('a',class_='r20sbf')[10]  
    for i in Categories:  
        Category.append(i)  
  
    Reviews = soup.find_all('span',class_='EymY4b')  
    for i in Reviews:  
        Review.append(i.text.split(' ')[0])  
  
    Sizes = soup.find_all('span', class_='htlgb')[3]  
    for i in Sizes:  
        Size.append(i)  
  
    Installss = soup.find_all('span',class_='htlgb')[5]  
    for i in Installss:  
        Installs.append(i)
```

```
Last_Update1 = soup.find_all('span',class_='htlgb')[1]
for i in Last_Update1:
    Last_Update.append(i)

Developers = soup.find_all('a',class_="hrTbp R8zArc")[0]
for i in Developers:
    Developer.append(i)

Current_Versions = soup.find_all('span',class_='htlgb')[7]
for i in Current_Versions:
    Current_Version.append(i)

Required_Androids = soup.find_all('span',class_='htlgb')[8]
for i in Required_Androids:
    Required_Android.append(i)

import pandas as pd
Google111 = pd.DataFrame({'App_Names':App_name,
                           'No_Of_Installs':Installs,
                           'Rating':Rating,
                           'Category':Category,
                           'No_Of_Review':Review,
                           'Size':Size,
                           'Last_Update':Last_Update,
                           'Developer':Developer,
                           'Current_Version':Current_Version,
                           'Required_Android':Required_Android})
```

Google111

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Developer
0	Toppr - Free Learning App for Class 5 - 12	10,000,000+	4.3	Education	175,618	30M	July 24, 2021	Toppr
1	DIKSHA - Platform for School Education	10,000,000+	4.3	Education	353,659	17M	September 23, 2021	Minist Educa Go I
2	Khan Academy	10,000,000+	4.5	Education	149,631	51M	May 3, 2021	K Acad
3	Khan Academy	10,000,000+	4.5	Education	149,631	51M	May 3, 2021	K Acad
4	Unacademy Learner App	10,000,000+	4.2	Education	853,020	Varies with device	September 26, 2021	Unacad
5	Vedantu: LIVE Learning App Class 1-12, JEE, ...	10,000,000+	4.1	Education	344,245	Varies with device	September 21, 2021	Vedantu

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Developers
6	Navneet TOPScorer - Best eLearning App	1,000,000+	3.7	Education	42,930	56M	September 20, 2021	Nav Educa Linn
7	Udemy - Online Courses	10,000,000+	4.4	Education	321,140	27M	September 22, 2021	Ud
8	BYJU'S – The Learning App	50,000,000+	4.2	Education	1,650,609	133M	September 13, 2021	BY.
9	Extramarks – The Learning App	10,000,000+	3.9	Education	120,278	71M	July 31, 2021	Extram Educa
10	Khan Academy Kids	1,000,000+	4.7	Education	26,599	154M	September 16, 2021	K Acad



```
In [50]: List_Url = ['https://play.google.com/store/apps/details?id=in.startv.hotstar','https://play.google.com/store/apps/details?id=tv.accedo.airtel.wynk','https://play.google.com/store/apps/details?id=com.omnewgentechnologies']

App_name = []
Installs = []
Rating = []
Category = []
Review = []
Size = []
Last_Update = []
Developer = []
Current_Version = []
Required_Android = []

for i in List_Url:

    page = requests.get(i)
    page.text
    soup = BeautifulSoup(page.text)

    Ratings = soup.find_all("div", class_= 'BHMmbe')[0]
    # Rating = Ratings[0].text
    for i in Ratings:
        Rating.append(i)

    App_names = soup.find_all('h1',class_='AHFaub')[0]
    for i in App_names:
        a = i.text
        App_name.append(a)

    Categories = soup.find_all('a',class_='r20sbf')[11]
    for i in Categories:
        Category.append(i)

    Reviews = soup.find_all('span',class_='EymY4b')
    for i in Reviews:
        Review.append(i.text.split(' ')[0])

    Sizes = soup.find_all('span', class_='htlgb')[3]
    for i in Sizes:
        Size.append(i)

    Installss = soup.find_all('span',class_='htlgb')[5]
    for i in Installss:
```

```

Installs.append(i)

Last_Update1 = soup.find_all('span',class_='htlgb')[1]
for i in Last_Update1:
    Last_Update.append(i)

Developers = soup.find_all('a',class_="hrTbp R8zArc")[0]
for i in Developers:
    Developer.append(i)

Current_Versions = soup.find_all('span',class_='htlgb')[7]
for i in Current_Versions:
    Current_Version.append(i)

Required_Androids = soup.find_all('span',class_='htlgb')[8]
for i in Required_Androids:
    Required_Android.append(i.text)

import pandas as pd
Google112 = pd.DataFrame({'App_Names':App_name,
                           'No_Of_Installs':Installs,
                           'Rating':Rating,
                           'Category':Category,
                           'No_Of_Review':Review,
                           'Size':Size,
                           'Last_Update':Last_Update,
                           'Developer':Developer,
                           'Current_Version':Current_Version,
                           'Required_Android':Required_Android})

```

Google112

Out[50]:

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	I
0	Hotstar	500,000,000+	3.9	Entertainment	9,488,354	Varies with device	September 24, 2021	N
1	JioTV – News, Movies, Entertainment, LIVE TV	100,000,000+	4.0	Entertainment	3,439,854	16M	June 30, 2021	Jic
2	Eros Now - Movies, Originals, Music & TV Shows	10,000,000+	2.8	Entertainment	119,135	18M	July 22, 2021	E
3	ZEE5: Movies, TV Shows, Web Series, News	100,000,000+	3.4	Entertainment	1,147,308	Varies with device	September 23, 2021	Z
4	Airtel Xstream App: Movies, TV Shows	100,000,000+	3.5	Entertainment	1,020,175	Varies with device	September 8, 2021	

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	
5	MX Player Online: Web Series, Games, Movies, M...	10,000,000+	4.1	Entertainment	63,169	27M	September 14, 2021	(f)
6	ALTBalaji - Watch Web Series, Originals & Movies	10,000,000+	3.2	Entertainment	319,695	Varies with device	September 9, 2021	Ent
7	VotTak — Best Videos. Endless Fun. Newest Content	5,000,000+	4.1	Entertainment	41,298	18M	September 13, 2021	On Te
8	JioCinema: Movies TV Originals	50,000,000+	3.9	Entertainment	859,918	13M	August 9, 2021	Se
9	Roposo: Indian Short Video App. Viral Funny Vi...	100,000,000+	4.2	Entertainment	1,190,660	100M	September 21, 2021	

```
In [51]: List_Url = ['https://play.google.com/store/apps/details?id=com.eventbrite.attende  
'https://play.google.com/store/apps/details?id=com.meetup','https://p]  
  
App_name = []  
Installs = []  
Rating = []  
Category = []  
Review = []  
Size = []  
Last_Update = []  
Developer = []  
Current_Version = []  
Required_Android = []  
  
for i in List_Url:  
  
    page = requests.get(i)  
    page.text  
    soup = BeautifulSoup(page.text)  
  
    Ratings = soup.find_all("div", class_= 'BHMmbe')[0]  
    # Rating = Ratings[0].text  
    for i in Ratings:  
        Rating.append(i)  
  
    App_names = soup.find_all('h1',class_='AHFaub')[0]  
    for i in App_names:  
        a = i.text  
        App_name.append(a)  
  
    Categories = soup.find_all('a',class_='r20sbf')[12]  
    for i in Categories:  
        Category.append(i)  
  
    Reviews = soup.find_all('span',class_='EymY4b')  
    for i in Reviews:  
        Review.append(i.text.split(' ')[0])  
  
    Sizes = soup.find_all('span', class_='htlgb')[3]  
    for i in Sizes:  
        Size.append(i)  
  
    Installss = soup.find_all('span',class_='htlgb')[5]  
    for i in Installss:  
        Installs.append(i)
```

```
Last_Update1 = soup.find_all('span',class_='htlgb')[1]
for i in Last_Update1:
    Last_Update.append(i)

Developers = soup.find_all('a',class_="hrTbp R8zArc")[0]
for i in Developers:
    Developer.append(i)

Current_Versions = soup.find_all('span',class_='htlgb')[7]
for i in Current_Versions:
    Current_Version.append(i)

Required_Androids = soup.find_all('span',class_='htlgb')[8]
for i in Required_Androids:
    Required_Android.append(i)

import pandas as pd
Google113 = pd.DataFrame({'App_Names':App_name,
                           'No_Of_Installs':Installs,
                           'Rating':Rating,
                           'Category':Category,
                           'No_Of_Review':Review,
                           'Size':Size,
                           'Last_Update':Last_Update,
                           'Developer':Developer,
                           'Current_Version':Current_Version,
                           'Required_Android':Required_Android})
```

Google113

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	De
0	Eventbrite - Discover popular events & nearby fun	10,000,000+	4.5	Events	128,217	18M	August 17, 2021	E
1	All Events in City - Discover Events On The GO	500,000+	4.2	Events	5,336	7.3M	December 27, 2019	
2	10times - Find Events, Tradeshow & Conferences	100,000+	4.2	Events	1,616	22M	September 11, 2021	10ti
3	Nearify - Discover Events	100,000+	3.3	Events	3,704	12M	April 2, 2019	
4	Meetup: Find events near you	10,000,000+	4.6	Events	132,329	24M	September 20, 2021	
5	Cvent Events	10,000+	3.7	Events	17	91M	September 15, 2021	

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	De
6	Whova - Event & Conference App	500,000+	4.8	Events	14,805	447M	September 17, 2021	
7	CrowdCompass Events	500,000+	3.8	Events	717	48M	September 10, 2021	CrowdC
8	HighApe - Events & Activities In Your City!	50,000+	4.0	Events	429	15M	January 9, 2020	Serv
9	Eventtus: Virtual Events	1,000+	3.9	Events	9	46M	June 27, 2021	



```
In [52]: List_Url = ['https://play.google.com/store/apps/details?id=com.yahoo.mobile.client.android']

App_name = []
Installs = []
Rating = []
Category = []
Review = []
Size = []
Last_Update = []
Developer = []
Current_Version = []
Required_Android = []

for i in List_Url:

    page = requests.get(i)
    page.text
    soup = BeautifulSoup(page.text)

    Ratings = soup.find_all("div", class_= 'BHMmbe')[0]
    # Rating = Ratings[0].text
    for i in Ratings:
        Rating.append(i)

    App_names = soup.find_all('h1',class_='AHFaub')[0]
    for i in App_names:
        a = i.text
        App_name.append(a)

    Categories = soup.find_all('a',class_='r20sbf')[13]
    for i in Categories:
        Category.append(i)

    Reviews = soup.find_all('span',class_='EymY4b')
    for i in Reviews:
        Review.append(i.text.split(' ')[0])

    Sizes = soup.find_all('span', class_='htlgb')[3]
    for i in Sizes:
        Size.append(i)

    Installss = soup.find_all('span',class_='htlgb')[5]
    for i in Installss:
        Installs.append(i)

    Last_Update1 = soup.find_all('span',class_='htlgb')[1]
    for i in Last_Update1:
```

```
Last_Update.append(i)

Developers = soup.find_all('a',class_="hrTbp R8zArc")[0]
for i in Developers:
    Developer.append(i)

Current_Versions = soup.find_all('span',class_='htlgb')[7]
for i in Current_Versions:
    Current_Version.append(i)

Required_Androids = soup.find_all('span',class_='htlgb')[8]
for i in Required_Androids:
    Required_Android.append(i.text)

import pandas as pd
Google114 = pd.DataFrame({'App_Names':App_name,
                           'No_Of_Installs':Installs,
                           'Rating':Rating,
                           'Category':Category,
                           'No_Of_Review':Review,
                           'Size':Size,
                           'Last_Update':Last_Update,
                           'Developer':Developer,
                           'Current_Version':Current_Version,
                           'Required_Android':Required_Android})
```

Google114

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	
0	Yahoo Finance	10,000,000+	4.1	Finance	175,457	28M	September 20, 2021	
1	Wallet: Personal Finance, Budget & Expense Tra...	5,000,000+	4.7	Finance	196,748	35M	August 19, 2021	BudgetBa...
2	Goodbudget: Budget & Finance	1,000,000+	4.4	Finance	18,974	5.9M	October 27, 2020	Dayspring...
3	Spendee - Budget and Expense Tracker & Planner	1,000,000+	2.9	Finance	30,260	63M	August 11, 2021	SPEDEE
4	Investing.com: Stocks, Finance, Markets & News	10,000,000+	4.4	Finance	456,893	55M	September 26, 2021	INVESTING
5	Fortune City - A Finance App	1,000,000+	4.4	Finance	107,013	120M	September 27, 2021	FCITY

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	
6	YNAB — Budget, Personal Finance	1,000,000+	4.2	Finance	7,824	91M	August 3, 2021	YouNeedABudget
7	Money Manager Expense & Budget	10,000,000+	4.7	Finance	294,328	19M	September 24, 2021	Re
8	Kuvera Personal Finance App	500,000+	4.5	Finance	10,868	36M	September 2, 2021	A
9	Monefy - Budget Manager and Expense Tracker app	5,000,000+	4.6	Finance	170,279	12M	August 21, 2021	A



```
In [53]: List_Url = ['https://play.google.com/store/apps/details?id=in.swiggy.android', 'https://play.google.com/store/apps/details?id=com.zomato.zmenu']

App_name = []
Installs = []
Rating = []
Category = []
Review = []
Size = []
Last_Update = []
Developer = []
Current_Version = []
Required_Android = []

for i in List_Url:

    page = requests.get(i)
    page.text
    soup = BeautifulSoup(page.text)

    Ratings = soup.find_all("div", class_= 'BHMmbe')[0]
    # Rating = Ratings[0].text
    for i in Ratings:
        Rating.append(i)

    App_names = soup.find_all('h1',class_='AHFaub')[0]
    for i in App_names:
        a = i.text
        App_name.append(a)

    Categories = soup.find_all('a',class_='r20sbf')[14]
    for i in Categories:
        Category.append(i)

    Reviews = soup.find_all('span',class_='EymY4b')
    for i in Reviews:
        Review.append(i.text.split(' ')[0])

    Sizes = soup.find_all('span', class_='htlgb')[3]
    for i in Sizes:
        Size.append(i)

    Installss = soup.find_all('span',class_='htlgb')[5]
    for i in Installss:
        Installs.append(i)
```

```
Last_Update1 = soup.find_all('span',class_='htlgb')[1]
for i in Last_Update1:
    Last_Update.append(i)

Developers = soup.find_all('a',class_="hrTbp R8zArc")[0]
for i in Developers:
    Developer.append(i)

Current_Versions = soup.find_all('span',class_='htlgb')[7]
for i in Current_Versions:
    Current_Version.append(i)

Required_Androids = soup.find_all('span',class_='htlgb')[8]
for i in Required_Androids:
    Required_Android.append(i)

import pandas as pd
Google115 = pd.DataFrame({'App_Names':App_name,
                           'No_Of_Installs':Installs,
                           'Rating':Rating,
                           'Category':Category,
                           'No_Of_Review':Review,
                           'Size':Size,
                           'Last_Update':Last_Update,
                           'Developer':Developer,
                           'Current_Version':Current_Version,
                           'Required_Android':Required_Android})
```

Google115

Out[53]:

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Developer
0	Swiggy Food Order Online Grocery Delivery App	100,000,000+	4.1	Food & Drink	2,793,230	Varies with device	September 20, 2021	Swiggy
1	Zomato - Online Food Delivery & Restaurant Rev...	100,000,000+	4.3	Food & Drink	5,571,710	32M	September 26, 2021	Zomato
2	McDelivery- McDonald's India: Food Delivery App	5,000,000+	4.3	Food & Drink	81,843	30M	June 16, 2021	McDonald's India – West & South
3	EatSure - Order Food Food court on an app	5,000,000+	4.3	Food & Drink	131,790	18M	September 23, 2021	Rebel Marketplace Private Limited
4	Domino's Pizza - Online Food Delivery App	10,000,000+	4.3	Food & Drink	643,898	11M	September 17, 2021	Jubilant Foodworks

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Developer
5	Dineout: Best Restaurant Offers, Deals & Events	5,000,000+	4.7	Food & Drink	44,194	57M	September 19, 2021	dineou...
6	KFC Online Order and Food Delivery	5,000,000+	3.9	Food & Drink	49,845	43M	September 25, 2021	Yum Brands Inc - India Division
7	Top Food	10,000+	4.2	Food & Drink	113	32M	September 19, 2021	International Top Services Company
8	Pizza Hut Delivery & Takeaway	1,000,000+	4.4	Food & Drink	58,527	31M	March 25, 2021	Pizza Hut Digital Ventures
9	foodpanda: Fastest food delivery, amazing offers	10,000,000+	3.2	Food & Drink	189,695	13M	August 8, 2019	foodpanda India
10	Barbeque Nation - Best Casual Dining Restaurant	1,000,000+	4.4	Food & Drink	20,625	31M	September 22, 2021	Barbeque Nation Hospitality Itc



```
In [54]: List_Url=[ "https://play.google.com/store/apps/details?id=com.desarrollodroide.reportador" ,
    "https://play.google.com/store/apps/details?id=io.materialdesign.catalog" ,
    "https://play.google.com/store/apps/details?id=in.sumeetlubal.aweandroid" ,
    "https://play.google.com/store/apps/details?id=com.ddc.schedule" ,
    "https://play.google.com/store/apps/details?id=com.jb.dev.materialgaller" ,
    "https://play.google.com/store/apps/details?id=com.afollestad.materiald" ,
    "#          "https://play.google.com/store/apps/details?id=com.ramijemli.easingso" ,
    "#          "https://play.google.com/store/apps/details?id=com.overdrive.mobile.o" ,
    "#          "https://play.google.com/store/apps/details?id=com.pranavpandey.andro" ,
    "#          "https://play.google.com/store/apps/details?id=com.overdrive.mobile.o" ]
```



```
App_name = []
Installs = []
Rating = []
Category = []
Review = []
Size = []
Last_Update = []
Developer = []
Current_Version = []
Required_Android = []

for i in List_Url:
```



```
    page = requests.get(i)
    page.text
    soup = BeautifulSoup(page.text)
```



```
Ratings = soup.find_all("div", class_= 'BHMmbe')[0]
# Rating = Ratings[0].text
for i in Ratings:
    Rating.append(i)
```



```
App_names = soup.find_all('h1',class_='AHFaub')[0]
for i in App_names:
    a = i.text
    App_name.append(a)
```



```
Categories = soup.find_all('a',class_='r20sbf')[17]
for i in Categories:
    Category.append(i)
```



```
Reviews = soup.find_all('span',class_='EymY4b')
for i in Reviews:
    Review.append(i.text.split(' ')[0])
```

```

Sizes = soup.find_all('span', class_='htlgb')[3]
for i in Sizes:
    Size.append(i)

Installss = soup.find_all('span', class_='htlgb')[5]
for i in Installss:
    Installs.append(i)

Last_Update1 = soup.find_all('span', class_='htlgb')[1]
for i in Last_Update1:
    Last_Update.append(i)

Developers = soup.find_all('a', class_="hrTbp R8zArc")[0]
for i in Developers:
    Developer.append(i)

Current_Versions = soup.find_all('span', class_='htlgb')[7]
for i in Current_Versions:
    Current_Version.append(i)

Required_Androids = soup.find_all('span', class_='htlgb')[8]
for i in Required_Androids:
    Required_Android.append(i)

```

```

import pandas as pd
Google116 = pd.DataFrame({'App_Names':App_name,
                           'No_Of_Installs':Installs,
                           'Rating':Rating,
                           'Category':Category,
                           'No_Of_Review':Review,
                           'Size':Size,
                           'Last_Update':Last_Update,
                           'Developer':Developer,
                           'Current_Version':Current_Version,
                           'Required_Android':Required_Android})

```

Google116

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Developer
0	Libraries for developers	100,000+	4.7	Libraries & Demo	5,976	45M	February 18, 2021	Desarroll Droid
1	Material Design Components	10,000+	4.5	Libraries & Demo	119	5.1M	April 17, 2021	Material I/
2	Awesome Android - UI Libraries	50,000+	4.5	Libraries & Demo	459	Varies with device	June 14, 2020	App Dev
3	DDC Schedule	1,000+	4.2	Libraries & Demo	18	8.6M	July 7, 2021	Robot Ap Developers

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Developer
4	Material Gallery - Android Source Code	1,000+	4.7	Libraries & Demo	100	6.4M	June 6, 2021	JB de
5	Material Dialogs Library Demo	10,000+	4.8	Libraries & Demo	702	3.7M	February 8, 2020	Follix App

```
In [55]: List_Url=[ "https://play.google.com/store/apps/details?id=com.applications.lifestyle",
    "https://play.google.com/store/apps/details?id=app.trell",
    "https://play.google.com/store/apps/details?id=com.mobileapp.mylifestyle",
    "https://play.google.com/store/apps/details?id=com.thriwe.mainapp",
    #          "https://play.google.com/store/apps/developer?id=SLKingSoft",
    "https://play.google.com/store/apps/details?id=org.glow.dsahoo.app",
    "https://play.google.com/store/apps/details?id=com.limatech.dayschaller",
    "https://play.google.com/store/apps/details?id=com.remente.app",
    "https://play.google.com/store/apps/details?id=co.thefabulous.app",
    "https://play.google.com/store/apps/details?id=app.story.craftystudio.s
```



```
App_name = []
Installs = []
Rating = []
Category = []
Review = []
Size = []
Last_Update = []
Developer = []
Current_Version = []
Required_Android = []

for i in List_Url:

    page = requests.get(i)
    page.text
    soup = BeautifulSoup(page.text)

    Ratings = soup.find_all("div", class_= 'BHMmbe')[0]
    # Rating = Ratings[0].text
    for i in Ratings:
        Rating.append(i)

    App_names = soup.find_all('h1',class_='AHFaub')[0]
    for i in App_names:
        a = i.text
        App_name.append(a)

    Categories = soup.find_all('a',class_='r20sbf')[18]
    for i in Categories:
        Category.append(i)

    Reviews = soup.find_all('span',class_='EymY4b')
    for i in Reviews:
```

```

Review.append(i.text.split(' ')[0])

Sizes = soup.find_all('span', class_='htlgb')[3]
for i in Sizes:
    Size.append(i)

Installss = soup.find_all('span', class_='htlgb')[5]
for i in Installss:
    Installs.append(i)

Last_Update1 = soup.find_all('span', class_='htlgb')[1]
for i in Last_Update1:
    Last_Update.append(i)

Developers = soup.find_all('a', class_="hrTbp R8zArc")[0]
for i in Developers:
    Developer.append(i)

Current_Versions = soup.find_all('span', class_='htlgb')[7]
for i in Current_Versions:
    Current_Version.append(i)

Required_Androids = soup.find_all('span', class_='htlgb')[8]
for i in Required_Androids:
    Required_Android.append(i)

import pandas as pd
Google117 = pd.DataFrame({'App_Names':App_name,
                           'No_Of_Installs':Installs,
                           'Rating':Rating,
                           'Category':Category,
                           'No_Of_Review':Review,
                           'Size':Size,
                           'Last_Update':Last_Update,
                           'Developer':Developer,
                           'Current_Version':Current_Version,
                           'Required_Android':Required_Android})

```

Google117

Out[55]:		App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Develop
0	Lifestyle - Online Shopping For Fashion & Cloth...	5,000,000+	3.8	Lifestyle	22,961	19M	August 25, 2021	Landmark Online Inc Pvt. Ltd.	
1	Trell - Lifestyle Videos and Shopping App	10,000,000+	4.3	Lifestyle	110,214	72M	September 22, 2021	Trusted Experienc...	

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Develop
2	Mi Lifestyle	500,000+	4.5	Lifestyle	11,375	14M	August 25, 2021	MI LifeStyle Marketi Glot Priv Limit
3	Thriwe—Your Lifestyle Assistant	10,000+	3.8	Lifestyle	77	35M	September 14, 2021	Thriw
4	Glow: 30 Days Challenge to transform lifestyle	10,000+	4.5	Lifestyle	82	3.9M	January 25, 2021	Debashi Saha
5	21 Days Challenge - Life Changing Habits	1,000,000+	4.8	Lifestyle	53,968	19M	September 25, 2021	Kati & Lir
6	Remente: Self Care, Mental Health, Personal Gr...	1,000,000+	4.3	Lifestyle	11,161	26M	August 9, 2021	Remer
7	Fabulous: Daily Routine Planner	10,000,000+	4.6	Lifestyle	426,087	90M	September 23, 2021	TheFabulo
8	Make Me Better - Improve Personality & Motivation	1,000,000+	4.7	Lifestyle	24,239	9.8M	July 7, 2021	Crafty Stuc



```
In [56]: List_Url=[ "https://play.google.com/store/apps/details?id=com.sygic.aura",
    "https://play.google.com/store/apps/details?id=com.gpsnavigation.maps.gpsnavigator",
    "https://play.google.com/store/apps/details?id=com.google.android.apps.nexusapp",
    "https://play.google.com/store/apps/details?id=com.jvstudios.gpstracker",
    "https://play.google.com/store/apps/details?id=com.livestreetview.livenew",
    "https://play.google.com/store/apps/details?id=com.maps.voice.navigation",
    "https://play.google.com/store/apps/details?id=com.voice.gps.navigation",
    "https://play.google.com/store/apps/details?id=com.voice.gps.driving.driver",
    "https://play.google.com/store/apps/details?id=com.prime.studio.apps.rhythm",
    "https://play.google.com/store/apps/details?id=com.google.android.apps.nexusapp"]

App_name = []
Installs = []
Rating = []
Category = []
Review = []
Size = []
Last_Update = []
Developer = []
Current_Version = []
Required_Android = []

for i in List_Url:

    page = requests.get(i)
    page.text
    soup = BeautifulSoup(page.text)

    Ratings = soup.find_all("div", class_= 'BHMmbe')[0]
    # Rating = Ratings[0].text
    for i in Ratings:
        Rating.append(i)

    App_names = soup.find_all('h1',class_='AHFaub')[0]
    for i in App_names:
        a = i.text
        App_name.append(a)

    Categories = soup.find_all('a',class_='r20sbf')[19]
    for i in Categories:
        Category.append(i)

    Reviews = soup.find_all('span',class_='EymY4b')
    for i in Reviews:
        Review.append(i.text.split(' ')[0])
```

```

Sizes = soup.find_all('span', class_='htlgb')[3]
for i in Sizes:
    Size.append(i)

Installss = soup.find_all('span', class_='htlgb')[5]
for i in Installss:
    Installs.append(i)

Last_Update1 = soup.find_all('span', class_='htlgb')[1]
for i in Last_Update1:
    Last_Update.append(i)

Developers = soup.find_all('a', class_="hrTbp R8zArc")[0]
for i in Developers:
    Developer.append(i)

Current_Versions = soup.find_all('span', class_='htlgb')[7]
for i in Current_Versions:
    Current_Version.append(i)

Required_Androids = soup.find_all('span', class_='htlgb')[8]
for i in Required_Androids:
    Required_Android.append(i)

import pandas as pd
Google118 = pd.DataFrame({'App_Names':App_name,
                           'No_Of_Installs':Installs,
                           'Rating':Rating,
                           'Category':Category,
                           'No_Of_Review':Review,
                           'Size':Size,
                           'Last_Update':Last_Update,
                           'Developer':Developer,
                           'Current_Version':Current_Version,
                           'Required_Android':Required_Android})

```

Google118

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Developer
0	Sygic GPS Navigation & Offline Maps	50,000,000+	4.5	Maps & Navigation	1,777,403	Varies with device	September 21, 2021	Sygic.
1	GPS Navigation: Road Map Route	1,000,000+	4.5	Maps & Navigation	9,719	9.3M	August 17, 2021	Multi Tech Apps

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Developer
2	Google Maps	5,000,000,000+	3.8	Maps & Navigation	14,215,248	Varies with device	September 22, 2021	Google LLC
3	GPS Live Navigation, Maps, Directions and Explore	10,000,000+	4.4	Maps & Navigation	289,150	288M	September 6, 2021	JVSTUDIOS
4	Live Street Map View 2021	1,000,000+	4.2	Maps & Navigation	3,616	11M	August 15, 2021	FreetoUse
5	GPS, Maps, Voice Navigation & Directions	10,000,000+	3.9	Maps & Navigation	61,933	195M	September 27, 2021	AppStar Studios
6	Voice GPS Driving Route : Gps Navigation & Maps	1,000,000+	4.3	Maps & Navigation	6,833	26M	April 28, 2021	Sibiti Apps
7	Voice GPS Driving Directions, GPS Navigation, ...	1,000,000+	4.5	Maps & Navigation	8,356	12M	May 20, 2021	Delta Raza Studio
8	GPS Route Finder : Maps Navigation & Directions	10,000,000+	4.4	Maps & Navigation	149,122	17M	September 22, 2021	Luko Parallel App Pvt Ltd
9	Google Maps Go	500,000,000+	4.3	Maps & Navigation	179,772	2.3M	February 17, 2021	Google LLC



```
In [57]: List_Url=["https://play.google.com/store/apps/details?id=com.medscape.android",
                 "https://play.google.com/store/apps/details?id=com.phonegap.rxpal",
                 "https://play.google.com/store/apps/details?id=com.amboss.medical.knowle",
                 "https://play.google.com/store/apps/details?id=com.drug.doctor",
                 "https://play.google.com/store/apps/details?id=com.medengage.clinical",
                 "https://play.google.com/store/apps/details?id=com.drugscom.app",
                 "https://play.google.com/store/apps/details?id=com.figure1.android",
                 "https://play.google.com/store/apps/details?id=com.medlife.customer",
                 "https://play.google.com/store/apps/details?id=com.mdaware.mdcalc",
                 "https://play.google.com/store/apps/details?id=com.medicaljoyworks.clini"

App_name = []
Installs = []
Rating = []
Category = []
Review = []
Size = []
Last_Update = []
Developer = []
Current_Version = []
Required_Android = []

for i in List_Url:

    page = requests.get(i)
    page.text
    soup = BeautifulSoup(page.text)

    Ratings = soup.find_all("div", class_= 'BHMmbe')[0]
    # Rating = Ratings[0].text
    for i in Ratings:
        Rating.append(i)

    App_names = soup.find_all('h1',class_='AHFaub')[0]
    for i in App_names:
        a = i.text
        App_name.append(a)

    Categories = soup.find_all('a',class_='r20sbf')[20]
    for i in Categories:
        Category.append(i)

    Reviews = soup.find_all('span',class_='EymY4b')
    for i in Reviews:
        Review.append(i.text.split(' ')[0])
```

```

Sizes = soup.find_all('span', class_='htlgb')[3]
for i in Sizes:
    Size.append(i)

Installss = soup.find_all('span', class_='htlgb')[5]
for i in Installss:
    Installs.append(i)

Last_Update1 = soup.find_all('span', class_='htlgb')[1]
for i in Last_Update1:
    Last_Update.append(i)

Developers = soup.find_all('a', class_="hrTbp R8zArc")[0]
for i in Developers:
    Developer.append(i)

Current_Versions = soup.find_all('span', class_='htlgb')[7]
for i in Current_Versions:
    Current_Version.append(i)

Required_Androids = soup.find_all('span', class_='htlgb')[8]
for i in Required_Androids:
    Required_Android.append(i)

import pandas as pd
Google119 = pd.DataFrame({'App_Names':App_name,
                           'No_Of_Installs':Installs,
                           'Rating':Rating,
                           'Category':Category,
                           'No_Of_Review':Review,
                           'Size':Size,
                           'Last_Update':Last_Update,
                           'Developer':Developer,
                           'Current_Version':Current_Version,
                           'Required_Android':Required_Android})

```

Google119

Out[57]:

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size
0	Medscape	5,000,000+	4.5	Medical	60,521	98M
1	PharmEasy – Online Medicine Ordering App	10,000,000+	4.5	Medical	360,071	Varies with device

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size
2	AMBOSS Medical Knowledge Library & Clinic Reso...	100,000+	4.7	Medical	3,235	Varies with device
3	DrugRx (disease,diagnosis,medicine,prescription)	50,000+	4.6	Medical	266	44M
4	DailyRounds - Cases, Drug Guide, ECG for Doctors	100,000+	4.7	Medical	16,298	Varies with device
5	Drugs.com Medication Guide	1,000,000+	4.6	Medical	25,843	17M
6	Figure 1 - Medical Images	1,000,000+	4.6	Medical	13,536	174M
7	Medlife Is Now PharmEasy	10,000,000+	4.2	Medical	362,672	Varies with device
8	MDCalc Medical Calculator	500,000+	4.9	Medical	7,517	62M
9	Clinical Sense - Improve Your Clinical Skills	1,000,000+	4.6	Medical	11,959	13M

```
In [58]: List_Url=[ "https://play.google.com/store/apps/details?id=com.google.android.apps."
    "https://play.google.com/store/apps/details?id=com.moonvideo.android.re"
    "https://play.google.com/store/apps/details?id=com.spotify.music",
    "https://play.google.com/store/apps/details?id=com.apple.android.music",
    "https://play.google.com/store/apps/details?id=com.Project100Pi.themusi"
    "https://play.google.com/store/apps/details?id=com.amazon.mp3",
    "https://play.google.com/store/apps/details?id=com.jio.media.jiobeats",
    "https://play.google.com/store/apps/details?id=com.soundcloud.android",
    "https://play.google.com/store/apps/details?id=com.maxmpz.audioplayer",
    "https://play.google.com/store/apps/details?id=com.audiomack"]
```

```
App_name = []
Installs = []
Rating = []
Category = []
Review = []
Size = []
Last_Update = []
Developer = []
Current_Version = []
Required_Android = []

for i in List_Url:
```



```
    page = requests.get(i)
    page.text
    soup = BeautifulSoup(page.text)
```



```
Ratings = soup.find_all("div", class_= 'BHMmbe')[0]
# Rating = Ratings[0].text
for i in Ratings:
    Rating.append(i)
```



```
App_names = soup.find_all('h1',class_= 'AHFaub')[0]
for i in App_names:
    a = i.text
    App_name.append(a)
```



```
Categories = soup.find_all('a',class_= 'r20sbf')[21]
for i in Categories:
    Category.append(i)
```



```
Reviews = soup.find_all('span',class_= 'EymY4b')
for i in Reviews:
    Review.append(i.text.split(' ')[0])
```

```

Sizes = soup.find_all('span', class_='htlgb')[3]
for i in Sizes:
    Size.append(i)

Installss = soup.find_all('span', class_='htlgb')[5]
for i in Installss:
    Installs.append(i)

Last_Update1 = soup.find_all('span', class_='htlgb')[1]
for i in Last_Update1:
    Last_Update.append(i)

Developers = soup.find_all('a', class_="hrTbp R8zArc")[0]
for i in Developers:
    Developer.append(i)

Current_Versions = soup.find_all('span', class_='htlgb')[7]
for i in Current_Versions:
    Current_Version.append(i)

Required_Androids = soup.find_all('span', class_='htlgb')[8]
for i in Required_Androids:
    Required_Android.append(i)

import pandas as pd
Google120 = pd.DataFrame({'App_Names':App_name,
                           'No_Of_Installs':Installs,
                           'Rating':Rating,
                           'Category':Category,
                           'No_Of_Review':Review,
                           'Size':Size,
                           'Last_Update':Last_Update,
                           'Developer':Developer,
                           'Current_Version':Current_Version,
                           'Required_Android':Required_Android})

```

Google120

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Develop
0	YouTube Music	1,000,000,000+	4.3	Music & Audio	2,973,674	Varies with device	September 23, 2021	Google LLC
1	Resso Music- Song Streaming with Lyrics & Radios	100,000,000+	4.3	Music & Audio	820,777	65M	September 26, 2021	Moon Vici
2	Spotify: Music and Podcasts	1,000,000,000+	4.4	Music & Audio	23,685,909	Varies with device	September 21, 2021	Spotify
3	Apple Music	50,000,000+	3.6	Music & Audio	423,669	Varies with device	July 22, 2021	Ap

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Develop
4	Pi Music Player - Free Music Player, YouTube M...	50,000,000+	4.7	Music & Audio	1,118,643	Varies with device	September 9, 2021	Musicoph - Free Mu Ap
5	Amazon Music: Stream and Discover Songs & Podc...	100,000,000+	4.3	Music & Audio	2,332,186	86M	September 24, 2021	Amaz Mobile L
6	JioSaavn Music & Radio – JioTunes, Podcasts, S...	100,000,000+	4.2	Music & Audio	3,421,173	Varies with device	September 17, 2021	Sa Me Limi
7	SoundCloud - Play Music, Podcasts & New Songs	100,000,000+	4.7	Music & Audio	5,177,074	83M	September 23, 2021	SoundClc
8	Poweramp Music Player (Trial)	50,000,000+	4.5	Music & Audio	1,377,946	Varies with device	August 15, 2021	Max I
9	Audiomack: Download New Music Offline Free	10,000,000+	4.6	Music & Audio	1,741,054	Varies with device	September 22, 2021	Audiomac

```
In [59]: List_Url=[ "https://play.google.com/store/apps/details?id=com.readwhere.app",
    "https://play.google.com/store/apps/details?id=flipboard.app",
    "https://play.google.com/store/apps/details?id=com.dci.magzter",
    "https://play.google.com/store/apps/details?id=com.jio.media.jioxpressr",
    "https://play.google.com/store/apps/details?id=com.toi.reader.activities",
    "https://play.google.com/store/apps/details?id=news.india.newspaper.taj",
    "https://play.google.com/store/apps/details?id=com.nuzzera.Nuzzera",
    "https://play.google.com/store/apps/details?id=com.vikatanapp",
    "https://play.google.com/store/apps/details?id=com.newspaperdirect.press",
    "https://play.google.com/store/apps/details?id=com.dangdung.worldnews" ]
```

```
App_name = []
Installs = []
Rating = []
Category = []
Review = []
Size = []
Last_Update = []
Developer = []
Current_Version = []
Required_Android = []

for i in List_Url:

    page = requests.get(i)
    page.text
    soup = BeautifulSoup(page.text)

    Ratings = soup.find_all("div", class_= 'BHMmbe')[0]
    # Rating = Ratings[0].text
    for i in Ratings:
        Rating.append(i)

    App_names = soup.find_all('h1',class_='AHFaub')[0]
    for i in App_names:
        a = i.text
        App_name.append(a)

    Categories = soup.find_all('a',class_='r20sbf')[22]
    for i in Categories:
```

```

Category.append(i)

Reviews = soup.find_all('span', class_='EymY4b')
for i in Reviews:
    Review.append(i.text.split(' ')[0])

Sizes = soup.find_all('span', class_='htlgb')[3]
for i in Sizes:
    Size.append(i)

Installss = soup.find_all('span', class_='htlgb')[5]
for i in Installss:
    Installs.append(i)

Last_Update1 = soup.find_all('span', class_='htlgb')[1]
for i in Last_Update1:
    Last_Update.append(i)

Developers = soup.find_all('a', class_="hrTbp R8zArc")[0]
for i in Developers:
    Developer.append(i)

Current_Versions = soup.find_all('span', class_='htlgb')[7]
for i in Current_Versions:
    Current_Version.append(i)

Required_Androids = soup.find_all('span', class_='htlgb')[8]
for i in Required_Androids:
    Required_Android.append(i)

import pandas as pd
Google121 = pd.DataFrame({'App_Names':App_name,
                           'No_Of_Installs':Installs,
                           'Rating':Rating,
                           'Category':Category,
                           'No_Of_Review':Review,
                           'Size':Size,
                           'Last_Update':Last_Update,
                           'Developer':Developer,
                           'Current_Version':Current_Version,
                           'Required_Android':Required_Android})

```

Google121

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	De
0	Readwhere - News & Magazines	500,000+	4.0	News & Magazines	13,386	31M	June 25, 2021	Readwt
1	Flipboard - Latest News, Top Stories & Lifestyle	500,000,000+	4.0	News & Magazines	1,403,575	Varies with device	September 16, 2021	Flipbo

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	De...
2	Magzter: Digital Magazines & Newspapers	1,000,000+	4.1	News & Magazines	36,944	26M	September 6, 2021	Magzter: Digital Magazines & Newspapers
3	JioNews - Live News, Videos, Newspaper, Magazines	10,000,000+	4.4	News & Magazines	122,009	32M	September 3, 2021	JioNews - Live News, Videos, Newspaper, Magazines
4	The Times of India Newspaper - Latest News App	10,000,000+	3.9	News & Magazines	565,865	30M	September 21, 2021	The Times of India Newspaper - Latest News App
5	All in One Newspapers: Latest Indian Breaking ...	100,000+	3.6	News & Magazines	3,058	4.8M	June 15, 2021	All in One Newspapers: Latest Indian Breaking ...
6	Nuzzera - Experience News & Magazines	1,000+	4.7	News & Magazines	79	2.9M	June 9, 2020	Nuzzera - Experience News & Magazines
7	Vikatan News App: Magazine & Latest News Publi...	1,000,000+	4.7	News & Magazines	26,235	31M	September 23, 2021	VIKATAN News App: Magazine & Latest News Publi...
8	PressReader: Newspapers & Magazines	5,000,000+	4.4	News & Magazines	18,383	31M	September 13, 2021	PressReader: Newspapers & Magazines
9	News & Magazines	1,000+	4.5	News & Magazines	22	3.7M	October 17, 2017	News & Magazines

```
In [60]: List_Url=[ "https://play.google.com/store/apps/details?id=com.csf.topparent",
    "https://play.google.com/store/apps/details?id=com.hip.app",
    "https://play.google.com/store/apps/details?id=com.gs.parentingguru",
    "https://play.google.com/store/apps/details?id=com.babyg",
    "https://play.google.com/store/apps/details?id=com.healofy",
    "https://play.google.com/store/apps/details?id=app.babychakra.babychakr",
    "https://play.google.com/store/apps/details?id=com.weaplinse.parenting",
    "https://play.google.com/store/apps/details?id=com.parentlane.android",
    "https://play.google.com/store/apps/details?id=com.mamazen.app",
    "https://play.google.com/store/apps/details?id=com.parenting.android"]
```

```
App_name = []
Installs = []
Rating = []
Category = []
Review = []
Size = []
Last_Update = []
Developer = []
Current_Version = []
Required_Android = []

for i in List_Url:

    page = requests.get(i)
    page.text
    soup = BeautifulSoup(page.text)

    Ratings = soup.find_all("div", class_= 'BHMmbe')[0]
    # Rating = Ratings[0].text
    for i in Ratings:
        Rating.append(i)

    App_names = soup.find_all('h1',class_='AHFaub')[0]
    for i in App_names:
        a = i.text
        App_name.append(a)

    Categories = soup.find_all('a',class_='r20sbf')[23]
    for i in Categories:
        Category.append(i)

    Reviews = soup.find_all('span',class_='EymY4b')
    for i in Reviews:
        Review.append(i.text.split(' ')[0])
```

```

Sizes = soup.find_all('span', class_='htlgb')[3]
for i in Sizes:
    Size.append(i)

Installss = soup.find_all('span', class_='htlgb')[5]
for i in Installss:
    Installs.append(i)

Last_Update1 = soup.find_all('span', class_='htlgb')[1]
for i in Last_Update1:
    Last_Update.append(i)

Developers = soup.find_all('a', class_="hrTbp R8zArc")[0]
for i in Developers:
    Developer.append(i)

Current_Versions = soup.find_all('span', class_='htlgb')[7]
for i in Current_Versions:
    Current_Version.append(i)

Required_Androids = soup.find_all('span', class_='htlgb')[8]
for i in Required_Androids:
    Required_Android.append(i)

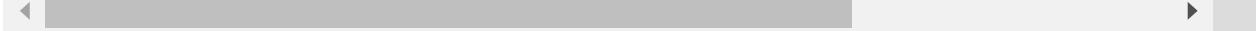
import pandas as pd
Google122 = pd.DataFrame({'App_Names':App_name,
                           'No_Of_Installs':Installs,
                           'Rating':Rating,
                           'Category':Category,
                           'No_Of_Review':Review,
                           'Size':Size,
                           'Last_Update':Last_Update,
                           'Developer':Developer,
                           'Current_Version':Current_Version,
                           'Required_Android':Required_Android})

```

Google122

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Developer
0	Top Parent - New Ways of Learning And Teaching	100,000+	4.2	Parenting	483	3.4M	July 14, 2021	Humaniti
1	The Happy Child - Parenting App	100,000+	4.9	Parenting	8,770	17M	June 20, 2021	H. Venture
2	Parenting Guru - let's nurture values in kids	10,000+	4.7	Parenting	64	71M	September 7, 2021	Tea Majest

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Develop
3	BabyG: Early Development Activities and Milestones	10,000+	4.5	Parenting	70	41M	September 13, 2021	BabyG Tech Pvt Ltd
4	Indian Pregnancy, Parenting & Baby Products App	5,000,000+	4.6	Parenting	72,080	22M	September 24, 2021	India Pregnancy Parenting tips, Baby products
5	Pregnancy Parenting BabyCare - Health Wellness...	1,000,000+	4.5	Parenting	17,194	35M	September 16, 2021	BabyChak - India Pregnancy & Parenting Tip
6	Dream Child Parenting	10,000+	4.7	Parenting	132	27M	September 8, 2021	Dream Child Parenting Institu
7	Parenting tips, babyscare, baby health & baby food	100,000+	4.4	Parenting	1,120	13M	August 20, 2021	Parenting app babyscare babytrack & baby he
8	MamaZen: Mindful Parenting for Raising Happy Kids	10,000+	4.7	Parenting	228	66M	September 9, 2021	Motherhood Parenting Fam Wellness Institu
9	Positive Parenting Solutions	50,000+	4.9	Parenting	640	26M	August 12, 2021	Parenting In-Your Pocket



```
In [61]: List_Url=[ "https://play.google.com/store/apps/details?id=ginlemon.flowerfree",
                 "https://play.google.com/store/apps/details?id=com.mi.android.globallau
                 "https://play.google.com/store/apps/details?id=ginlemon.iconpackstudio"
                 "https://play.google.com/store/apps/details?id=com.subhamsaha.bitlit",
                 "#           "https://play.google.com/store/apps/developer?id=TeslaCoil+Software",
                 "https://play.google.com/store/apps/details?id=launcher.alpha",
                 "https://play.google.com/store/apps/details?id=indian.plusone.phone.lau
                 "https://play.google.com/store/apps/details?id=com.personalization.app"
                 "https://play.google.com/store/apps/details?id=com.tcl.android.launcher
                 "https://play.google.com/store/apps/details?id=com.microsoft.launcher"]
App_name = []
Installs = []
Rating = []
Category = []
Review = []
Size = []
Last_Update = []
Developer = []
Current_Version = []
Required_Android = []

for i in List_Url:

    page = requests.get(i)
    page.text
    soup = BeautifulSoup(page.text)

    Ratings = soup.find_all("div", class_= 'BHMmbe')[0]
    # Rating = Ratings[0].text
    for i in Ratings:
        Rating.append(i)

    App_names = soup.find_all('h1',class_='AHFaub')[0]
    for i in App_names:
        a = i.text
        App_name.append(a)

    Categories = soup.find_all('a',class_='r20sbf')[24]
    for i in Categories:
        Category.append(i)

    Reviews = soup.find_all('span',class_='EymY4b')
    for i in Reviews:
        Review.append(i.text.split(' ')[0])
```

```

Sizes = soup.find_all('span', class_='htlgb')[3]
for i in Sizes:
    Size.append(i)

Installss = soup.find_all('span', class_='htlgb')[5]
for i in Installss:
    Installs.append(i)

Last_Update1 = soup.find_all('span', class_='htlgb')[1]
for i in Last_Update1:
    Last_Update.append(i)

Developers = soup.find_all('a', class_="hrTbp R8zArc")[0]
for i in Developers:
    Developer.append(i)

Current_Versions = soup.find_all('span', class_='htlgb')[7]
for i in Current_Versions:
    Current_Version.append(i)

Required_Androids = soup.find_all('span', class_='htlgb')[8]
for i in Required_Androids:
    Required_Android.append(i)

import pandas as pd
Google123 = pd.DataFrame({'App_Names':App_name,
                           'No_Of_Installs':Installs,
                           'Rating':Rating,
                           'Category':Category,
                           'No_Of_Review':Review,
                           'Size':Size,
                           'Last_Update':Last_Update,
                           'Developer':Developer,
                           'Current_Version':Current_Version,
                           'Required_Android':Required_Android})

```

Google123

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	De
0	Smart Launcher 5	10,000,000+	4.4	Personalization	562,768	15M	September 14, 2021	l
1	POCO Launcher 2.0 - Customize, Fresh & Clean	50,000,000+	4.4	Personalization	545,417	22M	August 30, 2021	Xiaomi
2	Icon Pack Studio - Make your own icon pack	1,000,000+	3.9	Personalization	8,319	47M	May 12, 2021	l
3	BitLit - Android Customization News	10,000+	4.2	Personalization	465	8.9M	March 17, 2021	Xi

	<u>App_Names</u>	<u>No_Of_Installs</u>	<u>Rating</u>	<u>Category</u>	<u>No_Of_Review</u>	<u>Size</u>	<u>Last_Update</u>	<u>De</u>
4	Alpha Hybrid Launcher 2021 Free Wallpaper, Themes	1,000,000+	4.6	Personalization	30,766	16M	September 7, 2021	l Stu
5	Launcher Plus One	1,000,000+	4.5	Personalization	64,650	13M	August 25, 2021	l
6	Personalization App for Android™	500,000+	3.9	Personalization	3,013	7.5M	December 10, 2020	Li
7	Smart Launcher(Best free launcher,no ads)	1,000,000+	4.4	Personalization	22,619	9.0M	September 2, 2019	Ir
8	Microsoft Launcher	10,000,000+	4.7	Personalization	1,378,878	24M	September 13, 2021	Co



```
In [62]: List_Url=[ "https://play.google.com/store/apps/details?id=org.videolan.vlc",
    "https://play.google.com/store/apps/details?id=com.nexstreaming.app.kirin",
    "https://play.google.com/store/apps/details?id=com.frontrow.vlog",
    "https://play.google.com/store/apps/details?id=com.tempo.video.edit",
    "https://play.google.com/store/apps/details?id=free.tube.premium.advanced",
    "https://play.google.com/store/apps/details?id=mobisocial.arcade",
    "https://play.google.com/store/apps/details?id=com.video.editor.filter",
    "https://play.google.com/store/apps/details?id=pro.montage",
    "https://play.google.com/store/apps/details?id=com.cerdillac.hypertext",
    "https://play.google.com/store/apps/details?id=com.fedorkzsoft.storymaker"]

App_name = []
Installs = []
Rating = []
Category = []
Review = []
Size = []
Last_Update = []
Developer = []
Current_Version = []
Required_Android = []

for i in List_Url:

    page = requests.get(i)
    page.text
    soup = BeautifulSoup(page.text)

    Ratings = soup.find_all("div", class_= 'BHMmbe')[0]
    # Rating = Ratings[0].text
    for i in Ratings:
        Rating.append(i)

    App_names = soup.find_all('h1',class_='AHFaub')[0]
    for i in App_names:
        a = i.text
        App_name.append(a)

    Categories = soup.find_all('a',class_='r20sbf')[32]
    for i in Categories:
        Category.append(i)
```

```

Reviews = soup.find_all('span', class_='EymY4b')
for i in Reviews:
    Review.append(i.text.split(' ')[0])

Sizes = soup.find_all('span', class_='htlgb')[3]
for i in Sizes:
    Size.append(i)

Installss = soup.find_all('span', class_='htlgb')[5]
for i in Installss:
    Installs.append(i)

Last_Update1 = soup.find_all('span', class_='htlgb')[1]
for i in Last_Update1:
    Last_Update.append(i)

Developers = soup.find_all('a', class_="hrTbp R8zArc")[0]
for i in Developers:
    Developer.append(i)

Current_Versions = soup.find_all('span', class_='htlgb')[7]
for i in Current_Versions:
    Current_Version.append(i)

Required_Androids = soup.find_all('span', class_='htlgb')[8]
for i in Required_Androids:
    Required_Android.append(i)

import pandas as pd
Google125 = pd.DataFrame({'App_Names':App_name,
                           'No_Of_Installs':Installs,
                           'Rating':Rating,
                           'Category':Category,
                           'No_Of_Review':Review,
                           'Size':Size,
                           'Last_Update':Last_Update,
                           'Developer':Developer,
                           'Current_Version':Current_Version,
                           'Required_Android':Required_Android})

```

Google125

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Developer
0	VLC for Android	100,000,000+	4.3	Video Players & Editors	1,606,344	Varies with device	September 20, 2021	Videolan.org
1	KineMaster - Video Editor	100,000,000+	4.4	Video Players & Editors	4,502,390	96M	September 2, 2021	KineMaster Corporation
2	VN Video Editor Maker VlogNow	50,000,000+	4.6	Video Players & Editors	957,524	174M	September 23, 2021	VN, Ltd.

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Develop
3	Tempo - Music Video Maker	10,000,000+	4.4	Video Players & Editors	271,644	78M	September 23, 2021	Tempo tre video ed with effe & music
4	Pure Tuber - Block Ads for Video, Free Premium	10,000,000+	4.7	Video Players & Editors	1,091,676	11M	September 17, 2021	Pure Tu Stu
5	Omlet Arcade - Screen Recorder, Live Stream Games	50,000,000+	4.4	Video Players & Editors	831,499	30M	September 15, 2021	Omlet,
6	Filto: Video Filters, Photo Editor, Sparkle Effect	1,000,000+	3.9	Video Players & Editors	13,205	37M	September 9, 2021	Pinso.
7	MontagePro - High Quality Short Video Editor App	1,000,000+	4.5	Video Players & Editors	35,990	77M	August 3, 2021	Mitron
8	Hype Text - Animated Text & Intro Maker	1,000,000+	4.4	Video Players & Editors	49,619	27M	June 9, 2021	cerdil
9	Animated Stories	1,000,000+	4.7	Video Players & Editors	30,687	83M	August 7, 2021	FedorkZS

```
In [63]: List_Url=["https://play.google.com/store/apps/details?id=com.popularapp.periodcal",
                 "https://play.google.com/store/apps/details?id=org.iggymedia.periodtrack",
                 "https://play.google.com/store/apps/details?id=com.calm.android",
                 "https://play.google.com/store/apps/details?id=se.perigee.android.seven",
                 "https://play.google.com/store/apps/details?id=de.komoot.android",
                 "https://play.google.com/store/apps/details?id=com.cardiogram.v1",
                 "https://play.google.com/store/apps/details?id=com.sparkistic.photowear",
                 "https://play.google.com/store/apps/details?id=com.jeremysteckling.facer",
                 "https://play.google.com/store/apps/details?id=com.benoitletondor.pixeln",
                 "https://play.google.com/store/apps/details?id=slide.watchFrenzy"]
```



```
App_name = []
Installs = []
Rating = []
Category = []
Review = []
Size = []
Last_Update = []
Developer = []
Current_Version = []
Required_Android = []

for i in List_Url:
```



```
    page = requests.get(i)
    page.text
    soup = BeautifulSoup(page.text)

    Ratings = soup.find_all("div", class_= 'BHMmbe')[0]
    # Rating = Ratings[0].text
    for i in Ratings:
        Rating.append(i)

    App_names = soup.find_all('h1',class_='AHFaub')[0]
    for i in App_names:
        a = i.text
        App_name.append(a)

    Categories = soup.find_all('a',class_='r20sbf')[33]
    for i in Categories:
        Category.append(i)
```

```

Reviews = soup.find_all('span', class_='EymY4b')
for i in Reviews:
    Review.append(i.text.split(' ')[0])

Sizes = soup.find_all('span', class_='htlgb')[3]
for i in Sizes:
    Size.append(i)

Installss = soup.find_all('span', class_='htlgb')[5]
for i in Installss:
    Installs.append(i)

Last_Update1 = soup.find_all('span', class_='htlgb')[1]
for i in Last_Update1:
    Last_Update.append(i)

Developers = soup.find_all('a', class_="hrTbp R8zArc")[0]
for i in Developers:
    Developer.append(i)

Current_Versions = soup.find_all('span', class_='htlgb')[7]
for i in Current_Versions:
    Current_Version.append(i)

Required_Androids = soup.find_all('span', class_='htlgb')[8]
for i in Required_Androids:
    Required_Android.append(i)

import pandas as pd
Google126 = pd.DataFrame({'App_Names':App_name,
                           'No_Of_Installs':Installs,
                           'Rating':Rating,
                           'Category':Category,
                           'No_Of_Review':Review,
                           'Size':Size,
                           'Last_Update':Last_Update,
                           'Developer':Developer,
                           'Current_Version':Current_Version,
                           'Required_Android':Required_Android})

```

Google126

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Developer
0	Period Tracker - Period Calendar Ovulation Tra...	100,000,000+	4.9	Watch apps	6,151,543	Varies with device	August 12, 2021	Simple Design Ltd.
1	Flo Period Tracker & Ovulation. My PMS Calendar	50,000,000+	4.7	Watch apps	2,169,111	77M	September 14, 2021	Flo Health, Inc.

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Developer
2	Calm - Meditate, Sleep, Relax	10,000,000+	4.3	Watch apps	436,097	Varies with device	September 23, 2021	Calm.com, Inc.
3	Seven - 7 Minute Workout	5,000,000+	4.4	Watch apps	90,842	Varies with device	September 17, 2021	Perigee AB
4	Komoot — Cycling, Hiking & Mountain Biking Maps	10,000,000+	4.5	Watch apps	222,274	Varies with device	September 24, 2021	komoot GmbH
5	Cardiogram: Heart Rate, Pulse, BPM Monitor	1,000,000+	4.2	Watch apps	4,470	Varies with device	September 10, 2021	Cardiogram, Inc.
6	PhotoWear Photo Watch Face	1,000,000+	4.3	Watch apps	24,581	Varies with device	August 31, 2021	Squeaky Dog Studios
7	Facer Watch Faces	5,000,000+	4.2	Watch apps	78,582	Varies with device	September 22, 2021	Little Labs, Inc.
8	Pixel Minimal Watch Face - Watch Faces for WearOS	100,000+	4.5	Watch apps	3,485	Varies with device	September 4, 2021	Benoit Letondor
9	Watch Faces - WatchMaker 100,000 Faces	1,000,000+	3.9	Watch apps	59,100	Varies with device	September 10, 2021	androidslide



```
In [64]: List_Url=[ "https://play.google.com/store/apps/details?id=com.benoitletondor.pixelwatchface.ultra",
    "https://play.google.com/store/apps/details?id=fr.thema.wear.watch.destruction",
    "https://play.google.com/store/apps/details?id=fr.thema.wear.watch.feisha",
    "https://play.google.com/store/apps/details?id=com.bosenko.watchface.marine",
    "https://play.google.com/store/apps/details?id=com.fruit4droid.cronosurf",
    "https://play.google.com/store/apps/details?id=com.fruit4droid.cronosurf",
    "#          "https://play.google.com/store/apps/dev?id=7237138413764033441",
    "#          "https://play.google.com/store/apps/developer?id=Darren+Embry",
    "https://play.google.com/store/apps/details?id=fr.thema.wear.watch.oxyde",
    "https://play.google.com/store/apps/details?id=com.watch.richface.ultra"

App_name = []
Installs = []
Rating = []
Category = []
Review = []
Size = []
Last_Update = []
Developer = []
Current_Version = []
Required_Android = []

for i in List_Url[:11]:
    print(i)

page = requests.get(i)
page.text
soup = BeautifulSoup(page.text)

Ratings = soup.find_all("div", class_= 'BHMmbe')[0]
# Rating = Ratings[0].text
for i in Ratings:
    Rating.append(i)

App_names = soup.find_all('h1',class_='AHFaub')[0]
for i in App_names:
    a = i.text
    App_name.append(a)

Categories = soup.find_all('a',class_='r20sbf')[34]
for i in Categories:
    Category.append(i)

Reviews = soup.find_all('span',class_='EymY4b')
```

```

for i in Reviews:
    Review.append(i.text.split(' ')[0])

Sizes = soup.find_all('span', class_='htlgb')[3]
for i in Sizes:
    Size.append(i)

Installss = soup.find_all('span', class_='htlgb')[5]
for i in Installss:
    Installs.append(i)

Last_Update1 = soup.find_all('span', class_='htlgb')[1]
for i in Last_Update1:
    Last_Update.append(i)

Developers = soup.find_all('a', class_="hrTbp R8zArc")[0]
for i in Developers:
    Developer.append(i)

Current_Versions = soup.find_all('span', class_='htlgb')[7]
for i in Current_Versions:
    Current_Version.append(i)

Required_Androids = soup.find_all('span', class_='htlgb')[8]
for i in Required_Androids:
    Required_Android.append(i)

import pandas as pd
Google127 = pd.DataFrame({'App_Names':App_name,
                           'No_Of_Installs':Installs,
                           'Rating':Rating,
                           'Category':Category,
                           'No_Of_Review':Review,
                           'Size':Size,
                           'Last_Update':Last_Update,
                           'Developer':Developer,
                           'Current_Version':Current_Version,
                           'Required_Android':Required_Android})

```

Google127

```

s://play.google.com/store/apps/details?id=com.fruit4droid.cronosurf)
https://play.google.com/store/apps/details?id=fr.thema.wear.watch.oxyde (http
s://play.google.com/store/apps/details?id=fr.thema.wear.watch.oxyde)
https://play.google.com/store/apps/details?id=com.watch.richface.ultra (http
s://play.google.com/store/apps/details?id=com.watch.richface.ultra)

```

Out[64]:	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Developer
0	Pixel Minimal Watch Face - Watch Faces for WearOS	100,000+	4.5	Watch faces	3,485	Varies with device	September 4, 2021	Bend Letond

1	App Name	No_of_Installs	Rating	Category	No_of_Reviews	Size	Last Update	Developer
1	Watch Face	100,000+	4.3	Watch faces	1,504	Varies with device	September 26, 2021	them

DataFrame New(Before Cleaning)

Out[65]:

App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Developer
-----------	----------------	--------	----------	--------------	------	-------------	-----------

Rank	App Name	Downloads	Rating	Category	Reviews	Size	Last Update	Developer
0	Women Workout at Home - Female Fitness	50,000,000+	4.8	Health & Fitness	474,119	17M	September 18, 2021	Leap Fitness Group
1	cult.fit Fitness, Meditation, Healthy food, Do...	5,000,000+	4.6	Health & Fitness	97,727	Varies with device	September 24, 2021	Curefit Healthcare Pvt. Ltd.
2	Google Fit: Activity Tracking	100,000,000+	3.9	Health & Fitness	469,685	Varies with device	September 23, 2021	Google LLC
3	30 Day Fitness Challenge - Workout at Home	10,000,000+	4.8	Health & Fitness	598,899	21M	August 20, 2021	Leap Fitness Group
4	FitOn - Free Fitness Workouts & Personalized P...	5,000,000+	4.6	Health & Fitness	50,594	50M	September 5, 2021	FitOn
...
309	Marine Commander Watch Face for WearOS	500,000+	4.3	Watch faces	7,752	Varies with device	January 29, 2021	Bosenko
310	Cronosurf Wave watch	1,000,000+	4.3	Watch faces	5,358	Varies with device	September 18, 2021	fruit4droid
311	Cronosurf Wave watch	1,000,000+	4.3	Watch faces	5,358	Varies with device	September 18, 2021	fruit4droid
312	O-Xyde Watch Face	100,000+	4.3	Watch faces	3,158	Varies with device	September 26, 2021	thema
313	Ultra Watch Face	500,000+	3.6	Watch faces	2,670	Varies with device	September 18, 2021	RichFace

314 rows × 10 columns

In [66]: Google1.info()

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 314 entries, 0 to 313
Data columns (total 10 columns):
 #   Column           Non-Null Count  Dtype  
--- 
 0   App_Names        314 non-null    object  
 1   No_Of_Installs   314 non-null    object  
 2   Rating           314 non-null    object  
 3   Category         314 non-null    object  
 4   No_Of_Review     314 non-null    object  
 5   Size              314 non-null    object  
 6   Last_Update       314 non-null    object  
 7   Developer         314 non-null    object  
 8   Current_Version  314 non-null    object  
 9   Required_Android 314 non-null    object  
dtypes: object(10)
memory usage: 24.7+ KB
```

Data Cleaning

In [67]: Google1.head()

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Developer
0	Women Workout at Home - Female Fitness	50,000,000+	4.8	Health & Fitness	474,119	17M	September 18, 2021	Leap Fitness Group
1	cult.fit Fitness, Meditation, Healthy food, Do...	5,000,000+	4.6	Health & Fitness	97,727	Varies with device	September 24, 2021	Curefit Healthcare Pvt. Ltd.
2	Google Fit: Activity Tracking	100,000,000+	3.9	Health & Fitness	469,685	Varies with device	September 23, 2021	Google LLC
3	30 Day Fitness Challenge - Workout at Home	10,000,000+	4.8	Health & Fitness	598,899	21M	August 20, 2021	Leap Fitness Group
4	FitOn - Free Fitness Workouts & Personalized P...	5,000,000+	4.6	Health & Fitness	50,594	50M	September 5, 2021	FitOn

In [68]: Google1.tail()

Out[68]:

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Developer
309	Marine Commander Watch Face for WearOS	500,000+	4.3	Watch faces	7,752	Varies with device	January 29, 2021	Bosenko
310	Cronosurf Wave watch	1,000,000+	4.3	Watch faces	5,358	Varies with device	September 18, 2021	fruit4droid
311	Cronosurf Wave watch	1,000,000+	4.3	Watch faces	5,358	Varies with device	September 18, 2021	fruit4droid
312	O-Xyde Watch Face	100,000+	4.3	Watch faces	3,158	Varies with device	September 26, 2021	thema
313	Ultra Watch Face	500,000+	3.6	Watch faces	2,670	Varies with device	September 18, 2021	RichFace

Checking the types of data and basic summary stats

In [69]: Google1.info()

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 314 entries, 0 to 313
Data columns (total 10 columns):
 #   Column           Non-Null Count  Dtype  
--- 
 0   App_Names        314 non-null    object  
 1   No_Of_Installs   314 non-null    object  
 2   Rating           314 non-null    object  
 3   Category         314 non-null    object  
 4   No_Of_Review     314 non-null    object  
 5   Size              314 non-null    object  
 6   Last_Update       314 non-null    object  
 7   Developer         314 non-null    object  
 8   Current_Version  314 non-null    object  
 9   Required_Android 314 non-null    object  
dtypes: object(10)
memory usage: 24.7+ KB
```

Replacing With Desired Values

In [70]:

```
Google1['Size'] = Google1['Size'].apply(lambda x : str(x).replace('M',''))  
  
Google1['Size'] = Google1['Size'].apply(lambda x : str(x).replace('Varies with de  
  
Google1['Size'] = Google1['Size'].apply(lambda x : str(x).replace('Varies with De  
  
Google1['Size'] = Google1['Size'].apply(lambda x : str(x).replace('182k','0'))  
  
Google1['No_Of_Review'] = Google1['No_Of_Review'].apply(lambda x : str(x).replace('N  
  
Google1['No_Of_Installs'] = Google1['No_Of_Installs'].apply(lambda x : str(x).rep  
  
Google1['No_Of_Installs'] = Google1['No_Of_Installs'].apply(lambda x : str(x).rep  
  
Google1['No_Of_Installs'] = Google1['No_Of_Installs'].apply(lambda x : str(x).rep  
  
Google1['Required_Android'] = Google1['Required_Android'].apply(lambda x : str(x)  
  
Google1['Current_Version'] = Google1['Current_Version'].apply(lambda x : str(x).r
```

In [71]:

```
Google1['Size'] = Google1['Size'].apply(lambda x : str(x).replace('<div class="IC  
  
◀ ▶
```

Converting into Required Datatypes

In [72]:

```
Google1.Rating = pd.to_numeric(Google1['Rating'])  
  
Google1['No_Of_Review'] = Google1['No_Of_Review'].astype(float)  
Google1['No_Of_Installs'] = Google1['No_Of_Installs'].astype(float)
```

In [73]:

```
Google1["Size"] = Google1["Size"].astype('float')
```

In [74]: Google1[Google1['Size']=='<div class="IQ1z0d">1,000,000+']
Google1.iloc[101:120,:]

Out[74]:

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Developers
101	Purple: Beauty Shopping App. Buy Cosmetics On...	1.000000e+07	4.5	Beauty	144828.0	17.0	September 23, 2021	Purple.com
102	Nykaa: Beauty Shopping App. Buy Makeup & Cosme...	1.000000e+07	4.6	Beauty	699149.0	70.0	September 22, 2021	Nykaa.com
103	Artistry Virtual Beauty	1.000000e+06	4.0	Beauty	5314.0	0.0	May 9, 2021	Perfect Corp
104	Perfect365: One-Tap Makeover	5.000000e+07	4.3	Beauty	781360.0	178.0	September 16, 2021	Perfect365 Inc
105	SUGAR Cosmetics: Beauty and Makeup Shopping App	1.000000e+06	4.6	Beauty	26216.0	19.0	July 30, 2021	SUGAR Cosmetic
106	YouCam Perfect - Best Photo Editor & Selfie Ca...	1.000000e+08	4.4	Beauty	2030274.0	0.0	September 26, 2021	Perfect Mobile Corp
107	MyGlamm: Shop Makeup Products & Beauty Cosmetics	1.000000e+06	4.4	Beauty	30440.0	56.0	September 17, 2021	MyGlamm
108	Bestie - Camera360 Selfie	5.000000e+07	4.4	Beauty	634169.0	0.0	July 13, 2021	PinGuo Inc
109	Foxy. Beauty Shopping 2.0. Buy Skincare & Makeup.	1.000000e+06	4.4	Beauty	3721.0	0.0	September 24, 2021	Foxy Beauty & Grooming shopping
110	Amazon Kindle	1.000000e+08	4.7	Books & Reference	1956627.0	0.0	September 13, 2021	Amazon Mobile LLC
111	Google Play Books & Audiobooks	1.000000e+09	4.1	Books & Reference	1845020.0	0.0	September 8, 2021	Google LLC

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Developers
112	Life Changing Inspiring Books	1.000000e+04	4.5	Books & Reference	46.0	6.3	March 6, 2021	SkyBlue In Sc
113	Motivational Success Books	1.000000e+04	4.5	Books & Reference	409.0	3.3	March 19, 2021	SkyBlue In Sc
114	English Stories - Books Offline	5.000000e+05	4.3	Books & Reference	1700.0	19.0	July 2, 2021	BookA
115	Free Books - anybooks app free books download	1.000000e+06	3.8	Books & Reference	15351.0	22.0	September 1, 2021	App Store
116	Novels & Books in English	1.000000e+06	4.4	Books & Reference	13740.0	23.0	July 17, 2021	Banak
117	Greatest Books Of Success	1.000000e+04	4.4	Books & Reference	185.0	4.9	March 19, 2021	SkyBlue In Sc
118	Free Books – Novels, Fiction Books, & Audiobooks	1.000000e+06	3.9	Books & Reference	28499.0	0.0	September 27, 2020	Digital Pres Publishing s.r.c
119	PDF Downloader - Free books Pdf Download	5.000000e+05	4.2	Books & Reference	3631.0	21.0	September 25, 2021	App Store



In [75]: Google1.info()

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 314 entries, 0 to 313
Data columns (total 10 columns):
 #   Column           Non-Null Count  Dtype  
--- 
 0   App_Names        314 non-null    object  
 1   No_Of_Installs   314 non-null    float64 
 2   Rating           314 non-null    float64 
 3   Category          314 non-null    object  
 4   No_Of_Review     314 non-null    float64 
 5   Size              314 non-null    float64 
 6   Last_Update       314 non-null    object  
 7   Developer         314 non-null    object  
 8   Current_Version   314 non-null    object  
 9   Required_Android  314 non-null    object  
dtypes: float64(4), object(6)
memory usage: 24.7+ KB
```

Droping Duplicate Rows

In [76]: Google1.shape

Out[76]: (314, 10)

In [77]:
duplicate_rows_Google1 = Google1[Google1.duplicated()]
print("number of duplicate rows: ", duplicate_rows_Google1.shape)

number of duplicate rows: (2, 10)

In [78]: Google1 = Google1.drop_duplicates()
Google1.head()

Out[78]:

	App_Names	No_Of_Installs	Rating	Category	No_Of_Review	Size	Last_Update	Developer	C
0	Women Workout at Home - Female Fitness	50000000.0	4.8	Health & Fitness	474119.0	17.0	September 18, 2021	Leap Fitness Group	
1	cult.fit Fitness, Meditation, Healthy food, Do...	5000000.0	4.6	Health & Fitness	97727.0	0.0	September 24, 2021	Curefit Healthcare Pvt. Ltd.	
2	Google Fit: Activity Tracking	100000000.0	3.9	Health & Fitness	469685.0	0.0	September 23, 2021	Google LLC	
3	30 Day Fitness Challenge - Workout at Home	10000000.0	4.8	Health & Fitness	598899.0	21.0	August 20, 2021	Leap Fitness Group	
4	FitOn - Free Fitness Workouts & Personalized P...	5000000.0	4.6	Health & Fitness	50594.0	50.0	September 5, 2021	FitOn	



In [79]: Google1.shape

Out[79]: (312, 10)

In [80]: `Google1.info()`

```
<class 'pandas.core.frame.DataFrame'>
Int64Index: 312 entries, 0 to 313
Data columns (total 10 columns):
 #   Column           Non-Null Count  Dtype  
--- 
 0   App_Names        312 non-null    object  
 1   No_Of_Installs   312 non-null    float64 
 2   Rating           312 non-null    float64 
 3   Category          312 non-null    object  
 4   No_Of_Review     312 non-null    float64 
 5   Size              312 non-null    float64 
 6   Last_Update       312 non-null    object  
 7   Developer         312 non-null    object  
 8   Current_Version  312 non-null    object  
 9   Required_Android 312 non-null    object  
dtypes: float64(4), object(6)
memory usage: 26.8+ KB
```

Exporting This File To New CSV File

In [82]: `Google1.to_csv("play.csv")`

In []:

In []: