In [1]:
```
import pandas as pd
pd.set_option("display.max_columns",None)
df=pd.read_csv("E:\\KVR-PANDAS-EXCLUSIVE\\GOOGLE PLAY STORE PROJECT\\googleplay
print(df)
```

```
                                                 App             Category
\
0         Photo Editor & Candy Camera & Grid & ScrapBook       ART_AND_DESIGN
1                                   Coloring book moana       ART_AND_DESIGN
2      U Launcher Lite – FREE Live Cool Themes, Hide ...       ART_AND_DESIGN
3                                 Sketch - Draw & Paint       ART_AND_DESIGN
4                   Pixel Draw - Number Art Coloring Book       ART_AND_DESIGN
...                                                   ...                ...
10836                               Sya9a Maroc - FR               FAMILY
10837                   Fr. Mike Schmitz Audio Teachings               FAMILY
10838                            Parkinson Exercices FR              MEDICAL
10839                      The SCP Foundation DB fr nn5n  BOOKS_AND_REFERENCE
10840      iHoroscope - 2018 Daily Horoscope & Astrology            LIFESTYLE

       Rating Reviews                Size     Installs  Type Price  \
0         4.1     159                 19M      10,000+  Free     0
1         3.9     967                 14M     500,000+  Free     0
2         4.7   87510                8.7M   5,000,000+  Free     0
3         4.5  215644                 25M  50,000,000+  Free     0
4         4.3     967                2.8M     100,000+  Free     0
...       ...     ...                 ...         ...   ...   ...
10836     4.5      38                 53M       5,000+  Free     0
10837     5.0       4                3.6M         100+  Free     0
10838     NaN       3                9.5M       1,000+  Free     0
10839     4.5     114  Varies with device       1,000+  Free     0
10840     4.5  398307                 19M  10,000,000+  Free     0

      Content Rating                     Genres      Last Updated  \
0           Everyone               Art & Design   January 7, 2018
1           Everyone  Art & Design;Pretend Play  January 15, 2018
2           Everyone               Art & Design    August 1, 2018
3               Teen               Art & Design      June 8, 2018
4           Everyone    Art & Design;Creativity     June 20, 2018
...              ...                        ...               ...
10836       Everyone                  Education     July 25, 2017
10837       Everyone                  Education      July 6, 2018
10838       Everyone                    Medical  January 20, 2017
10839     Mature 17+          Books & Reference  January 19, 2015
10840       Everyone                  Lifestyle     July 25, 2018

             Current Ver         Android Ver
0                  1.0.0        4.0.3 and up
1                  2.0.0        4.0.3 and up
2                  1.2.4        4.0.3 and up
3      Varies with device          4.2 and up
4                    1.1          4.4 and up
...                  ...                 ...
10836               1.48          4.1 and up
10837                1.0          4.1 and up
10838                1.0          2.2 and up
10839  Varies with device  Varies with device
10840  Varies with device  Varies with device

[10841 rows x 13 columns]
```

In [2]:
```
df.head()
```

Out[2]:

	App	Category	Rating	Reviews	Size	Installs	Type	Price	Content Rating	
0	Photo Editor & Candy Camera & Grid & ScrapBook	ART_AND_DESIGN	4.1	159	19M	10,000+	Free	0	Everyone	
1	Coloring book moana	ART_AND_DESIGN	3.9	967	14M	500,000+	Free	0	Everyone	D
2	U Launcher Lite – FREE Live Cool Themes, Hide ...	ART_AND_DESIGN	4.7	87510	8.7M	5,000,000+	Free	0	Everyone	
3	Sketch - Draw & Paint	ART_AND_DESIGN	4.5	215644	25M	50,000,000+	Free	0	Teen	
4	Pixel Draw - Number Art Coloring Book	ART_AND_DESIGN	4.3	967	2.8M	100,000+	Free	0	Everyone	Des

In [22]:
```
 #Find the Top 5 App Names having highest Review
indices=df["Reviews"].sort_values(ascending=False).head().index
df.iloc[indices]["App"]
```

Out[22]:
```
2989               GollerCepte Live Score
4970         Ad Block REMOVER - NEED ROOT
2723                  SnipSnap Coupon App
2705                  SnipSnap Coupon App
3079    US Open Tennis Championships 2018
Name: App, dtype: object
```

In [23]:
```
#OR
df.loc[indices]["App"]
```

Out[23]:
```
2989               GollerCepte Live Score
4970         Ad Block REMOVER - NEED ROOT
2723                  SnipSnap Coupon App
2705                  SnipSnap Coupon App
3079    US Open Tennis Championships 2018
Name: App, dtype: object
```

In [29]:
```
#15.Find Average Rating of Free and Paid Apps
df.groupby("Type")["Rating"].mean()
```

Out[29]:
```
Type
0       19.000000
Free     4.186203
Paid     4.266615
Name: Rating, dtype: float64
```

In [35]:
```
#Find Top 5 Apps Having Maximum Installs
df["newInstalls"]=df["Installs"].str.replace(",","")
df["newInstalls"]
```

Out[35]:
```
0           10000+
1          500000+
2         5000000+
3        50000000+
4          100000+
             ...
10836        5000+
10837         100+
10838        1000+
10839        1000+
10840    10000000+
Name: newInstalls, Length: 10841, dtype: object
```

In [36]:
```
df["newInstalls"].str.replace("+","")
```

Out[36]:
```
0           10000
1          500000
2         5000000
3        50000000
4          100000
             ...
10836        5000
10837         100
10838        1000
10839        1000
10840    10000000
Name: newInstalls, Length: 10841, dtype: object
```

In [37]:
```
df["newInstalls"]=df["newInstalls"].str.replace("+","")
df["newInstalls"]
```

Out[37]:
```
0           10000
1          500000
2         5000000
3        50000000
4          100000
           ...
10836        5000
10837         100
10838        1000
10839        1000
10840    10000000
Name: newInstalls, Length: 10841, dtype: object
```

In [39]:
```
df["newInstalls"].dtype
```

Out[39]:
```
dtype('O')
```

In [42]:
```
df.loc[df["newInstalls"]=="Free"]
```

Out[42]:

	App	Category	Rating	Reviews	Size	Installs	Type	Price	Content Rating	Genre
10472	Life Made WI-Fi Touchscreen Photo Frame	1.9	19.0	3.0M	1,000+	Free	0	Everyone	NaN	Februa 11, 20

In [44]:
```
df["newInstalls"]=df["newInstalls"].str.replace("Free","0")
```

In [47]:
```
df["newInstalls"].astype(int)
```

Out[47]:
```
0           10000
1          500000
2         5000000
3        50000000
4          100000
           ...
10836        5000
10837         100
10838        1000
10839        1000
10840    10000000
Name: newInstalls, Length: 10841, dtype: int32
```

In [48]:
```
df["newInstalls"]=df["newInstalls"].astype(int)
```

In [49]:
```
df["newInstalls"].dtype
```

Out[49]:
```
dtype('int32')
```

In [51]:
```
df["newInstalls"].sort_values().tail()
```

Out[51]:
```
865     1000000000
3565    1000000000
2554    1000000000
3234    1000000000
4096    1000000000
Name: newInstalls, dtype: int32
```

In [52]:
```
indices=df["newInstalls"].sort_values().tail().index
print(indices)
```

```
Index([865, 3565, 2554, 3234, 4096], dtype='int64')
```

In [54]:
```
df.iloc[indices]['App']
```

Out[54]:
```
865     Google Play Games
3565          Google Drive
2554               Google+
3234                Google
4096                 Gmail
Name: App, dtype: object
```

In [57]:
```
df.loc[indices][['App',"Installs"]]
```

Out[57]:

	App	Installs
865	Google Play Games	1,000,000,000+
3565	Google Drive	1,000,000,000+
2554	Google+	1,000,000,000+
3234	Google	1,000,000,000+
4096	Gmail	1,000,000,000+

In [ ]:
```

```