In [259]:
```python
import pandas as pd
import numpy as np
df1=pd.read_csv("country_full.csv")
df1
```

Out[259]:

	name	alpha-2	alpha-3	country-code	iso_3166-2	region	sub-region	intermediate-region	region-code	s reg c
0	Afghanistan	AF	AFG	4	ISO 3166-2:AF	Asia	Southern Asia	NaN	142.0	
1	Åland Islands	AX	ALA	248	ISO 3166-2:AX	Europe	Northern Europe	NaN	150.0	1:
2	Albania	AL	ALB	8	ISO 3166-2:AL	Europe	Southern Europe	NaN	150.0	:
3	Algeria	DZ	DZA	12	ISO 3166-2:DZ	Africa	Northern Africa	NaN	2.0	
4	American Samoa	AS	ASM	16	ISO 3166-2:AS	Oceania	Polynesia	NaN	9.0	(
...	...	...	...	...	...	...	...	...	...	
244	Wallis and Futuna	WF	WLF	876	ISO 3166-2:WF	Oceania	Polynesia	NaN	9.0	(
245	Western Sahara	EH	ESH	732	ISO 3166-2:EH	Africa	Northern Africa	NaN	2.0	
246	Yemen	YE	YEM	887	ISO 3166-2:YE	Asia	Western Asia	NaN	142.0	1.
247	Zambia	ZM	ZMB	894	ISO 3166-2:ZM	Africa	Sub-Saharan Africa	Eastern Africa	2.0	2(
248	Zimbabwe	ZW	ZWE	716	ISO 3166-2:ZW	Africa	Sub-Saharan Africa	Eastern Africa	2.0	2(

249 rows × 11 columns

In [260]:
```python
print(df1.to_string())
df1
```

```
                                                                    name alpha-2 alpha-3  co
untry-code       iso_3166-2       region                      sub-region intermed
iate-region    region-code    sub-region-code    intermediate-region-code
0                                                           Afghanistan      AF     AFG
4   ISO 3166-2:AF       Asia                    Southern Asia                        N
aN         142.0               34.0                      NaN
1                                                          Åland Islands      AX     ALA
248   ISO 3166-2:AX       Europe                 Northern Europe                      
NaN         150.0              154.0                      NaN
2                                                               Albania      AL     ALB
8   ISO 3166-2:AL       Europe                 Southern Europe                        N
aN         150.0               39.0                      NaN
3                                                               Algeria      DZ     DZA
12   ISO 3166-2:DZ       Africa                 Northern Africa                       
NaN           2.0               15.0                      NaN
4                                                        American Samoa      AS     ASM
16   ISO 3166-2:AS      Oceania                      Polynesia                        
NaN           9.0               61.0                      NaN
```

In [261]:
```python
df1.columns
```

Out[261]:
```
Index(['name', 'alpha-2', 'alpha-3', 'country-code', 'iso_3166-2', 'region',
       'sub-region', 'intermediate-region', 'region-code', 'sub-region-code',
       'intermediate-region-code'],
      dtype='object')
```

In [262]:
```python
df1.index
```

Out[262]:
```
RangeIndex(start=0, stop=249, step=1)
```

In [263]:
```python
df1.axes
```

Out[263]:
```
[RangeIndex(start=0, stop=249, step=1),
 Index(['name', 'alpha-2', 'alpha-3', 'country-code', 'iso_3166-2', 'region',
        'sub-region', 'intermediate-region', 'region-code', 'sub-region-code',
        'intermediate-region-code'],
       dtype='object')]
```

In [264]: `df1.dtypes`

Out[264]:
```
name                         object
alpha-2                      object
alpha-3                      object
country-code                  int64
iso_3166-2                   object
region                       object
sub-region                   object
intermediate-region          object
region-code                 float64
sub-region-code             float64
intermediate-region-code    float64
dtype: object
```

In [265]: `df1.shape`

Out[265]: `(249, 11)`

In [266]: `df1.info()`

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 249 entries, 0 to 248
Data columns (total 11 columns):
 #   Column                    Non-Null Count  Dtype
---  ------                    --------------  -----
 0   name                      249 non-null    object
 1   alpha-2                   248 non-null    object
 2   alpha-3                   249 non-null    object
 3   country-code              249 non-null    int64
 4   iso_3166-2                249 non-null    object
 5   region                    248 non-null    object
 6   sub-region                248 non-null    object
 7   intermediate-region       107 non-null    object
 8   region-code               248 non-null    float64
 9   sub-region-code           248 non-null    float64
 10  intermediate-region-code  107 non-null    float64
dtypes: float64(3), int64(1), object(7)
memory usage: 21.5+ KB
```

In [267]: `df1.head()`

Out[267]:

	name	alpha-2	alpha-3	country-code	iso_3166-2	region	sub-region	intermediate-region	region-code	sub region cod
0	Afghanistan	AF	AFG	4	ISO 3166-2:AF	Asia	Southern Asia	NaN	142.0	34.
1	Åland Islands	AX	ALA	248	ISO 3166-2:AX	Europe	Northern Europe	NaN	150.0	154.
2	Albania	AL	ALB	8	ISO 3166-2:AL	Europe	Southern Europe	NaN	150.0	39.
3	Algeria	DZ	DZA	12	ISO 3166-2:DZ	Africa	Northern Africa	NaN	2.0	15.
4	American Samoa	AS	ASM	16	ISO 3166-2:AS	Oceania	Polynesia	NaN	9.0	61.

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In [268]: `df1.tail()`

Out[268]:

	name	alpha-2	alpha-3	country-code	iso_3166-2	region	sub-region	intermediate-region	region-code	su regic co
244	Wallis and Futuna	WF	WLF	876	ISO 3166-2:WF	Oceania	Polynesia	NaN	9.0	6
245	Western Sahara	EH	ESH	732	ISO 3166-2:EH	Africa	Northern Africa	NaN	2.0	1!
246	Yemen	YE	YEM	887	ISO 3166-2:YE	Asia	Western Asia	NaN	142.0	14!
247	Zambia	ZM	ZMB	894	ISO 3166-2:ZM	Africa	Sub-Saharan Africa	Eastern Africa	2.0	20.
248	Zimbabwe	ZW	ZWE	716	ISO 3166-2:ZW	Africa	Sub-Saharan Africa	Eastern Africa	2.0	20.

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In [269]: `df1.describe()`

Out[269]:

	country-code	region-code	sub-region-code	intermediate-region-code
count	249.000000	248.000000	248.000000	107.000000
mean	433.835341	65.951613	179.866935	31.719626
std	252.980446	67.347832	138.334170	111.000322
min	4.000000	2.000000	15.000000	5.000000
25%	218.000000	9.000000	53.750000	11.000000
50%	434.000000	19.000000	154.000000	14.000000
75%	652.000000	142.000000	202.000000	29.000000
max	894.000000	150.000000	419.000000	830.000000

In [270]: `df1.isna()`

Out[270]:

	name	alpha-2	alpha-3	country-code	iso_3166-2	region	sub-region	intermediate-region	region-code	sub-region-code	inte reg
0	False	False	False	False	False	False	False	True	False	False	
1	False	False	False	False	False	False	False	True	False	False	
2	False	False	False	False	False	False	False	True	False	False	
3	False	False	False	False	False	False	False	True	False	False	
4	False	False	False	False	False	False	False	True	False	False	
...	...	...	...	...	...	...	...	...	...	...	
244	False	False	False	False	False	False	False	True	False	False	
245	False	False	False	False	False	False	False	True	False	False	
246	False	False	False	False	False	False	False	True	False	False	
247	False	False	False	False	False	False	False	False	False	False	
248	False	False	False	False	False	False	False	False	False	False	

249 rows × 11 columns

In [219]: `df1.isnull()`

Out[219]:

	name	alpha-2	alpha-3	country-code	iso_3166-2	region	sub-region	intermediate-region	region-code	sub-region-code	inter reg
0	False	False	False	False	False	False	False	True	False	False	
1	False	False	False	False	False	False	False	True	False	False	
2	False	False	False	False	False	False	False	True	False	False	
3	False	False	False	False	False	False	False	True	False	False	
4	False	False	False	False	False	False	False	True	False	False	
...	...	...	...	...	...	...	...	...	...	...	
244	False	False	False	False	False	False	False	True	False	False	
245	False	False	False	False	False	False	False	True	False	False	
246	False	False	False	False	False	False	False	True	False	False	
247	False	False	False	False	False	False	False	False	False	False	
248	False	False	False	False	False	False	False	False	False	False	

249 rows × 11 columns

In [271]: `df1.isna().sum()`

Out[271]:
```
name                           0
alpha-2                        1
alpha-3                        0
country-code                   0
iso_3166-2                     0
region                         1
sub-region                     1
intermediate-region          142
region-code                    1
sub-region-code                1
intermediate-region-code     142
dtype: int64
```

In [272]:
```python
df1.isnull().mean()*100
```

Out[272]:
```
name                         0.000000
alpha-2                      0.401606
alpha-3                      0.000000
country-code                 0.000000
iso_3166-2                   0.000000
region                       0.401606
sub-region                   0.401606
intermediate-region         57.028112
region-code                  0.401606
sub-region-code              0.401606
intermediate-region-code    57.028112
dtype: float64
```

In [273]:
```python
df1.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 249 entries, 0 to 248
Data columns (total 11 columns):
 #   Column                   Non-Null Count  Dtype
---  ------                   --------------  -----
 0   name                     249 non-null    object
 1   alpha-2                  248 non-null    object
 2   alpha-3                  249 non-null    object
 3   country-code             249 non-null    int64
 4   iso_3166-2               249 non-null    object
 5   region                   248 non-null    object
 6   sub-region               248 non-null    object
 7   intermediate-region      107 non-null    object
 8   region-code              248 non-null    float64
 9   sub-region-code          248 non-null    float64
 10  intermediate-region-code  107 non-null    float64
dtypes: float64(3), int64(1), object(7)
memory usage: 21.5+ KB
```

In [274]: df1

Out[274]:

	name	alpha-2	alpha-3	country-code	iso_3166-2	region	sub-region	intermediate-region	region-code	s reg c
0	Afghanistan	AF	AFG	4	ISO 3166-2:AF	Asia	Southern Asia	NaN	142.0	
1	Åland Islands	AX	ALA	248	ISO 3166-2:AX	Europe	Northern Europe	NaN	150.0	1
2	Albania	AL	ALB	8	ISO 3166-2:AL	Europe	Southern Europe	NaN	150.0	
3	Algeria	DZ	DZA	12	ISO 3166-2:DZ	Africa	Northern Africa	NaN	2.0	
4	American Samoa	AS	ASM	16	ISO 3166-2:AS	Oceania	Polynesia	NaN	9.0	
...	...	...	...	...	...	...	...	...	...	
244	Wallis and Futuna	WF	WLF	876	ISO 3166-2:WF	Oceania	Polynesia	NaN	9.0	
245	Western Sahara	EH	ESH	732	ISO 3166-2:EH	Africa	Northern Africa	NaN	2.0	
246	Yemen	YE	YEM	887	ISO 3166-2:YE	Asia	Western Asia	NaN	142.0	1
247	Zambia	ZM	ZMB	894	ISO 3166-2:ZM	Africa	Sub-Saharan Africa	Eastern Africa	2.0	2
248	Zimbabwe	ZW	ZWE	716	ISO 3166-2:ZW	Africa	Sub-Saharan Africa	Eastern Africa	2.0	2

249 rows × 11 columns

In [275]:
```python
divi_df1=pd.read_csv("country_full.csv")
divi_df1
```

Out[275]:

	name	alpha-2	alpha-3	country-code	iso_3166-2	region	sub-region	intermediate-region	region-code	s reg c
0	Afghanistan	AF	AFG	4	ISO 3166-2:AF	Asia	Southern Asia	NaN	142.0	
1	Åland Islands	AX	ALA	248	ISO 3166-2:AX	Europe	Northern Europe	NaN	150.0	1
2	Albania	AL	ALB	8	ISO 3166-2:AL	Europe	Southern Europe	NaN	150.0	
3	Algeria	DZ	DZA	12	ISO 3166-2:DZ	Africa	Northern Africa	NaN	2.0	
4	American Samoa	AS	ASM	16	ISO 3166-2:AS	Oceania	Polynesia	NaN	9.0	
...	...	...	...	...	...	...	...	...	...	
244	Wallis and Futuna	WF	WLF	876	ISO 3166-2:WF	Oceania	Polynesia	NaN	9.0	
245	Western Sahara	EH	ESH	732	ISO 3166-2:EH	Africa	Northern Africa	NaN	2.0	
246	Yemen	YE	YEM	887	ISO 3166-2:YE	Asia	Western Asia	NaN	142.0	1
247	Zambia	ZM	ZMB	894	ISO 3166-2:ZM	Africa	Sub-Saharan Africa	Eastern Africa	2.0	2
248	Zimbabwe	ZW	ZWE	716	ISO 3166-2:ZW	Africa	Sub-Saharan Africa	Eastern Africa	2.0	2

249 rows × 11 columns

In [276]:
```python
divi_df1.isna().sum()
```

Out[276]:
```
name                           0
alpha-2                        1
alpha-3                        0
country-code                   0
iso_3166-2                     0
region                         1
sub-region                     1
intermediate-region          142
region-code                    1
sub-region-code                1
intermediate-region-code     142
dtype: int64
```

In [277]:
```python
divi_df1['intermediate-region' ].fillna('Eastern Africa')
```

Out[277]:
```
0        Eastern Africa
1        Eastern Africa
2        Eastern Africa
3        Eastern Africa
4        Eastern Africa
            ...
244      Eastern Africa
245      Eastern Africa
246      Eastern Africa
247      Eastern Africa
248      Eastern Africa
Name: intermediate-region, Length: 249, dtype: object
```

In [278]:
```python
divi_df1['intermediate-region'].fillna('Eastern Africa',inplace=True)
```

In [279]:
```python
divi_df1.isna().sum()
```

Out[279]:
```
name                          0
alpha-2                       1
alpha-3                       0
country-code                  0
iso_3166-2                    0
region                        1
sub-region                    1
intermediate-region           0
region-code                   1
sub-region-code               1
intermediate-region-code    142
dtype: int64
```

In [280]:
```python
divi_df1.info('intermediate-region' )
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 249 entries, 0 to 248
Data columns (total 11 columns):
 #   Column                   Non-Null Count   Dtype
---  ------                   --------------   -----
 0   name                     249 non-null     object
 1   alpha-2                  248 non-null     object
 2   alpha-3                  249 non-null     object
 3   country-code             249 non-null     int64
 4   iso_3166-2               249 non-null     object
 5   region                   248 non-null     object
 6   sub-region               248 non-null     object
 7   intermediate-region      249 non-null     object
 8   region-code              248 non-null     float64
 9   sub-region-code          248 non-null     float64
 10  intermediate-region-code 107 non-null     float64
dtypes: float64(3), int64(1), object(7)
memory usage: 21.5+ KB
```

In [281]: `divi_df1`

Out[281]:

	name	alpha-2	alpha-3	country-code	iso_3166-2	region	sub-region	intermediate-region	region-code	s reg c
0	Afghanistan	AF	AFG	4	ISO 3166-2:AF	Asia	Southern Asia	Eastern Africa	142.0	:
1	Åland Islands	AX	ALA	248	ISO 3166-2:AX	Europe	Northern Europe	Eastern Africa	150.0	1:
2	Albania	AL	ALB	8	ISO 3166-2:AL	Europe	Southern Europe	Eastern Africa	150.0	:
3	Algeria	DZ	DZA	12	ISO 3166-2:DZ	Africa	Northern Africa	Eastern Africa	2.0	
4	American Samoa	AS	ASM	16	ISO 3166-2:AS	Oceania	Polynesia	Eastern Africa	9.0	(
...	...	...	...	...	...	...	...	...	...	
244	Wallis and Futuna	WF	WLF	876	ISO 3166-2:WF	Oceania	Polynesia	Eastern Africa	9.0	(
245	Western Sahara	EH	ESH	732	ISO 3166-2:EH	Africa	Northern Africa	Eastern Africa	2.0	
246	Yemen	YE	YEM	887	ISO 3166-2:YE	Asia	Western Asia	Eastern Africa	142.0	1
247	Zambia	ZM	ZMB	894	ISO 3166-2:ZM	Africa	Sub-Saharan Africa	Eastern Africa	2.0	2
248	Zimbabwe	ZW	ZWE	716	ISO 3166-2:ZW	Africa	Sub-Saharan Africa	Eastern Africa	2.0	2

249 rows × 11 columns

In [282]: `divi_df1.isnull().sum()/len(df1)*100`

Out[282]:
```
name                           0.000000
alpha-2                        0.401606
alpha-3                        0.000000
country-code                   0.000000
iso_3166-2                     0.000000
region                         0.401606
sub-region                     0.401606
intermediate-region            0.000000
region-code                    0.401606
sub-region-code                0.401606
intermediate-region-code      57.028112
dtype: float64
```

In [283]:
```python
df=pd.read_csv('googleplaystore.csv')
df
```

Out[283]:

	App	Category	Rating	Reviews	Size	Installs	Type	Price	
0	Photo Editor & Candy Camera & Grid & ScrapBook	ART_AND_DESIGN	4.1	159	19M	10,000+	Free	0	E
1	Coloring book moana	ART_AND_DESIGN	3.9	967	14M	500,000+	Free	0	E
2	U Launcher Lite – FREE Live Cool Themes, Hide ...	ART_AND_DESIGN	4.7	87510	8.7M	5,000,000+	Free	0	E
3	Sketch - Draw & Paint	ART_AND_DESIGN	4.5	215644	25M	50,000,000+	Free	0	
4	Pixel Draw - Number Art Coloring Book	ART_AND_DESIGN	4.3	967	2.8M	100,000+	Free	0	E
...	...	...	...	...	...	...	...	...	
10836	Sya9a Maroc - FR	FAMILY	4.5	38	53M	5,000+	Free	0	E
10837	Fr. Mike Schmitz Audio Teachings	FAMILY	5.0	4	3.6M	100+	Free	0	E
10838	Parkinson Exercices FR	MEDICAL	NaN	3	9.5M	1,000+	Free	0	E
10839	The SCP Foundation DB fr nn5n	BOOKS_AND_REFERENCE	4.5	114	Varies with device	1,000+	Free	0	
10840	iHoroscope - 2018 Daily Horoscope & Astrology	LIFESTYLE	4.5	398307	19M	10,000,000+	Free	0	E

10841 rows × 13 columns

In [284]:
```
dip_df=pd.read_csv('googleplaystore.csv')
dip_df
```

Out[284]:

	App	Category	Rating	Reviews	Size	Installs	Type	Price	
0	Photo Editor & Candy Camera & Grid & ScrapBook	ART_AND_DESIGN	4.1	159	19M	10,000+	Free	0	E
1	Coloring book moana	ART_AND_DESIGN	3.9	967	14M	500,000+	Free	0	E
2	U Launcher Lite – FREE Live Cool Themes, Hide ...	ART_AND_DESIGN	4.7	87510	8.7M	5,000,000+	Free	0	E
3	Sketch - Draw & Paint	ART_AND_DESIGN	4.5	215644	25M	50,000,000+	Free	0	
4	Pixel Draw - Number Art Coloring Book	ART_AND_DESIGN	4.3	967	2.8M	100,000+	Free	0	E
...	...	...	...	...	...	...	...	...	
10836	Sya9a Maroc - FR	FAMILY	4.5	38	53M	5,000+	Free	0	E
10837	Fr. Mike Schmitz Audio Teachings	FAMILY	5.0	4	3.6M	100+	Free	0	E
10838	Parkinson Exercices FR	MEDICAL	NaN	3	9.5M	1,000+	Free	0	E
10839	The SCP Foundation DB fr nn5n	BOOKS_AND_REFERENCE	4.5	114	Varies with device	1,000+	Free	0	
10840	iHoroscope - 2018 Daily Horoscope & Astrology	LIFESTYLE	4.5	398307	19M	10,000,000+	Free	0	E

10841 rows × 13 columns

In [285]:
```python
dip_df.isna().sum()
```

Out[285]:
```
App                   0
Category              0
Rating             1474
Reviews               0
Size                  0
Installs              0
Type                  1
Price                 0
Content Rating        1
Genres                0
Last Updated          0
Current Ver           8
Android Ver           3
dtype: int64
```

In [286]:
```python
dip_df['Current Ver'].fillna(2.2)
```

Out[286]:
```
0                    1.0.0
1                    2.0.0
2                    1.2.4
3        Varies with device
4                      1.1
                ...
10836                 1.48
10837                  1.0
10838                  1.0
10839    Varies with device
10840    Varies with device
Name: Current Ver, Length: 10841, dtype: object
```

In [287]:
```python
dip_df['Rating']
```

Out[287]:
```
0        4.1
1        3.9
2        4.7
3        4.5
4        4.3
        ...
10836    4.5
10837    5.0
10838    NaN
10839    4.5
10840    4.5
Name: Rating, Length: 10841, dtype: float64
```

In [288]:
```python
dip_df['Rating']=dip_df['Rating'].fillna(3.6)
dip_df['Rating']
```

Out[288]:
```
0        4.1
1        3.9
2        4.7
3        4.5
4        4.3
         ...
10836    4.5
10837    5.0
10838    3.6
10839    4.5
10840    4.5
Name: Rating, Length: 10841, dtype: float64
```

In [289]: `dip_df`

Out[289]:

	App	Category	Rating	Reviews	Size	Installs	Type	Price	
0	Photo Editor & Candy Camera & Grid & ScrapBook	ART_AND_DESIGN	4.1	159	19M	10,000+	Free	0	E
1	Coloring book moana	ART_AND_DESIGN	3.9	967	14M	500,000+	Free	0	E
2	U Launcher Lite – FREE Live Cool Themes, Hide ...	ART_AND_DESIGN	4.7	87510	8.7M	5,000,000+	Free	0	E
3	Sketch - Draw & Paint	ART_AND_DESIGN	4.5	215644	25M	50,000,000+	Free	0	
4	Pixel Draw - Number Art Coloring Book	ART_AND_DESIGN	4.3	967	2.8M	100,000+	Free	0	E
...	...	...	...	...	...	...	...	...	
10836	Sya9a Maroc - FR	FAMILY	4.5	38	53M	5,000+	Free	0	E
10837	Fr. Mike Schmitz Audio Teachings	FAMILY	5.0	4	3.6M	100+	Free	0	E
10838	Parkinson Exercices FR	MEDICAL	3.6	3	9.5M	1,000+	Free	0	E
10839	The SCP Foundation DB fr nn5n	BOOKS_AND_REFERENCE	4.5	114	Varies with device	1,000+	Free	0	
10840	iHoroscope - 2018 Daily Horoscope & Astrology	LIFESTYLE	4.5	398307	19M	10,000,000+	Free	0	E

10841 rows × 13 columns

In [290]: df

Out[290]:

	App	Category	Rating	Reviews	Size	Installs	Type	Price	
0	Photo Editor & Candy Camera & Grid & ScrapBook	ART_AND_DESIGN	4.1	159	19M	10,000+	Free	0	E
1	Coloring book moana	ART_AND_DESIGN	3.9	967	14M	500,000+	Free	0	E
2	U Launcher Lite – FREE Live Cool Themes, Hide ...	ART_AND_DESIGN	4.7	87510	8.7M	5,000,000+	Free	0	E
3	Sketch - Draw & Paint	ART_AND_DESIGN	4.5	215644	25M	50,000,000+	Free	0	
4	Pixel Draw - Number Art Coloring Book	ART_AND_DESIGN	4.3	967	2.8M	100,000+	Free	0	E
...	...	...	...	...	...	...	...	...	
10836	Sya9a Maroc - FR	FAMILY	4.5	38	53M	5,000+	Free	0	E
10837	Fr. Mike Schmitz Audio Teachings	FAMILY	5.0	4	3.6M	100+	Free	0	E
10838	Parkinson Exercices FR	MEDICAL	NaN	3	9.5M	1,000+	Free	0	E
10839	The SCP Foundation DB fr nn5n	BOOKS_AND_REFERENCE	4.5	114	Varies with device	1,000+	Free	0	
10840	iHoroscope - 2018 Daily Horoscope & Astrology	LIFESTYLE	4.5	398307	19M	10,000,000+	Free	0	E

10841 rows × 13 columns

In [291]:
```python
dip_df['Android Ver'].fillna('4.2and up')
```

Out[291]:
```
0                4.0.3 and up
1                4.0.3 and up
2                4.0.3 and up
3                  4.2 and up
4                  4.4 and up
                    ...
10836              4.1 and up
10837              4.1 and up
10838              2.2 and up
10839      Varies with device
10840      Varies with device
Name: Android Ver, Length: 10841, dtype: object
```

In [292]: dip_df

Out[292]:

	App	Category	Rating	Reviews	Size	Installs	Type	Price	
0	Photo Editor & Candy Camera & Grid & ScrapBook	ART_AND_DESIGN	4.1	159	19M	10,000+	Free	0	E
1	Coloring book moana	ART_AND_DESIGN	3.9	967	14M	500,000+	Free	0	E
2	U Launcher Lite – FREE Live Cool Themes, Hide ...	ART_AND_DESIGN	4.7	87510	8.7M	5,000,000+	Free	0	E
3	Sketch - Draw & Paint	ART_AND_DESIGN	4.5	215644	25M	50,000,000+	Free	0	
4	Pixel Draw - Number Art Coloring Book	ART_AND_DESIGN	4.3	967	2.8M	100,000+	Free	0	E
...	...	...	...	...	...	...	...	...	
10836	Sya9a Maroc - FR	FAMILY	4.5	38	53M	5,000+	Free	0	E
10837	Fr. Mike Schmitz Audio Teachings	FAMILY	5.0	4	3.6M	100+	Free	0	E
10838	Parkinson Exercices FR	MEDICAL	3.6	3	9.5M	1,000+	Free	0	E
10839	The SCP Foundation DB fr nn5n	BOOKS_AND_REFERENCE	4.5	114	Varies with device	1,000+	Free	0	
10840	iHoroscope - 2018 Daily Horoscope & Astrology	LIFESTYLE	4.5	398307	19M	10,000,000+	Free	0	E

10841 rows × 13 columns

```
In [293]:  dip_df['Type'].fillna(40,inplace=True)
           dip_df
```

Out[293]:

	App	Category	Rating	Reviews	Size	Installs	Type	Price	
0	Photo Editor & Candy Camera & Grid & ScrapBook	ART_AND_DESIGN	4.1	159	19M	10,000+	Free	0	E
1	Coloring book moana	ART_AND_DESIGN	3.9	967	14M	500,000+	Free	0	E
2	U Launcher Lite – FREE Live Cool Themes, Hide ...	ART_AND_DESIGN	4.7	87510	8.7M	5,000,000+	Free	0	E
3	Sketch - Draw & Paint	ART_AND_DESIGN	4.5	215644	25M	50,000,000+	Free	0	
4	Pixel Draw - Number Art Coloring Book	ART_AND_DESIGN	4.3	967	2.8M	100,000+	Free	0	E
...	...	...	...	...	...	...	...	...	
10836	Sya9a Maroc - FR	FAMILY	4.5	38	53M	5,000+	Free	0	E
10837	Fr. Mike Schmitz Audio Teachings	FAMILY	5.0	4	3.6M	100+	Free	0	E
10838	Parkinson Exercices FR	MEDICAL	3.6	3	9.5M	1,000+	Free	0	E
10839	The SCP Foundation DB fr nn5n	BOOKS_AND_REFERENCE	4.5	114	Varies with device	1,000+	Free	0	
10840	iHoroscope - 2018 Daily Horoscope & Astrology	LIFESTYLE	4.5	398307	19M	10,000,000+	Free	0	E

10841 rows × 13 columns

In [294]: `dip_df.isna().sum()`

Out[294]:
```
App                0
Category           0
Rating             0
Reviews            0
Size               0
Installs           0
Type               0
Price              0
Content Rating     1
Genres             0
Last Updated       0
Current Ver        8
Android Ver        3
dtype: int64
```

In [295]: `dip_df.isna().sum()`

Out[295]:
```
App                0
Category           0
Rating             0
Reviews            0
Size               0
Installs           0
Type               0
Price              0
Content Rating     1
Genres             0
Last Updated       0
Current Ver        8
Android Ver        3
dtype: int64
```

In [296]:
```python
dip_df['Content Rating'].fillna(40,inplace=True)
dip_df
```

Out[296]:

	App	Category	Rating	Reviews	Size	Installs	Type	Price	C
0	Photo Editor & Candy Camera & Grid & ScrapBook	ART_AND_DESIGN	4.1	159	19M	10,000+	Free	0	E
1	Coloring book moana	ART_AND_DESIGN	3.9	967	14M	500,000+	Free	0	E
2	U Launcher Lite – FREE Live Cool Themes, Hide ...	ART_AND_DESIGN	4.7	87510	8.7M	5,000,000+	Free	0	E
3	Sketch - Draw & Paint	ART_AND_DESIGN	4.5	215644	25M	50,000,000+	Free	0	
4	Pixel Draw - Number Art Coloring Book	ART_AND_DESIGN	4.3	967	2.8M	100,000+	Free	0	E
...	...	...	...	...	...	...	...	...	
10836	Sya9a Maroc - FR	FAMILY	4.5	38	53M	5,000+	Free	0	E
10837	Fr. Mike Schmitz Audio Teachings	FAMILY	5.0	4	3.6M	100+	Free	0	E
10838	Parkinson Exercices FR	MEDICAL	3.6	3	9.5M	1,000+	Free	0	E
10839	The SCP Foundation DB fr nn5n	BOOKS_AND_REFERENCE	4.5	114	Varies with device	1,000+	Free	0	
10840	iHoroscope - 2018 Daily Horoscope & Astrology	LIFESTYLE	4.5	398307	19M	10,000,000+	Free	0	E

10841 rows × 13 columns

In [246]:
```python
dip_df['Content Rating'].fillna('4.1and up')
```

Out[246]:
```
0          Everyone
1          Everyone
2          Everyone
3              Teen
4          Everyone
            ...
10836      Everyone
10837      Everyone
10838      Everyone
10839     Mature 17+
10840      Everyone
Name: Content Rating, Length: 10841, dtype: object
```

In [247]:
```python
dip_df.isna().sum()
```

Out[247]:
```
App                0
Category           0
Rating             0
Reviews            0
Size               0
Installs           0
Type               0
Price              0
Content Rating     0
Genres             0
Last Updated       0
Current Ver        8
Android Ver        3
dtype: int64
```

```
In [248]: dip_df['Android Ver'].fillna(40,inplace=True)
          dip_df
```

Out[248]:

	App	Category	Rating	Reviews	Size	Installs	Type	Price	
0	Photo Editor & Candy Camera & Grid & ScrapBook	ART_AND_DESIGN	4.1	159	19M	10,000+	Free	0	E
1	Coloring book moana	ART_AND_DESIGN	3.9	967	14M	500,000+	Free	0	E
2	U Launcher Lite – FREE Live Cool Themes, Hide ...	ART_AND_DESIGN	4.7	87510	8.7M	5,000,000+	Free	0	E
3	Sketch - Draw & Paint	ART_AND_DESIGN	4.5	215644	25M	50,000,000+	Free	0	
4	Pixel Draw - Number Art Coloring Book	ART_AND_DESIGN	4.3	967	2.8M	100,000+	Free	0	E
...	...	...	...	...	...	...	...	...	
10836	Sya9a Maroc - FR	FAMILY	4.5	38	53M	5,000+	Free	0	E
10837	Fr. Mike Schmitz Audio Teachings	FAMILY	5.0	4	3.6M	100+	Free	0	E
10838	Parkinson Exercices FR	MEDICAL	3.6	3	9.5M	1,000+	Free	0	E
10839	The SCP Foundation DB fr nn5n	BOOKS_AND_REFERENCE	4.5	114	Varies with device	1,000+	Free	0	
10840	iHoroscope - 2018 Daily Horoscope & Astrology	LIFESTYLE	4.5	398307	19M	10,000,000+	Free	0	E

10841 rows × 13 columns

In [249]:
```python
dip_df.isna().sum()
```

Out[249]:
```
App                 0
Category            0
Rating              0
Reviews             0
Size                0
Installs            0
Type                0
Price               0
Content Rating      0
Genres              0
Last Updated        0
Current Ver         8
Android Ver         0
dtype: int64
```

In [250]:
```python
dip_df['Current Ver'].fillna(40,inplace=True)
dip_df
```

Out[250]:

	App	Category	Rating	Reviews	Size	Installs	Type	Price	
0	Photo Editor & Candy Camera & Grid & ScrapBook	ART_AND_DESIGN	4.1	159	19M	10,000+	Free	0	E
1	Coloring book moana	ART_AND_DESIGN	3.9	967	14M	500,000+	Free	0	E
2	U Launcher Lite – FREE Live Cool Themes, Hide ...	ART_AND_DESIGN	4.7	87510	8.7M	5,000,000+	Free	0	E
3	Sketch - Draw & Paint	ART_AND_DESIGN	4.5	215644	25M	50,000,000+	Free	0	
4	Pixel Draw - Number Art Coloring Book	ART_AND_DESIGN	4.3	967	2.8M	100,000+	Free	0	E
...	...	...	...	...	...	...	...	...	
10836	Sya9a Maroc - FR	FAMILY	4.5	38	53M	5,000+	Free	0	E
10837	Fr. Mike Schmitz Audio Teachings	FAMILY	5.0	4	3.6M	100+	Free	0	E
10838	Parkinson Exercices FR	MEDICAL	3.6	3	9.5M	1,000+	Free	0	E
10839	The SCP Foundation DB fr nn5n	BOOKS_AND_REFERENCE	4.5	114	Varies with device	1,000+	Free	0	
10840	iHoroscope - 2018 Daily Horoscope & Astrology	LIFESTYLE	4.5	398307	19M	10,000,000+	Free	0	E

10841 rows × 13 columns

In [251]:
```python
dip_df.isna().sum()
```

Out[251]:
```
App                  0
Category             0
Rating               0
Reviews              0
Size                 0
Installs             0
Type                 0
Price                0
Content Rating       0
Genres               0
Last Updated         0
Current Ver          0
Android Ver          0
dtype: int64
```

In [252]:
```python
dip_df.to_csv("D:\dip.csv")
```

```
In [253]:  print("\n Before sorting:")
           print(divi_df1)
```

```
 Before sorting:
                  name alpha-2 alpha-3  country-code        iso_3166-2   region  \
0          Afghanistan      AF     AFG             4  ISO 3166-2:AF     Asia
1        Åland Islands      AX     ALA           248  ISO 3166-2:AX   Europe
2              Albania      AL     ALB             8  ISO 3166-2:AL   Europe
3              Algeria      DZ     DZA            12  ISO 3166-2:DZ   Africa
4      American Samoa      AS     ASM            16  ISO 3166-2:AS  Oceania
..                 ...     ...     ...           ...               ...      ...
244  Wallis and Futuna      WF     WLF           876  ISO 3166-2:WF  Oceania
245     Western Sahara      EH     ESH           732  ISO 3166-2:EH   Africa
246              Yemen      YE     YEM           887  ISO 3166-2:YE     Asia
247             Zambia      ZM     ZMB           894  ISO 3166-2:ZM   Africa
248           Zimbabwe      ZW     ZWE           716  ISO 3166-2:ZW   Africa

             sub-region intermediate-region  region-code  sub-region-code  \
0         Southern Asia      Eastern Africa        142.0             34.0
1       Northern Europe      Eastern Africa        150.0            154.0
2       Southern Europe      Eastern Africa        150.0             39.0
3       Northern Africa      Eastern Africa          2.0             15.0
4            Polynesia      Eastern Africa          9.0             61.0
..                 ...                 ...          ...              ...
244          Polynesia      Eastern Africa          9.0             61.0
245      Northern Africa      Eastern Africa          2.0             15.0
246         Western Asia      Eastern Africa        142.0            145.0
247  Sub-Saharan Africa      Eastern Africa          2.0            202.0
248  Sub-Saharan Africa      Eastern Africa          2.0            202.0

     intermediate-region-code
0                         NaN
1                         NaN
2                         NaN
3                         NaN
4                         NaN
..                        ...
244                       NaN
245                       NaN
246                       NaN
247                      14.0
248                      14.0

[249 rows x 11 columns]
```

```
In [254]:  import pandas as pd
```

```
In [255]:  raw_data = {"city":['Tripoli','Tripoli','Rome','Rome','sydney','sydney'],
              'rank':['1st','2nd','1st','2nd','1st','2nd'],
              'name':['Nouredin','Adam','kevin','kevin','dipali','divya'],
              'score1':[44,48,39,41,38,44],
              'score2':[67,63,55,70,64,77]}
```

In [256]: `df=pd.DataFrame(raw_data,columns=['city', 'rank', 'name', 'score1', 'score2'])`

In [257]: `df`

Out[257]:

	city	rank	name	score1	score2
0	Tripoli	1st	Nouredin	44	67
1	Tripoli	2nd	Adam	48	63
2	Rome	1st	kevin	39	55
3	Rome	2nd	kevin	41	70
4	sydney	1st	dipali	38	64
5	sydney	2nd	divya	44	77

In [258]: `df.describe()`

Out[258]:

	score1	score2
count	6.000000	6.000000
mean	42.333333	66.000000
std	3.723797	7.375636
min	38.000000	55.000000
25%	39.500000	63.250000
50%	42.500000	65.500000
75%	44.000000	69.250000
max	48.000000	77.000000

In [ ]:

In [ ]: