

In [235... `import pandas as pd`

In [236... `pd.__version__`

Out[236... '2.2.2'

In [237... `df = pd.read_csv(r"C:\Users\G BHARANIKA\Downloads\data.csv")`

In [238... `df`

	CountryName	CountryCode	BirthRate	InternetUsers	IncomeGroup
0	Aruba	ABW	10.244	78.9	High income
1	Afghanistan	AFG	35.253	5.9	Low income
2	Angola	AGO	45.985	19.1	Upper middle income
3	Albania	ALB	12.877	57.2	Upper middle income
4	United Arab Emirates	ARE	11.044	88.0	High income
...
190	Yemen, Rep.	YEM	32.947	20.0	Lower middle income
191	South Africa	ZAF	20.850	46.5	Upper middle income
192	Congo, Dem. Rep.	COD	42.394	2.2	Low income
193	Zambia	ZMB	40.471	15.4	Lower middle income
194	Zimbabwe	ZWE	35.715	18.5	Low income

195 rows × 5 columns

In [239... `id(df)`

Out[239... 1863567515312

In [240... `len(df)`

Out[240... 195

In [241... `df.columns`

Out[241... `Index(['CountryName', 'CountryCode', 'BirthRate', 'InternetUsers', 'IncomeGroup'], dtype='object')`

In [242... `len(df.columns)`

Out[242... 5

In [243... df.isnull()

Out[243... CountryName CountryCode BirthRate InternetUsers IncomeGroup

0	False	False	False	False	False
1	False	False	False	False	False
2	False	False	False	False	False
3	False	False	False	False	False
4	False	False	False	False	False
...
190	False	False	False	False	False
191	False	False	False	False	False
192	False	False	False	False	False
193	False	False	False	False	False
194	False	False	False	False	False

195 rows × 5 columns

In [244... df.isna()

Out[244... CountryName CountryCode BirthRate InternetUsers IncomeGroup

0	False	False	False	False	False
1	False	False	False	False	False
2	False	False	False	False	False
3	False	False	False	False	False
4	False	False	False	False	False
...
190	False	False	False	False	False
191	False	False	False	False	False
192	False	False	False	False	False
193	False	False	False	False	False
194	False	False	False	False	False

195 rows × 5 columns

In [245... df.isnull().sum()

```
Out[245... CountryName      0
CountryCode       0
BirthRate        0
InternetUsers   0
IncomeGroup      0
dtype: int64
```

```
In [246... df.isna().sum()
```

```
Out[246... CountryName      0
CountryCode       0
BirthRate        0
InternetUsers   0
IncomeGroup      0
dtype: int64
```

```
In [247... df.head()
```

	CountryName	CountryCode	BirthRate	InternetUsers	IncomeGroup
0	Aruba	ABW	10.244	78.9	High income
1	Afghanistan	AFG	35.253	5.9	Low income
2	Angola	AGO	45.985	19.1	Upper middle income
3	Albania	ALB	12.877	57.2	Upper middle income
4	United Arab Emirates	ARE	11.044	88.0	High income

```
In [248... df.tail()
```

	CountryName	CountryCode	BirthRate	InternetUsers	IncomeGroup
190	Yemen, Rep.	YEM	32.947	20.0	Lower middle income
191	South Africa	ZAF	20.850	46.5	Upper middle income
192	Congo, Dem. Rep.	COD	42.394	2.2	Low income
193	Zambia	ZMB	40.471	15.4	Lower middle income
194	Zimbabwe	ZWE	35.715	18.5	Low income

```
In [249... df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 195 entries, 0 to 194
Data columns (total 5 columns):
 #   Column      Non-Null Count  Dtype  
--- 
 0   CountryName    195 non-null   object  
 1   CountryCode     195 non-null   object  
 2   BirthRate       195 non-null   float64 
 3   InternetUsers  195 non-null   float64 
 4   IncomeGroup     195 non-null   object  
dtypes: float64(2), object(3)
memory usage: 7.7+ KB
```

In [250...]

df[:]

Out[250...]

	CountryName	CountryCode	BirthRate	InternetUsers	IncomeGroup
0	Aruba	ABW	10.244	78.9	High income
1	Afghanistan	AFG	35.253	5.9	Low income
2	Angola	AGO	45.985	19.1	Upper middle income
3	Albania	ALB	12.877	57.2	Upper middle income
4	United Arab Emirates	ARE	11.044	88.0	High income
...
190	Yemen, Rep.	YEM	32.947	20.0	Lower middle income
191	South Africa	ZAF	20.850	46.5	Upper middle income
192	Congo, Dem. Rep.	COD	42.394	2.2	Low income
193	Zambia	ZMB	40.471	15.4	Lower middle income
194	Zimbabwe	ZWE	35.715	18.5	Low income

195 rows × 5 columns

In [251...]

df[1:11]

Out[251...]

	CountryName	CountryCode	BirthRate	InternetUsers	IncomeGroup
1	Afghanistan	AFG	35.253	5.9000	Low income
2	Angola	AGO	45.985	19.1000	Upper middle income
3	Albania	ALB	12.877	57.2000	Upper middle income
4	United Arab Emirates	ARE	11.044	88.0000	High income
5	Argentina	ARG	17.716	59.9000	High income
6	Armenia	ARM	13.308	41.9000	Lower middle income
7	Antigua and Barbuda	ATG	16.447	63.4000	High income
8	Australia	AUS	13.200	83.0000	High income
9	Austria	AUT	9.400	80.6188	High income
10	Azerbaijan	AZE	18.300	58.7000	Upper middle income

In [252...]

df.head(2)

Out[252...]

	CountryName	CountryCode	BirthRate	InternetUsers	IncomeGroup
0	Aruba	ABW	10.244	78.9	High income
1	Afghanistan	AFG	35.253	5.9	Low income

In [253...]

df.describe()

Out[253...]

	BirthRate	InternetUsers
count	195.000000	195.000000
mean	21.469928	42.076471
std	10.605467	29.030788
min	7.900000	0.900000
25%	12.120500	14.520000
50%	19.680000	41.000000
75%	29.759500	66.225000
max	49.661000	96.546800

In [254...]

df.head(1)

Out[254...]

	CountryName	CountryCode	BirthRate	InternetUsers	IncomeGroup
0	Aruba	ABW	10.244	78.9	High income

```
In [255...]: df['CountryName']
```

```
Out[255...]: 0           Aruba
 1         Afghanistan
 2           Angola
 3          Albania
 4    United Arab Emirates
 ...
 190      Yemen, Rep.
 191      South Africa
 192      Congo, Dem. Rep.
 193          Zambia
 194        Zimbabwe
Name: CountryName, Length: 195, dtype: object
```

```
In [256...]: df['CountryCode']
```

```
Out[256...]: 0      ABW
 1      AFG
 2      AGO
 3      ALB
 4      ARE
 ...
 190     YEM
 191     ZAF
 192     COD
 193     ZMB
 194     ZWE
Name: CountryCode, Length: 195, dtype: object
```

```
In [257...]: df[['CountryName', 'CountryCode']]
```

Out[257...]

	CountryName	CountryCode
0	Aruba	ABW
1	Afghanistan	AFG
2	Angola	AGO
3	Albania	ALB
4	United Arab Emirates	ARE
...
190	Yemen, Rep.	YEM
191	South Africa	ZAF
192	Congo, Dem. Rep.	COD
193	Zambia	ZMB
194	Zimbabwe	ZWE

195 rows × 2 columns

In [258...]

df[['CountryName', 'CountryCode', 'IncomeGroup']]

Out[258...]

	CountryName	CountryCode	IncomeGroup
0	Aruba	ABW	High income
1	Afghanistan	AFG	Low income
2	Angola	AGO	Upper middle income
3	Albania	ALB	Upper middle income
4	United Arab Emirates	ARE	High income
...
190	Yemen, Rep.	YEM	Lower middle income
191	South Africa	ZAF	Upper middle income
192	Congo, Dem. Rep.	COD	Low income
193	Zambia	ZMB	Lower middle income
194	Zimbabwe	ZWE	Low income

195 rows × 3 columns

In [259...]

df_cat=df[['CountryName', 'CountryCode', 'IncomeGroup']]
df_cat

Out[259...]

	CountryName	CountryCode	IncomeGroup
0	Aruba	ABW	High income
1	Afghanistan	AFG	Low income
2	Angola	AGO	Upper middle income
3	Albania	ALB	Upper middle income
4	United Arab Emirates	ARE	High income
...
190	Yemen, Rep.	YEM	Lower middle income
191	South Africa	ZAF	Upper middle income
192	Congo, Dem. Rep.	COD	Low income
193	Zambia	ZMB	Lower middle income
194	Zimbabwe	ZWE	Low income

195 rows × 3 columns

In [260...]

```
print(len(df.columns))
print(len(df_cat.columns))
```

5

3

In [261...]

```
print((df.columns))
```

```
Index(['CountryName', 'CountryCode', 'BirthRate', 'InternetUsers',
       'IncomeGroup'],
      dtype='object')
```

In [262...]

```
print((df_cat.columns))
```

```
Index(['CountryName', 'CountryCode', 'IncomeGroup'], dtype='object')
```

In [263...]

```
df_cat.describe()
```

Out[263...]

	CountryName	CountryCode	IncomeGroup
count	195	195	195
unique	195	195	4
top	Aruba	ABW	High income
freq	1	1	67

In [264...]

```
df_num=df[['BirthRate', 'InternetUsers']]
df_num
```

Out[264...]

	BirthRate	InternetUsers
0	10.244	78.9
1	35.253	5.9
2	45.985	19.1
3	12.877	57.2
4	11.044	88.0
...
190	32.947	20.0
191	20.850	46.5
192	42.394	2.2
193	40.471	15.4
194	35.715	18.5

195 rows × 2 columns

In [265...]

`df_num.info()`

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 195 entries, 0 to 194
Data columns (total 2 columns):
 #   Column      Non-Null Count  Dtype  
---  --  
 0   BirthRate    195 non-null    float64 
 1   InternetUsers 195 non-null    float64 
dtypes: float64(2)
memory usage: 3.2 KB
```

In [266...]

`df.describe().transpose()`

Out[266...]

	count	mean	std	min	25%	50%	75%	max
BirthRate	195.0	21.469928	10.605467	7.9	12.1205	19.68	29.7595	49.6610
InternetUsers	195.0	42.076471	29.030788	0.9	14.5200	41.00	66.2250	96.5468

In [267...]

`df.columns`

Out[267...]

```
Index(['CountryName', 'CountryCode', 'BirthRate', 'InternetUsers',
       'IncomeGroup'],
      dtype='object')
```

In [268...]

`df.describe()`

Out[268...]

BirthRate InternetUsers

	BirthRate	InternetUsers
count	195.000000	195.000000
mean	21.469928	42.076471
std	10.605467	29.030788
min	7.900000	0.900000
25%	12.120500	14.520000
50%	19.680000	41.000000
75%	29.759500	66.225000
max	49.661000	96.546800

In [269...]

df.columns=['a','b','c','d','e']

In [270...]

df.head(1)

Out[270...]

a b c d e**0** Aruba ABW 10.244 78.9 High income

In [271...]

df.describe().T

Out[271...]

	count	mean	std	min	25%	50%	75%	max
c	195.0	21.469928	10.605467	7.9	12.1205	19.68	29.7595	49.6610
d	195.0	42.076471	29.030788	0.9	14.5200	41.00	66.2250	96.5468

In [272...]

df.head(1)

Out[272...]

a b c d e**0** Aruba ABW 10.244 78.9 High income

In [273...]

df.columns=['CountryName', 'CountryCode', 'BirthRate', 'InternetUsers', 'IncomeGroup']
df.head(1)

Out[273...]

CountryName CountryCode BirthRate InternetUsers IncomeGroup**0** Aruba ABW 10.244 78.9 High income

In [274...]

df[['CountryName', 'BirthRate', 'InternetUsers']][4:8] #subset

Out[274...]

	CountryName	BirthRate	InternetUsers
4	United Arab Emirates	11.044	88.0
5	Argentina	17.716	59.9
6	Armenia	13.308	41.9
7	Antigua and Barbuda	16.447	63.4

In [275...]

```
df[4:8][['CountryName', 'BirthRate', 'InternetUsers']]
```

Out[275...]

	CountryName	BirthRate	InternetUsers
4	United Arab Emirates	11.044	88.0
5	Argentina	17.716	59.9
6	Armenia	13.308	41.9
7	Antigua and Barbuda	16.447	63.4

In [276...]

```
df.columns
```

Out[276...]

```
Index(['CountryName', 'CountryCode', 'BirthRate', 'InternetUsers',
       'IncomeGroup'],
      dtype='object')
```

In [277...]

```
df.BirthRate*df.InternetUsers
```

Out[277...]

```
0      808.2516
1      207.9927
2      878.3135
3      736.5644
4      971.8720
      ...
190     658.9400
191     969.5250
192      93.2668
193     623.2534
194     660.7275
Length: 195, dtype: float64
```

In [278...]

```
df.head(2)
```

Out[278...]

	CountryName	CountryCode	BirthRate	InternetUsers	IncomeGroup
0	Aruba	ABW	10.244	78.9	High income
1	Afghanistan	AFG	35.253	5.9	Low income

In [279...]

```
df['newcolumn'] = df.BirthRate * df.InternetUsers
```

In [280...]

```
df.head(5)
```

Out[280...]

	CountryName	CountryCode	BirthRate	InternetUsers	IncomeGroup	newcolumn
0	Aruba	ABW	10.244	78.9	High income	808.2516
1	Afghanistan	AFG	35.253	5.9	Low income	207.9927
2	Angola	AGO	45.985	19.1	Upper middle income	878.3135
3	Albania	ALB	12.877	57.2	Upper middle income	736.5644
4	United Arab Emirates	ARE	11.044	88.0	High income	971.8720

In [281...]

len(df.columns)

Out[281...]

6

In [282...]

df=df.drop('newcolumn',axis=1)

In [283...]

df.head(1)

Out[283...]

	CountryName	CountryCode	BirthRate	InternetUsers	IncomeGroup
0	Aruba	ABW	10.244	78.9	High income

In [284...]

df.InternetUsers<2

Out[284...]

```
0    False
1    False
2    False
3    False
4    False
...
190   False
191   False
192   False
193   False
194   False
Name: InternetUsers, Length: 195, dtype: bool
```

In [285...]

df[df.InternetUsers<2]

Out[285...]

	CountryName	CountryCode	BirthRate	InternetUsers	IncomeGroup
11	Burundi	BDI	44.151	1.3	Low income
52	Eritrea	ERI	34.800	0.9	Low income
55	Ethiopia	ETH	32.925	1.9	Low income
64	Guinea	GIN	37.337	1.6	Low income
117	Myanmar	MMR	18.119	1.6	Lower middle income
127	Niger	NER	49.661	1.7	Low income
154	Sierra Leone	SLE	36.729	1.7	Low income
156	Somalia	SOM	43.891	1.5	Low income
172	Timor-Leste	TLS	35.755	1.1	Lower middle income

In [286...]

len(df[df.InternetUsers<2])

Out[286...]

9

In [287...]

df[df.BirthRate>40]

Out[287...]

	CountryName	CountryCode	BirthRate	InternetUsers	IncomeGroup
2	Angola	AGO	45.985	19.1	Upper middle income
11	Burundi	BDI	44.151	1.3	Low income
14	Burkina Faso	BFA	40.551	9.1	Low income
65	Gambia, The	GMB	42.525	14.0	Low income
115	Mali	MLI	44.138	3.5	Low income
127	Niger	NER	49.661	1.7	Low income
128	Nigeria	NGA	40.045	38.0	Lower middle income
156	Somalia	SOM	43.891	1.5	Low income
167	Chad	TCD	45.745	2.3	Low income
178	Uganda	UGA	43.474	16.2	Low income
192	Congo, Dem. Rep.	COD	42.394	2.2	Low income
193	Zambia	ZMB	40.471	15.4	Lower middle income

In [288...]

low_education=df[df.InternetUsers<2]

low_education

Out[288...]

	CountryName	CountryCode	BirthRate	InternetUsers	IncomeGroup
11	Burundi	BDI	44.151	1.3	Low income
52	Eritrea	ERI	34.800	0.9	Low income
55	Ethiopia	ETH	32.925	1.9	Low income
64	Guinea	GIN	37.337	1.6	Low income
117	Myanmar	MMR	18.119	1.6	Lower middle income
127	Niger	NER	49.661	1.7	Low income
154	Sierra Leone	SLE	36.729	1.7	Low income
156	Somalia	SOM	43.891	1.5	Low income
172	Timor-Leste	TLS	35.755	1.1	Lower middle income

In [289...]

```
low_internetuser_country = df[df.InternetUsers<2]
low_internetuser_country
```

Out[289...]

	CountryName	CountryCode	BirthRate	InternetUsers	IncomeGroup
11	Burundi	BDI	44.151	1.3	Low income
52	Eritrea	ERI	34.800	0.9	Low income
55	Ethiopia	ETH	32.925	1.9	Low income
64	Guinea	GIN	37.337	1.6	Low income
117	Myanmar	MMR	18.119	1.6	Lower middle income
127	Niger	NER	49.661	1.7	Low income
154	Sierra Leone	SLE	36.729	1.7	Low income
156	Somalia	SOM	43.891	1.5	Low income
172	Timor-Leste	TLS	35.755	1.1	Lower middle income

In [290...]

```
high_birth_rate = df[df.BirthRate>40]
high_birth_rate
```

Out[290...]

	CountryName	CountryCode	BirthRate	InternetUsers	IncomeGroup
2	Angola	AGO	45.985	19.1	Upper middle income
11	Burundi	BDI	44.151	1.3	Low income
14	Burkina Faso	BFA	40.551	9.1	Low income
65	Gambia, The	GMB	42.525	14.0	Low income
115	Mali	MLI	44.138	3.5	Low income
127	Niger	NER	49.661	1.7	Low income
128	Nigeria	NGA	40.045	38.0	Lower middle income
156	Somalia	SOM	43.891	1.5	Low income
167	Chad	TCD	45.745	2.3	Low income
178	Uganda	UGA	43.474	16.2	Low income
192	Congo, Dem. Rep.	COD	42.394	2.2	Low income
193	Zambia	ZMB	40.471	15.4	Lower middle income

In [291...]

Filter = df.InternetUsers < 2

In [292...]

Filter2 = df.BirthRate > 40

In [293...]

Filter * Filter2

Out[293...]

```

0    False
1    False
2    False
3    False
4    False
...
190   False
191   False
192   False
193   False
194   False
Length: 195, dtype: bool

```

In [294...]

df[Filter * Filter2]

Out[294...]

	CountryName	CountryCode	BirthRate	InternetUsers	IncomeGroup
11	Burundi	BDI	44.151	1.3	Low income
127	Niger	NER	49.661	1.7	Low income
156	Somalia	SOM	43.891	1.5	Low income

In [295...]

df

Out[295...]

	CountryName	CountryCode	BirthRate	InternetUsers	IncomeGroup
0	Aruba	ABW	10.244	78.9	High income
1	Afghanistan	AFG	35.253	5.9	Low income
2	Angola	AGO	45.985	19.1	Upper middle income
3	Albania	ALB	12.877	57.2	Upper middle income
4	United Arab Emirates	ARE	11.044	88.0	High income
...
190	Yemen, Rep.	YEM	32.947	20.0	Lower middle income
191	South Africa	ZAF	20.850	46.5	Upper middle income
192	Congo, Dem. Rep.	COD	42.394	2.2	Low income
193	Zambia	ZMB	40.471	15.4	Lower middle income
194	Zimbabwe	ZWE	35.715	18.5	Low income

195 rows × 5 columns

11th july

In [296...]

df[df.IncomeGroup=='High income']

Out[296...]

	CountryName	CountryCode	BirthRate	InternetUsers	IncomeGroup
0	Aruba	ABW	10.244	78.90	High income
4	United Arab Emirates	ARE	11.044	88.00	High income
5	Argentina	ARG	17.716	59.90	High income
7	Antigua and Barbuda	ATG	16.447	63.40	High income
8	Australia	AUS	13.200	83.00	High income
...
174	Trinidad and Tobago	TTO	14.590	63.80	High income
180	Uruguay	URY	14.374	57.69	High income
181	United States	USA	12.500	84.20	High income
184	Venezuela, RB	VEN	19.842	54.90	High income
185	Virgin Islands (U.S.)	VIR	10.700	45.30	High income

67 rows × 5 columns

In [297...]

df[df.IncomeGroup=='Low income']

Out[297...]

	CountryName	CountryCode	BirthRate	InternetUsers	IncomeGroup
1	Afghanistan	AFG	35.253	5.90	Low income
11	Burundi	BDI	44.151	1.30	Low income
13	Benin	BEN	36.440	4.90	Low income
14	Burkina Faso	BFA	40.551	9.10	Low income
29	Central African Republic	CAF	34.076	3.50	Low income
38	Comoros	COM	34.326	6.50	Low income
52	Eritrea	ERI	34.800	0.90	Low income
55	Ethiopia	ETH	32.925	1.90	Low income
64	Guinea	GIN	37.337	1.60	Low income
65	Gambia, The	GMB	42.525	14.00	Low income
66	Guinea-Bissau	GNB	37.503	3.10	Low income
77	Haiti	HTI	25.345	10.60	Low income
93	Cambodia	KHM	24.462	6.80	Low income
99	Liberia	LBR	35.521	3.20	Low income
111	Madagascar	MDG	34.686	3.00	Low income
115	Mali	MLI	44.138	3.50	Low income
120	Mozambique	MOZ	39.705	5.40	Low income
123	Malawi	MWI	39.459	5.05	Low income
127	Niger	NER	49.661	1.70	Low income
132	Nepal	NPL	20.923	13.30	Low income
148	Rwanda	RWA	32.689	9.00	Low income
154	Sierra Leone	SLE	36.729	1.70	Low income
156	Somalia	SOM	43.891	1.50	Low income
158	South Sudan	SSD	37.126	14.10	Low income
167	Chad	TCD	45.745	2.30	Low income
168	Togo	TGO	36.080	4.50	Low income
177	Tanzania	TZA	39.518	4.40	Low income
178	Uganda	UGA	43.474	16.20	Low income
192	Congo, Dem. Rep.	COD	42.394	2.20	Low income
194	Zimbabwe	ZWE	35.715	18.50	Low income

```
In [298... df.IncomeGroup.unique()
```

```
Out[298... array(['High income', 'Low income', 'Upper middle income',
       'Lower middle income'], dtype=object)
```

```
In [299... df.IncomeGroup.nunique()
```

```
Out[299... 4
```

```
In [300... import matplotlib.pyplot as plt
import seaborn as sns

%matplotlib inline
plt.rcParams['figure.figsize'] = 6,2

import warnings
warnings.filterwarnings('ignore') # os error
```

```
In [301... df.head
```

```
Out[301... <bound method NDFrame.head of
          CountryName  CountryCode  BirthRate  InternetUsers
          \_           \_           \_           \_
0             Aruba        ABW      10.244      78.9
1   Afghanistan      AFG      35.253      5.9
2            Angola        AGO      45.985     19.1
3            Albania        ALB      12.877     57.2
4  United Arab Emirates      ARE      11.044     88.0
..             ...
190        Yemen, Rep.      YEM      32.947     20.0
191        South Africa      ZAF      20.850     46.5
192    Congo, Dem. Rep.      COD      42.394      2.2
193            Zambia        ZMB      40.471     15.4
194        Zimbabwe        ZWE      35.715     18.5

          IncomeGroup
0      High income
1      Low income
2  Upper middle income
3  Upper middle income
4      High income
..             ...
190  Lower middle income
191  Upper middle income
192      Low income
193  Lower middle income
194      Low income

[195 rows x 5 columns]>
```

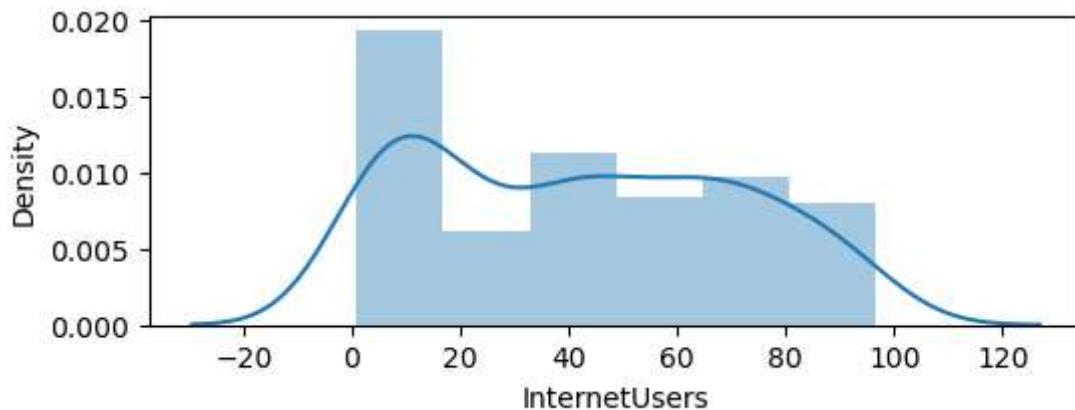
```
In [302... df.columns
```

```
Out[302... Index(['CountryName', 'CountryCode', 'BirthRate', 'InternetUsers',
       'IncomeGroup'],
       dtype='object')
```

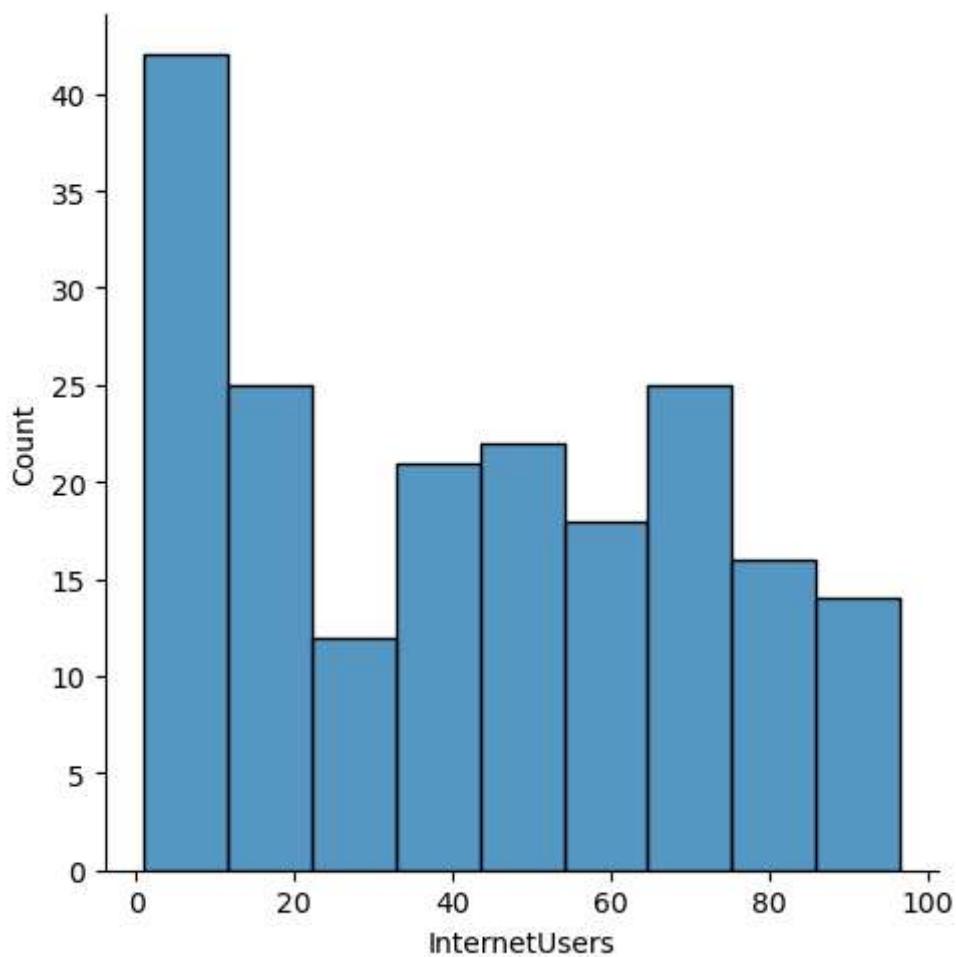
```
In [303... df['InternetUsers']]
```

```
Out[303... 0      78.9
 1      5.9
 2     19.1
 3     57.2
 4     88.0
 ...
190    20.0
191   46.5
192    2.2
193   15.4
194   18.5
Name: InternetUsers, Length: 195, dtype: float64
```

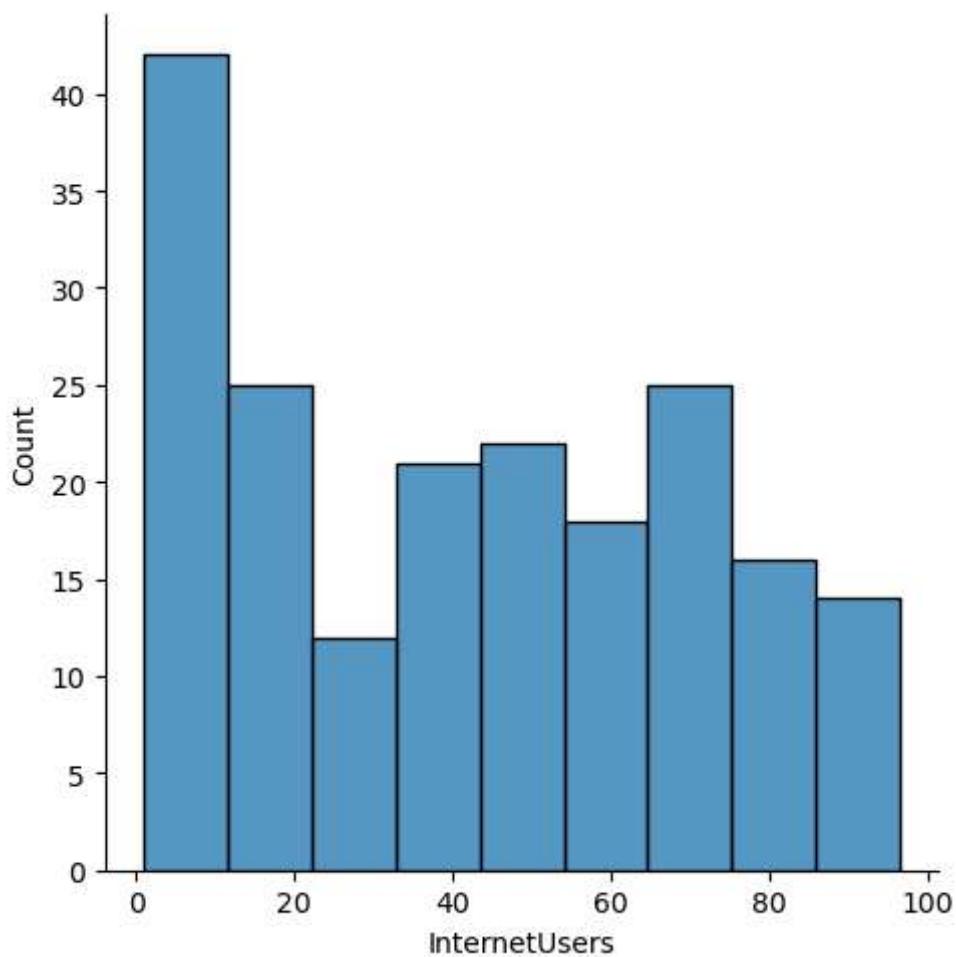
```
In [322... vis1 = sns.distplot(df["InternetUsers"])
plt.show(vis1)
```



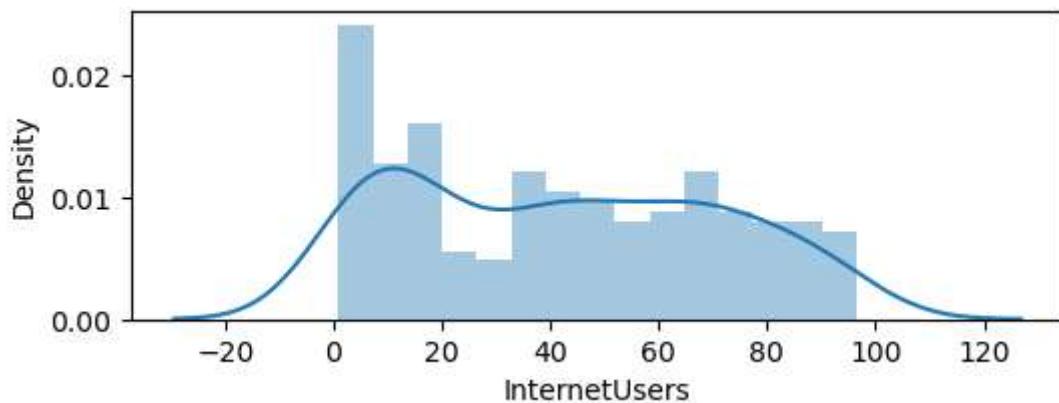
```
In [321... vis1 = sns.distplot(df["InternetUsers"])
plt.show(vis1)
```



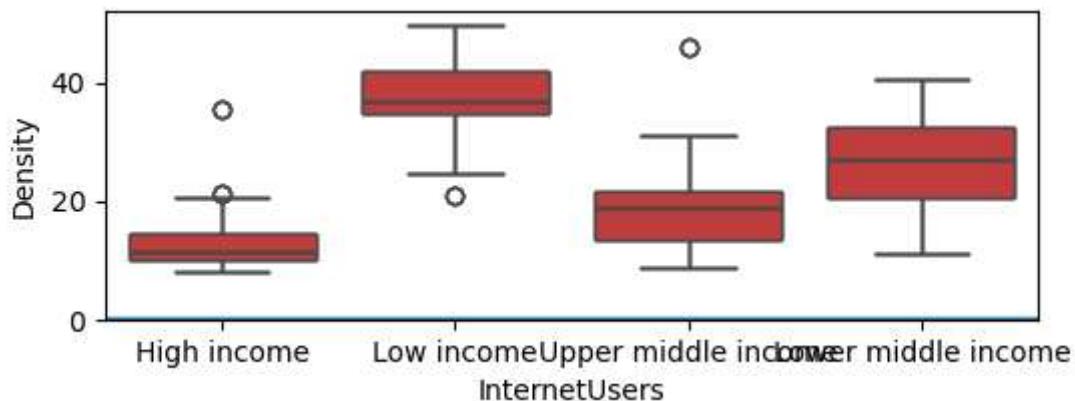
```
In [306]: vis2 = sns.displot(df["InternetUsers"])
plt.show(vis2)
```



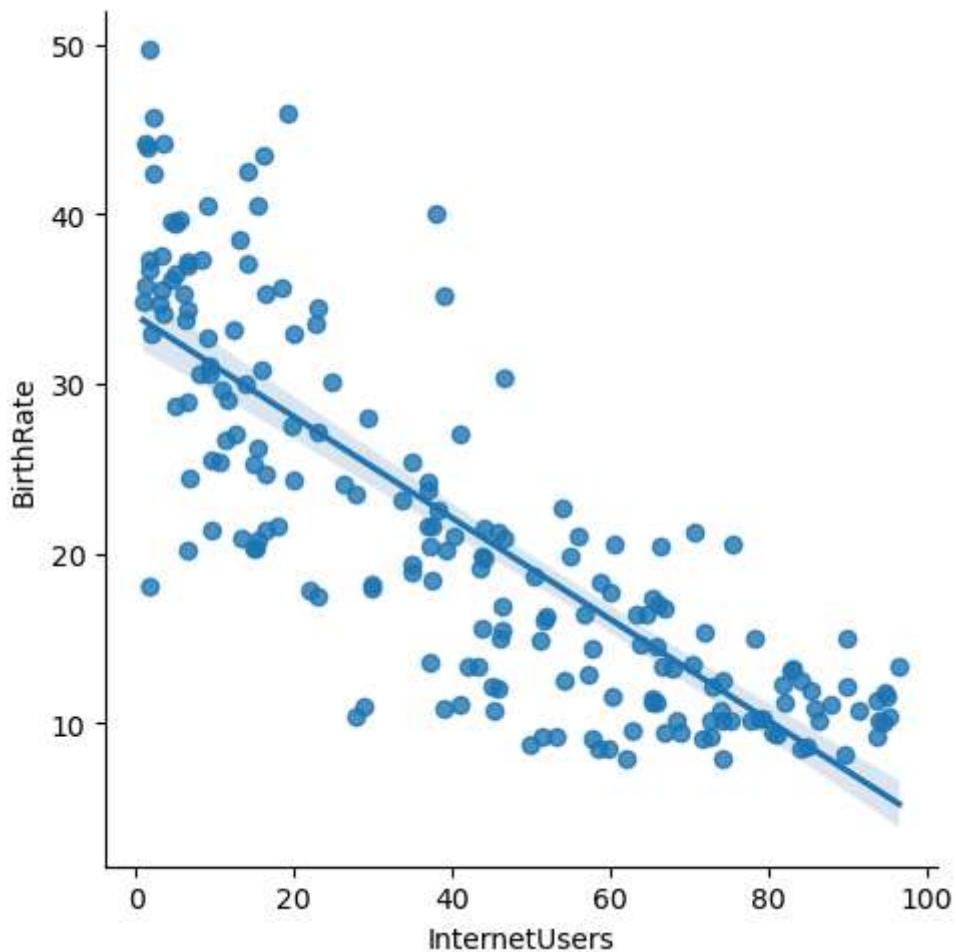
```
In [313]: vis3 = sns.distplot(df["InternetUsers"], bins=15)
plt.show(vis3)
```



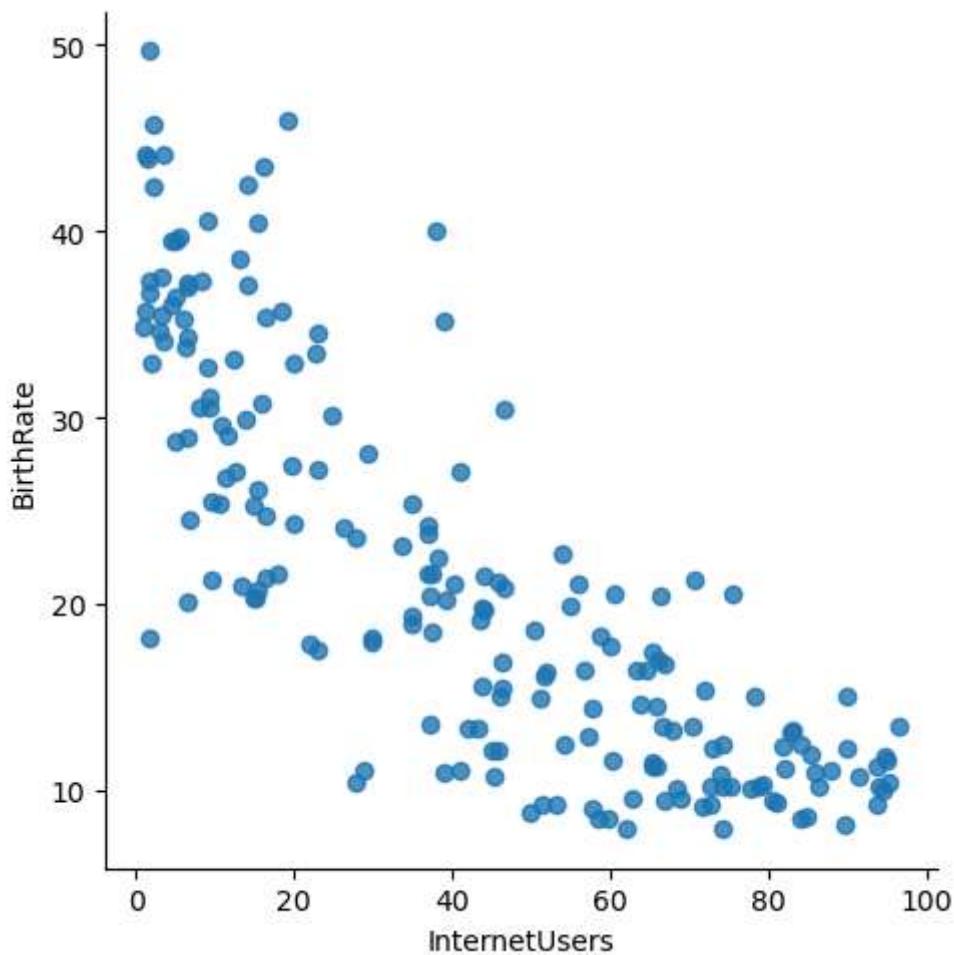
```
In [312]: vis4 = sns.boxplot(data = df, x="IncomeGroup", y='BirthRate')
plt.show(vis4)
```



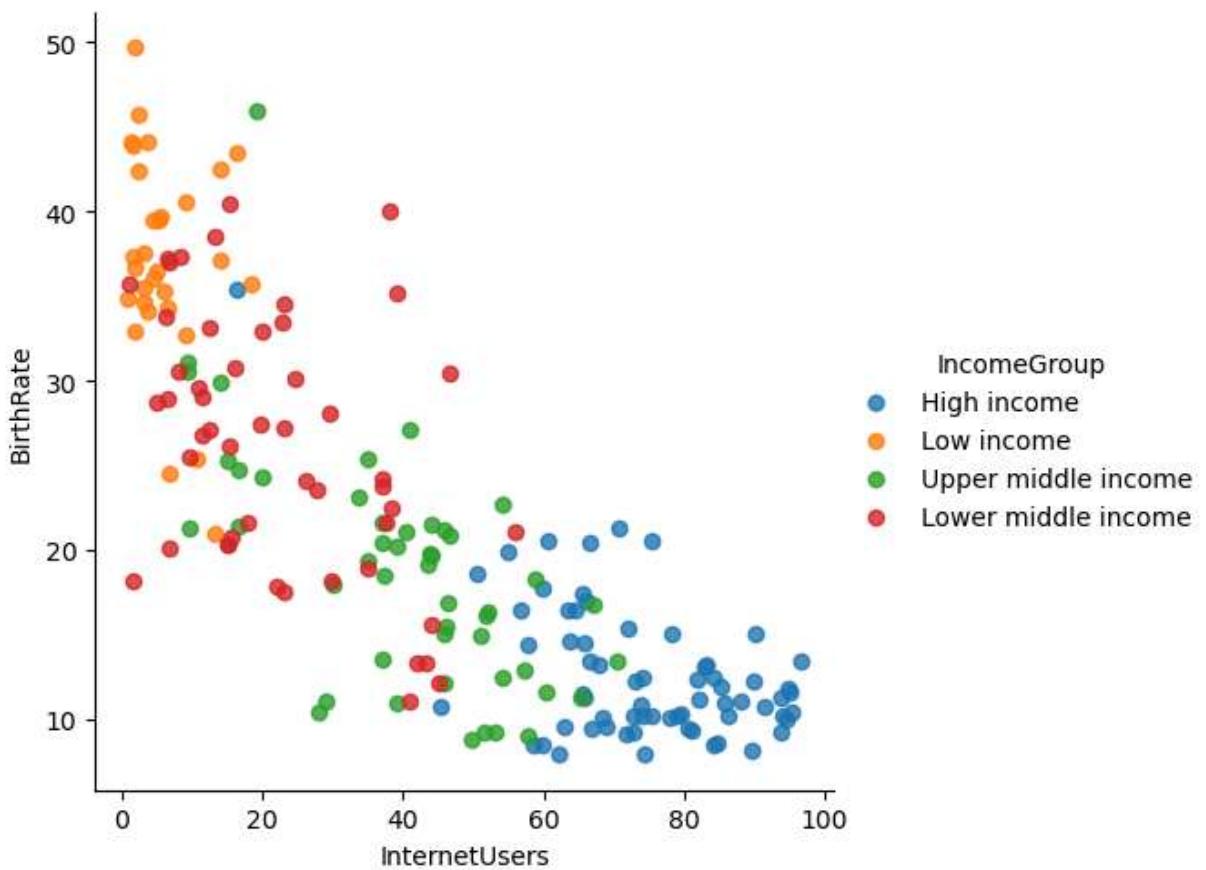
```
In [318]: vis5 = sns.lmplot(data = df,x='InternetUsers',y = 'BirthRate')  
plt.show(vis5)
```



```
In [319]: vis5 = sns.lmplot(data = df,x='InternetUsers',y = 'BirthRate', fit_reg=False)  
plt.show(vis5)
```



```
In [320]: vis8= sns.lmplot(data = df,x='InternetUsers',y = 'BirthRate', fit_reg=False,hue='In  
plt.show(vis8)
```



In []: