In [1]:
```
#Importing necessary Python Libraries

import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
import warnings
warnings.filterwarnings("ignore")
```

In [2]:
```
#Import Dataset

df=pd.read_csv("Forbes Billionaires 2023.csv")
```

In [3]:
```
df #This will print dataset
```

Out[3]:

	Name	NetWorth	Source	Country	Rank	Age	Industry	Gender
0	Bernard Arnault & Family	$211 B	LVMH	France	1	74	Fashion & Retail	Male
1	Elon Musk	$180 B	Tesla, SpaceX	United States	2	51	Automotive	Male
2	Jeff Bezos	$114 B	Amazon	United States	3	59	Technology	Male
3	Larry Ellison	$107 B	Oracle	United States	4	78	Technology	Male
4	Warren Buffett	$106 B	Berkshire Hathaway	United States	5	92	Finance & Investments	Male
5	Bill Gates	$104 B	Microsoft	United States	6	67	Technology	Male
6	Michael Bloomberg	$95 B	Bloomberg LP	United States	7	81	Media & Entertainment	Male
7	Carlos Slim Helu & Family	$93 B	Telecom	Mexico	8	83	Telecom	Male
8	Mukesh Ambani	$83 B	Diversified	India	9	65	Diversified	Male
9	Steve Ballmer	$81 B	Microsoft	United States	10	67	Technology	Male
10	Francoise Bettencourt Meyers & Family	$81 B	L'Oréal	France	11	69	Fashion & Retail	Female
11	Larry Page	$79 B	Google	United States	12	50	Technology	Male
12	Amancio Ortega	$77 B	Zara	Spain	13	87	Fashion & Retail	Male
13	Sergey Brin	$76 B	Google	United States	14	49	Technology	Male
14	Zhong Shanshan	$68 B	Beverages, Pharmaceuticals	China	15	68	Food & Beverage	Male
15	Mark Zuckerberg	$64 B	Facebook	United States	16	38	Technology	Male
16	Charles Koch & Family	$59 B	Koch Industries	United States	17	87	Diversified	Male
17	Julia Koch & Family	$59 B	Koch Industries	United States	17	60	Diversified	Female
18	Jim Walton	$59 B	Walmart	United States	19	74	Fashion & Retail	Male
19	Rob Walton & Family	$58 B	Walmart	United States	20	78	Fashion & Retail	Male
20	Alice Walton	$57 B	Walmart	United States	21	73	Fashion & Retail	Female
21	David Thomson & Family	$54 B	Media	Canada	22	65	Media & Entertainment	Male
22	Michael Dell	$50 B	Dell Technologies	United States	23	58	Technology	Male
23	Gautam Adani	$47 B	Infrastructure, Commodities	India	24	60	Diversified	Male
24	Phil Knight & Family	$45 B	Nike	United States	25	85	Fashion & Retail	Male
25	Zhang Yiming	$45 B	TikTok	China	26	39	Technology	Male
26	Dieter Schwarz	$43 B	Retail	Germany	27	83	Fashion & Retail	Male
27	François Pinault & Family	$40 B	Luxury goods	France	28	86	Fashion & Retail	Male
28	Klaus-Michael Kuehne	$39 B	Shipping	Switzerland	29	85	Logistics	Male
29	Giovanni Ferrero	$39 B	Nutella, Chocolates	Belgium	30	58	Food & Beverage	Male
30	Jacqueline Mars	$38 B	Candy, Pet Food	United States	31	83	Food & Beverage	Female
31	John Mars	$38 B	Candy, Pet Food	United States	31	87	Food & Beverage	Male
32	Li Ka-shing	$38 B	Diversified	Hong Kong	33	94	Diversified	Male
33	Ma Huateng	$35 B	Internet media	China	34	51	Technology	Male
34	Miriam Adelson & Family	$35 B	Casinos	United States	35	77	Gambling & Casinos	Female
35	Ken Griffin	$35 B	Hedge funds	United States	35	54	Finance & Investments	Male
36	Mark Mateschitz	$35 B	Red Bull	Austria	37	30	Food & Beverage	Male
37	Robin Zeng	$33 B	Batteries	China	38	54	Automotive	Male
38	Tadashi Yanai & Family	$33 B	Fashion Retail	Japan	39	74	Fashion & Retail	Male
39	Len Blavatnik	$32 B	Music, chemicals	United Kingdom	40	65	Diversified	Male
40	Alain Wertheimer	$32 B	Chanel	United States	41	74	Fashion & Retail	Male
41	Gerard Wertheimer	$32 B	Chanel	United States	41	72	Fashion & Retail	Male
42	Gianluigi Aponte	$31 B	Shipping	Switzerland	43	82	Logistics	Male
43	Rafaela Aponte-Diamant	$31 B	Shipping	Switzerland	43	78	Logistics	Female
44	Colin Huang	$30 B	E-commerce	China	45	43	Technology	Male
45	Reinhold Wuerth & Family	$30 B	Fasteners	Germany	46	87	Manufacturing	Male
46	Lee Shau Kee	$30 B	Real estate	Hong Kong	47	95	Real Estate	Male
47	Jeff Yass	$29 B	Trading, Investments	United States	48	64	Finance & Investments	Male
48	Jim Simons	$28 B	Hedge funds	United States	49	84	Finance & Investments	Male
49	Stephen Schwarzman	$28 B	Investments	United States	50	76	Finance & Investments	Male

In [4]:
```
df.head() #This will print the first five records
```

Out[4]:

	Name	NetWorth	Source	Country	Rank	Age	Industry	Gender
0	Bernard Arnault & Family	$211 B	LVMH	France	1	74	Fashion & Retail	Male
1	Elon Musk	$180 B	Tesla, SpaceX	United States	2	51	Automotive	Male
2	Jeff Bezos	$114 B	Amazon	United States	3	59	Technology	Male
3	Larry Ellison	$107 B	Oracle	United States	4	78	Technology	Male
4	Warren Buffett	$106 B	Berkshire Hathaway	United States	5	92	Finance & Investments	Male

In [5]:
```
df.tail() #This will print the last five records
```

Out[5]:

	Name	NetWorth	Source	Country	Rank	Age	Industry	Gender
45	Reinhold Wuerth & Family	$30 B	Fasteners	Germany	46	87	Manufacturing	Male
46	Lee Shau Kee	$30 B	Real estate	Hong Kong	47	95	Real Estate	Male
47	Jeff Yass	$29 B	Trading, Investments	United States	48	64	Finance & Investments	Male
48	Jim Simons	$28 B	Hedge funds	United States	49	84	Finance & Investments	Male
49	Stephen Schwarzman	$28 B	Investments	United States	50	76	Finance & Investments	Male

INSIGHTS

Total Rows = 50 Total Columns = 8

No null values are present in the dataset Datatype of NetWorth is object because of '$' and 'B' signs that was used during data cleansing process

In [ ]:
```
# The NetWorth column in this dataset has a '$' sign at the beginning of Net worth and 'B' at the end. So we need to remove these signs and convert the NetWorth column to float
df["NetWorth"]= df["NetWorth"].str.strip("$")
df["NetWorth"]= df["NetWorth"].str.strip("B")
df["NetWorth"]= df["NetWorth"].astype(float)
```

In [28]:
```
df.head(10)
```

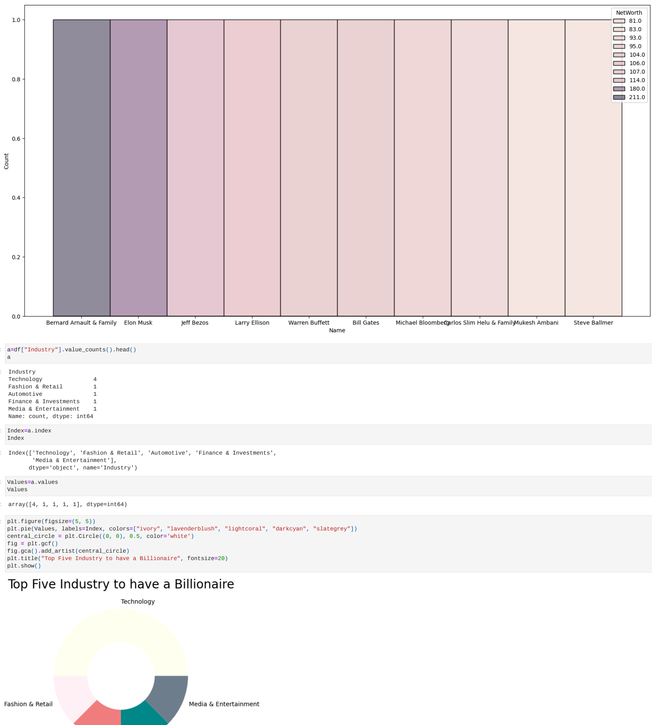
Out[28]:

	Name	NetWorth	Source	Country	Rank	Age	Industry	Gender
0	Bernard Arnault & Family	211.0	LVMH	France	1	74	Fashion & Retail	Male
1	Elon Musk	180.0	Tesla, SpaceX	United States	2	51	Automotive	Male
2	Jeff Bezos	114.0	Amazon	United States	3	59	Technology	Male
3	Larry Ellison	107.0	Oracle	United States	4	78	Technology	Male
4	Warren Buffett	106.0	Berkshire Hathaway	United States	5	92	Finance & Investments	Male
5	Bill Gates	104.0	Microsoft	United States	6	67	Technology	Male
6	Michael Bloomberg	95.0	Bloomberg LP	United States	7	81	Media & Entertainment	Male
7	Carlos Slim Helu & Family	93.0	Telecom	Mexico	8	83	Telecom	Male
8	Mukesh Ambani	83.0	Diversified	India	9	65	Diversified	Male
9	Steve Ballmer	81.0	Microsoft	United States	10	67	Technology	Male

In [13]:
```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 50 entries, 0 to 49
Data columns (total 8 columns):
 #   Column    Non-Null Count  Dtype  
---  ------    --------------  -----  
 0   Name      50 non-null     object 
 1   NetWorth  50 non-null     float64
 2   Source    50 non-null     object 
 3   Country   50 non-null     object 
 4   Rank      50 non-null     int64  
 5   Age       50 non-null     int64  
 6   Industry  50 non-null     object 
 7   Gender    50 non-null     object 
dtypes: float64(1), int64(2), object(5)
memory usage: 3.3+ KB
```

In [29]:
```
df = df.head(10)
plt.figure(figsize=(20, 10))
sns.histplot(x="Name", hue="NetWorth", data=df)
plt.show()
```



In [30]:
```
a=df["Industry"].value_counts().head()
a
```

Out[30]:
```
Industry
Technology              4
Fashion & Retail        1
Automotive              1
Finance & Investments   1
Media & Entertainment   1
Name: count, dtype: int64
```

In [32]:
```
Index=a.index
Index
```

Out[32]:
```
Index(['Technology', 'Fashion & Retail', 'Automotive', 'Finance & Investments',
       'Media & Entertainment'],
      dtype='object', name='Industry')
```

In [33]:
```
Values=a.values
Values
```

Out[33]:
```
array([4, 1, 1, 1, 1], dtype=int64)
```

In [67]:
```
plt.figure(figsize=(5, 5))
plt.pie(Values, labels=Index, colors=["ivory", "lavenderblush", "lightcoral", "darkcyan", "slategrey"])
central_circle = plt.Circle((0, 0), 0.5, color='white')
fig = plt.gcf()
fig.gca().add_artist(central_circle)
plt.title("Top Five Industry to have a Billionaire", fontsize=20)
plt.show()
```

In [77]:
```
#Top five countries to have a millionaire

a=df["Country"].value_counts().head()
Index=a.index
Values=a.values
plt.figure(figsize=(5, 5))
plt.pie(Values, labels=Index, colors=["steelblue", "hotpink", "lightcoral", "turquoise", "darksalmon"])
central_circle = plt.Circle((0, 0), 0.5, color='white')
fig = plt.gcf()
fig.gca().add_artist(central_circle)
plt.title("Top Five Countries to have a Billionaire", fontsize=20)
plt.show()
```

Top Five Countries to have a Billionaire