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```python
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
dataset=pd.read_csv("/content/2022_forbes_billionaires.csv")
dataset.head()
```

	Unnamed: 0	rank	name	networth	age	country	source	industry
0	0	1	Elon Musk	$219 B	50	United States	Tesla, SpaceX	Automotive
1	1	2	Jeff Bezos	$171 B	58	United States	Amazon	Technology
2	2	3	Bernard Arnault & family	$158 B	73	France	LVMH	Fashion & Retail
3	3	4	Bill Gates	$129 B	66	United States	Microsoft	Technology
4	4	5	Warren Buffett	$118 B	91	United States	Berkshire Hathaway	Finance & Investments

Next steps: Generate code with dataset | View recommended plots | New interactive sheet

[4]
```python
dataset.tail()
```

	Unnamed: 0	rank	name	networth	age	country	source	industry

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0	0	1	Elon Musk	$219 B	50	United States	Tesla, SpaceX	Automotive
1	1	2	Jeff Bezos	$171 B	58	United States	Amazon	Technology
2	2	3	Bernard Arnault & family	$158 B	73	France	LVMH	Fashion & Retail
3	3	4	Bill Gates	$129 B	66	United States	Microsoft	Technology
4	4	5	Warren Buffett	$118 B	91	United States	Berkshire Hathaway	Finance & Investments

Next steps: Generate code with dataset | View recommended plots | New interactive sheet

```
dataset.tail()
```

	Unnamed: 0	rank	name	networth	age	country	source	industry
2595	2595	2578	Jorge Gallardo Ballart	$1 B	80	Spain	pharmaceuticals	Healthcare
2596	2596	2578	Nari Genomal	$1 B	82	Philippines	apparel	Fashion & Retail
2597	2597	2578	Ramesh Genomal	$1 B	71	Philippines	apparel	Fashion & Retail
2598	2598	2578	Sunder Genomal	$1 B	68	Philippines	garments	Fashion & Retail
2599	2599	2578	Horst-Otto Gerberding	$1 B	69	Germany	flavors and fragrances	Food & Beverage

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2599	2599	2578	Horst-Otto Gerberding	$1 B	69	Germany	flavors and fragrances	Food & Beverage

```
dataset=pd.read_csv("/content/2022_forbes_billionaires.csv")
dataset.head()

dataset.isnull().sum()
```

	0
Unnamed: 0	0
rank	0
name	0
networth	0
age	0
country	0
source	0
industry	0

dtype: int64

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```
dataset.isnull()
```

	Unnamed: 0	rank	name	networth	age	country	source	industry
0	False	False	False	False	False	False	False	False
1	False	False	False	False	False	False	False	False
2	False	False	False	False	False	False	False	False
3	False	False	False	False	False	False	False	False
4	False	False	False	False	False	False	False	False
...	...	...	...	...	...	...	...	...
2595	False	False	False	False	False	False	False	False
2596	False	False	False	False	False	False	False	False
2597	False	False	False	False	False	False	False	False
2598	False	False	False	False	False	False	False	False
2599	False	False	False	False	False	False	False	False

2600 rows × 8 columns

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0	False	False	False	False	False	False	False	False
1	False	False	False	False	False	False	False	False
2	False	False	False	False	False	False	False	False
3	False	False	False	False	False	False	False	False
4	False	False	False	False	False	False	False	False
...	...	...	...	...	...	...	...	...
2595	False	False	False	False	False	False	False	False
2596	False	False	False	False	False	False	False	False
2597	False	False	False	False	False	False	False	False
2598	False	False	False	False	False	False	False	False
2599	False	False	False	False	False	False	False	False

2600 rows × 8 columns

```
dataset.duplicated().sum()
```

```
0
```

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```
max   2599.000000   2578.000000   100.000000
```

```
shape=dataset.shape
print(shape)
```

```
(2600, 8)
```

```
[12] dataset.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 2600 entries, 0 to 2599
Data columns (total 8 columns):
 #   Column      Non-Null Count  Dtype
---  ------      --------------  -----
 0   Unnamed: 0  2600 non-null   int64
 1   rank        2600 non-null   int64
 2   name        2600 non-null   object
 3   networth    2600 non-null   object
 4   age         2600 non-null   int64
 5   country     2600 non-null   object
 6   source      2600 non-null   object
 7   industry    2600 non-null   object
dtypes: int64(3), object(5)
memory usage: 162.6+ KB
```

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[9]

```
0
```

```
dataset.describe()
```

	Unnamed: 0	rank	age
count	2600.000000	2600.000000	2600.000000
mean	1299.500000	1269.570769	64.271923
std	750.699674	728.146364	13.220607
min	0.000000	1.000000	19.000000
25%	649.750000	637.000000	55.000000
50%	1299.500000	1292.000000	64.000000
75%	1949.250000	1929.000000	74.000000
max	2599.000000	2578.000000	100.000000

[11]

```
shape=dataset.shape
print(shape)
```

```
(2600, 8)
```

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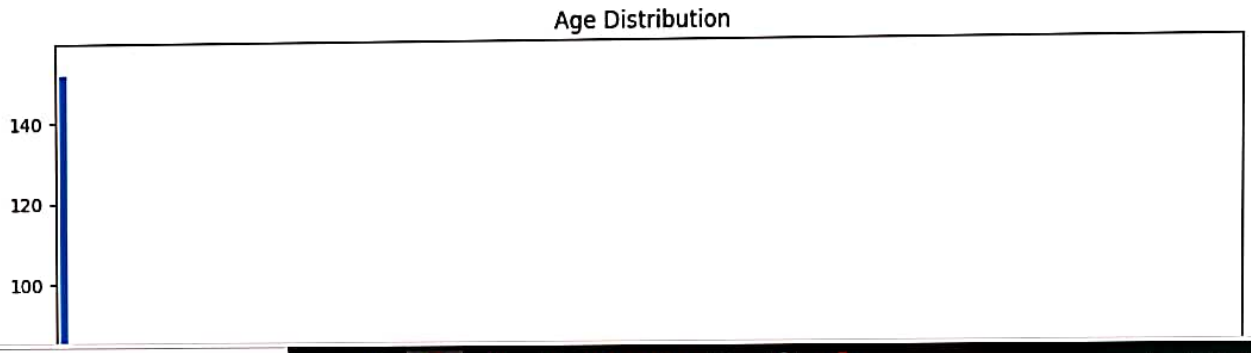
```
#calculate age distribution
age_distribution = dataset['age'].value_counts()
plt.figure(figsize=(10,6))
age_distribution.plot(kind='bar')
plt.title('Age Distribution')
plt.xlabel('Age')
plt.ylabel('count')
plt.xticks(rotation=45)
plt.tight_layout()
plt.show()
```



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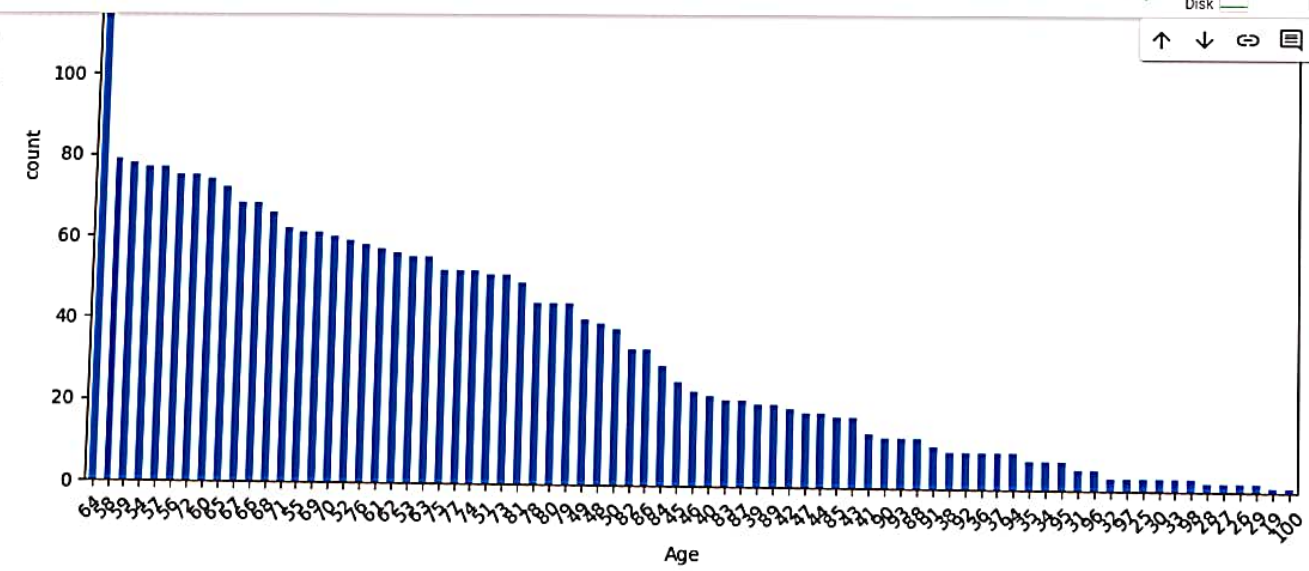

[22]
```
#ow the net worth vs frequency using bar plot
worth_frequency = dataset['networth'].value_counts()
```

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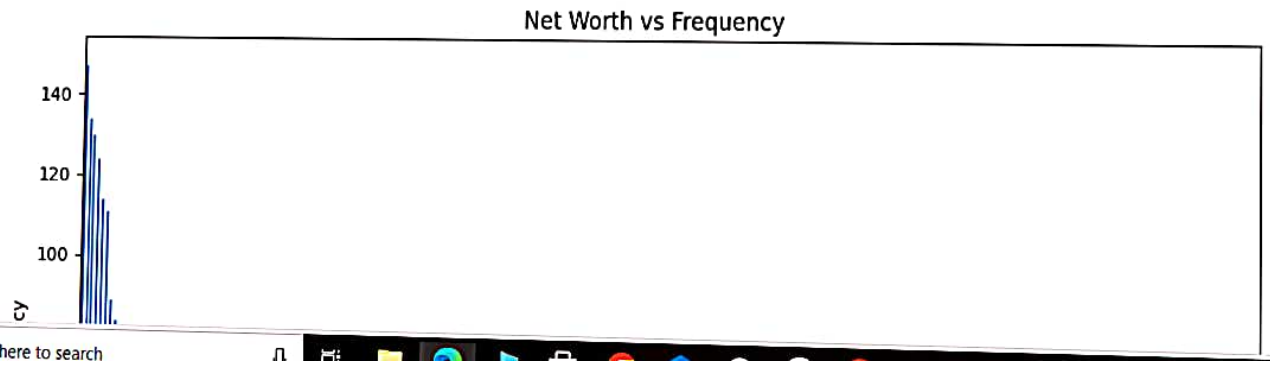
```
#ow the net worth vs frequency using bar plot
worth_frequency = dataset['networth'].value_counts()
plt.figure(figsize=(10,6))

worth_frequency.plot(kind='bar')
plt.title("Net Worth vs Frequency")
plt.xlabel('Net Worth')
plt.ylabel('Frequency')
plt.xticks(rotation=45)
plt.tight_layout()
plt.show()
```



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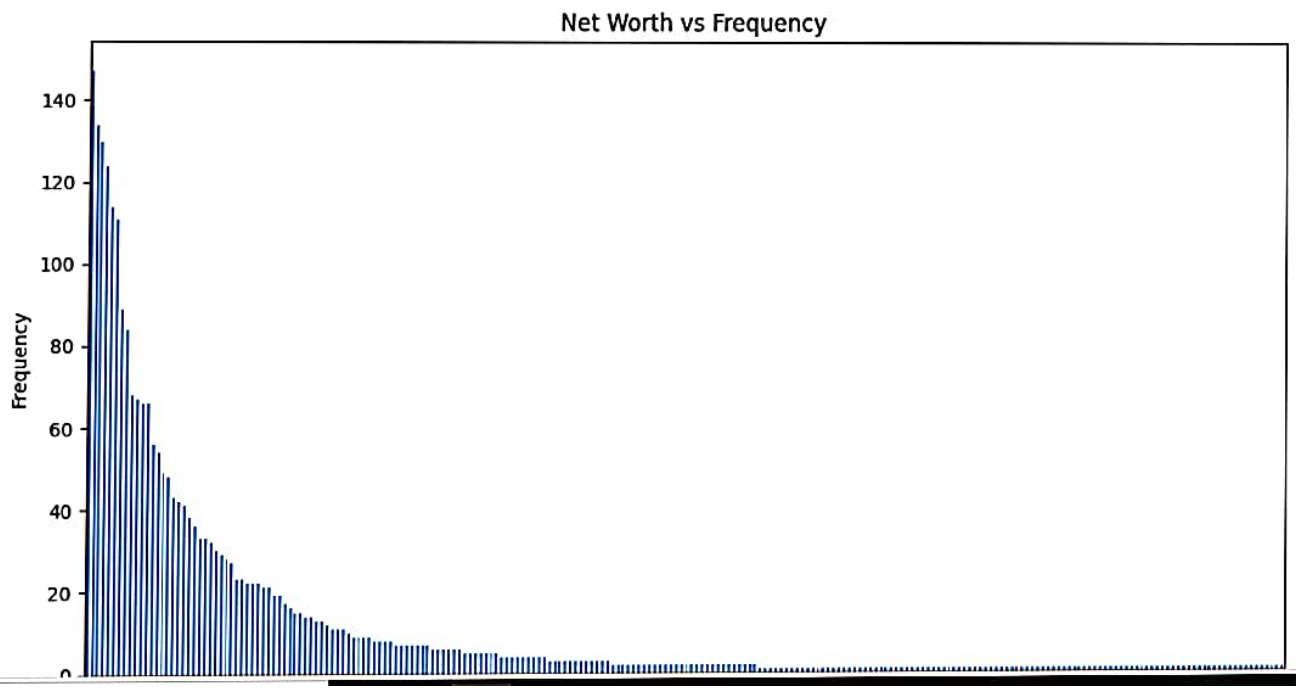
```
plt.tight_layout()
plt.show()
```



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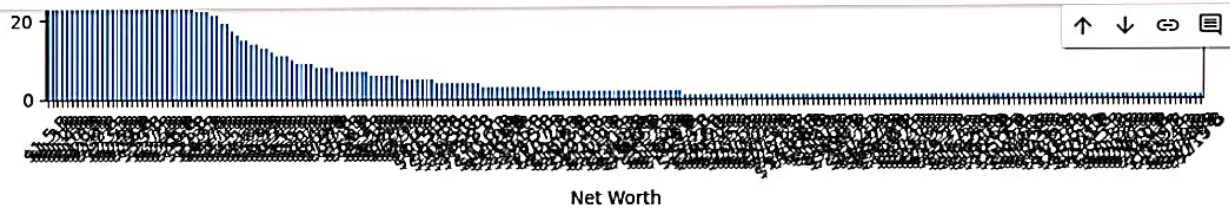
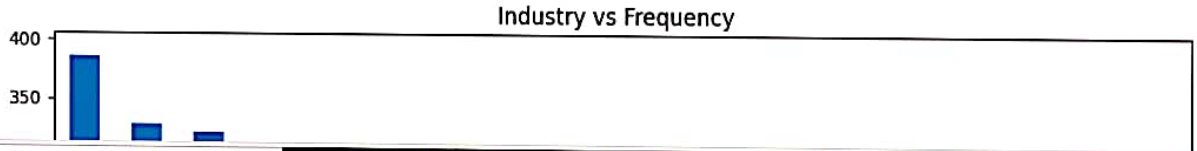



```
[ ] #show industry vs frequency using bar plot
    industry_frequency = dataset['industry'].value_counts()
    plt.figure(figsize=(10,6))

    industry_frequency.plot(kind='bar')
    plt.title("Industry vs Frequency")
    plt.xlabel('Industry')
    plt.ylabel('Frequency')
    plt.xticks(rotation=45)
    plt.tight_layout()
    plt.show()
    print(dataset.columns)
```



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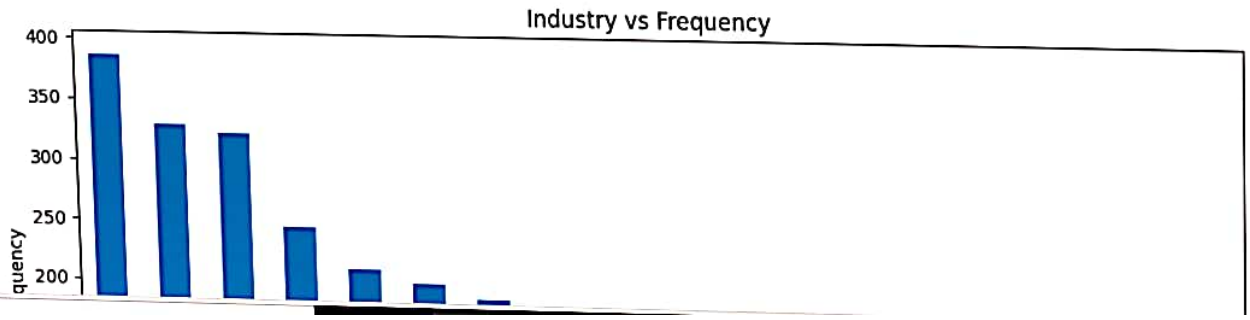
```
#show industry vs frequency using bar plot
industry_frequency = dataset['industry'].value_counts()
plt.figure(figsize=(10,6))

industry_frequency.plot(kind='bar')
plt.title("Industry vs Frequency")
plt.xlabel('Industry')
plt.ylabel('Frequency')
plt.xticks(rotation=45)
plt.tight_layout()
plt.show()
print(dataset.columns)
```



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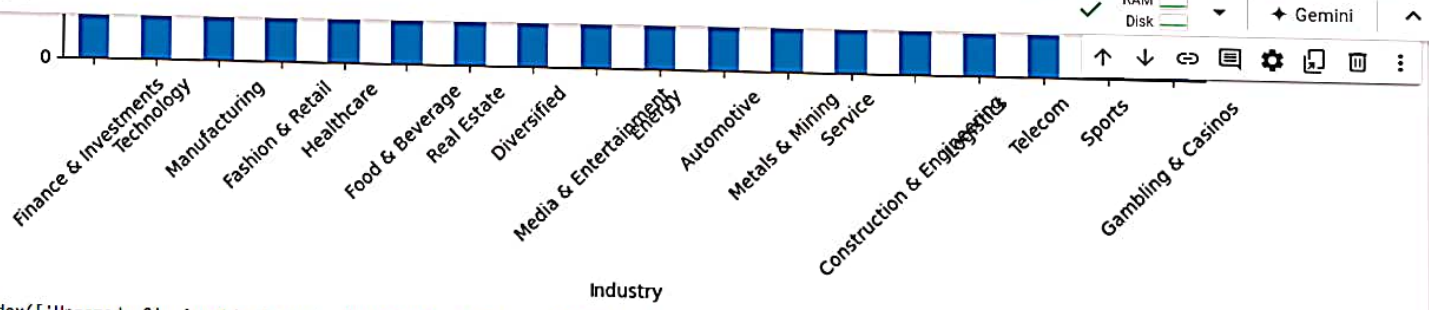


```
Index(['Unnamed: 0', 'rank', 'name', 'networth', 'age', 'country', 'source',
       'industry'],
      dtype='object')
```

[27]

```
#show how does net worth change with age and industry using cat plot
plt.figure(figsize=(12,8))
sns.catplot(x='age',y='networth',hue='industry',data=dataset,kind='bar')
plt.title("Net Worth vs Age and Industry")
plt.xlabel('Age')
plt.ylabel('Net Worth')
plt.xticks(rotation=45)
plt.tight_layout()
plt.show()
print(dataset.columns)
```

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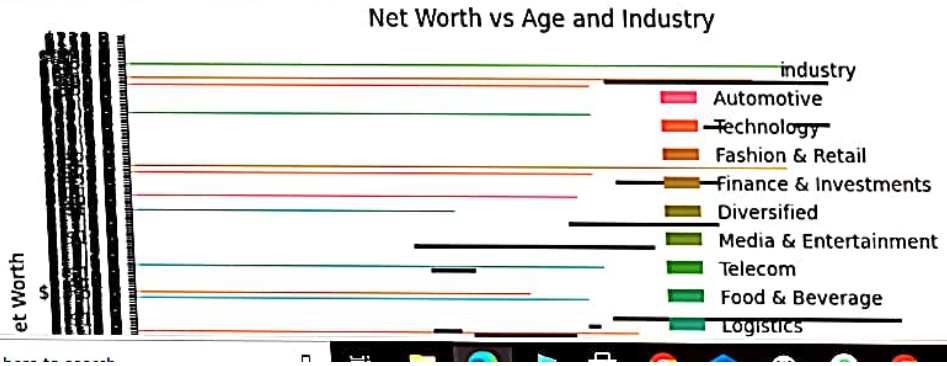
```
#show how does net worth change with age and industry using cat plot
plt.figure(figsize=(12,8))
sns.catplot(x='age',y='networth',hue='industry',data=dataset,kind='bar')
plt.title("Net Worth vs Age and Industry")
plt.xlabel('Age')
plt.ylabel('Net Worth')
plt.xticks(rotation=45)
plt.tight_layout()
plt.show()
print(dataset.columns)
```

```
<Figure size 1200x800 with 0 Axes>
```



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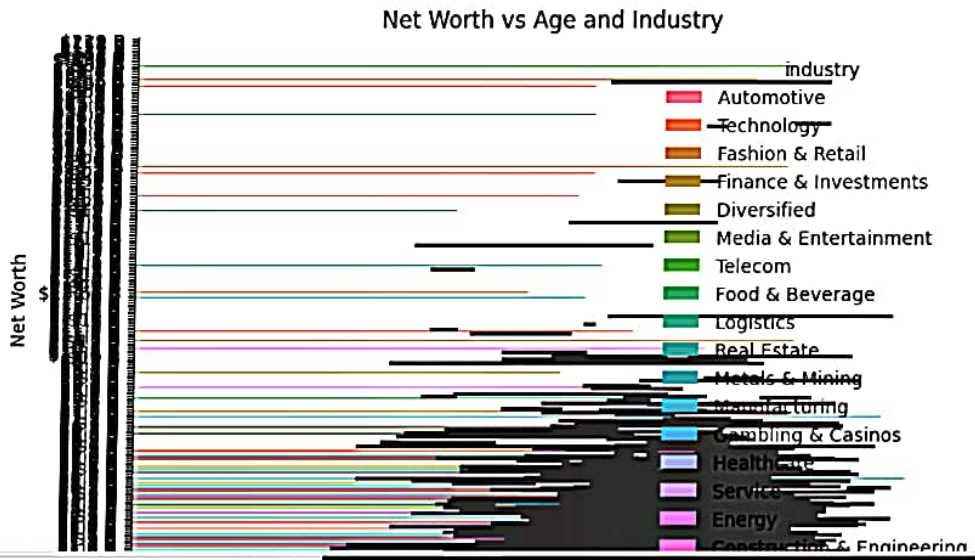
```
plt.show()
print(dataset.columns)
```

```
<Figure size 1200x800 with 0 Axes>
```



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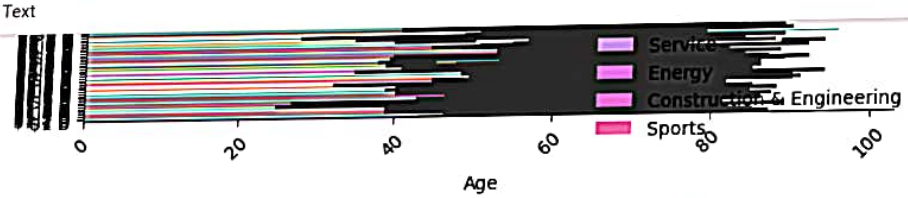


```
Index(['Unnamed: 0', 'rank', 'name', 'networth', 'age', 'country', 'source',
       'industry'],
      dtype='object')
```

```python
import matplotlib.pyplot as plt
from collections import Counter
industries = ("banking","commodities","retail","steel","pharmaceuticals","technology","infrastructure","oil")

industry_count = Counter(industries)

industry_names = list(industry_count.keys())
industry_values = list(industry_count.values())

plt.figure(figsize=(10,6))
plt.barh(industry_names, industry_values, color='lightcoral')
plt.xlabel('Number of Billionaires')
plt.title('Number of Indian Billionaires by Industry (2023)')
plt.tight_layout()
```

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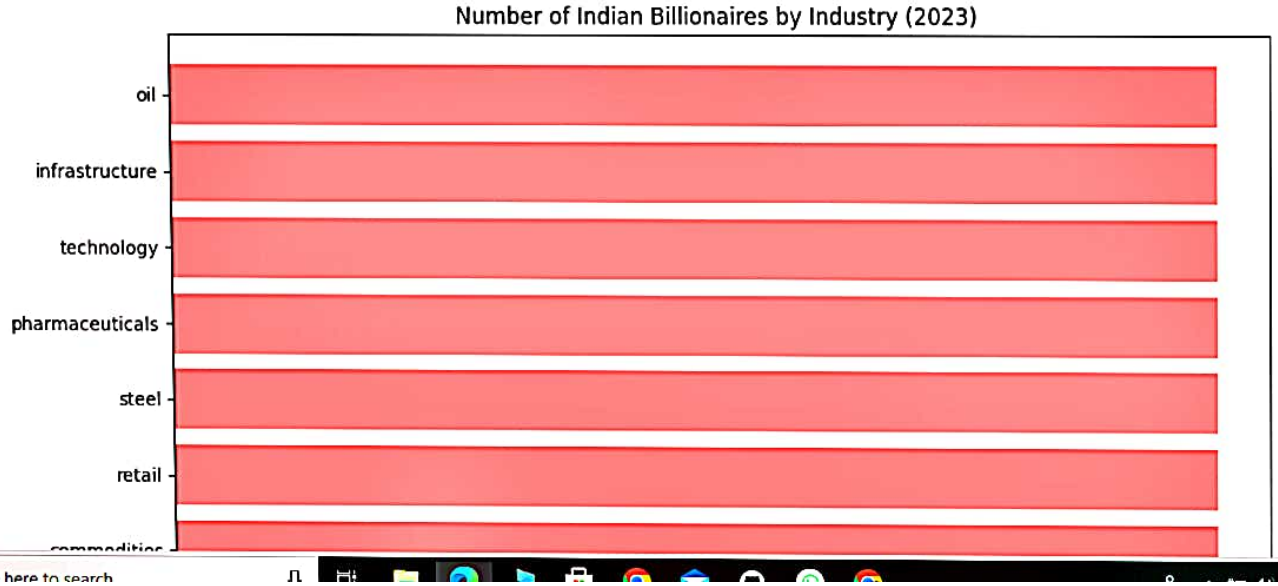
```
plt.show()
```



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```
import pandas as pd

# Load the Forbes Billionaires CSV file
df = pd.read_csv('/content/2022_forbes_billionaires.csv')

# Filter the data for billionaires aged 50 or less
young_billionaires=df[df['age']<=50]

# Find the minimum age
min_age= young_billionaires['age'].min()

# Get the name and industry of the minimum age billionaire
min_age_billionaire = young_billionaires.loc[young_billionaires['age'] == min_age]

# Print the result
print("name:", min_age_billionaire['name'].values[0])
print("industry:", min_age_billionaire['industry'].values[0])
print("age:", min_age)
```

```
name: Kevin David Lehmann
industry: Fashion & Retail
age: 19
```

[57]

```
import matplotlib.pyplot as plt

wealth = [83.4, 47.2, 26.8, 23.7, 17.6, 16.4, 15.3, 14.2, 13.5, 13.4]
```

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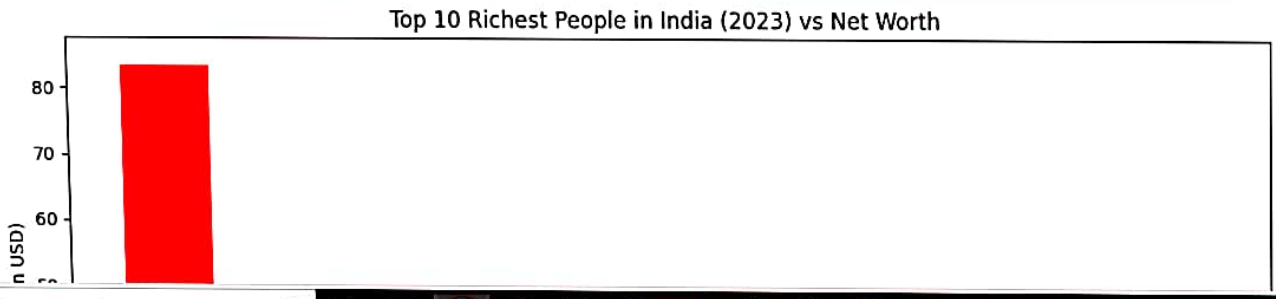
RAM Disk Gemini

```python
import matplotlib.pyplot as plt

wealth = [83.4, 47.2, 26.8, 23.7, 17.6, 16.4, 15.3, 14.2, 13.5, 13.4]
names=["mukesh ambani","Gautam adani","shiv nadar","cyrus boonwala","lakshmi metal","savtri jindal","radhakishan","kumar birla","dilp shanghvi",
plt.figure(figsize=(10,6))
plt.bar(names, wealth, color='red')
plt.xticks(rotation=45, ha='right')  # Rotate x-axis labels for better readability
plt.ylabel('Net Worth (Billion USD)')
plt.title('Top 10 Richest People in India (2023) vs Net Worth')

plt.tight_layout()
plt.show()
```



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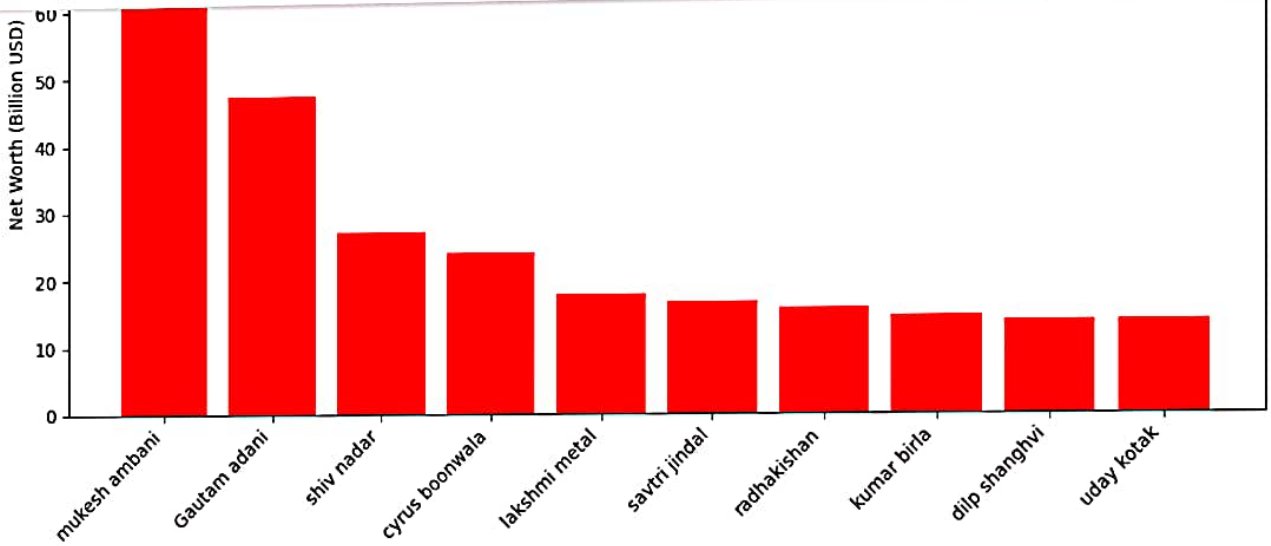


```
import matplotlib.pyplot as plt
# data: names of the richest people and their net worth (in billion USD)
```

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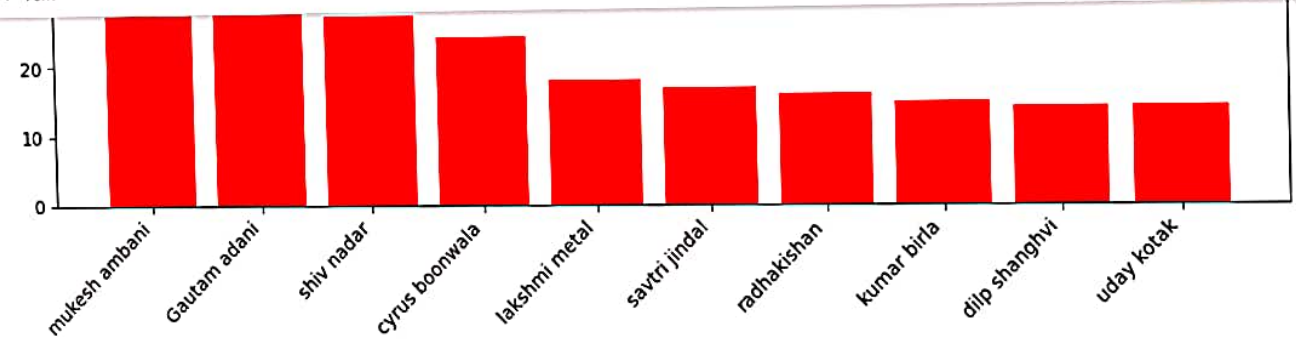
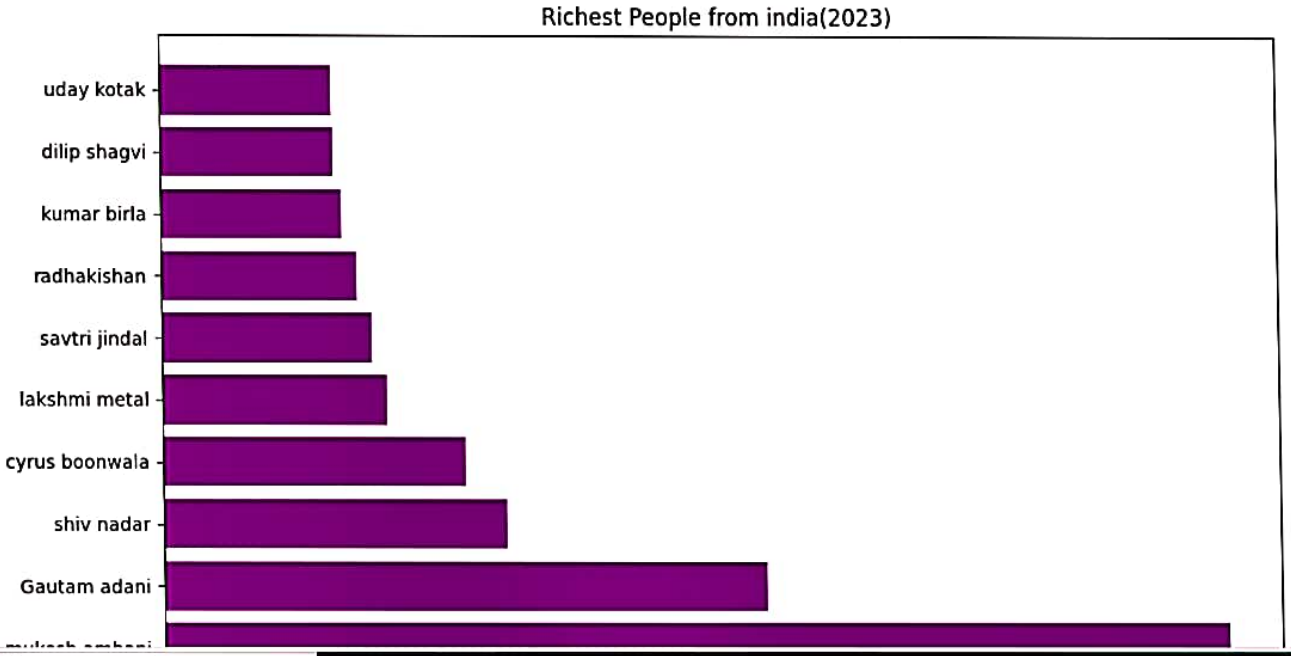
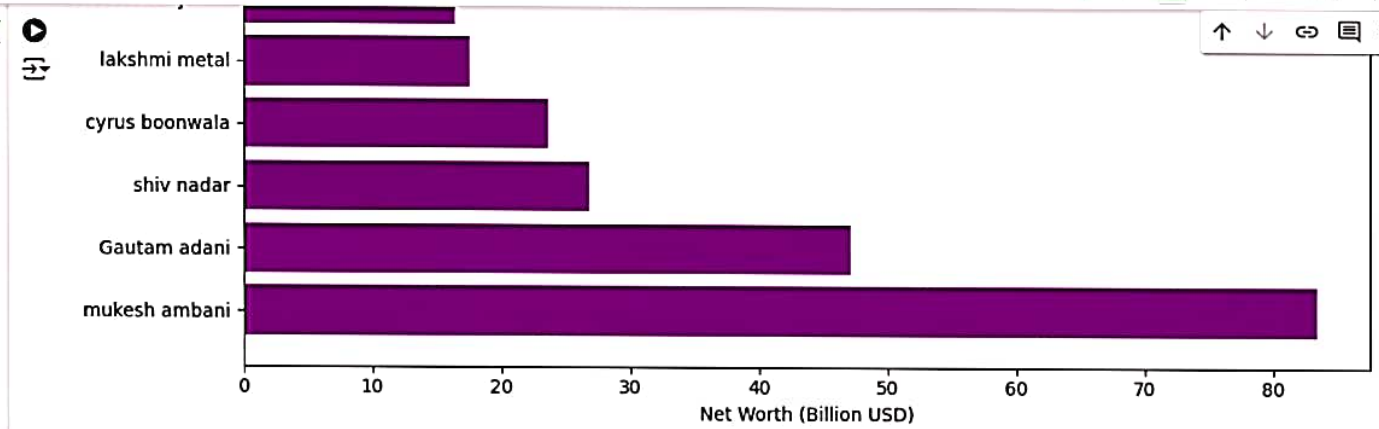



```
import matplotlib.pyplot as plt
# data: names of the richest people and their net worth (in billion USD)
wealth = [83.4,47.2,26.8,23.7,17.6,16.4,15.3,14.2,13.5,13.4]
names=["mukesh ambani","Gautam adani","shiv nadar","cyrus boonwala","lakshmi metal","savtri jindal","radhakishan","kumar birla","dilip shagvi",'
plt.figure(figsize=(10,6))
plt.barh(names,wealth,color='purple')
plt.xlabel('Net Worth (Billion USD)')
plt.title('Richest People from india(2023)')
plt.tight_layout()
plt.show()
```

```
plt.tight_layout()
plt.show()
```




lakshmi metal
cyrus boonwala
shiv nadar
Gautam adani
mukesh ambani
0
10
20
30
40
50
60
70
80
Net Worth (Billion USD)