Assignment 2

Q. Data Visualization in Python (Matplotlib).

```
[1] import pandas as pd
```

```
[3] from google.colab import files
    uploaded = files.upload()
```

```
Choose Files anime.csv
• anime.csv(text/csv) - 6035609 bytes, last modified: 12/22/2022 - 100% done
Saving anime.csv to anime.csv
```

```
[5] df= pd.read_csv('anime.csv')
```

```
[6] import matplotlib.pyplot as py
```

```
print(df)
```

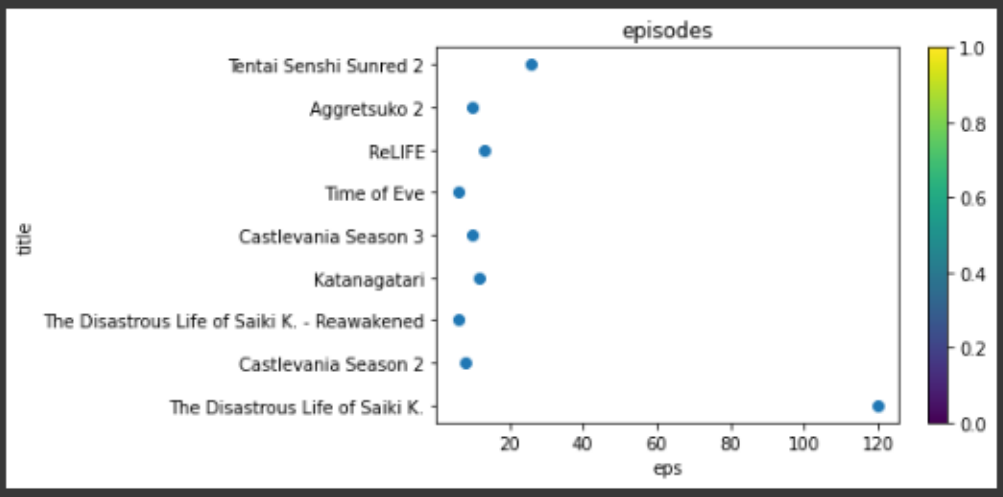
```
14574                                                 NaN
14575                                                 NaN
14576                                                 NaN
14577                                                 NaN

                    studios  \
0                 ['Bones']
1       ['CoMix Wave Films']
2        ['Kyoto Animation']
3         ['Production I.G']
4             ['Wit Studio']
...                      ...
14573                    []
14574                    []
14575                    []
14576           ['Makaria']
14577                    []

                                                   tags  \
0       ['Action', 'Adventure', 'Drama', 'Fantasy', 'M...
1       ['Drama', 'Romance', 'Body Swapping', 'Gender ...
2       ['Drama', 'Shounen', 'Disability', 'Melancholy...
3       ['Shounen', 'Sports', 'Animeism', 'School Club...
4       ['Action', 'Fantasy', 'Horror', 'Shounen', 'Da...
...                                                   ...
14573  ['Comedy', 'Shounen', 'Demons', 'Monster Schoo...
14574                            ['Chibi', 'Vocaloid']
14575       ['Comedy', 'Ecchi', 'No Dialogue', 'Shorts']
```

```
[10] df.dropna(inplace=True)
```

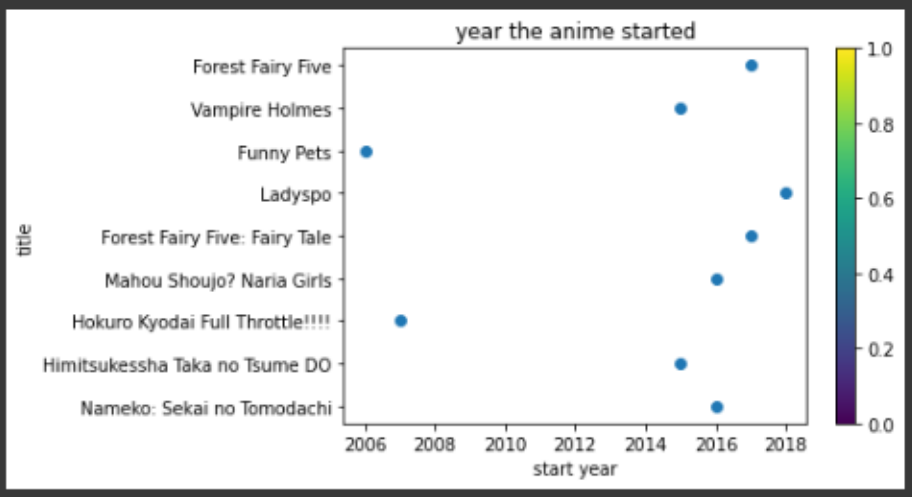
```
print(df)
```

```
12045  The anime is a science-fiction comedy where va...
12047  A sun, a moon, and a girl; what sounds like a ...
12072  A handsome young detective named Holmes undert...
12100  A beautiful nation, prospering since ancient t...
```

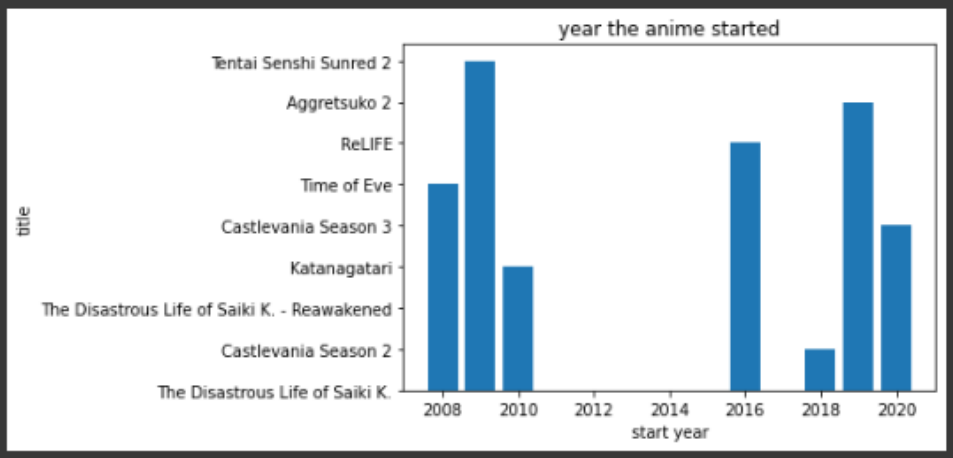
```
#scatter plot
a=df.head(9)
py.scatter(a['eps'],a['title'])
py.title('episodes')
py.ylabel('title')
py.xlabel('eps')
py.colorbar()
py.show()
```



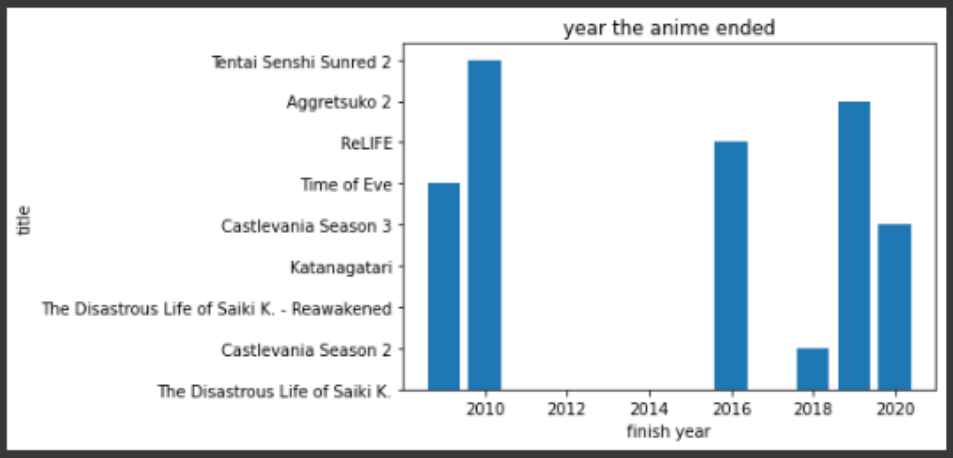

```
[25] #scatter plot
a=df.tail(9)
py.scatter(a['startYr'],a['title'])
py.title('year the anime started')
py.ylabel('title')
py.xlabel('start year')
py.colorbar()
py.show()
```



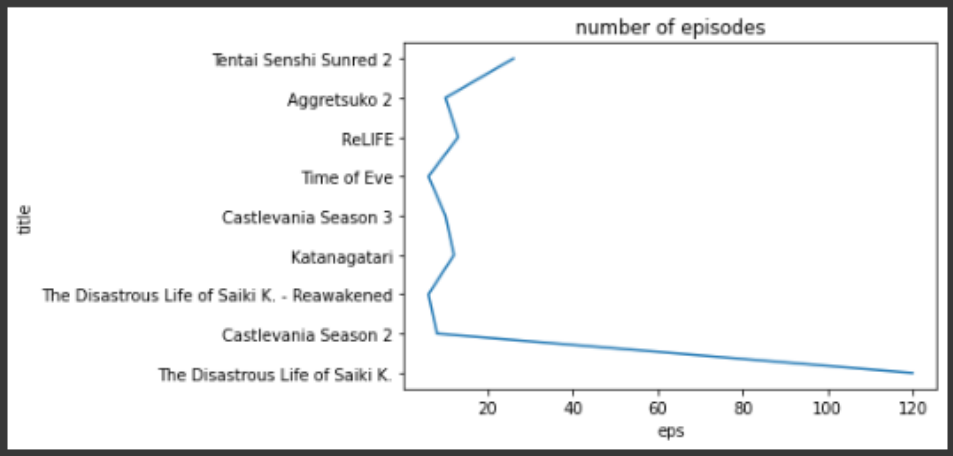
```
#bar plot
a=df.head(9)
py.bar(a['startYr'],a['title'])
py.title('year the anime started')
py.ylabel('title')
py.xlabel('start year')
py.show()
```



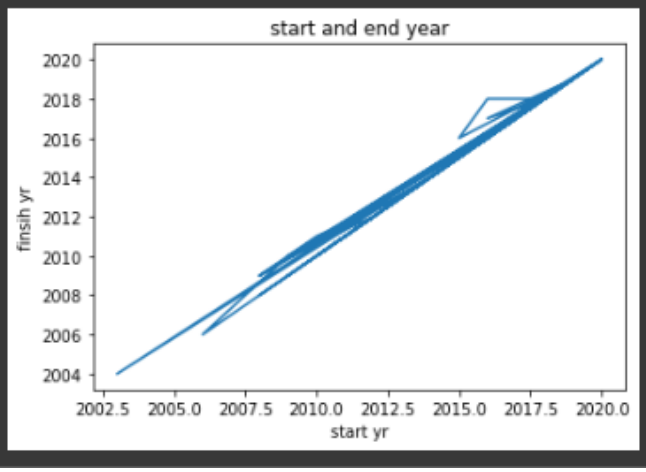

```
[28] #bar plot
a=df.head(9)
py.bar(a['finishYr'],a['title'])
py.title('year the anime ended')
py.ylabel('title')
py.xlabel('finish year')
py.show()
```



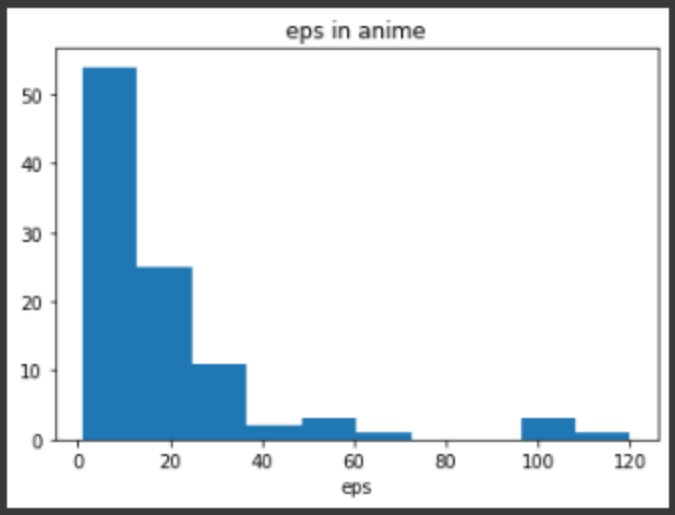
```
[33] #line graph
     a=df.head(9)
     py.plot(a['eps'],a['title'])
     py.title('number of episodes')
     py.ylabel('title')
     py.xlabel('eps')
     py.show()
```




```
[38] #line graph
     a=df.head(60)
     py.plot(a['startYr'],a['finishYr'])
     py.title('start and end year')
     py.ylabel('finsih yr')
     py.xlabel('start yr')
     py.show()
```



```
[50] #histogram
     a=df.head(100)
     py.hist(a['eps'])
     py.title('eps in anime')
     py.xlabel('eps')
     py.show()
```




```
#histogram
py.hist(df['duration'])
py.title('eps in anime')
py.xlabel('eps')
py.show()
```