

Experiment 2

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Branch: CSE

Semester: 5th

Subject Name: Machine Learning Lab

UID: 20BCS1812

Section/Group: 20BCS_WM-702A

Date of Performance: 31/08/2022

Subject Code: 20CSP-317

Aim/Overview of the practical:

Implement Data Visualization.

Task to be done:

To perform Data Visualisation on any standard data set.

Apparatus/Simulator Used:

- Google Collab
- Python
- .csv file

Code and Output:

```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns

data=pd.read_csv("tips.csv")
data
```

	total_bill	tip	gender	smoker	day	time	size	price_per_person	Payer Name	CC Number	Payment ID
0	16.99	1.01	Female	No	Sun	Dinner	2	8.49	Christy Cunningham	3.560330e+15	Sun2959
1	10.34	1.66	Male	No	Sun	Dinner	3	3.45	Douglas Tucker	4.478070e+15	Sun4608
2	21.01	3.50	Male	No	Sun	Dinner	3	7.00	Travis Walters	6.011810e+15	Sun4458
3	23.68	3.31	Male	No	Sun	Dinner	2	11.84	Nathaniel Harris	4.676140e+15	Sun5260
4	24.59	3.61	Female	No	Sun	Dinner	4	6.15	Tonya Carter	4.832730e+15	Sun2251
...
239	29.03	5.92	Male	No	Sat	Dinner	3	9.68	Michael Avila	5.296070e+15	Sat2657
240	27.18	2.00	Female	Yes	Sat	Dinner	2	13.59	Monica Sanders	3.506810e+15	Sat1766
241	22.67	2.00	Male	Yes	Sat	Dinner	2	11.34	Keith Wong	6.011890e+15	Sat3880
242	17.82	1.75	Male	No	Sat	Dinner	2	8.91	Dennis Dixon	4.375220e+12	Sat17
243	18.78	3.00	Female	No	Thur	Dinner	2	9.39	Michelle Hardin	3.511450e+15	Thur672

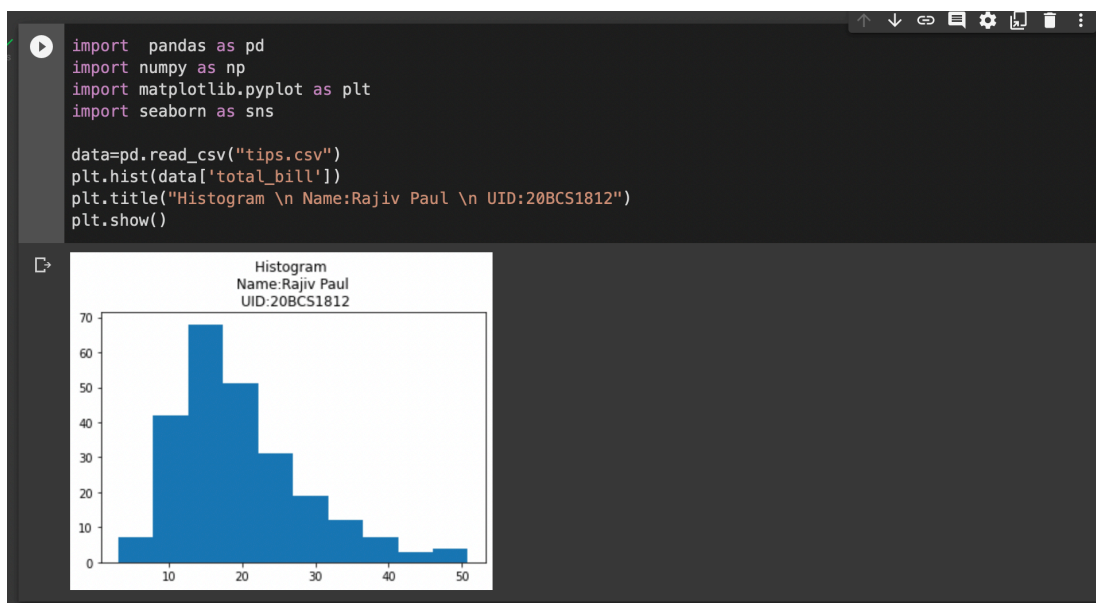
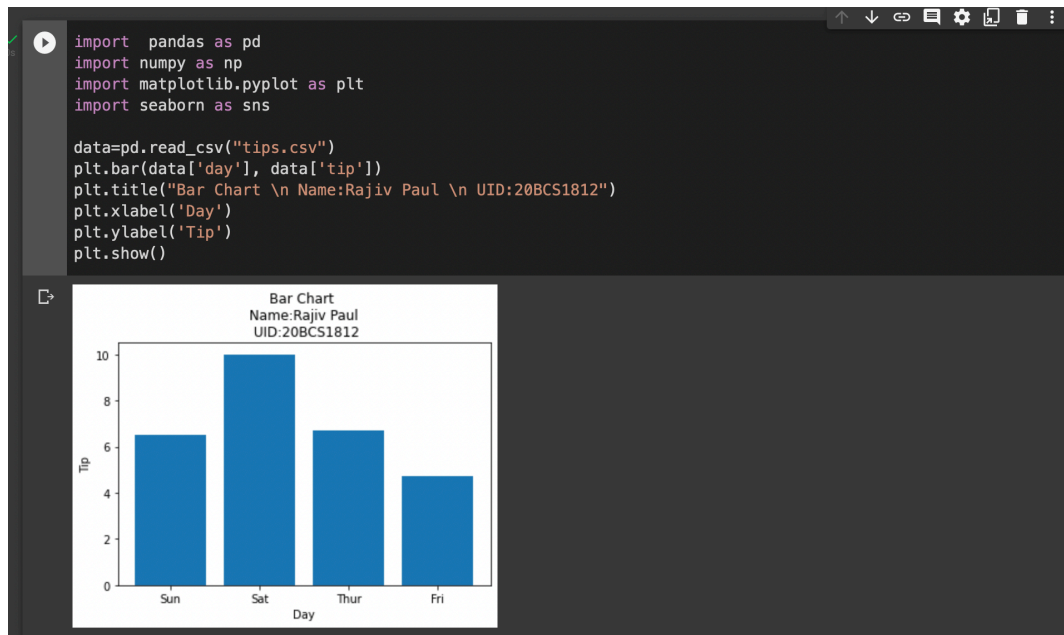
244 rows x 11 columns

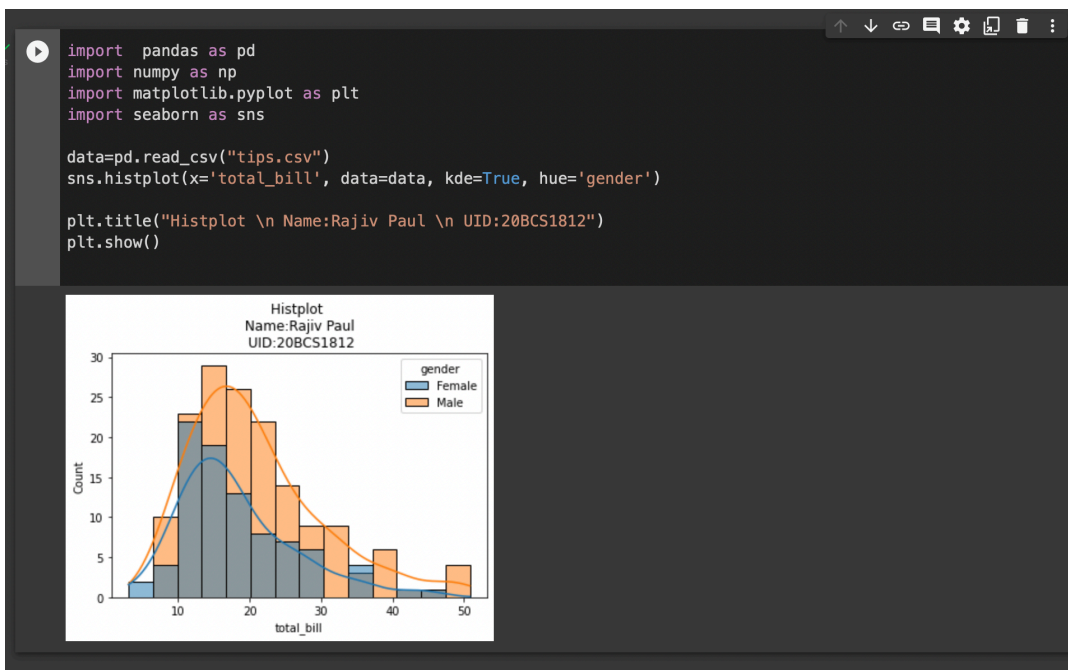
```
import pandas as pd
plt as plt

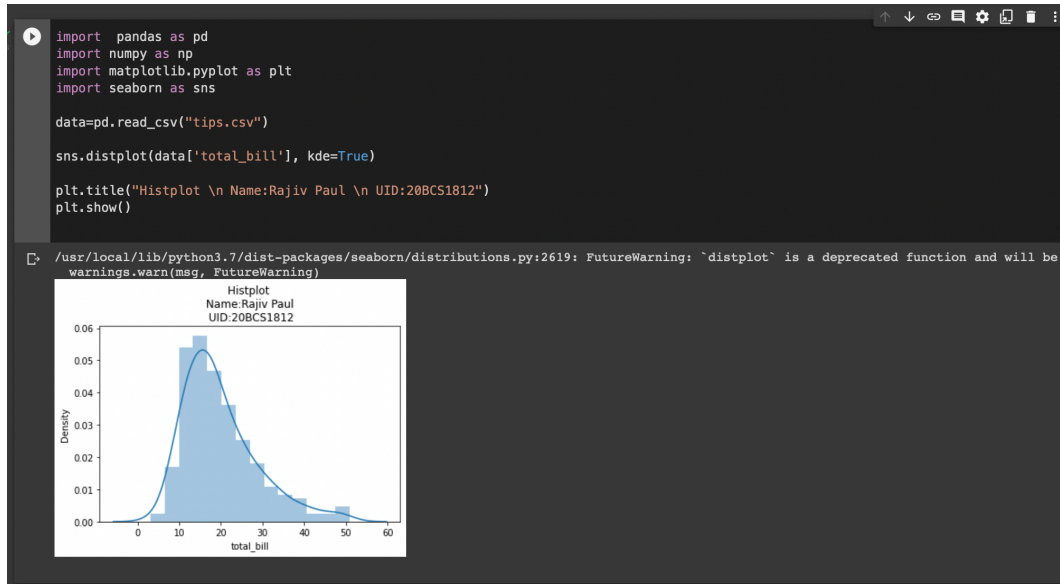
data=pd.read_csv("tips.csv")
plt.scatter(data['day'], data['tip'])
plt.title('scatter plot \n Name:Rajiv Paul \n UID:20BCS1812')
plt.xlabel('Day')
plt.ylabel('tip')
plt.show()
```

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Learning outcomes (What I have learnt):

1. Learnt how to implement data visualisation
2. Learnt about numpy, seaborn, pandas libraries.
3. Learnt about different method to visualised datasets.

Evaluation Grid :

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.	Student Performance (Conduct of experiment) objectives/Outcomes.		12
2.	Viva Voce		10
3.	Submission of Work Sheet (Record)		8
	Total		30