

Task-3 Data Analysis using Python

March 26, 2024

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

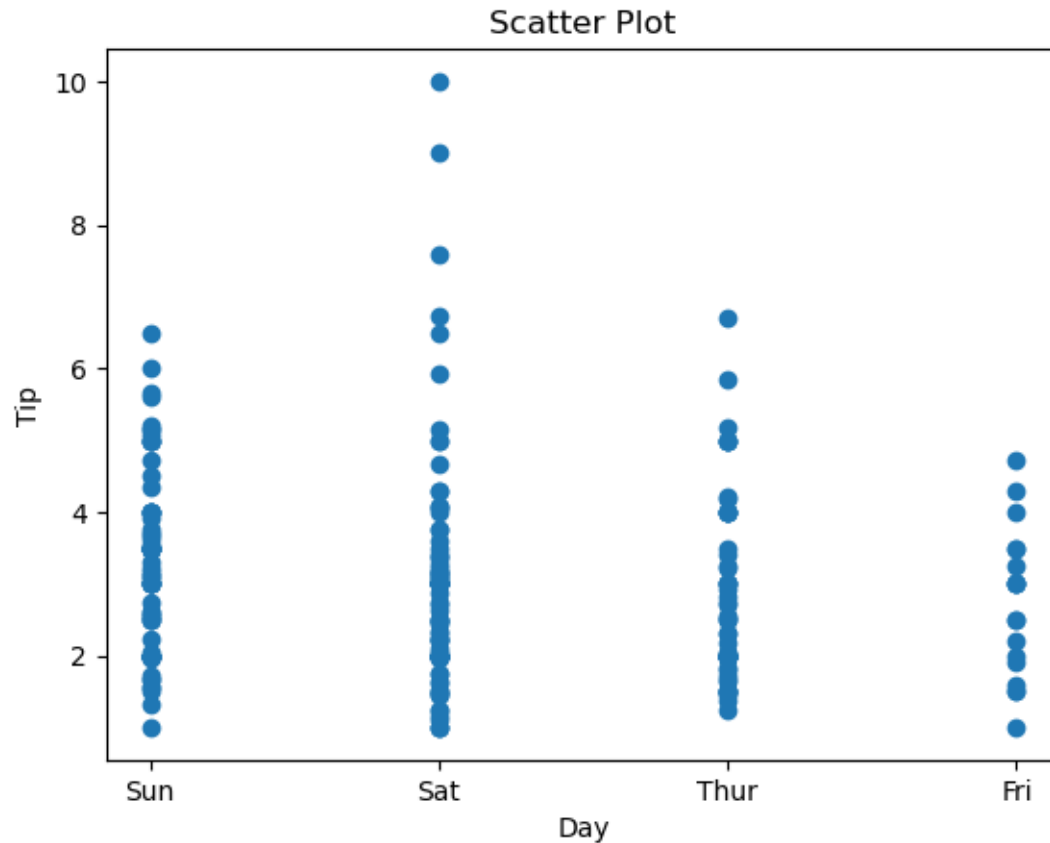
```
[6]: # Reading the database
data = pd.read_csv("C:\\Program Files\\PostgreSQL\\16\\data\\data_copy\\tips.
↪csv")
```

```
[7]: # Printing the top 10 rows
display(data.head(10))
```

	total_bill	tip	sex	smoker	day	time	size
0	16.99	1.01	Female	No	Sun	Dinner	2
1	10.34	1.66	Male	No	Sun	Dinner	3
2	21.01	3.50	Male	No	Sun	Dinner	3
3	23.68	3.31	Male	No	Sun	Dinner	2
4	24.59	3.61	Female	No	Sun	Dinner	4
5	25.29	4.71	Male	No	Sun	Dinner	4
6	8.77	2.00	Male	No	Sun	Dinner	2
7	26.88	3.12	Male	No	Sun	Dinner	4
8	15.04	1.96	Male	No	Sun	Dinner	2
9	14.78	3.23	Male	No	Sun	Dinner	2

```
[8]: import pandas as pd
import matplotlib.pyplot as plt
# Reading the database
data = pd.read_csv("C:\\Program Files\\PostgreSQL\\16\\data\\data_copy\\tips.
↪csv")
# Scatter Plot with day against tip
plt.scatter(data['day'], data['tip'])
# Adding Title to the plot
plt.title("Scatter Plot")
# Setting the X and Y labels
plt.xlabel('Day')
plt.ylabel('Tip')
```

```
[8]: Text(0, 0.5, 'Tip')
```



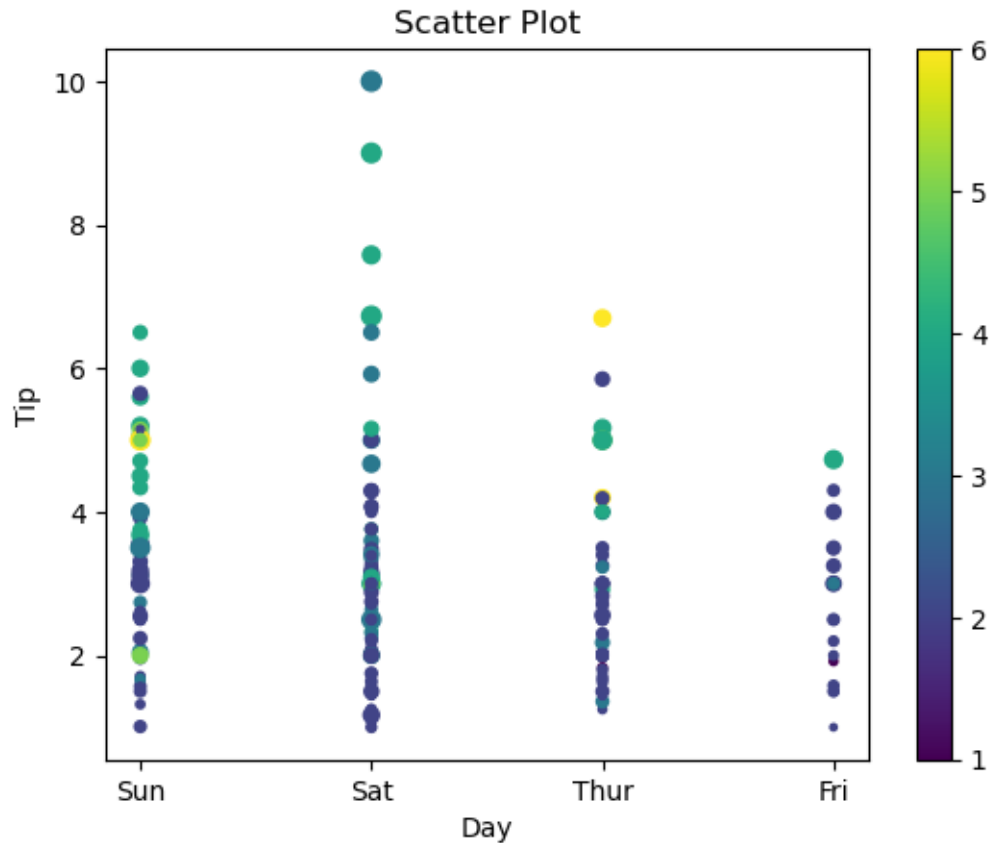
```
[5]: import pandas as pd
import matplotlib.pyplot as plt
```

```
[9]: # Reading the database
data = pd.read_csv("C:\\Program Files\\PostgreSQL\\16\\data\\data_copy\\tips.
↳csv")
```

```
[10]: # Scatter plot with day against tip
plt.scatter(data['day'], data['tip'], c=data['size'], s=data['total_bill'])
# Adding Title to the plot
plt.title("Scatter Plot")
# Setting the X and Y labels
plt.xlabel('Day')
plt.ylabel('Tip')

plt.colorbar()

plt.show()
```

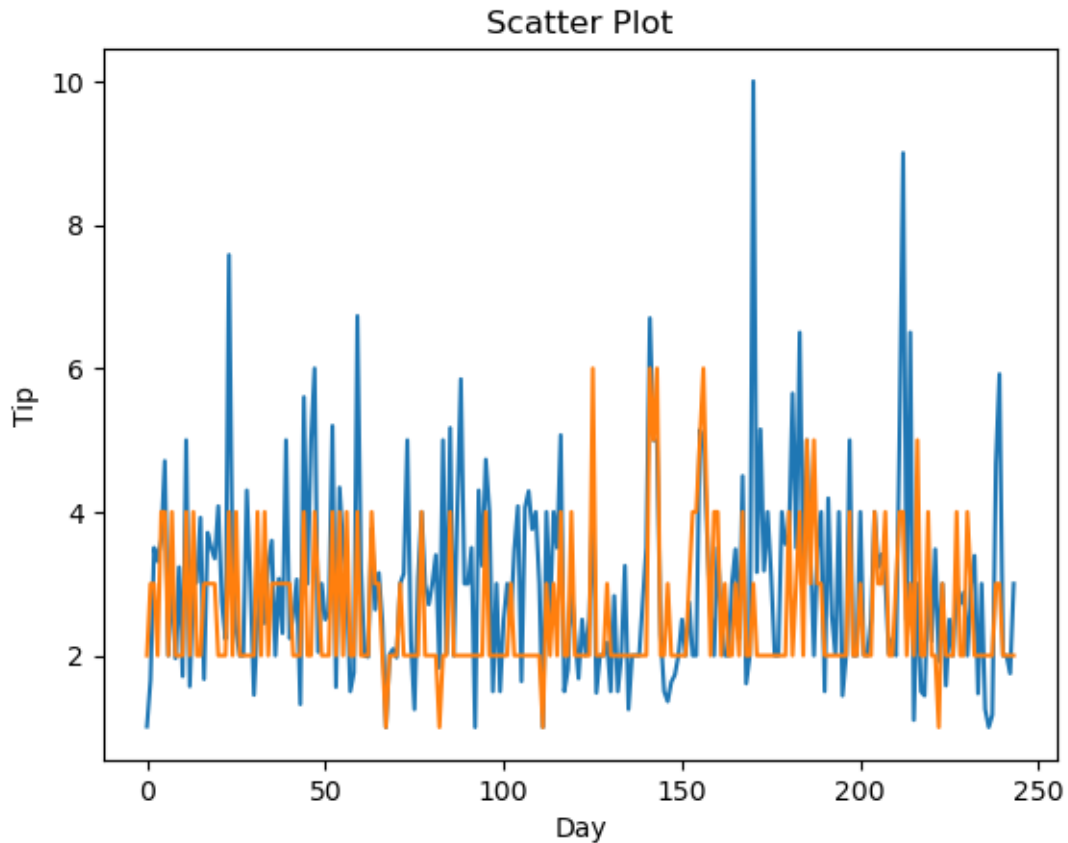


```
[11]: import pandas as pd
import matplotlib.pyplot as plt
```

```
[12]: # Reading the database
data = pd.read_csv("C:\\Program Files\\PostgreSQL\\16\\data\\data_copy\\tips.
↳csv")
```

```
[13]: # Scatter plot with day against tip
plt.plot(data['tip'])
plt.plot(data['size'])
# Adding Title to the plot
plt.title("Scatter Plot")
# Setting the X and Y labels
plt.xlabel('Day')
plt.ylabel('Tip')

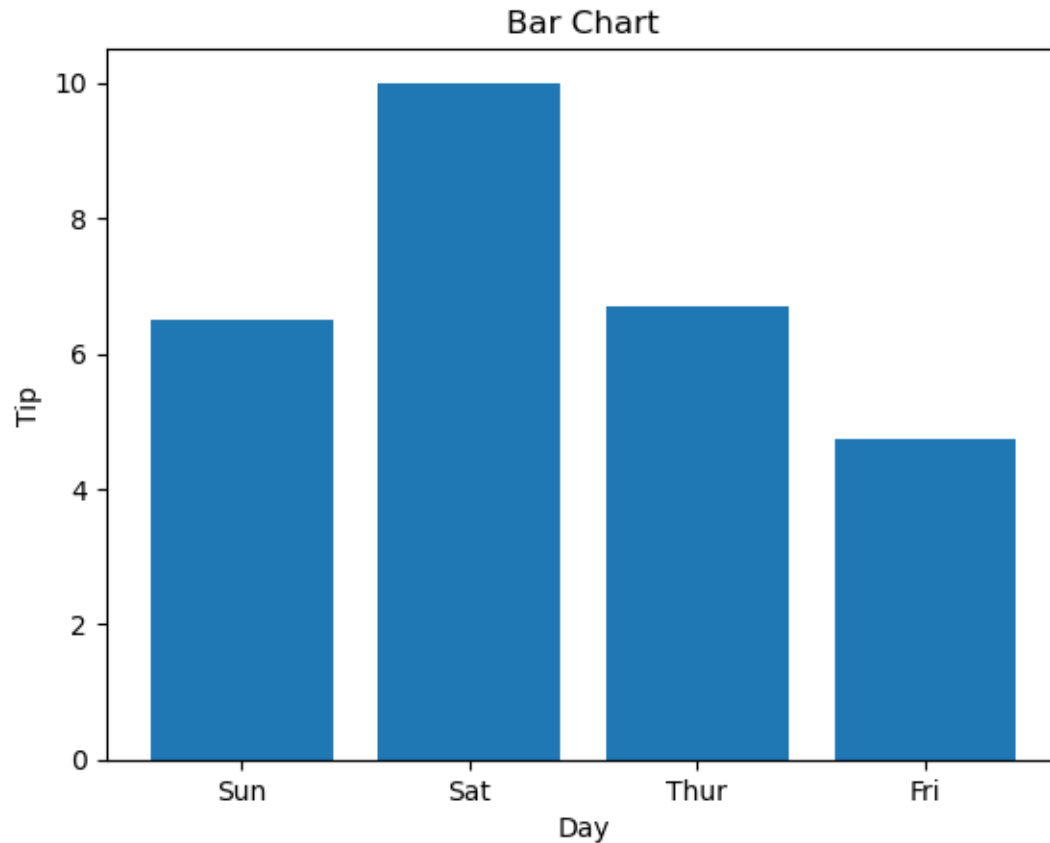
plt.show()
```



```
[14]: import pandas as pd
import matplotlib.pyplot as plt
```

```
[15]: # Reading the database
data = pd.read_csv("C:\\Program Files\\PostgreSQL\\16\\data\\data_copy\\tips.
↳csv")
```

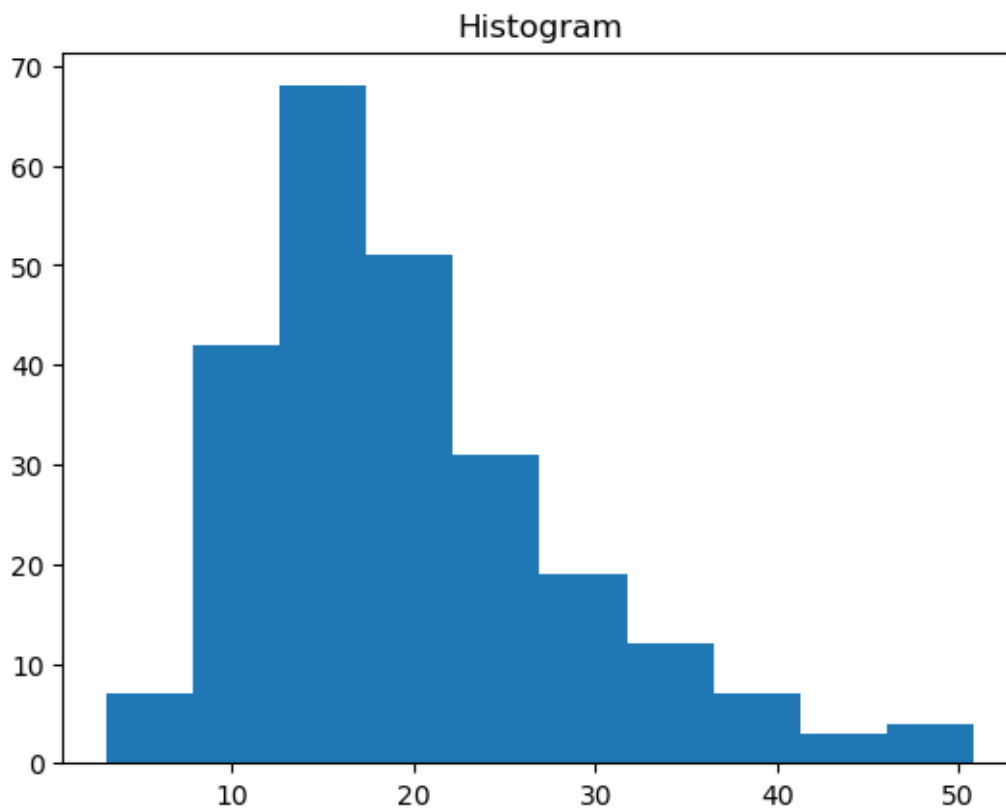
```
[16]: # Bar chart with day against tip
plt.bar(data['day'], data['tip'])
# Adding Title to the bar
plt.title("Bar Chart")
# Setting the X and Y labels
plt.xlabel('Day')
plt.ylabel('Tip')
# Adding the legends
plt.show()
```



```
[17]: import pandas as pd
import matplotlib.pyplot as plt
```

```
[18]: # Reading the database
data = pd.read_csv("C:\\Program Files\\PostgreSQL\\16\\data\\data_copy\\tips.
↳csv")
```

```
[19]: # Histogram of total_bills
plt.hist(data['total_bill'])
# Adding Title to the Histogram
plt.title("Histogram")
# Adding the legends
plt.show()
```



[]: