

## TOPIC NAME:Screen time analysis

### TOPIC SR NO:4

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Tools Used:

- Pandas
- Matplotlib
- numpy

Hypothesis 1: Higher number of notifications is correlated with a higher screen time.

Code:

```
x=socialMediaData['Notifications']

y=socialMediaData['Usage']

plt.scatter(x, y)

plt.xlabel('Notifications')

plt.ylabel("Time in mins")

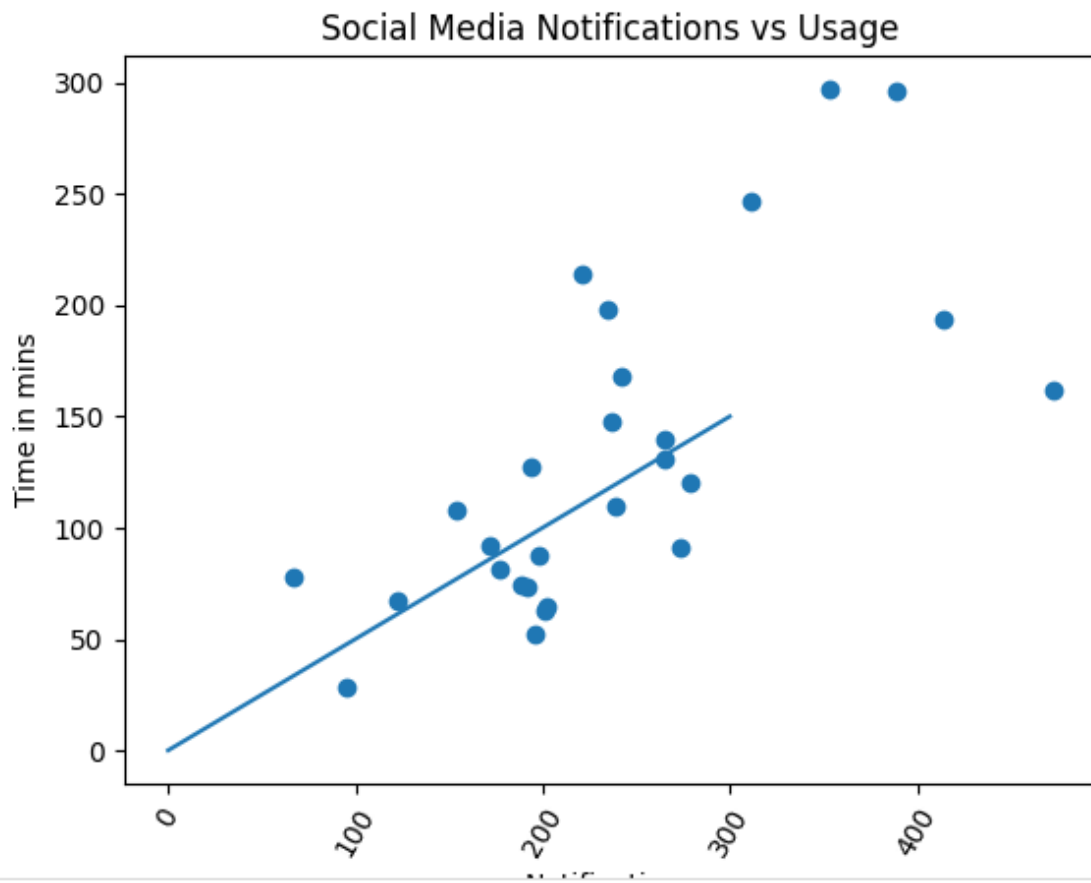
plt.xticks(rotation=60)

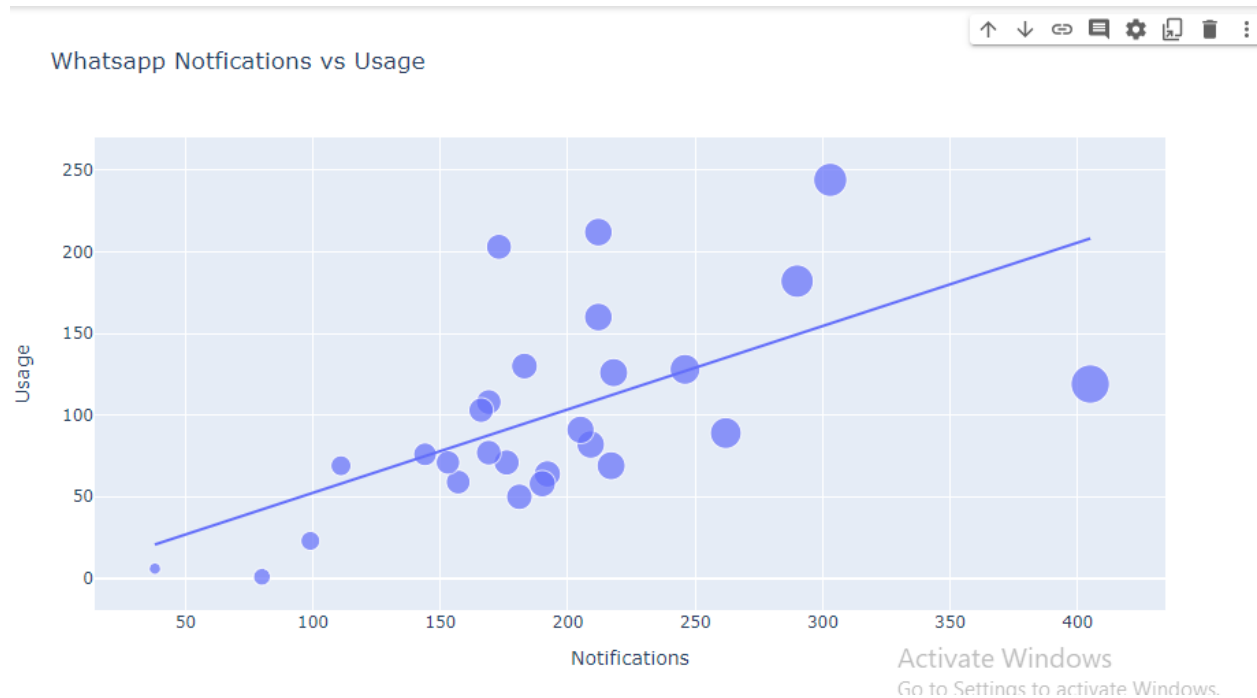
plt.title("Social Media Notifications vs Usage")

plt.plot([0,300],[0,150])

plt.show()
```

Output:





Conclusion of Hypothesis 1: There is a linear relationship between usage and notifications. As the number of notifications increases the usage increases as people tend to open the app to check notifications.

Hypothesis 2: Weekdays and weekends exhibit different patterns of screen time and user engagement.

Code:

```
import pandas as pd

import matplotlib.pyplot as plt

df=pd.read_csv('/content/Screentime-App-Details.csv')

socialMediaData=df.loc[:,['Date','Usage','Notifications','Times opened']]

x=socialMediaData.index
```

```
y=socialMediaData['Usage']

plt.plot(x,y)

plt.title('Overall')

plt.xlabel('Date')

plt.xticks(rotation=60)

plt.ylabel('Time in mins')

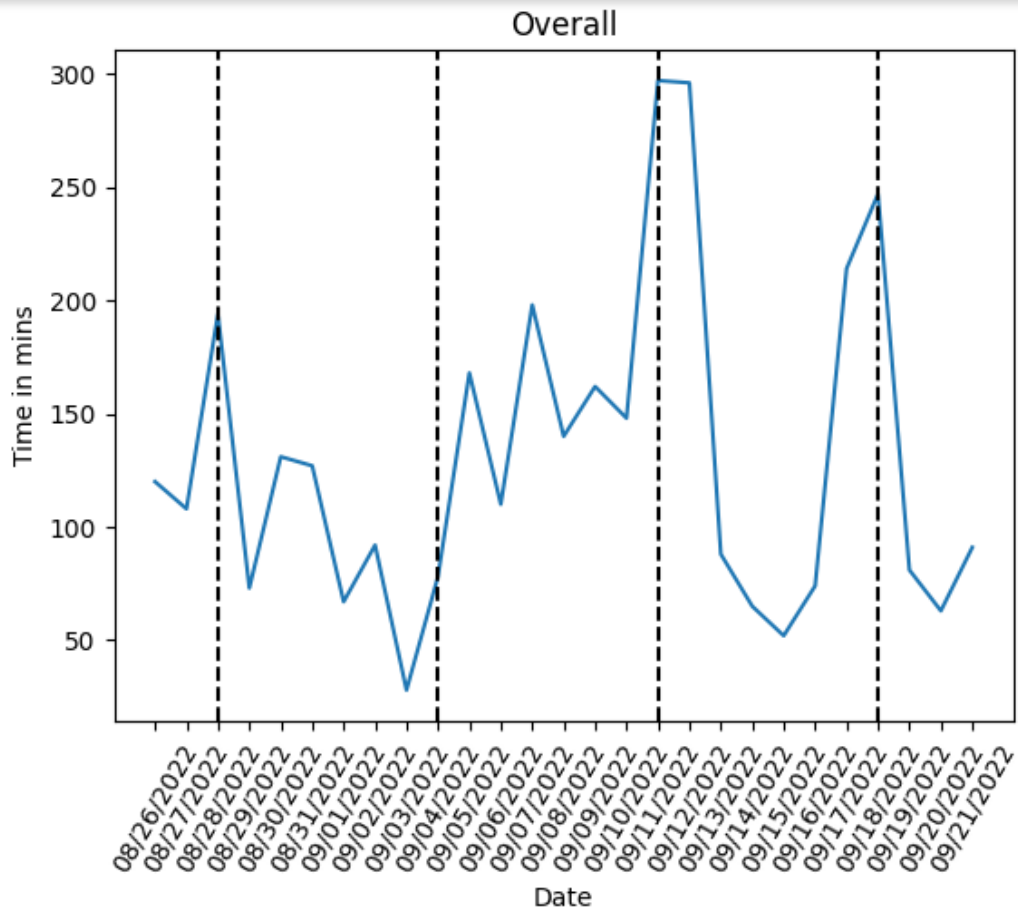
sundays=['08/28/2022','09/04/2022','09/11/2022','09/18/2022']

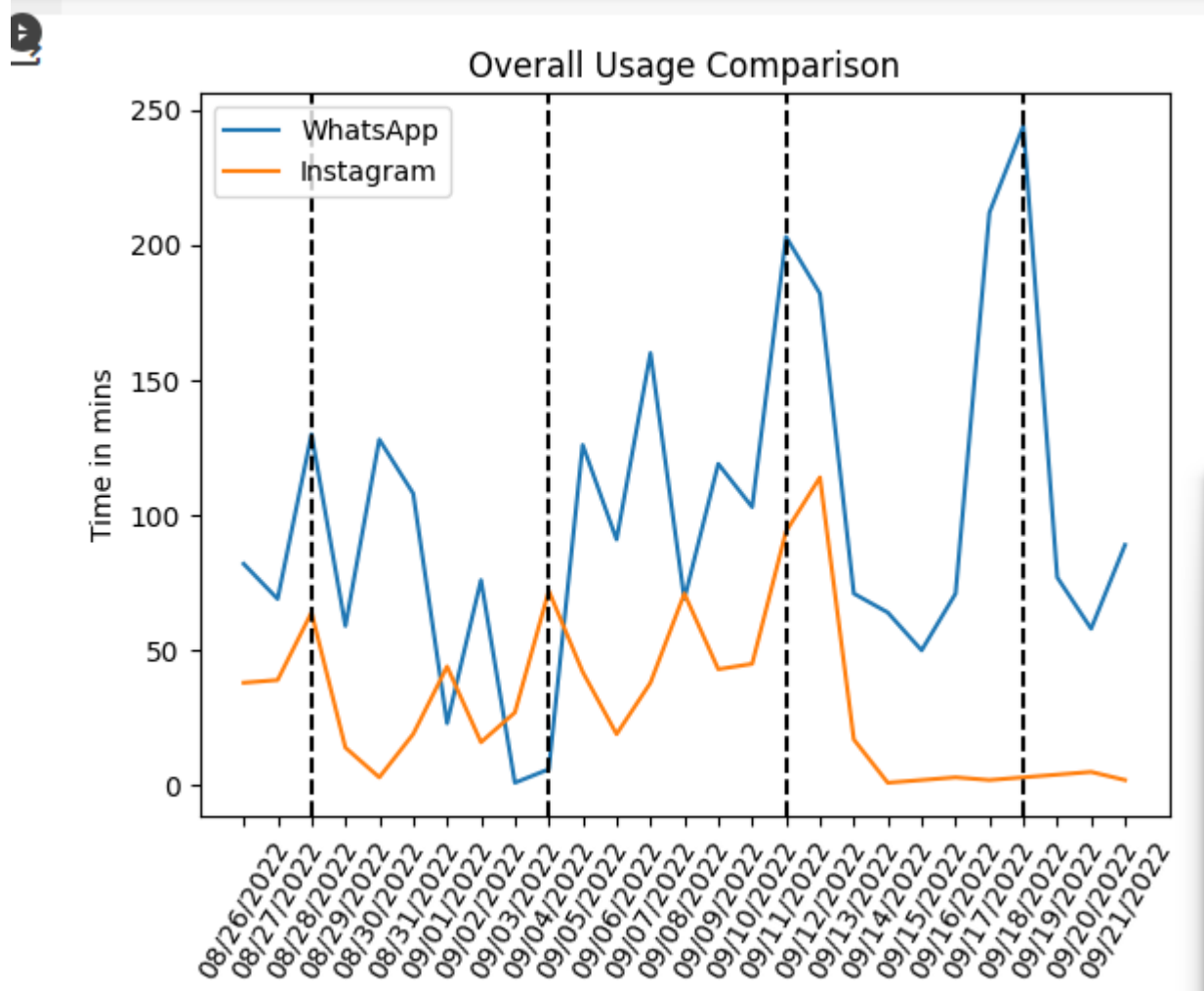
for line in sundays:

    plt.axvline(x=line, color='black', linestyle='--')

plt.show()
```

**Output:**





Conclusion of Hypothesis 2: Social media app usage is higher on weekends compared to weekdays.

\*\*\*END OF PROJECT\*\*\*