Names:Kunda Tabitha
ID: 27684
Big Data Assignment
ADVENTIST UNIVERSITY OF CENTRAL AFRICA

Uber Fare Data Analysis Summary

This project analyzed Uber ride data to uncover trends in ride behavior, fares, and passenger patterns.

The Python script was used to clean the data, extract new features like day of week and hour of pickup, and generate insights using plots.

After cleaning and processing, the dataset had 169,643 rows and included new columns like pickup hour, day of the week, trip distance, and fare per mile.

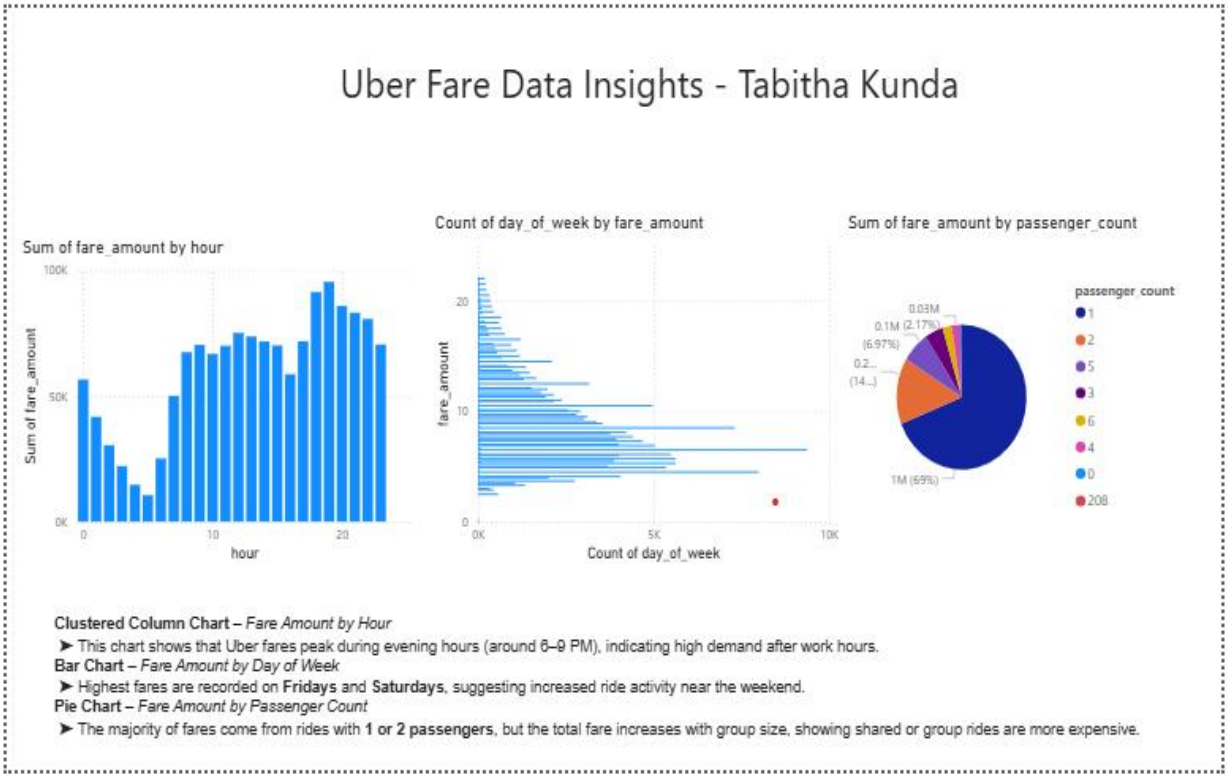
Key Insights:
- Most rides occur during rush hours (morning and evening).
- Friday and Saturday have the highest number of rides, indicating busy weekends.
- Most passengers ride alone (passenger count = 1).
- The fare amount increases with trip distance but not perfectly linearly.
- Some outliers exist with extremely high fares, which were removed in preprocessing.

· **Clustered Column Chart** – *Fare Amount by Hour*
➢ This chart shows that Uber fares peak during evening hours (around 6–9 PM), indicating high demand after work hours.

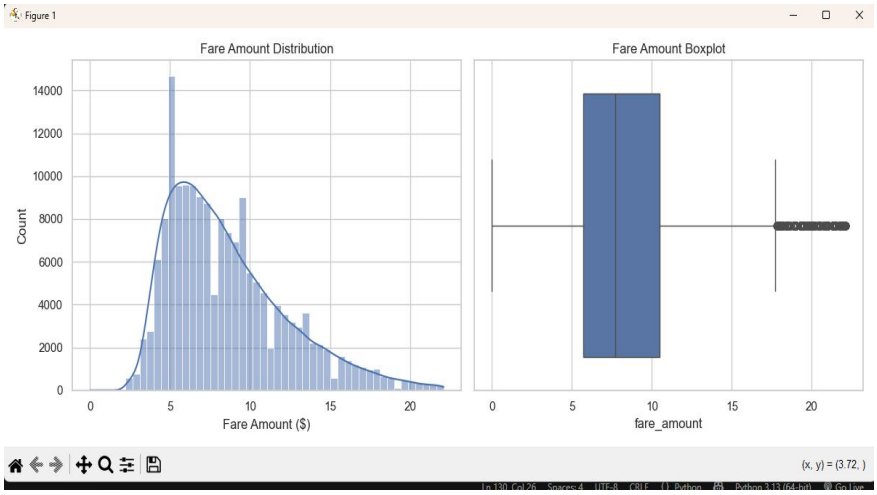
· **Bar Chart** – *Fare Amount by Day of Week*
➢ Highest fares are recorded on **Fridays** and **Saturdays**, suggesting increased ride activity near the weekend.

· **Pie Chart** – *Fare Amount by Passenger Count*
➢ The majority of fares come from rides with **1 or 2 passengers**, but the total fare increases with group size, showing shared or group rides are more expensive.

Power BI screenshot



Graphs screenshots



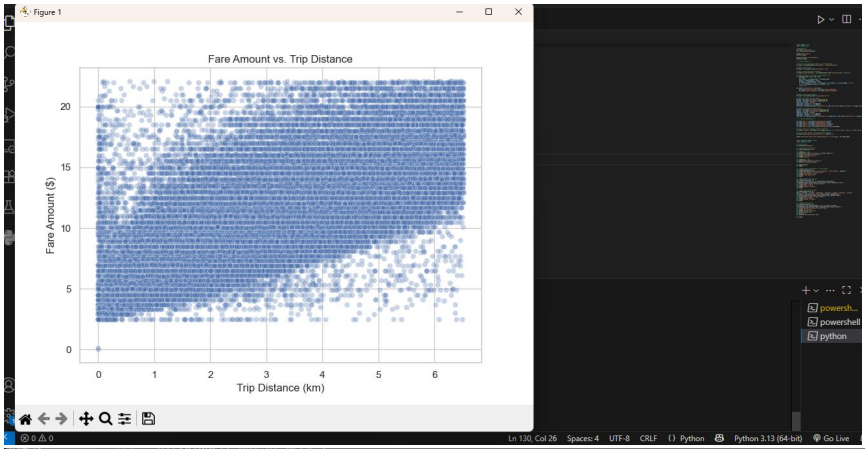


Figure 1
Fare Amount vs. Trip Distance
Fare Amount ($)
Trip Distance (km)
0
5
10
15
20
0
1
2
3
4
5
6
powersh...
powershell
python
Ln 130, Col 26
Spaces: 4
UTF-8
CRLF
Python
Python 3.13 (64-bit)
Go Live

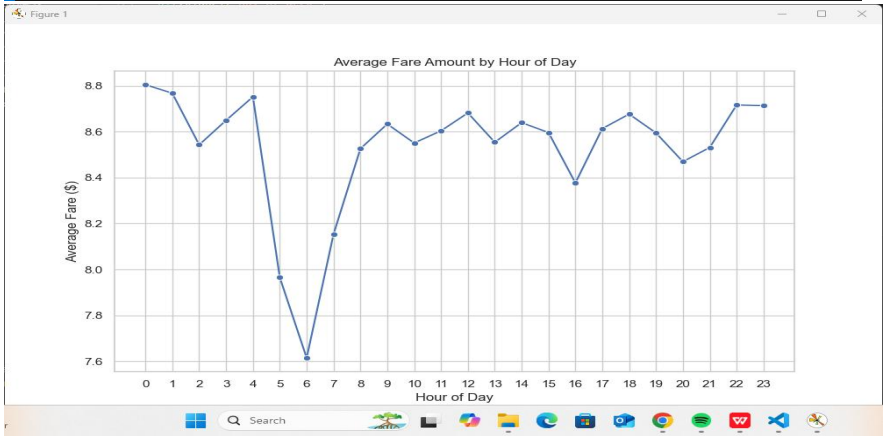


Figure 1
Average Fare Amount by Hour of Day
Average Fare ($)
Hour of Day
7.6
7.8
8.0
8.2
8.4
8.6
8.8
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
Search

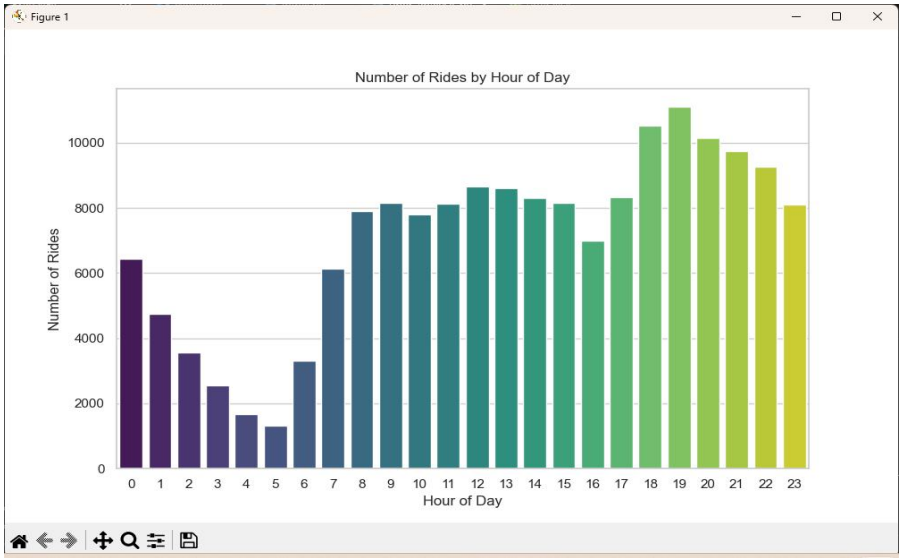


Figure 1
Number of Rides by Hour of Day
Number of Rides
0
2000
4000
6000
8000
10000
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Hour of Day

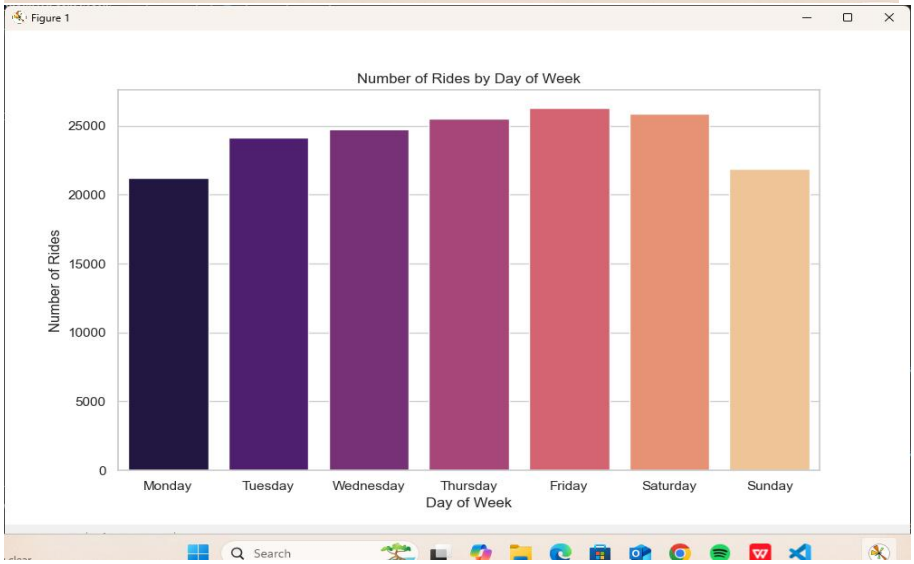


Figure 1
Number of Rides by Day of Week
Number of Rides
0
5000
10000
15000
20000
25000
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday
Sunday
Day of Week
Search