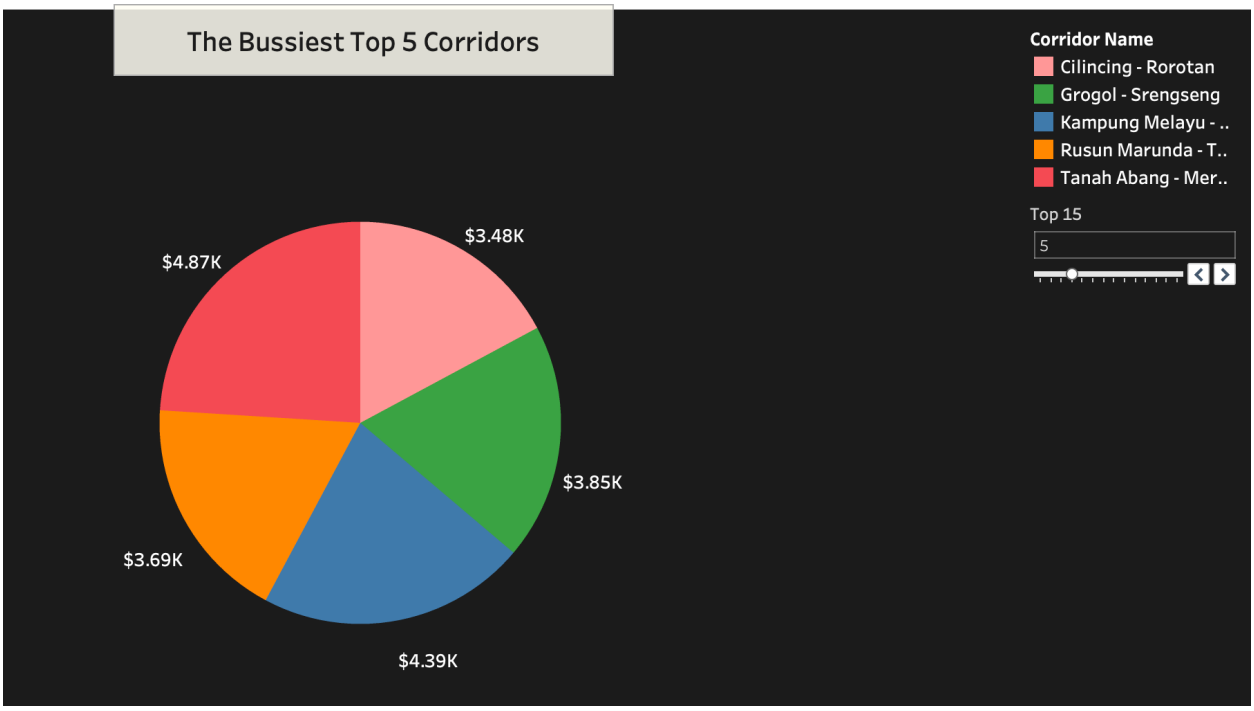
PROJECT
PUBLIC TRANSIT EFFECTIVENESS

Apoorva Komatineni
Data Analyst

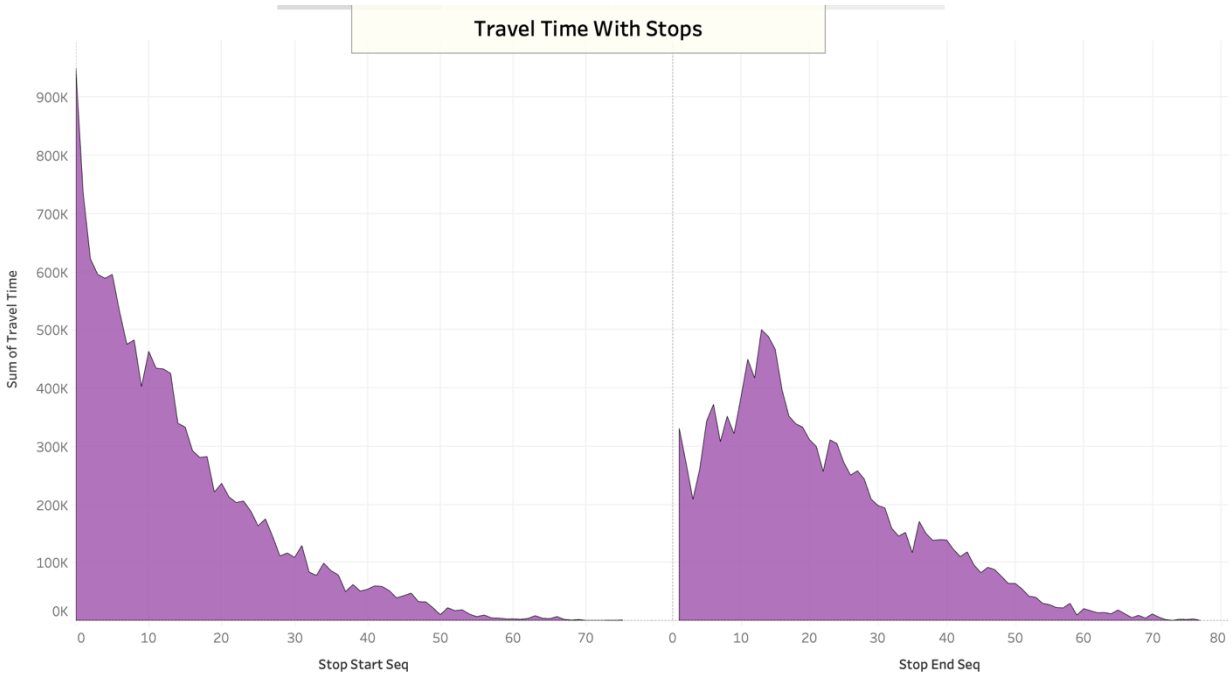
Objective: public Transit Optimization is to conduct a comprehensive study on public transportation efficiency. This project aims to extract and analyze transportation data using SQL, identify patterns in usage, delays, and passenger satisfaction, and utilize Tableau for visualizing findings. The goal is to recommend areas for improvement in public transportation systems, fostering increased efficiency and enhancing the overall commuter experience.

Observations:



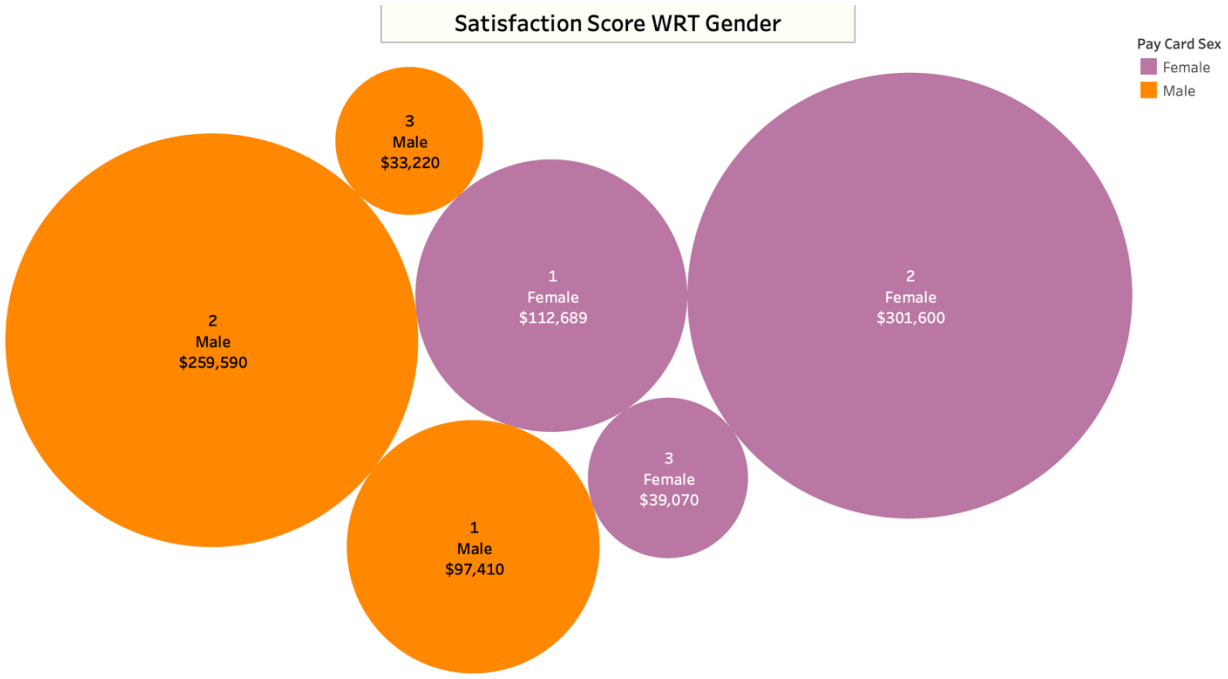
In our dataset, there are a total of 215 corridors. However, the top 5 corridors, as depicted in the provided picture, significantly contribute to fare revenue. To further enhance commuter engagement and utilization, efforts should be directed towards promoting other corridors. Implementing measures such as offering discounts for travel on specific corridors can be explored as a strategy to encourage increased usage and patronage from commuters.

Regarding travel patterns, it is evident that females are the predominant travelers on a gender basis, surpassing other demographics. Additionally, when examining the directional breakdown, it is noteworthy that the distribution of travel among females is fairly uniform across the start boat. This suggests that, despite females being the majority travelers, there is an equitable spread of their journeys across the various directions.



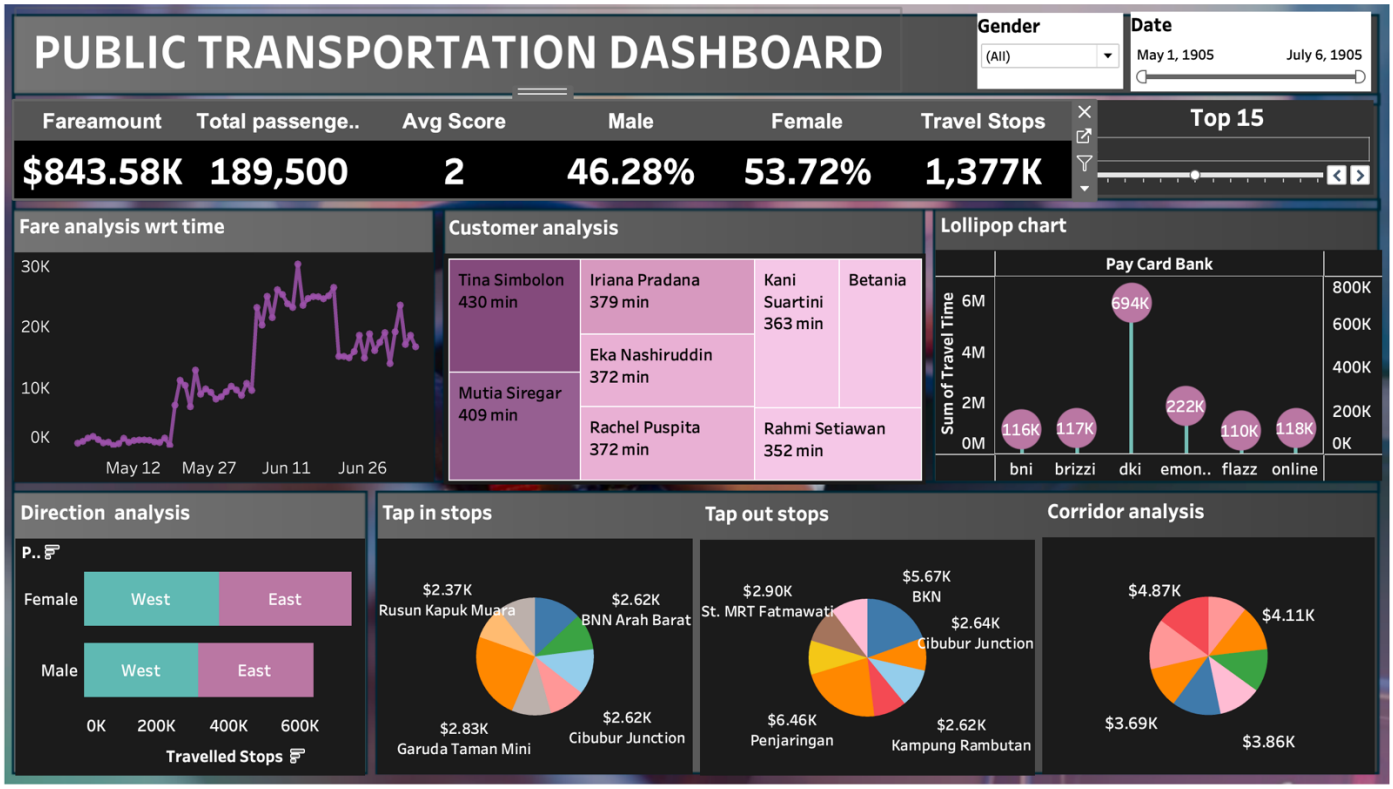
Analyzing the above image, it is apparent that the commencement of travel exhibits a notable trend. A significant number of individuals initiate their journeys from the 1st stop sequence. However, this number progressively decreases in subsequent stop sequences, with considerably fewer people starting from the higher stop numbers, particularly in the 60s and 70s.

Similarly, when examining the conclusion of journeys, there is a distinct pattern. Between 1-10 there is a minimal number of individuals disembarking. The frequency of people alighting starts to rise noticeably from the 10th to the 30th stop sequences, indicating that a substantial number of passengers prefer to conclude their travels in this mid-range. Beyond the 30th stop, the numbers begin to decline again. Consequently, it is evident that the initial stops and the mid-range stops are the most frequently used for boarding and deboarding, respectively.

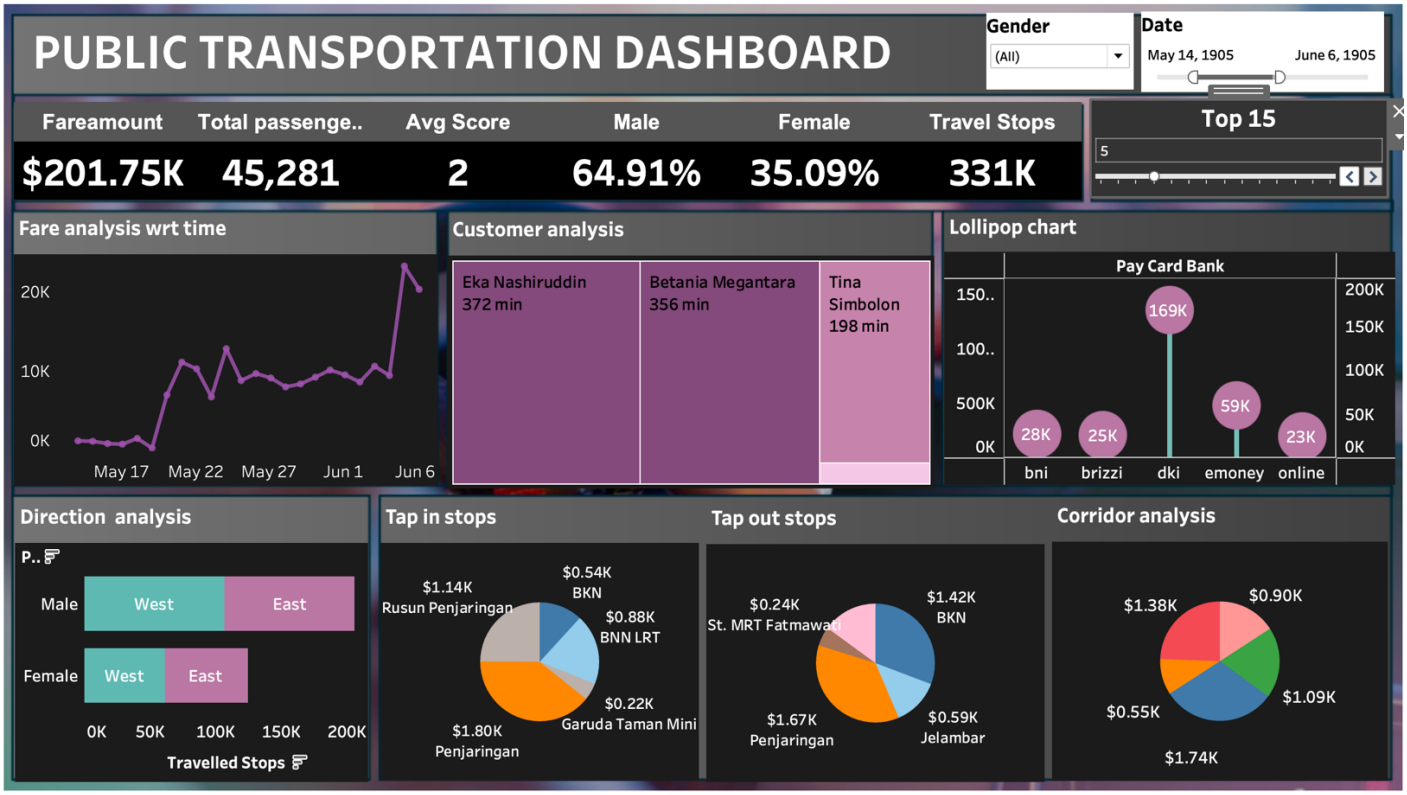


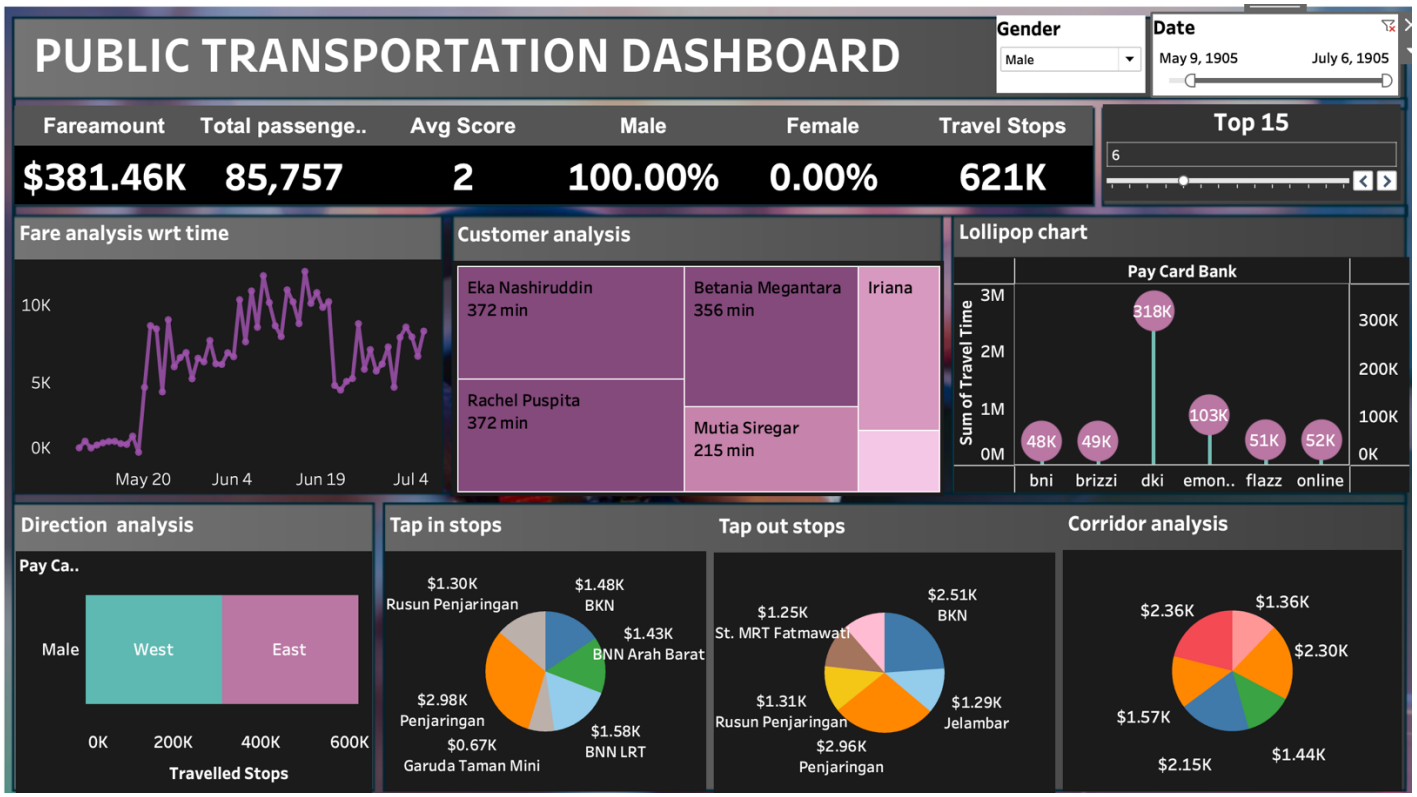
Given the higher frequency of female travelers, it is noteworthy that the satisfaction scores among females predominantly cluster around the lower end, with a majority indicating a satisfaction score of two. Conversely, a minority of female travelers express higher satisfaction scores. This pattern is similarly observed among male travelers, reflecting a general trend of lower satisfaction scores, particularly with fewer instances of higher satisfaction ratings.

Dashboard:



Dashboard with Filter




PUBLIC TRANSPORTATION DASHBOARD
Gender
Male
Date
May 9, 1905
July 6, 1905
Fareamount
Total passenge..
Avg Score
Male
Female
Travel Stops
$381.46K
85,757
2
100.00%
0.00%
621K
Top 15
6
Fare analysis wrt time
10K
5K
0K
May 20
Jun 4
Jun 19
Jul 4
Customer analysis
Eka Nashiruddin
372 min
Rachel Puspita
372 min
Betania Megantara
356 min
Mutia Siregar
215 min
Iriana
Lollipop chart
Pay Card Bank
Sum of Travel Time
3M
2M
1M
0M
300K
200K
100K
0K
318K
48K
49K
103K
51K
52K
bni
brizzi
dki
emon..
flazz
online
Direction analysis
Pay Ca..
Male
West
East
0K
200K
400K
600K
Travelled Stops
Tap in stops
$1.30K
Rusun Penjaringan
$1.48K
BKN
$1.43K
BNN Arah Barat
$2.98K
Penjaringan
$0.67K
Garuda Taman Mini
$1.58K
BNN LRT
Tap out stops
$1.25K
St. MRT Fatmawati
$2.51K
BKN
$1.31K
Rusun Penjaringan
$1.29K
Jelambar
$2.96K
Penjaringan
Corridor analysis
$2.36K
$1.36K
$2.30K
$1.57K
$2.15K
$1.44K