

VOYAGE VISTA: ILLUMINATING INSIGHTS FROM UBER EXPEDITIONARY ANALYSIS

Uber

A hand is holding a black smartphone. The screen of the phone is black and displays the white Uber logo in the center. The background is a blurred image of a car's interior, showing the steering wheel and dashboard. The text 'VOYAGE VISTA: ILLUMINATING INSIGHTS FROM UBER EXPEDITIONARY ANALYSIS' is overlaid on the top half of the image in a light green, sans-serif font.

VOYAGE VISTA: ILLUMINATING INSIGHTS FROM UBER EXPEDITIONARY ANALYSIS A PROJECT REPORT

**Submitted to the Manonmaniam Sundaranar University, Tirunelveli,
in partial fulfillment of the requirements for the award of the Degree in
BACHELOR OF SCIENCE IN PHYSICS**

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ACKNOWLEDGEMENT

Adores our heart humbly silently & gratefully reflecting the will & Blessings showed by our Lord Almighty who made us turn every challenge in to success till this day of seeing our project work in print.

I also express our gratefulness to **Dr. C. Veerabahu M.Sc., Ph.D., The Principal**, for giving us the permission to do the project work.

With a deep sense of gratitude we express our sincere thanks to our project supervisor **Dr. S. Subramanian Assistant Professor** for his valuable guidance & constant encouragement in completing this project work.

I would like to thank our **H.O.D. Dr. John Prince Soundranayagam Associate Professor** for his valuable advices whenever we approached him. We also express our sincere thanks to **Dr. K. Amudhavalli, Dr. M. Nagarajan, Prof. A. Infantia Daphne and Prof. S. Subha**, Department of Physics for their encouragement & suggestions throughout the course of study.

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I am greatly indebted to **our parents & family members, friends** for their moral support which helped us to complete this work.

INTRODUCTION

Uber is a multinational transportation network company that operates a ride-hailing platform. It was founded in 2009 by Garrett Camp and Travis Kalanick and is based in San Francisco, California. Uber provides a convenient way for individuals to request rides from drivers who use their own personal vehicles. Uber Driver Analysis refers to the Analyzing the number of trips taken by Uber drivers can provide insights into their overall activity and the demand for rides in specific areas. Daily, Weekly, or Monthly Analysis: Uber's data can be analyzed on a daily, weekly, monthly basis to understand the trends and patterns of trip volumes. This analysis can help identify peak hours or days of high demand and optimize driver availability during those times. Trips can be analyzed based on geographic regions or specific cities to identify areas with higher demand. This analysis can help Uber drivers decide where to focus their driving efforts for maximum efficiency and profitability. The Major of our project is to use data Analyzing techniques to find unknown patterns in the Uber Drives dataset. The research is carried out on Uber drives data collected from the year 2016.

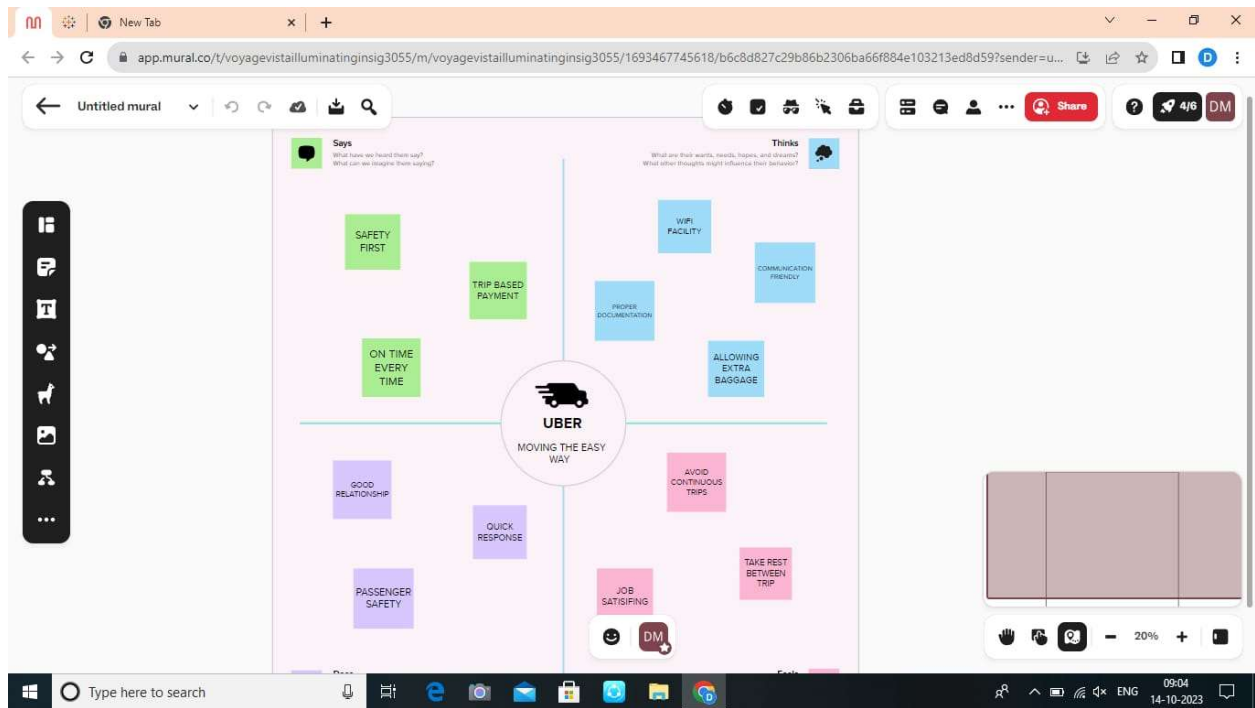
- Empathy Map
- Brain Storming And Idea Prioritization
- Purpose of Uber wise Miles covered.
- Miles wise Category.
- Quarter wise Number of Trips

- Month wise Number of Trips.
- Month wise Miles.
- Week wise Miles.
- Quarter wise Miles.
- Hour wise Number of Trips.
- Distance between the Start and Stop Locations.

PROJECT FLOW

- Empathy Map
- Brain storming and Idea Prioritization
- Data Preparation
 - Prepare the Data for Visualization
- Data Visualizations
 - No of Unique Visualizations
- Dashboard
 - Responsive and Design of Dashboard
- Story
 - No of Scenes of Story
- Performance Testing
 - Amount of Data Rendered to Tableau
- Publishing
 - Publish Dashboard & Story to Tableau Public
- Project Demonstration & Documentation
 - Record explanation Video for project end to end solution Project
 - Documentation-Step by step project development procedure

EMPATHY MAP



BRAIN STORMING AND IDEAPRIORITIZATION

The screenshot displays a PDF viewer window with the file 'brain123.pdf' open. The document is divided into four main sections, each with a numbered icon and a title:

- 1 Define your problem statement**: This section includes instructions on how to define a problem statement and a box labeled 'Problem statement' with a placeholder text: 'I have a problem with my car. It won't start. I need to fix it.' Below this is a box labeled 'Key words of the problem statement' with a list of words: 'Problem statement', 'Key words', 'Problem statement', 'Key words', 'Problem statement', 'Key words'.
- 2 Brainstorm**: This section is titled 'Brainstorm' and includes instructions on how to brainstorm. It features a grid with columns labeled 'Problem statement', 'Key words', 'Problem statement', 'Key words', 'Problem statement', 'Key words' and rows labeled 'Person 1', 'Person 2', 'Person 3', 'Person 4'.
- 3 Group ideas**: This section is titled 'Group ideas' and includes instructions on how to group ideas. It features a box labeled 'Group ideas' with a list of ideas: 'Group ideas', 'Group ideas', 'Group ideas', 'Group ideas'.
- 4 Prioritize**: This section is titled 'Prioritize' and includes instructions on how to prioritize. It features a graph with 'Importance' on the y-axis and 'Feasibility' on the x-axis. The graph shows several points plotted, with a curve indicating the relationship between importance and feasibility.

The bottom of the window shows a taskbar with various application icons and a search bar.

Data Preparation

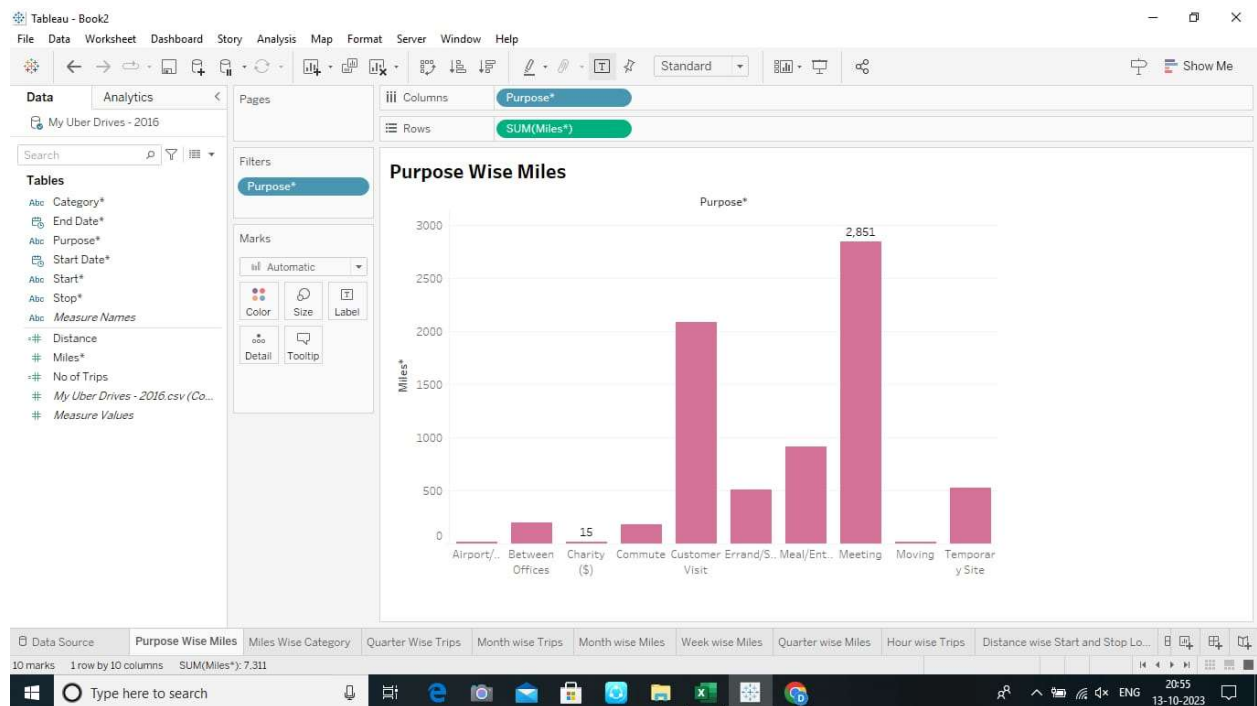
Prepare the Data for Visualization

Preparing the data for visualization involves cleaning the data to remove irrelevant or missing data, transforming the data into a format that can be easily visualized, exploring the data to identify patterns and trends, filtering the data to focus on specific subsets of data, preparing the data for visualization software, and ensuring the data is accurate and complete. This process helps to make the data easily understandable and ready for creating visualizations to gain insights into our analysis.

Data Visualization

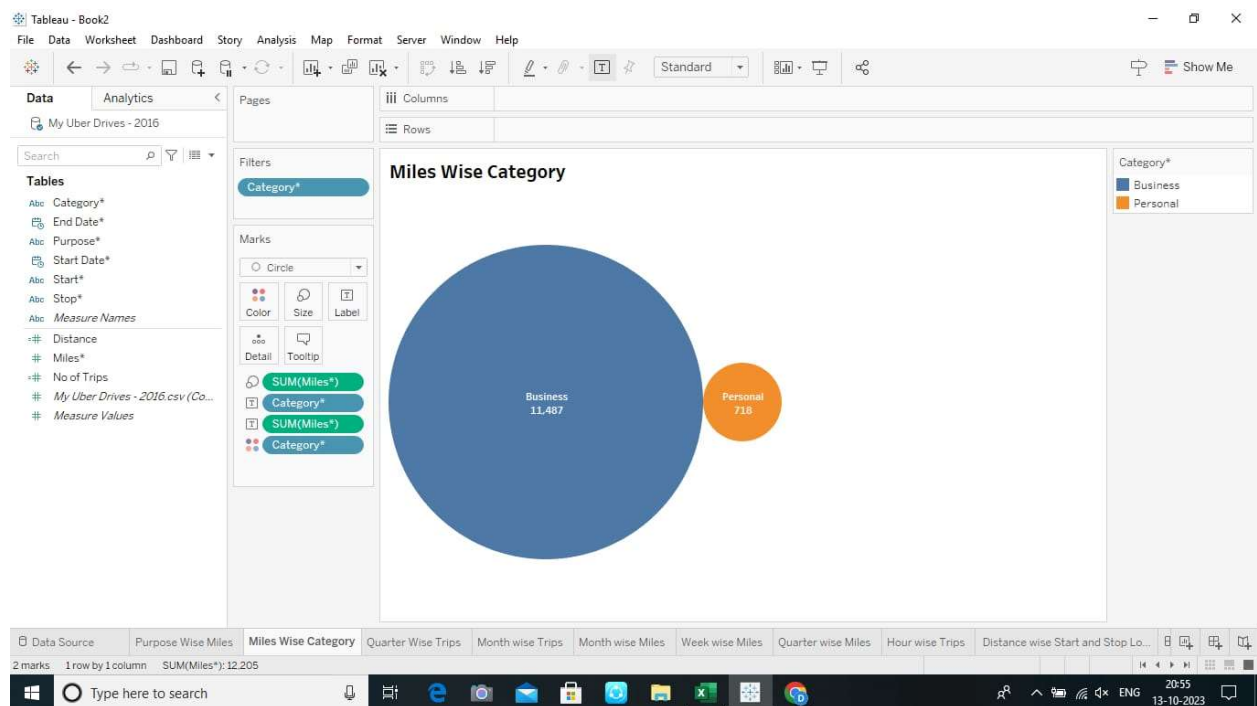
Data visualization is the process of creating graphical representations of data in order to help people understand and explore information. The goal of data visualization is to make complex data sets more accessible, intuitive, and easier to interpret. By using visual elements such as charts, graphs, and maps, data visualizations can help people quickly identify patterns, trends, and outliers in the data.

SHEET 1 - Purpose of Uber wise Miles covered.



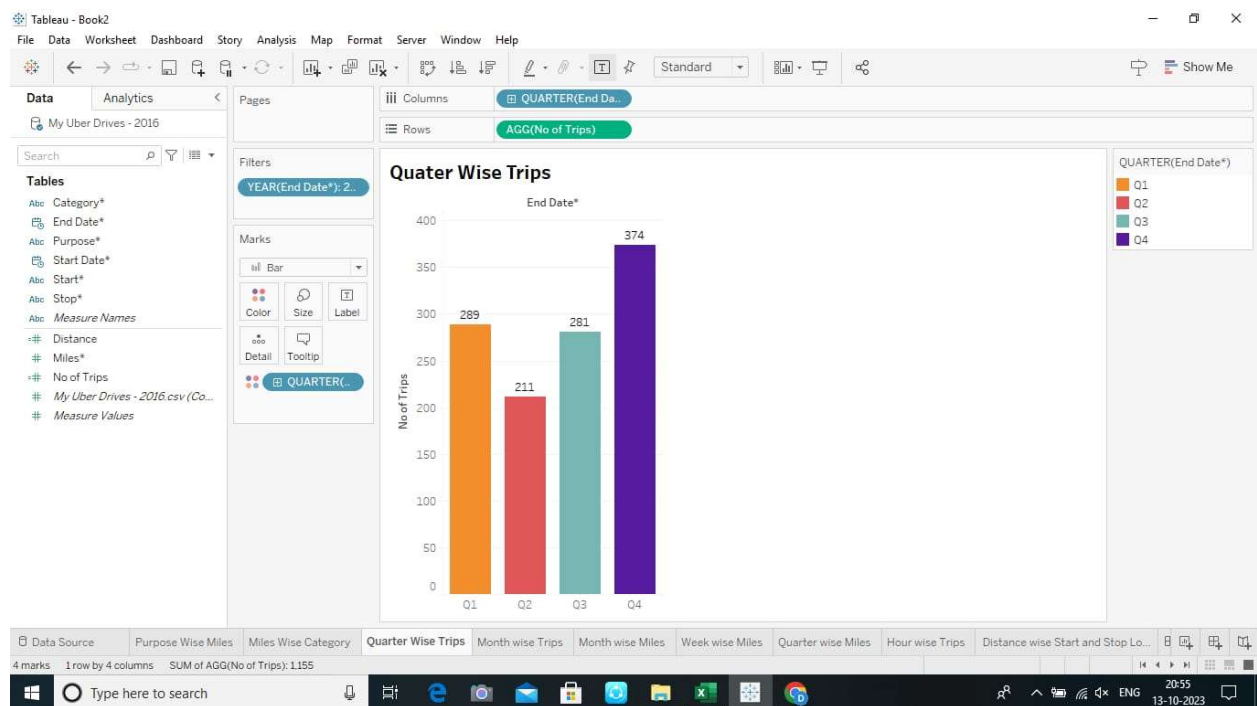
Purpose wise miles most of the travel is meeting purpose only.

SHEET 2 - Miles wise Category.



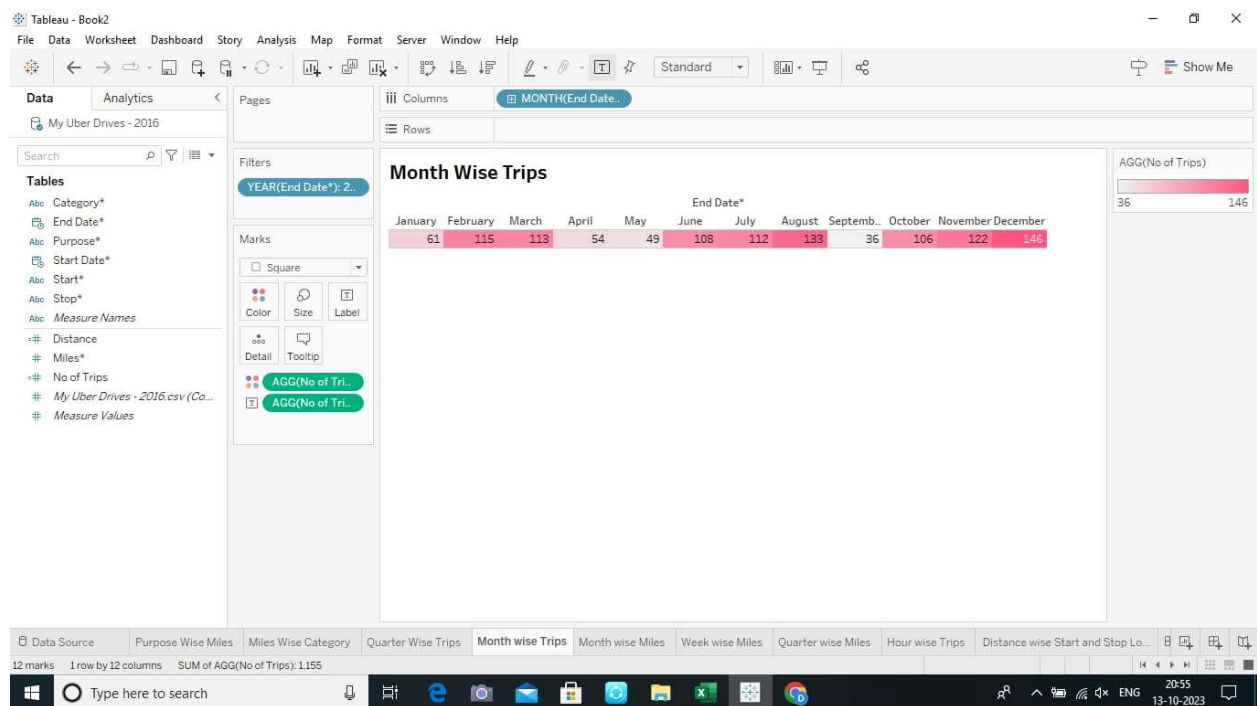
A category is two type business and personal

SHEET 3 - Quarter wise Number of Trips



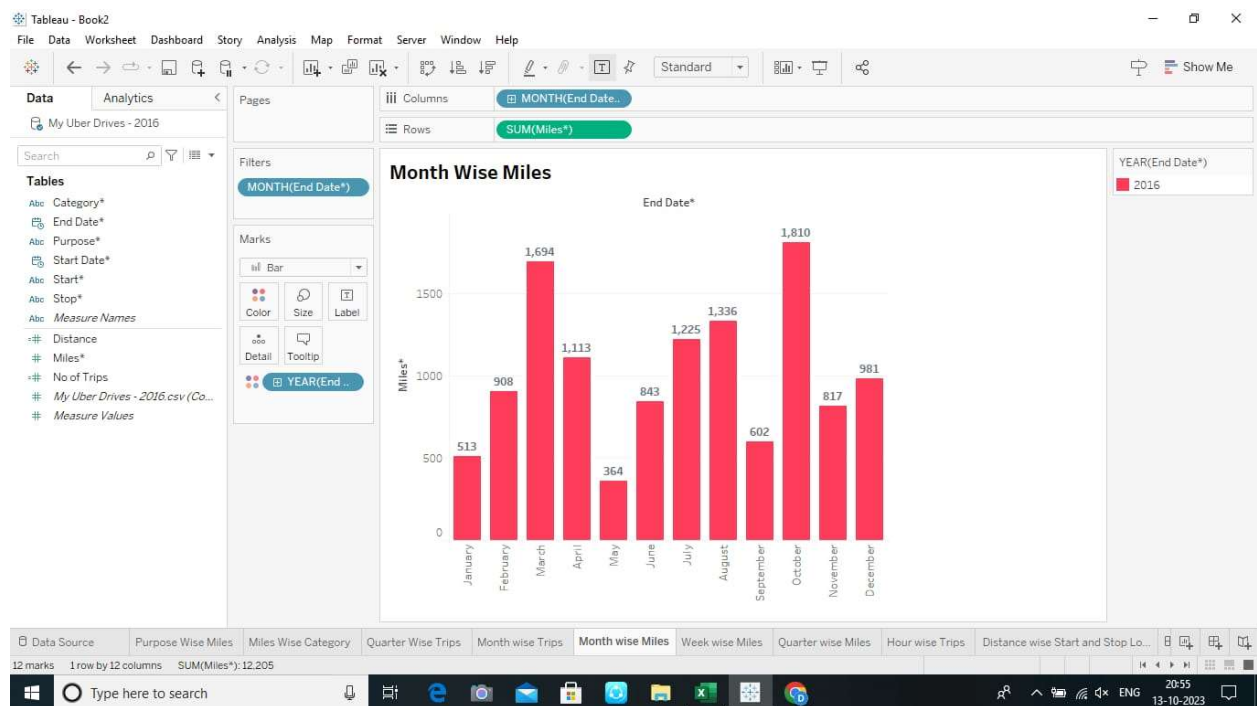
A Q4 have is high trips

SHEET 4 - Month wise Number of Trips.



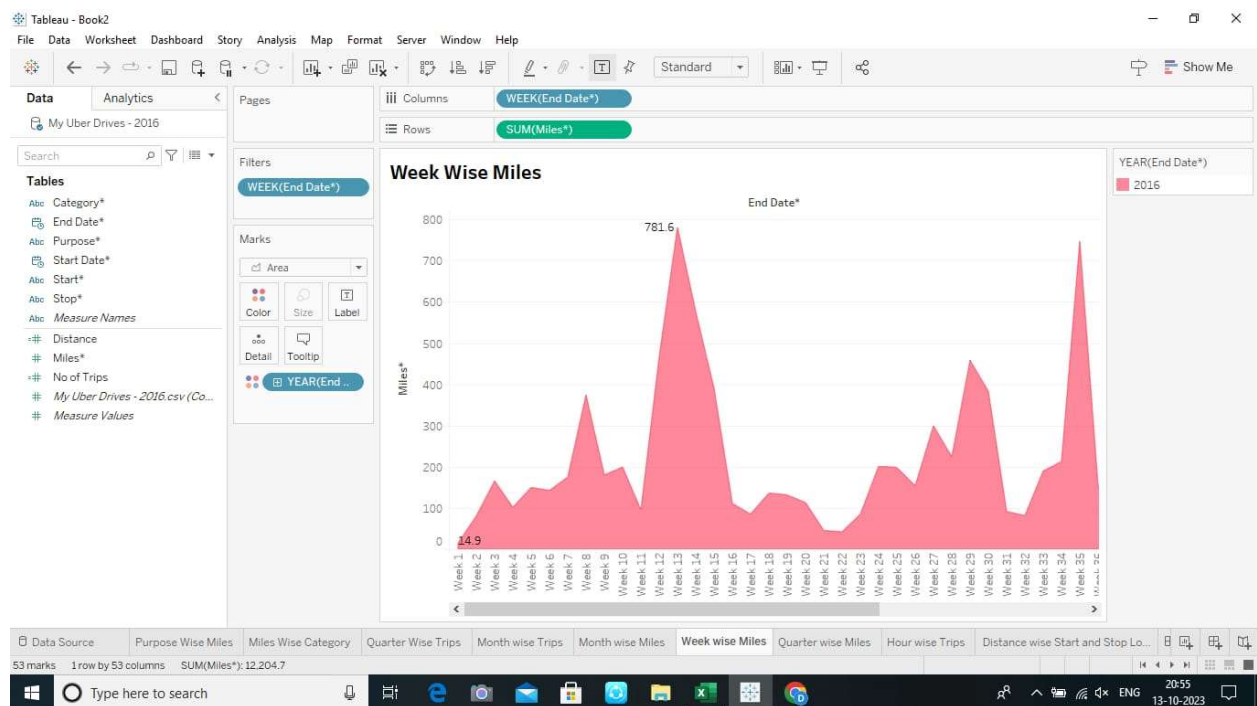
A December month have a most of the trip

SHEET 5 - Month wise Miles.



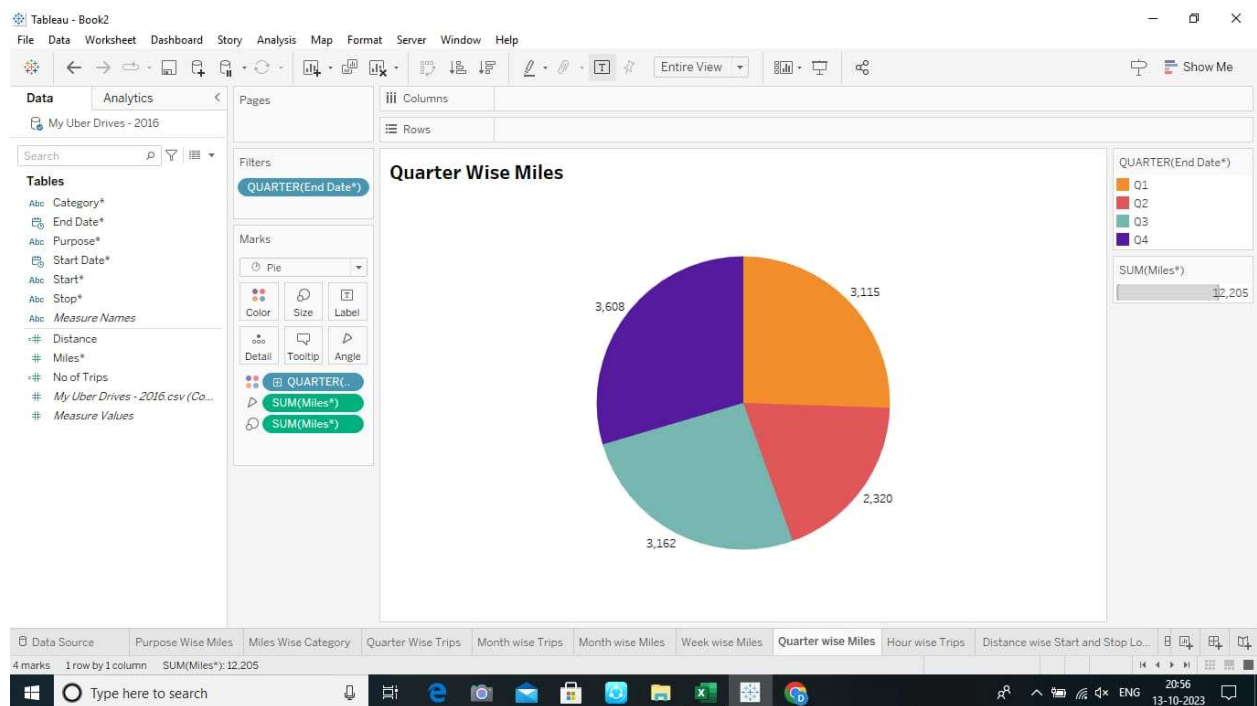
In over all miles is covered in October month

SHEET 6 - Week wise Miles.



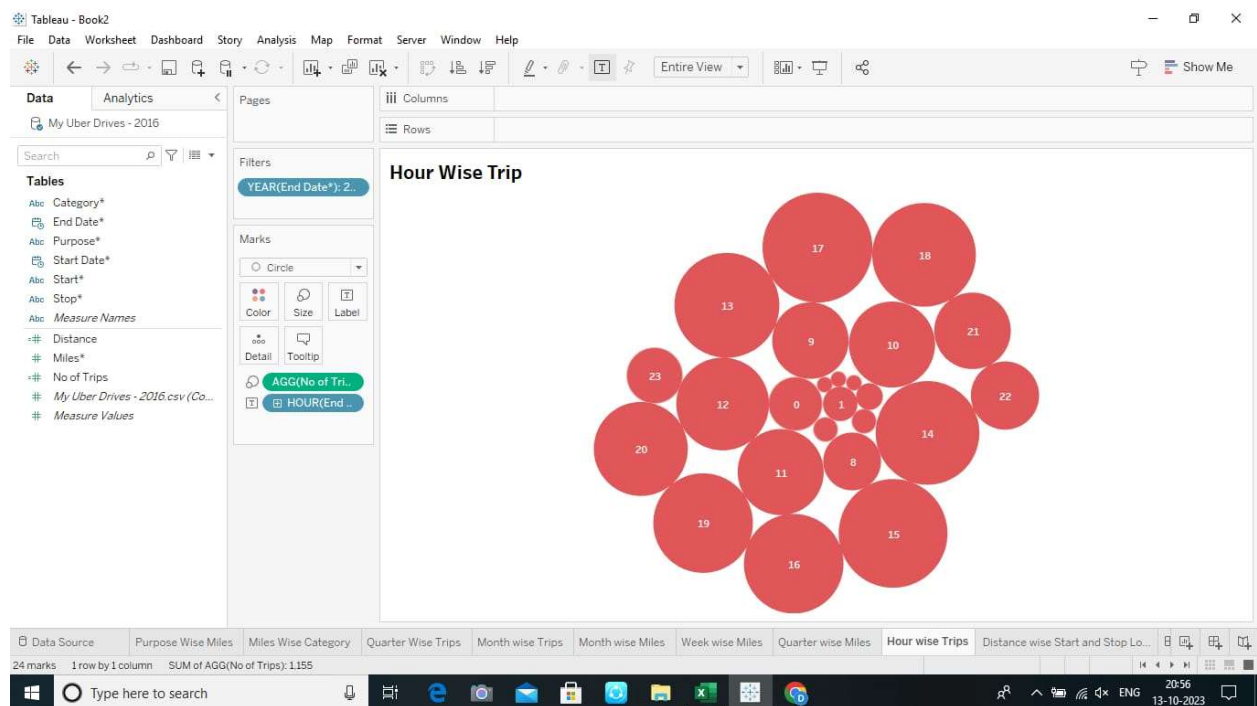
Week 13 has more miles

SHEET 7 - Quarter wise Miles.



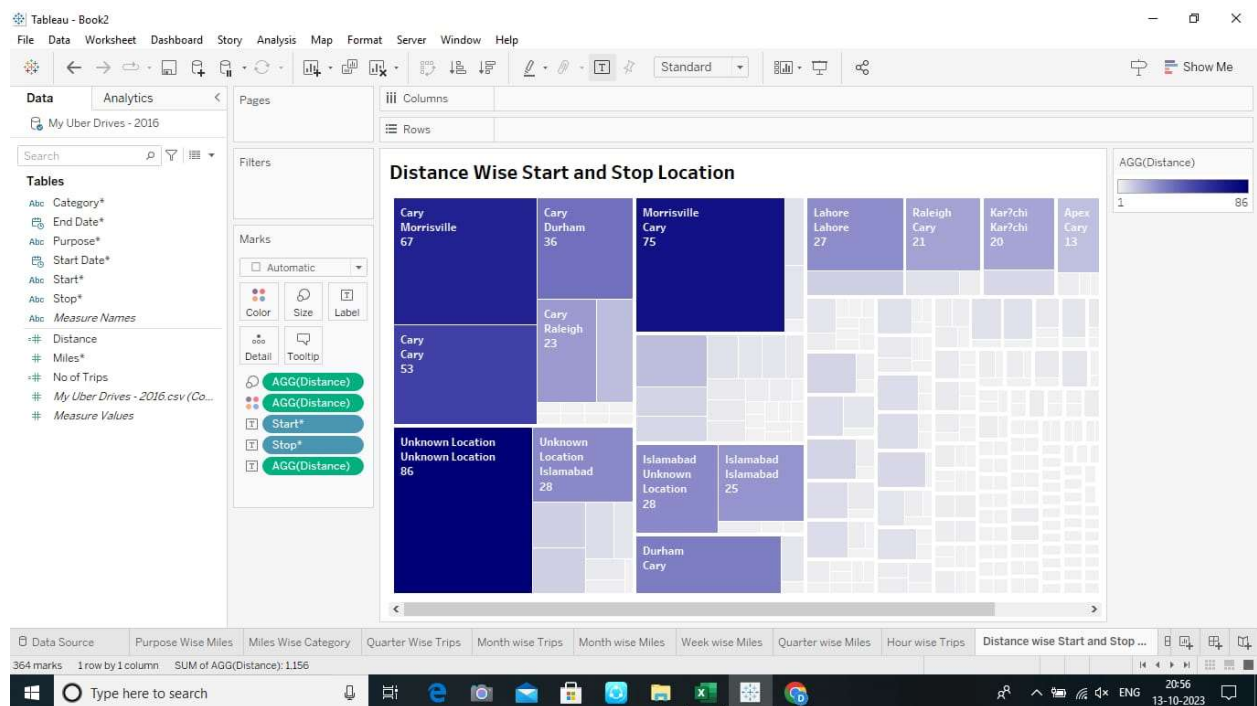
Q4 has high miles

SHEET 8 - Hour wise Number of Trips.



Hour 17 has more trips

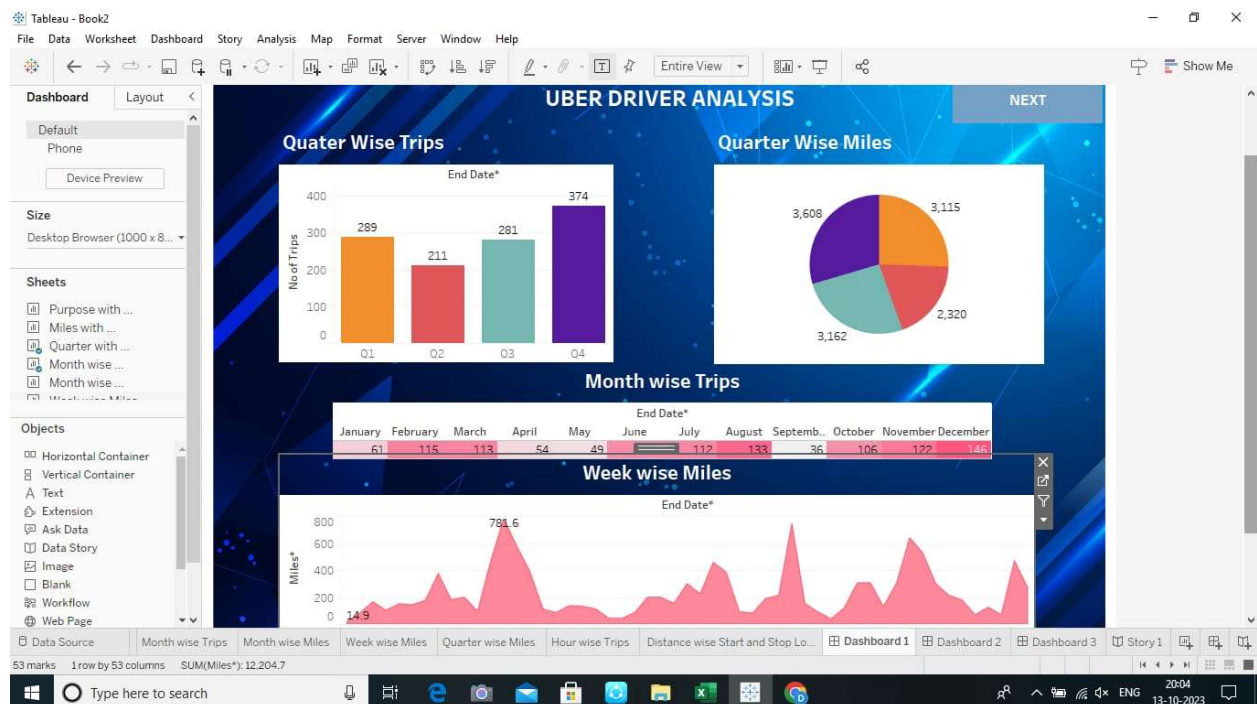
SHEET 9- Distance between the Start and Stop Locations.

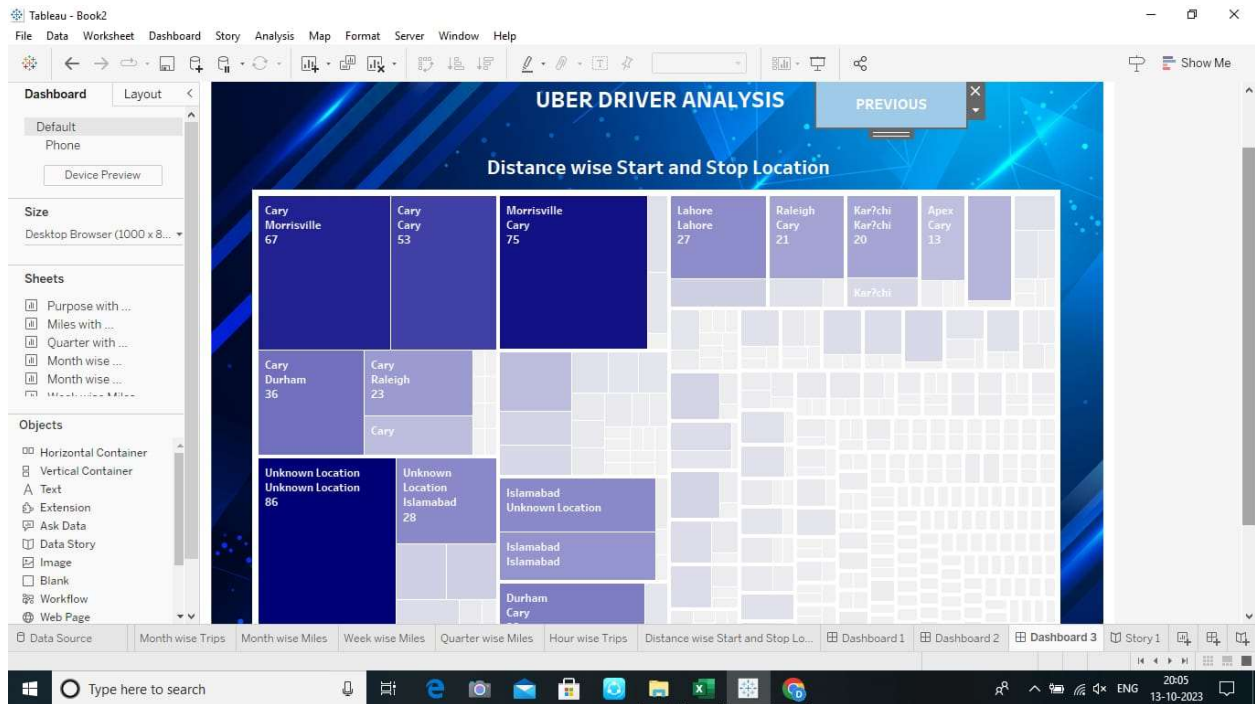
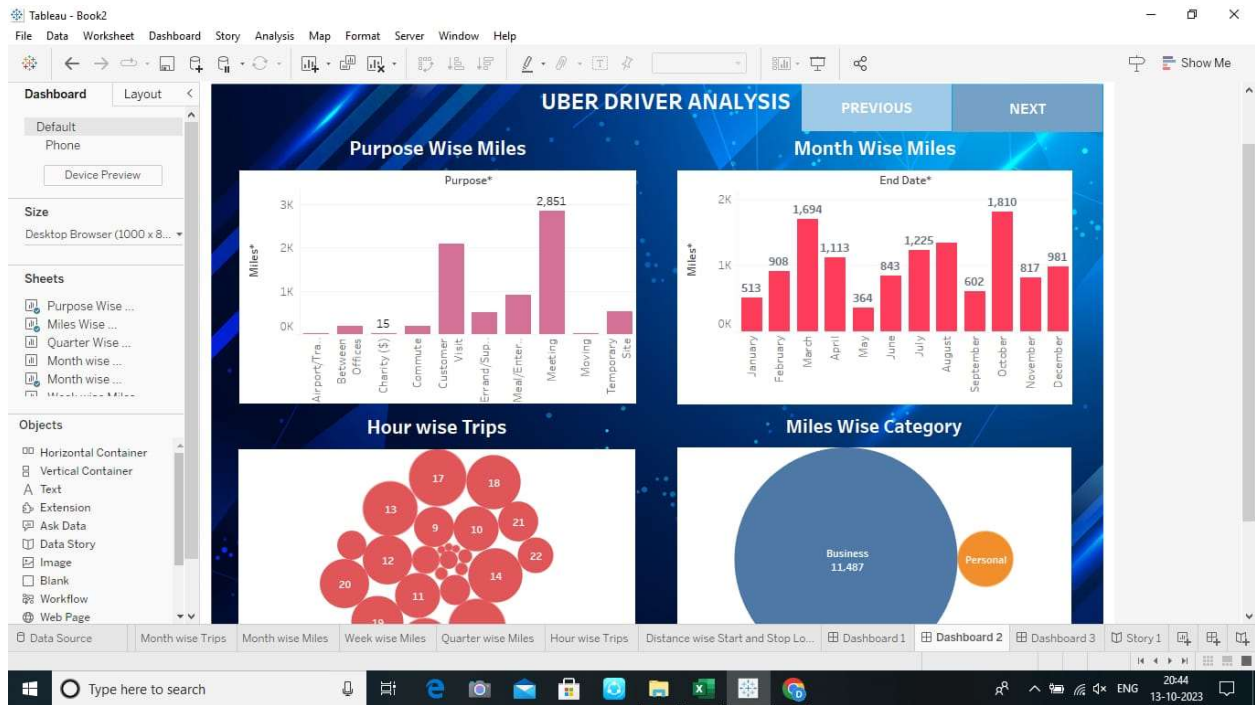


We look at the distance wise start and stop location

Dashboard

A dashboard is a graphical user interface (GUI) that displays information and data in an organized, easy-to-read format. Dashboards are often used to provide real-time monitoring and analysis of data, and are typically designed for a specific purpose or use case. Dashboards can be used in a variety of settings, such as business, finance, manufacturing, healthcare, and many other industries. They can be used to track key performance indicators (KPIs), monitor performance metrics, and display data in the form of charts, graphs, and tables.





Story

A data story is a way of presenting data and analysis in a narrative format, with the goal of making the information more engaging and easier to understand. A data story typically includes a clear introduction that sets the stage and explains the context for the data, a body that presents the data and analysis in a logical and systematic way, and a conclusion that summarizes the key findings and highlights their implications. Data stories can be told using a variety of mediums, such as reports, presentations, interactive visualizations, and videos.

The below is the link for story.

<https://drive.google.com/file/d/1UTvCNoRqYWD9dzVQfgyG9Eod0lrw59b5/view?usp=drivesdk>

Publish Dashboard & Story to Tableau Public

We have published the results of our analysis in Tableau Public and given the link below.

<https://public.tableau.com/app/profile/durairaj.m/vizzes>

PROJECT DEMONSTRATION

A video explanation of our work has been recorded and a link for access is provided here.

https://drive.google.com/file/d/1UEz_vCNdsQyhboOllX5hQpuK7zXRbr3S/view?usp=drivesdk

RESULTS AND DISCUSSIONS

VOYAGE VISTA: We have studied illuminating insights from the UBER Expeditionary analysis using Tableau by creating the following charts.

- Empathy Map
- Brain Storming And Idea Prioritization
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By doing this project work we got an exposure on Data Science which is an emerging field.

THANKYOU