



**Smart
Internz**

Voyage Vista: Illuminating Insights from Uber Expeditionary Analysis

Project Based Experiential Learning Program



UBER

Voyage Vista : Illuminating Insights from Uber Expeditionary Analysis

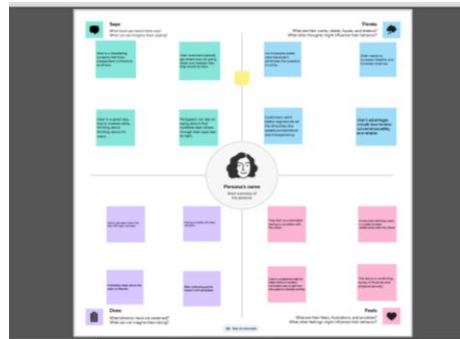
Project Description:

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.

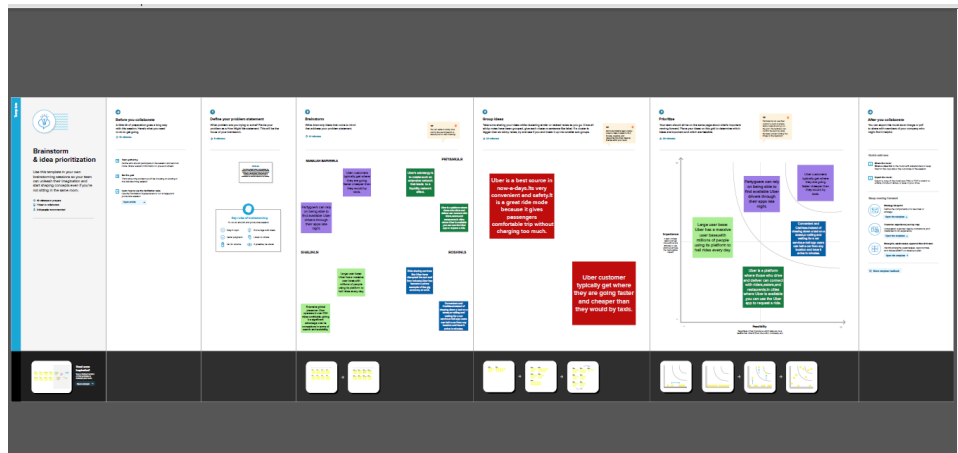
Milestone 1: Define Problem / Problem Understanding

Activity 1: Specify the business problem

Empathy map:



Brainstorming:



Activity 2: Business requirements

Driver Performance Evaluation: Determine the criteria for evaluating driver performance, such as customer ratings, completion rate, cancellation rate, average trip duration, and driver feedback. These metrics can help identify top-performing drivers and areas for improvement.

Efficiency Analysis: Assess driver efficiency by analyzing metrics such as average time spent waiting for passengers, average distance driven per trip, and idle time between trips.

This analysis can help identify opportunities to optimize driver utilization and reduce downtime.

Supply and Demand Analysis: Understand the relationship between driver supply and passenger demand in different areas and at different times. Identify peak hours and high-demand areas to optimize driver allocation and increase customer satisfaction.

Route Optimization: Analyze driver routes and identify patterns to optimize navigation and reduce travel time. By analyzing historical trip data and using mapping algorithms, you can suggest more efficient routes to drivers, enhancing their performance and reducing fuel costs.

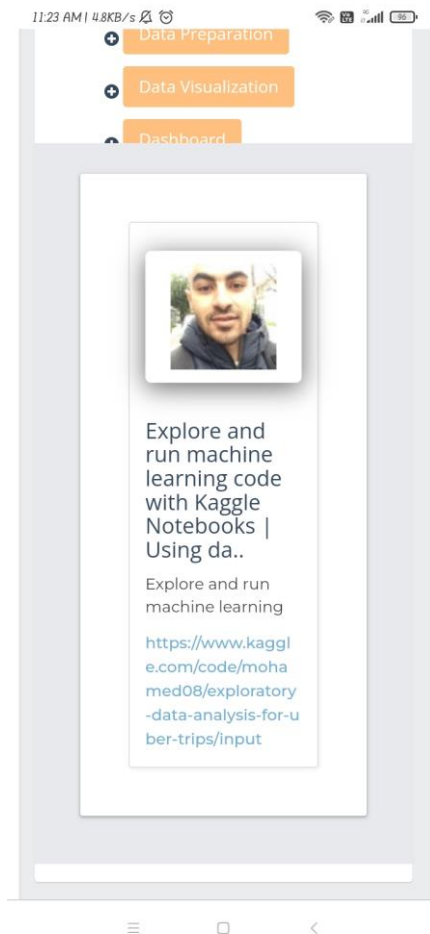
Activity 3: Literature Survey

A literature survey conducted by students exploring YouTube channels would typically involve researching existing studies, academic papers, and publications related to the topic

Milestone 2: Data Collection

Data collection is the process of gathering and measuring information on variables of interest, in an established systematic fashion that enables one to answer stated research questions, test hypotheses, and evaluate outcomes and generate insights from the data.

Activity 1: Collect the dataset



Activity 1.1: Understand the data

Data contains all the meta information regarding the columns described in the CSV files. We have provided a csv file.

Column Description for Uber Drives- 2016.csv:

- START_DATE: 2 JAN 2016 – 1 JAN 2017.
- END_DATE: 2 JAN 2016 – 1 JAN 2017.
- START: Cary, New York, Durham, Downtown, Midtown, Midtown East, Houston, Gulfton, Whitebridge, Houston, Morrisville and 798 Others.
- STOP: Cary, New York, Durham, Downtown, Midtown, Midtown East, Houston, Gulfton, Whitebridge, Houston, Morrisville and 798 Others.

- Miles Covered: 0.5-1220.92
- Purpose: Meeting, Temporary Site, Customer Visit, Meal/Entertain, Errand/Supplies, Airport, Between Offices, charity, commute, moving.

Activity 3: Connect Dataset with Tableau

<https://drive.google.com/file/d/1pjsP8eRr0PwPuVt4oKehaLLwpRfUFhDV/view?usp=sharing>

Milestone 3: Data Preparation

Activity 1: 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.

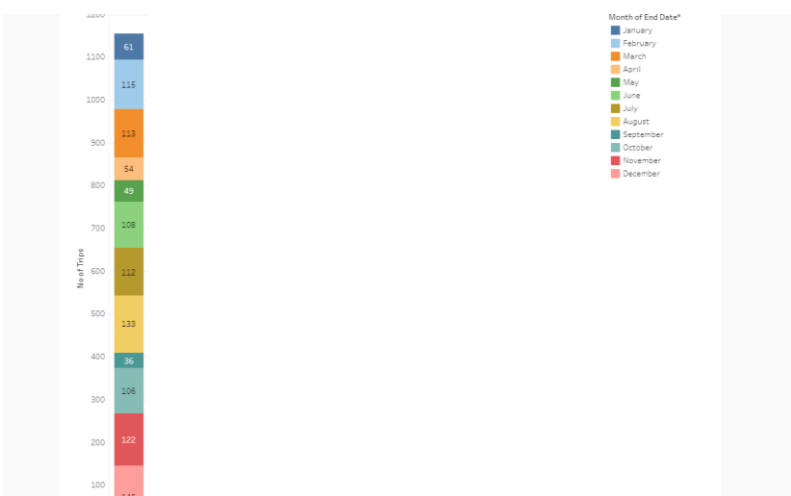
Milestone 4: Data Visualization

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.

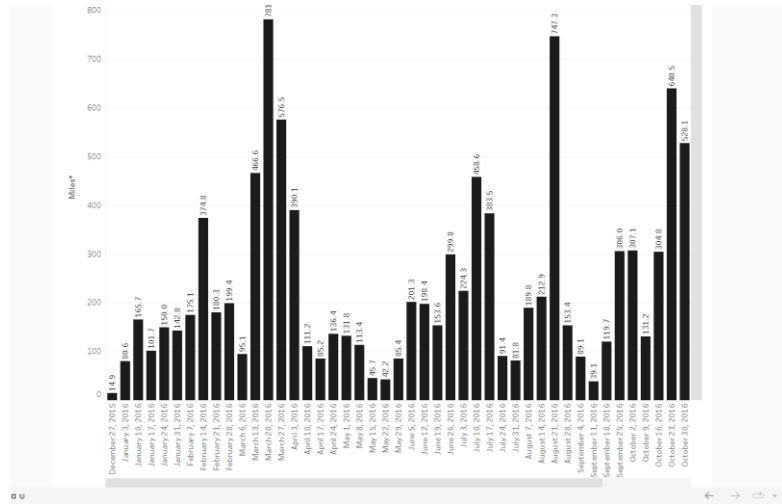
Activity 1: No of Unique Visualizations

The number of unique visualizations that can be created with a given dataset. Some common types of visualizations that can be used to analyze the performance and efficiency of a project include bar charts, line charts, heat maps, scatter plots, pie charts, Maps etc. These visualizations can be used to compare performance, track changes over time, show distribution, and relationships between variables.

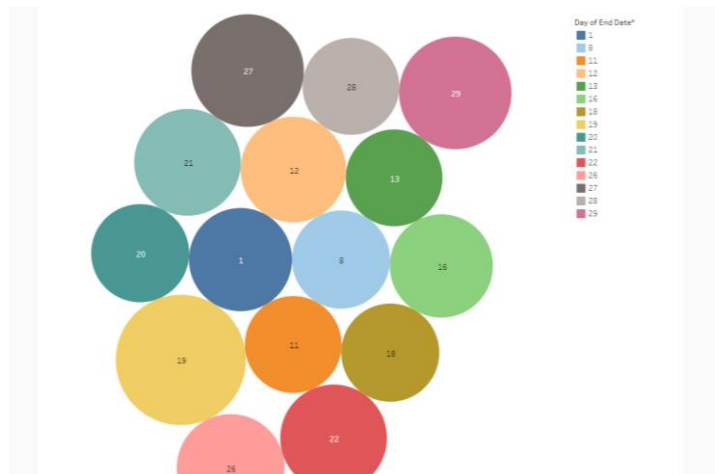
Activity 1.1: Month wise Uber Trips Analysis



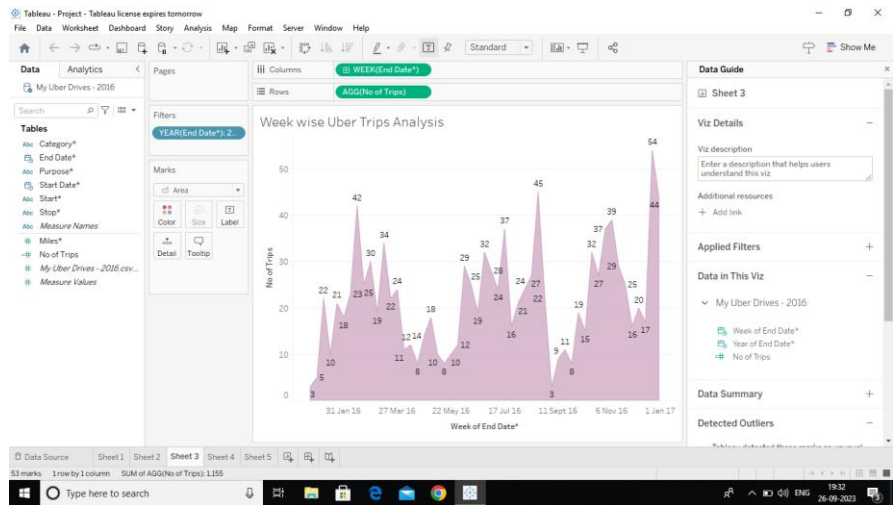
Activity 1.2: Week wise Uber Miles Analysis



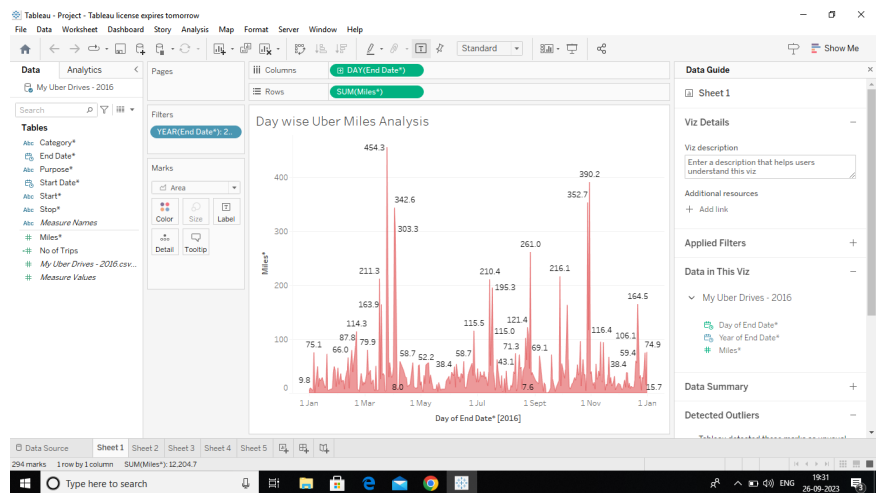
Activity 1.3: Day wise Uber Trips Analysis



Activity 1.4: Week wise Uber Trips Analysis



Activity 1.5: Day wise Uber Miles Analysis

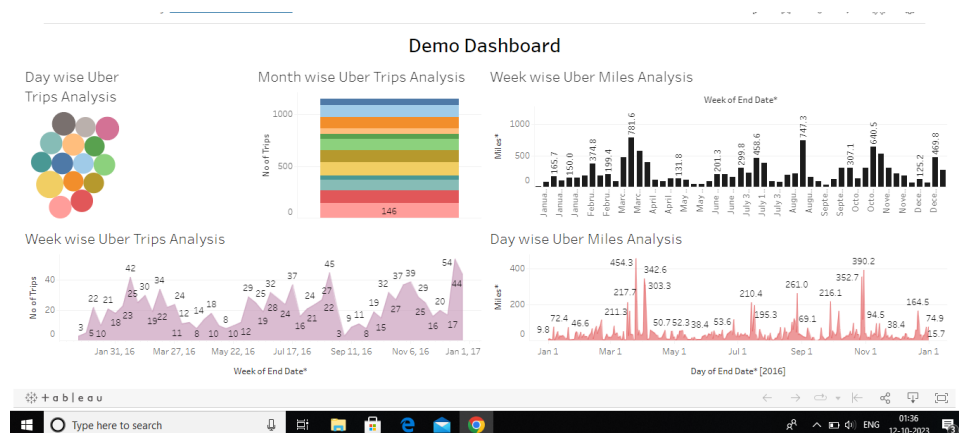


Milestone 5: Dashboard

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.

Activity :1- Responsive and Design of Dashboard

The responsiveness and design of a dashboard for Data-Driven insights on YouTube channels Analysis is crucial to ensure that the information is easily understandable and actionable. Key considerations for designing a responsive and effective dashboard include user-centered design, clear and concise information, interactivity, data-driven approach, accessibility, customization, and security. The goal is to create a dashboard that is user-friendly, interactive, and data-driven, providing actionable insights.

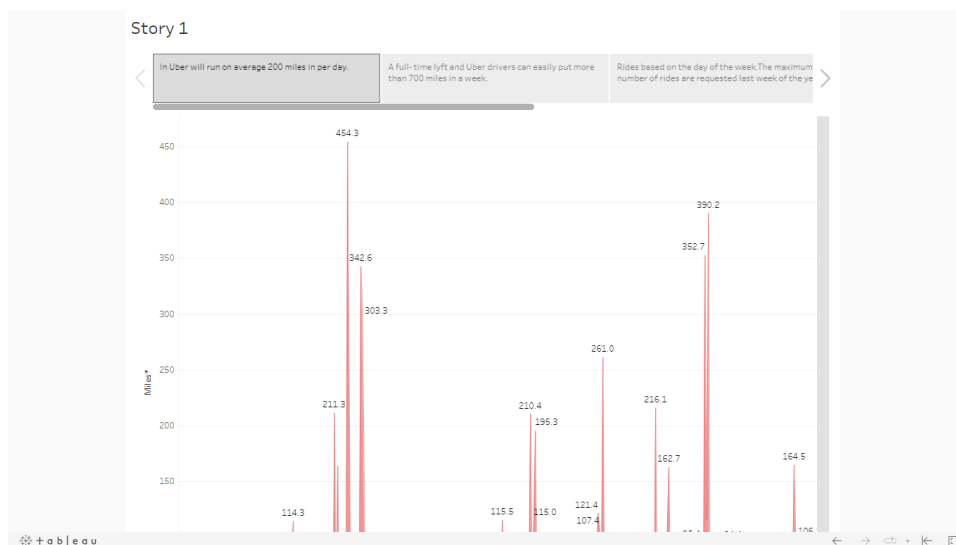


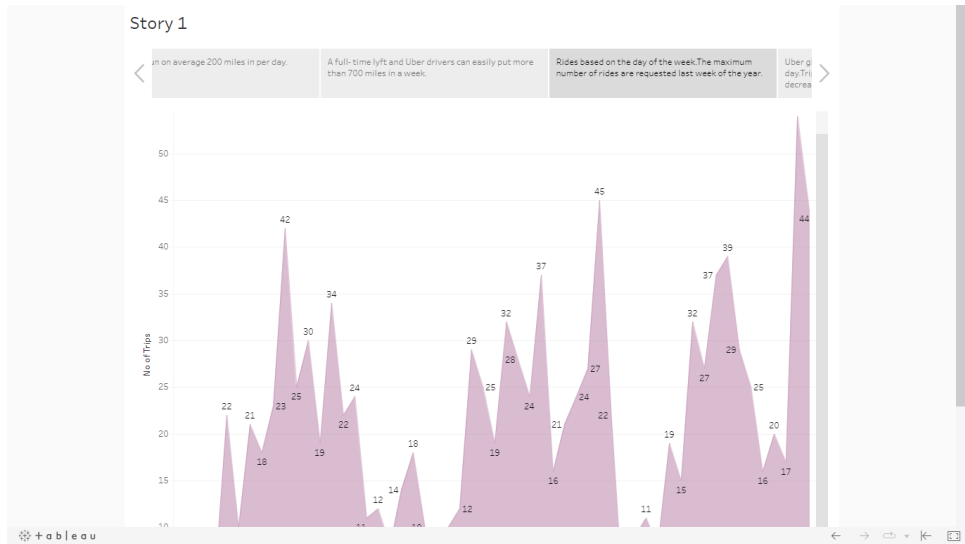
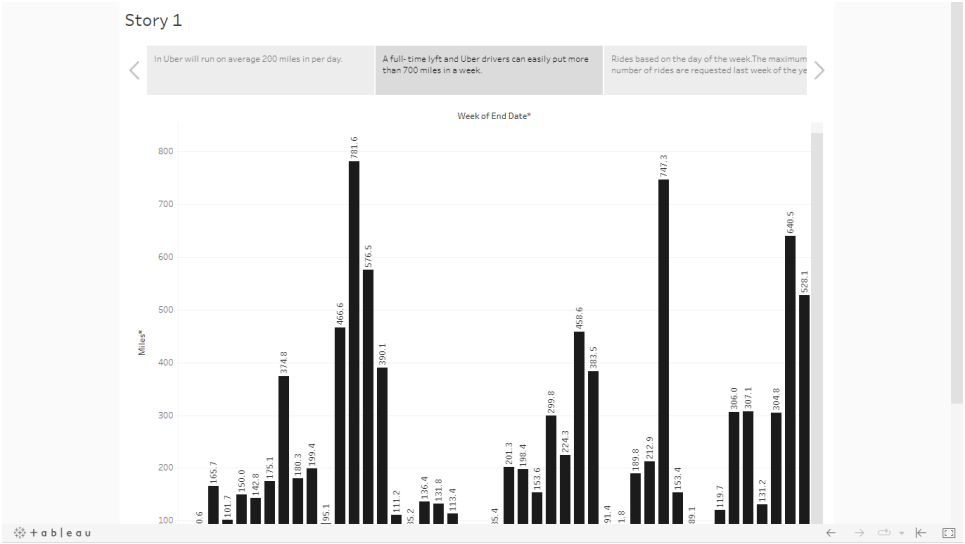
Milestone 6: Story

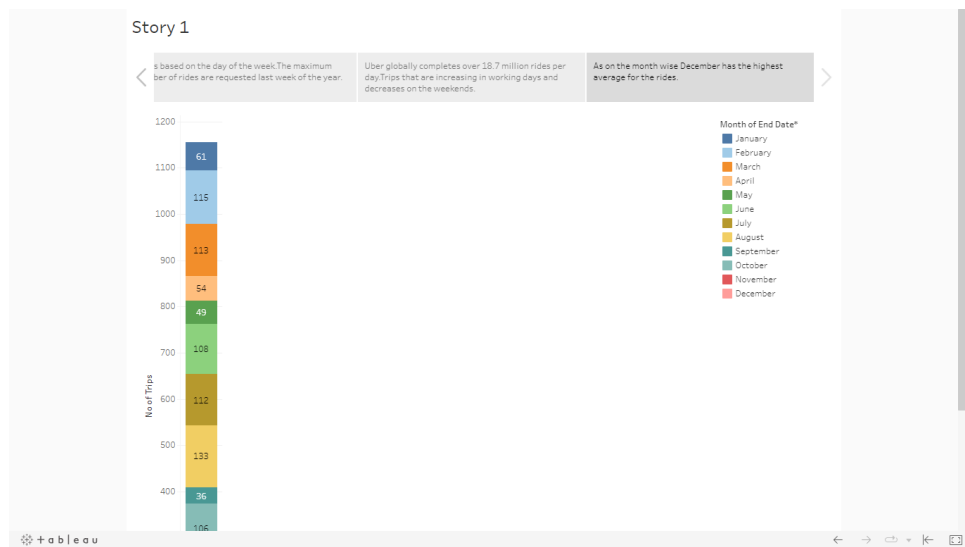
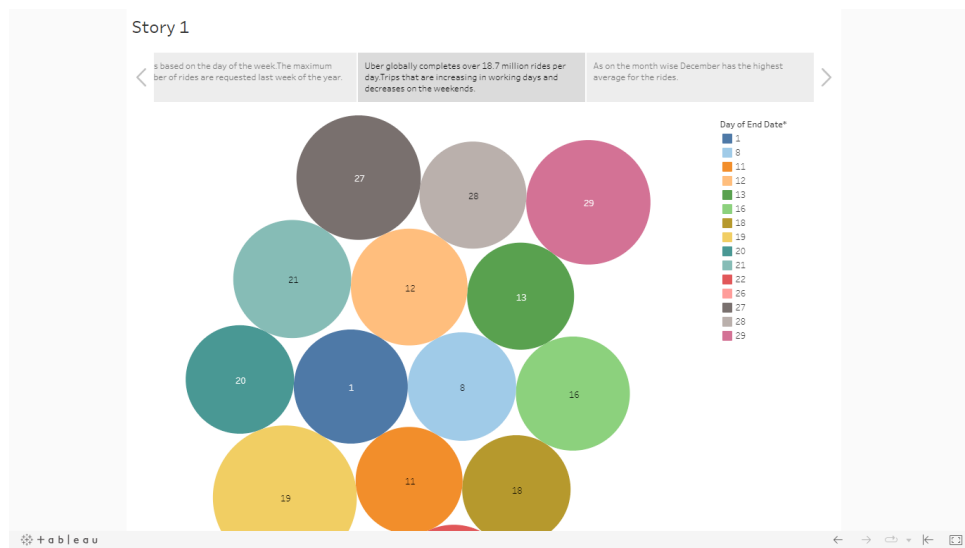
A data story is a way of presenting data and analysis in a narrative format, with the goal of making the information more engaging and easier to understand. A data story typically includes a clear introduction that sets the stage and explains the context for the data, a body that presents the data and 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.

Activity:1- No of Scenes of Story

The number of scenes in a storyboard for Data-Driven insights on YouTube channels Analysis will depend on the complexity of the analysis and the specific insights that are trying to be conveyed. A storyboard is a visual representation of the data analysis process and it breaks down the analysis into a series of steps or scenes.

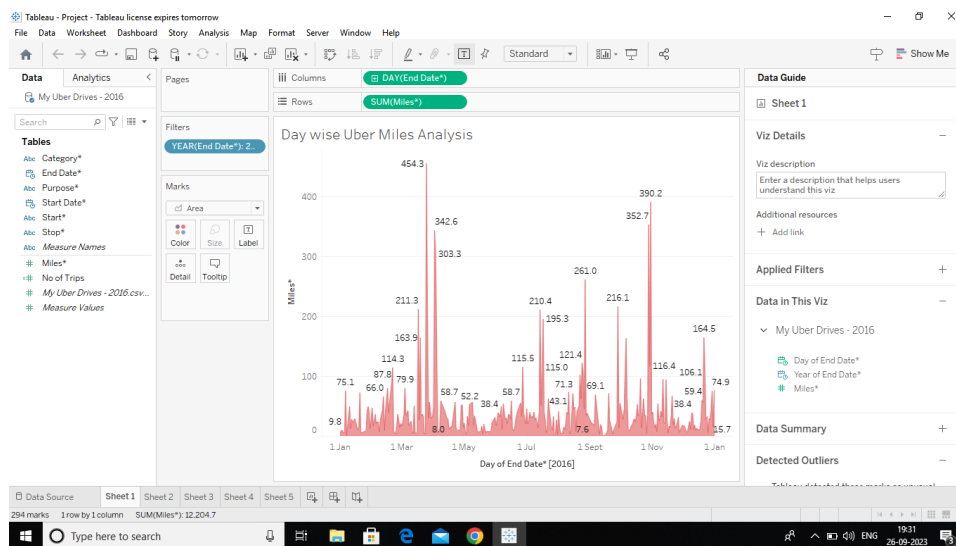






Milestone 7: Performance Testing

Activity 1: Utilization of filters



Activity 2: No of Visualizations/ Graphs

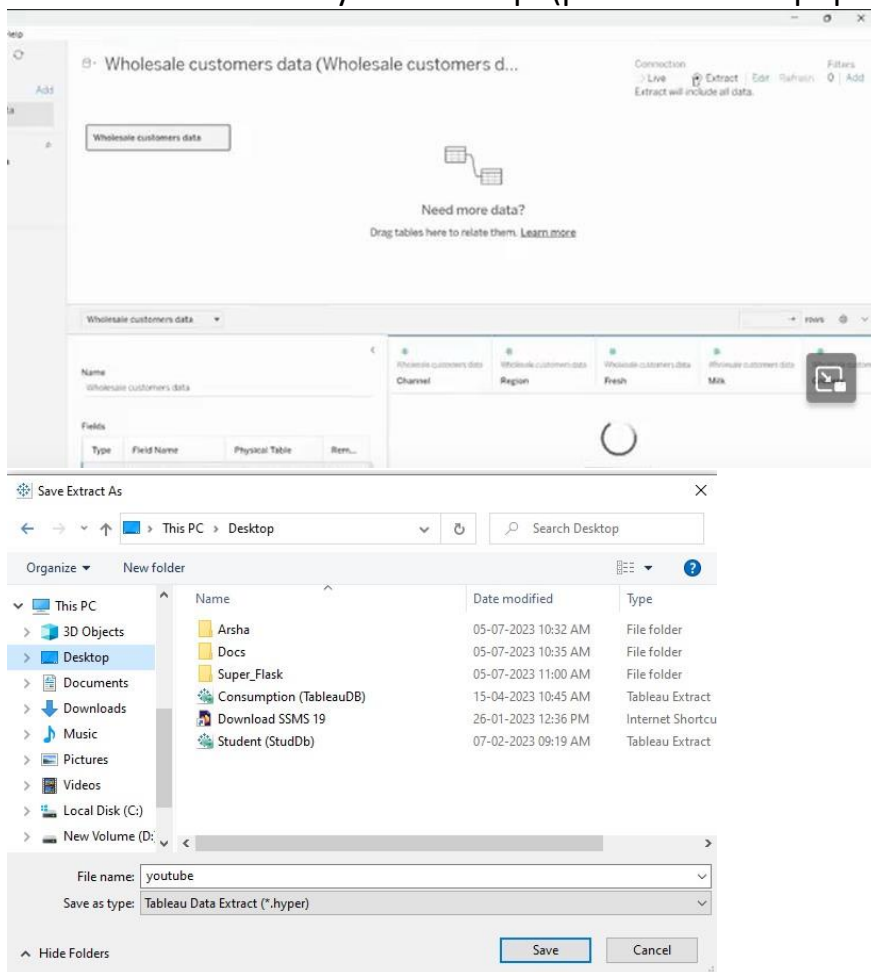
- 1.Day wise Uber Trips Analysis(Bubble chart).
- 2.Week wise Uber Trips Analysis(Area chart).
- 3.Moth wise Uber Trips Analysis(Bar chart).
- 4.Day wise Uber Miles Analysis(Area chart).
- 5.Week wise Uber Miles Analysis(Bar chart).

Milestone 8: Publishing

Publishing helps us to track and monitor key performance metrics, to communicate results and progress. help a publisher stay informed, make better decisions, and communicate their performance to others.

Publishing dashboard and reports to tableau public

Step 1 Go to data Source and Select Extract so that .hyper extension files are created and save it at your desktop. (please wait for pop up of file to save)



Step 2: Go to Dashboard/story, click on share button on the top ribbon

Share via Tableau Server or Tableau Cloud

Server:

Quick Connect
[Tableau Cloud](#)

Don't have a Tableau Server or Tableau Cloud account? Quickly create a Tableau Cloud site to share your work.

Give the server address of your tableau public account and click on connect.


Sign in to https://public.tableau.com

Sign In

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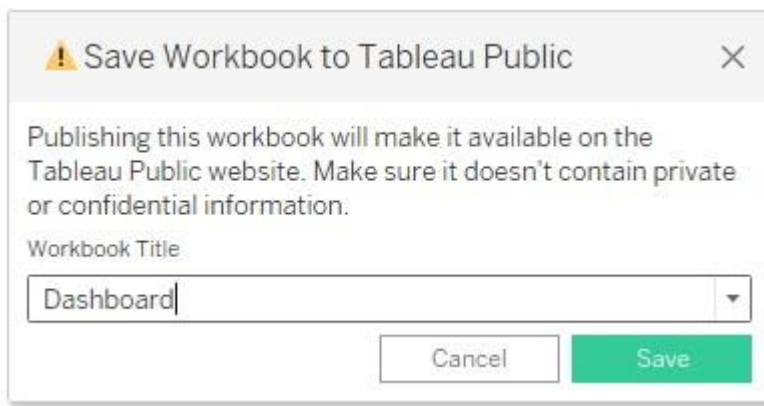
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Next, you'll need to provide a title and description for your workbook. Fill in the appropriate details in the provided field of workbook Title



Click on the "Save" button to start the publishing process. Tableau Desktop will upload your workbook to Tableau Public.

Once the upload is complete, a browser window will automatically open, displaying your published workbook on Tableau Public. Review the workbook to ensure that everything appears as expected.

So in Similar way we can also publish Story to tableau public.

Advantages and Disadvantages of Uber:

❖ **Advantages:**

- ★ Uber customers typically get where they are going faster or cheaper than they would by taxis.
- ★ Customers can rely on being able to find available uber drivers through their apps late and night.
- ★ Uber includes door-to-door convenience, safety and reliable quality.

❖ **Disadvantages:**

- ★ At peak times, the price could be double or more. This means too costly during rush hour and festive days.
- ★ Uber platform is not available in several countries where the company with local regulations.
- ★ The company has disrupted taxicab businesses and allegedly caused an increase in traffic congestion.

❖ **Future scope:**

- ★ The company expects in future around 539.49 million users will use its taxi services.
- ★ The tremendous success of Uber can be attributed to its simple and unique business model and its ability to offer an easy cab booking experience to customers with diverse transportation needs.

❖ **Conclusion:**

Uber is unique, convenient and cashless. Instead of chasing down a taxi on a street, it's a door-to-door convenience, safety, comfortable and reliable quality. It has a massive user base, with millions of people using its platform to hail rides every day. Thus Uber is a best and necessary thing for now a days.