



Smart
Internz



PERIYAR UNIVERSITY - SALEM

GOVERNMENT ARTS & SCIENCE COLLEGE

DHARMAPURI – 5

III – B.Sc Mathematics (2023-2024)

Guided By : Mr. N.R. Thirumal, M.Sc., B.Ed., M.Phil.

TEAM MEMBERS:

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Voyage Vista : Illuminating Insights from Uber Expeditionary Analysis

Introduction :

➤ 1.1 Overview

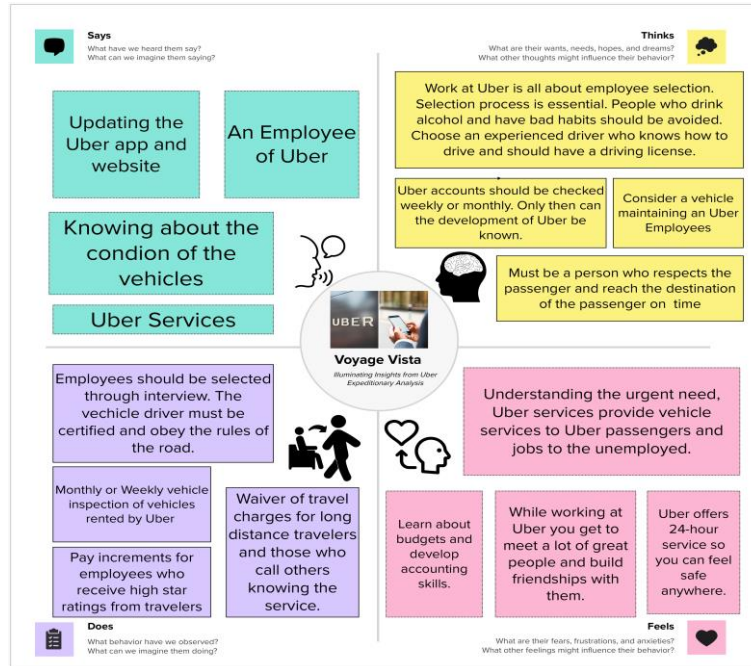
Uber is a multinational transportation network company that operates a ride-hailing platform. Uber provides a convenient way for individuals to request rides from drivers who use their own personal vehicles. Uber Driver Analysis refers to the Analyzing the number of trips taken by Uber drivers can provide 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.

➤ 1.2 Purpose

- **Transportation Innovation:** Uber aims to innovate and transform the way people move by providing convenient, on-demand transportation options.
- **Economic Opportunities:** It seeks to create economic opportunities for drivers by enabling them to earn income through the Uber platform.
- **Urban Mobility:** Uber strives to improve urban mobility by reducing congestion, pollution, and the need for personal car ownership.
- **Global Accessibility:** The company aims to make transportation more accessible and convenient for people around the world, regardless of their location.
- **Igniting Opportunity:** Uber's overarching goal is to ignite opportunities for both riders and drivers by facilitating efficient, reliable, and affordable transportation solutions.

Problem Definition & Design Thinking :

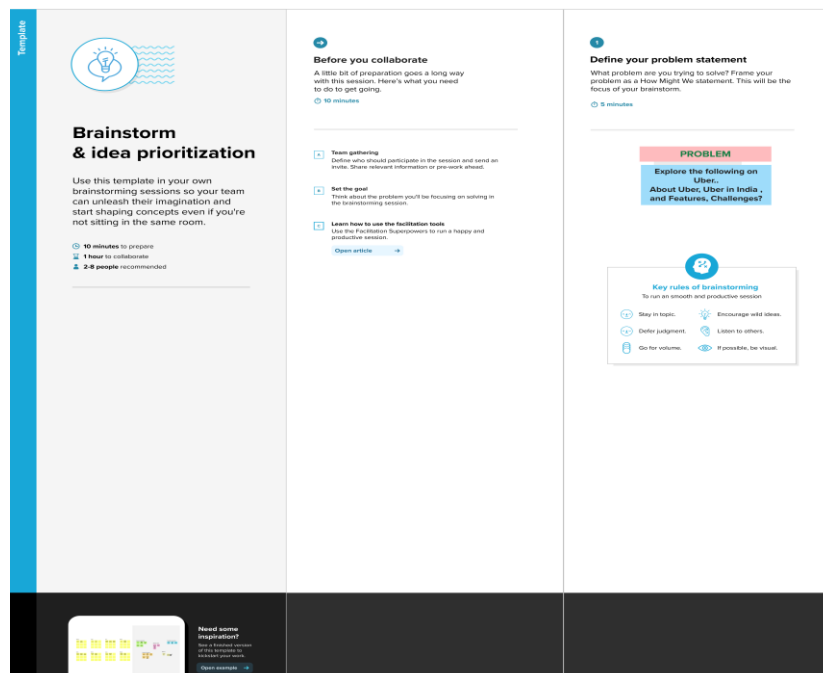
➤ 2.1 Empathy Map



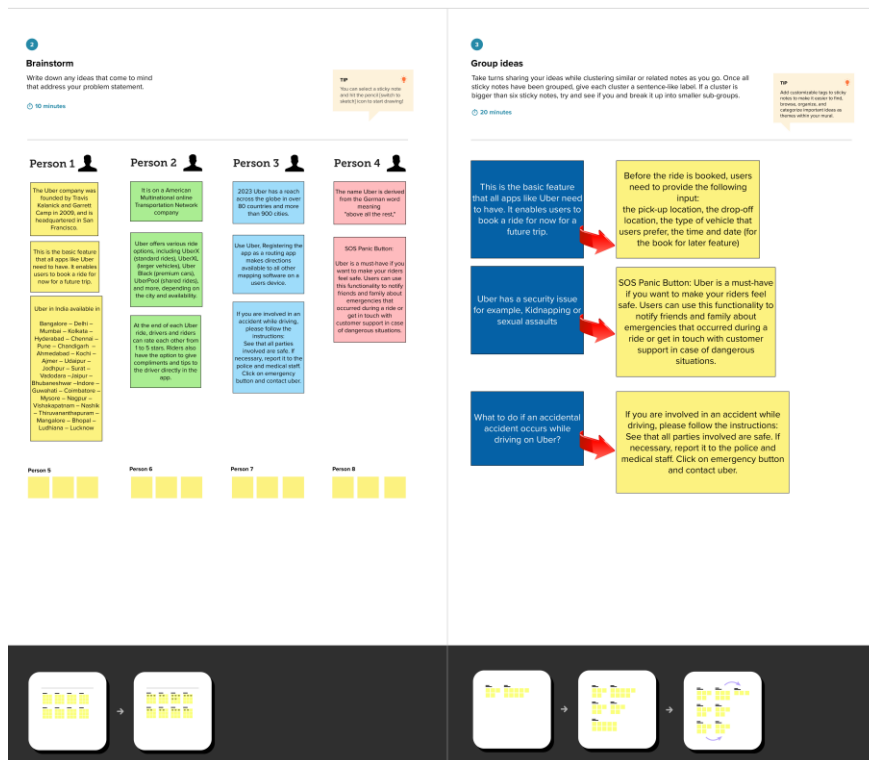
(Figure : 1)

Discussion: Using Empathy Map , We can analyse the thinking of uber in driver performance, safety and security , Earnings and income, Regulatory Impact.

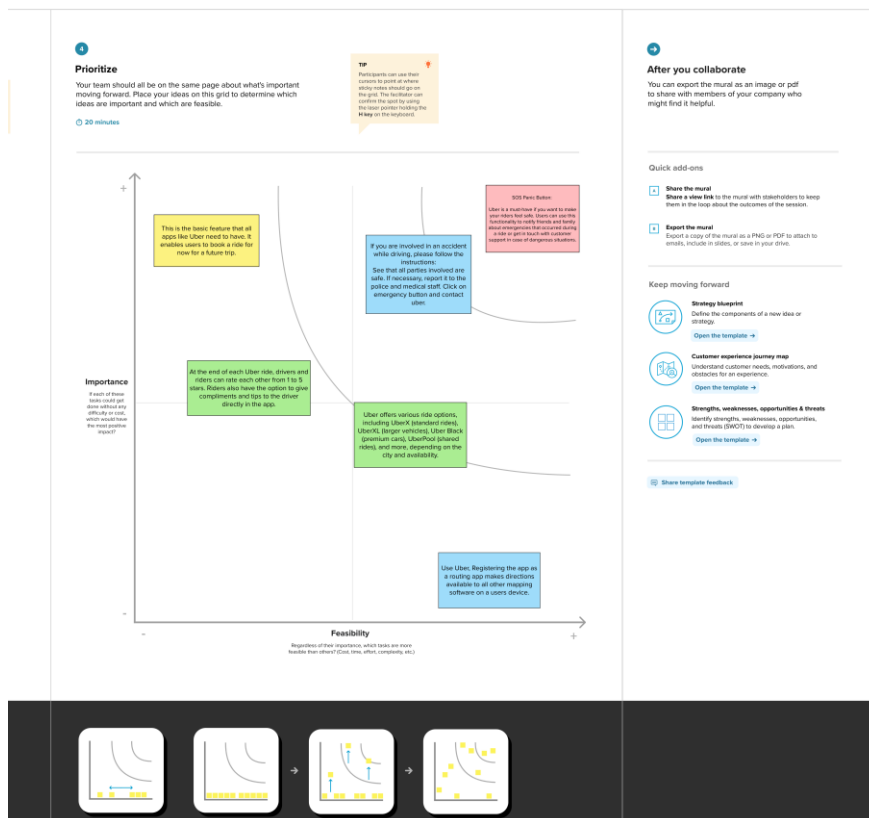
➤ 2.2 Ideation & Brainstorming Map



(Figure : 2)



(Figure : 3)



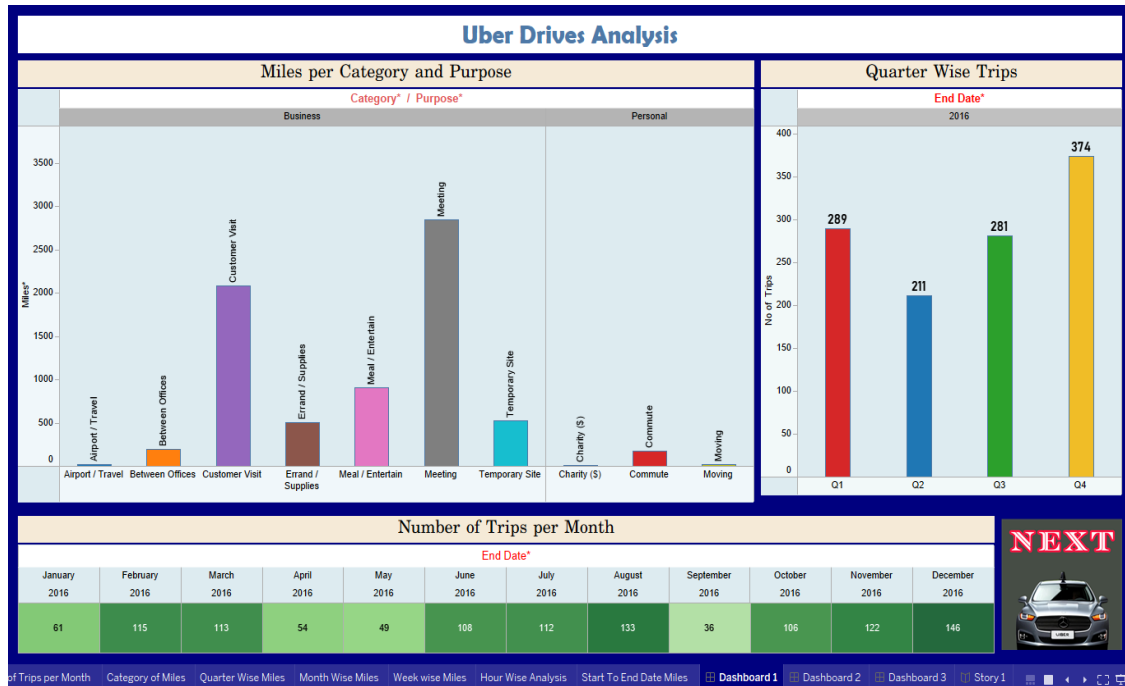
(Figure : 4)

Discussion: In this Brainstorming Map, we can create and understand the question. Using Analysis , we get a solution for the questions

Result :

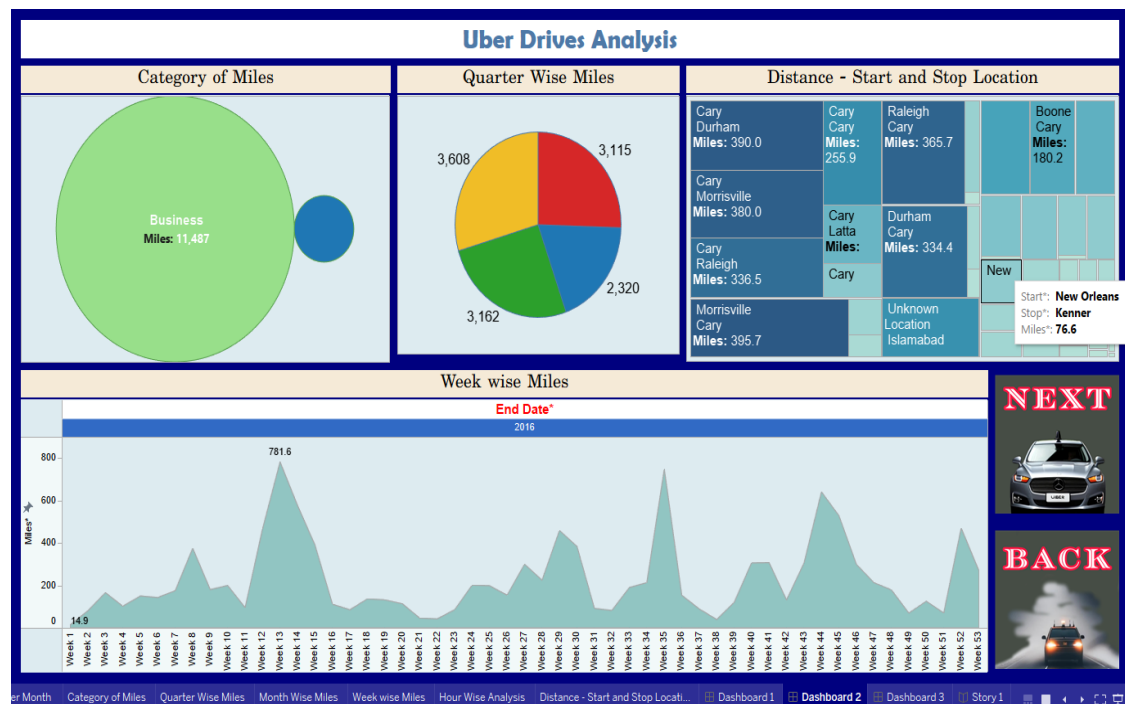
About Dashboard & Story Discussion added in **Conclusion.** (Page-8)

➤ Dashboard 1



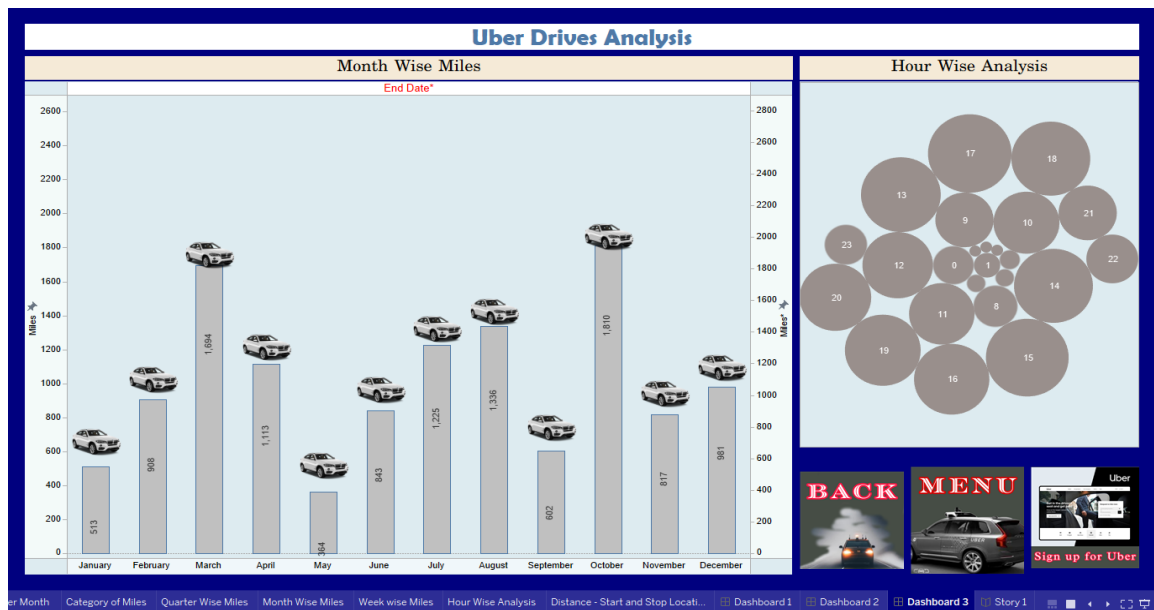
(Figure : 5)

➤ Dashboard 2



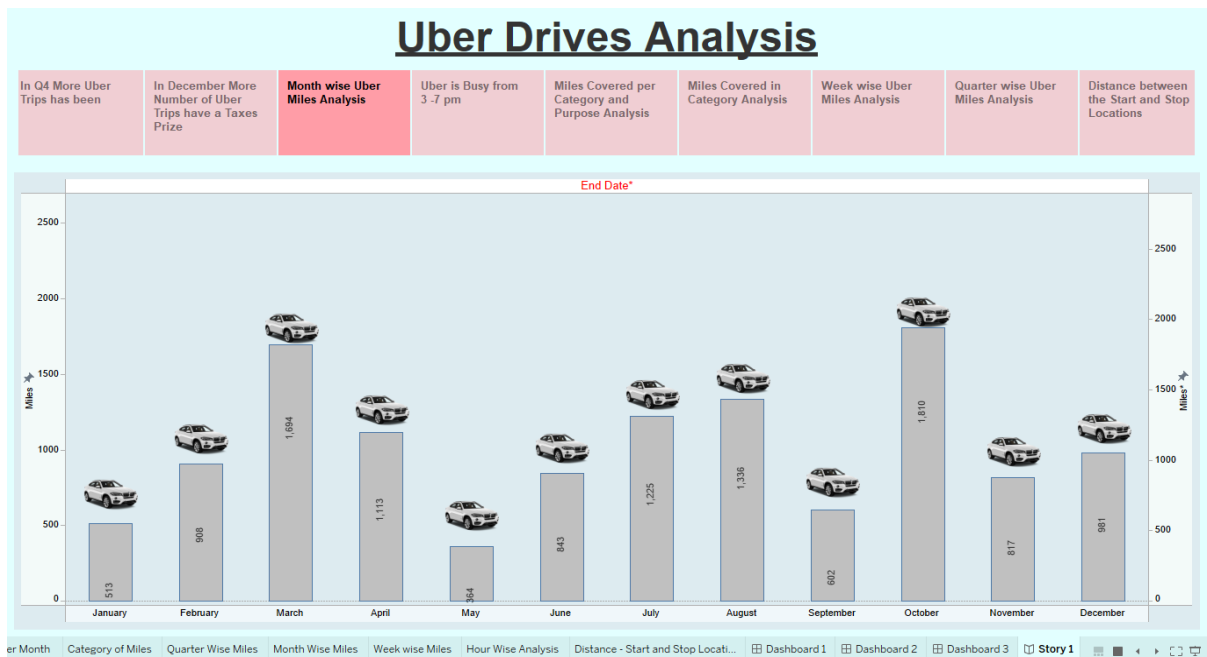
(Figure : 6)

➤ Dashboard 3



(Figure : 7)

➤ Story



(Figure : 7)

Tableau Public Link :

❖ Dashboard Link -

https://public.tableau.com/views/VoyageVistaIlluminatingInsightsfromUberExpeditionaryAnalysis/Dashboard1?:language=en-GB&:display_count=n&:origin=viz_share_link

❖ Story Link -

https://public.tableau.com/views/VoyageVistaIlluminatingInsightsfromUberExpeditionaryAnalysis-Story/Story1?:language=en-GB&:display_count=n&:origin=viz_share_link

Advantages & Disadvantages :

Advantages and Disadvantages of taking Uber trips:

S.No	Advantages	Disadvantages
1	Convenience : Easy and quick access to rides with the Uber app.	Surge Pricing : Prices can significantly increase during peak hours or high demand, leading to higher costs.
2	Cost-Efficient : Often cheaper than traditional taxis in many locations.	Safety Concerns : Safety incidents with some Uber rides have been reported.
3	User-Friendly App : Intuitive app for booking, tracking, and managing rides.	Driver Ratings : Some drivers may have low ratings or provide subpar service.
4	Wide Availability : Uber operates in numerous cities globally.	Uncertain Wait Times : Wait times can vary, especially in less populated areas or during busy times.
5	Cashless Transactions : Payments are typically made through the app, reducing the need for cash.	Regulatory Issues : Uber may face legal and regulatory challenges in some regions.
6	Ride-Sharing Options : Choices include standard rides, shared rides, and premium options.	Privacy Concerns : Uber collects user data, raising privacy issues for some users.
7	Driver Accountability : Riders can rate and provide feedback on drivers, promoting better service.	Cancellation Fees : Cancelling rides too close to pickup time may incur fees.
8	Accessibility : Uber offers wheelchair-accessible and car seat options in some locations.	Limited Coverage : Service may be limited or unavailable in some areas.
9	Reduced DUI : Provides a safe alternative to driving under the influence.	Vehicle Quality : Vehicle conditions may vary, affecting comfort and cleanliness.
10	Environmental Benefits: Encourages carpooling and reduces private car usage.	Surge Pricing : During peak times, prices can be significantly higher than usual.

Applications :

In our **Naan Mudhalvan** program, we introduced Tableau as a mandatory subject. After installing Tableau , we initiated discussions on our designated topic, which was **Voyage Vista : Illuminating Insights from Uber Expeditionary Analysis.**

In this endeavor, I will delve into a dataset sourced from the **Smartinterz** website, specifically focusing on Uber trips and distances logged in the year 2016. The core aim of this analysis is to glean actionable insights into Uber's operational dynamics throughout that particular year. Through meticulous exploration of the dataset, my objective is to pinpoint recurring patterns and emerging trends. Ultimately, the purpose is to generate information of substantial value, serving as a navigational compass for decision-making processes. By conducting this comprehensive examination, I seek to paint a holistic picture of Uber's operational terrain during the year 2016. The insights unearthed during this analysis will not only enrich our understanding of Uber's strategies and performance during that timeframe but also serve as a strategic compass, guiding potential enhancements and refinements in their services.

Conclusion :

With Smartinterz's assistance, we conducted an analysis of 2016 Uber trips and distances data. This endeavor yielded valuable insights, allowing us to accumulate a substantial amount of knowledge from the dataset.

We have observed the Uber collections of 2016. They are as follows:

Observed Uber Collections	Using Tableau Graphs
Many people sign up to ride with Uber for various reasons, but I've discovered that the primary motive for undertaking long journeys is often driven by business necessity.	Bar graph & Bubble chart
Breaking down the year 2016 into four quarters and analyzing the miles traveled on Uber, it becomes evident that the fourth quarter recorded the highest number of miles covered.	Bar graph & Pie chart
In Uber's records for the year, December boasted the highest number of monthly trips. However, when it comes to measuring distance, October outpaced all other months, registering for a greater distance covered.	Highlight Table & Bar graph
According to the weekly survey, in a year consisting of 53 weeks, the 13th week stands out with the highest travel distance, while the 1st week records the least distance traveled.	Area Chart
Determine the least frequently booked time on Uber, and designate it as the peak/busy period. This time slot sees the highest concentration of trip bookings, while other times of the day experience fewer bookings.	Bubble Chart

All Visualizations/ Graphs Uploaded in Tableau Public. (Page-4)

Future Scope :

In this section, we delved into Tableau and conducted group discussions. Through these discussions, we identified the need for Uber Taxi service. We sought input from our team on how to advance this service further. Here are the summarized responses gathered from our team members.

- **Enhanced Safety Measures :**

Stay updated with advanced safety technologies, like biometric driver identification and advanced driver assistance systems, to ensure the safety of passengers.

- **In-Car Entertainment and Connectivity:**

Equip vehicles with entertainment and connectivity options to enhance the passenger experience, such as Wi-Fi, streaming services, and touchscreen displays.

- **Regulatory Compliance :**

Stay informed about evolving regulations related to transportation services and ensure your business complies with local laws.

- **Mobile App Innovation :**

Continuously enhance your mobile app with features like augmented reality for finding pick-up points, real-time traffic updates, and AI-driven personalization.

- **Customer-Centric Approach:**

Focus on delivering excellent customer service and soliciting feedback to continuously improve your service.

- **Sustainability Initiatives :**

Promote eco-friendly practices such as carbon offset programs, green vehicle choices, and reduced emissions to attract environmentally conscious customers.

Remember that innovation and adaptability are key to the long-term success of a taxi service in a rapidly changing transportation landscape. Continuously seek feedback from customers and monitor industry trends to stay competitive and relevant in the future.

Appendix :

A. Source Code (Dashboard) :

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    vizElement.style.height=(divElement.offsetWidth*0.75)+'px';
  } else if ( divElement.offsetWidth > 500 ) {
    vizElement.style.width='100%';
    vizElement.style.height=(divElement.offsetWidth*0.75)+'px';
  } else {
    vizElement.style.width='100%';
    vizElement.style.height='927px';}
  var scriptElement = document.createElement('script');
  scriptElement.src = 'https://public.tableau.com/javascripts/api/viz_v1.js';
  vizElement.parentNode.insertBefore(scriptElement, vizElement);
</script>
```

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THANK YOU....♥♥♥♥

