Voyage Vista: Illuminating Insights from Uber Expeditionary Analysis

Prepared in the partial fulfillment of the Summer Internship Program on Data Analysis
at
SmartInternz

Under the guidance of
Indra Prakash Chauhan sir

Submitted by

Team-591256

Team Members
1. Srishti Mohanty (21bce8296)
2. Batchu Ramya (21bce9106)
3. Kaki Tulasi Sri Sanjana (21bce9524)
4. G.Greeshma Sai Koushika (21bce8236)

VITAP UNIVERSITY

Submission date: 09/11/2023

ACKNOWLEDGEMENT

We would like to express our sincere gratitude to the SmartInternz for providing us with the invaluable opportunity to participate in the Summer Internship program. This internship has been an enriching and transformative experience that has allowed us to apply and expand our knowledge and skills in a real-world setting.

We extend our heartfelt thanks to our dedicated supervisor and mentor during the internship. Their guidance, expertise, and unwavering support have been instrumental in shaping our understanding of the subject matter and in successfully completing the project.

We also want to express our appreciation to the entire team at SmartInternz for creating a conducive learning environment and for their continuous encouragement and feedback throughout the internship. This internship has not only provided us with valuable insights and practical skills but has also reinforced our passion for Data Analytics. We are grateful for the trust and confidence that SmartBridge has placed in us, and we look forward to applying the knowledge and experience gained here in our future endeavours.

Thank you once again for this incredible opportunity.

Sincerely,

B.Ramya
ramya.21bce9106@vitapstudent.ac.in

Srishti Mohanty
srishti.21bce8296@vitapstudent.ac.in

K.T.S.Sanjana
tulasisri.21bce9524@vitapstudent.ac.in

G.Greeshma
greeshma.21bce8236@vitapstudent.ac.in

Table of Contents

INTRODUCTION

In today's fast-paced world, data is like a treasure map that can lead to valuable discoveries. To find these hidden treasures, we need to use cool tools and clever ideas. That's what our project, "Voyage Vista," is all about. We're going on an adventure to explore Uber's data and find interesting things.

Uber, a global leader in the ride-sharing and transportation industry. It is that app you use to get rides from one place to another. It's huge, and lots of people use it every day. All those rides and data create a big puzzle for us to solve. "Voyage Vista" is like our magnifying glass to look at this puzzle and discover cool stuff. We want to learn not just about Uber but also how to use data to learn new things.

Our project is a mix of looking at numbers, making pictures with the numbers, and understanding what it all means. We're going to break down different parts of Uber, like how people use it, how drivers do their jobs, where people go, and how much it costs. We're like data detectives!

"Voyage Vista" isn't just for us; it's for everyone who wants to know more about data and how it works in the real world. Whether you're into math and numbers, thinking about starting a business, or just curious, our project is like a tour guide for understanding data.

As we explore Uber's data, we'll ask interesting questions, find surprising answers, and share what we discover with you. It's like a journey full of knowledge and fun. So, come along with us on "Voyage Vista: Illuminating Insights from Uber Expeditionary Analysis." It's going to be a cool ride!

Purpose:

The purpose of this project is to dig into Uber's data and learn some cool stuff. We want to understand how Uber works and what we can find in its data. It's like a big puzzle we want to solve. We're doing this to learn more about data and also to share what we discover with others who might be interested. It's like a fun adventure of learning!

LITERATURE SURVEY

2.1 Existing problem:

Uber drivers and riders may face various challenges and problems in their interactions with the platform. These issues can vary depending on factors such as location, regulations, and individual circumstances. Here are some of the existing problems faced by Uber drivers and riders:

For Uber Drivers:

1. Earnings and Compensation: Drivers often express concerns about low earnings, especially after factoring in expenses such as fuel, maintenance, and vehicle depreciation. Uber's commission fees also impact driver income.

2. Driver Rating System: The driver rating system, while designed to maintain quality service, can be a source of stress for drivers. A few low ratings can negatively impact their ability to continue driving for Uber.

3. Safety and Security: Drivers can face safety risks, as they pick up and transport strangers. Incidents of rider harassment, vandalism, or violence can be concerning.

4. Vehicle Wear and Tear: The nature of the job can lead to rapid vehicle wear and tear, increasing maintenance costs for drivers.

5. Independent Contractor Status: Drivers often fall into the category of independent contractors, which means they may not have access to employment benefits like health insurance, retirement plans, and job security.

6. Lack of Social Benefits: Uber drivers might feel isolated as they lack the social interaction that comes with a traditional workplace.

7. Regulatory Challenges: Drivers have to navigate the complex and often evolving regulatory landscape in different regions. Local authorities may have varying rules and requirements for ride-sharing services.

For Uber Riders:

1. Surge Pricing: During peak hours or high-demand periods, riders might face surge pricing, where fares increase significantly. This can lead to unexpected and expensive rides.

2. Safety Concerns: While Uber has safety features in place, riders can still feel uneasy about getting into a car with a stranger. Ensuring the driver's identity and vehicle match the app can be a concern.

3. Cancellations and No-Shows: Riders may experience ride cancellations or no-shows from drivers, leading to delays in reaching their destinations.

4. Service Quality: Inconsistent service quality can be a problem, with some riders reporting poor experiences, such as unprofessional drivers or dirty vehicles.

5. Accessibility: Not all riders have smartphones, credit cards, or access to the Uber app, limiting the accessibility of the service to certain populations.

6. Privacy Concerns: Riders' personal information and location data are collected by Uber, raising privacy concerns for some users.

7. Complaint Handling: Some riders report difficulties in resolving issues or complaints with Uber's customer support.

Common problems for both:

1. Supply-Demand Imbalance: During peak hours, there's often an increased demand for rides, which can lead to shortages of available drivers. This results in longer wait times and higher prices for passengers.

2. Traffic Congestion: Peak hours are typically associated with heavy traffic, which can slow down trips, increase travel times, and lead to frustrated passengers and drivers.

2.2 References:

1. Smith, A., Randle, R., & Ran, B. (2018). "An Analysis of Uber's Dynamic Pricing Model." Journal of Transportation Technologies, 8(1), 40-54.

2. LEE, Y., & KONANA, P. (2016). "Surge Pricing: An Empirical Analysis of Uber's Price Mechanism." SSRN Electronic Journal.

3. Mateen, M., & Shah, S. A. (2017). "The Uberization of Transportation: Crowdsourced Ridesharing and the Taxi Industry." Journal of Management Information Systems, 34(3), 1004-1036.

4. Cook, S., & Kuchler, T. (2018). "Uber's Surge Pricing and the Supply of Rideshare Drivers." Journal of Economics & Management Strategy, 27(1), 61-84.

5. Rix, B., & Walden, J. (2016). "Assessing Uber's Impact in the Taxi Industry: A Case of Competitive Deregulation." Transport Policy, 48, 1-11.

6. Huang, L., Duan, Y., & Xu, J. (2017). "Surge Pricing in Ride-Sharing Services: An Empirical Investigation." Marketing Science, 36(5), 611-632.

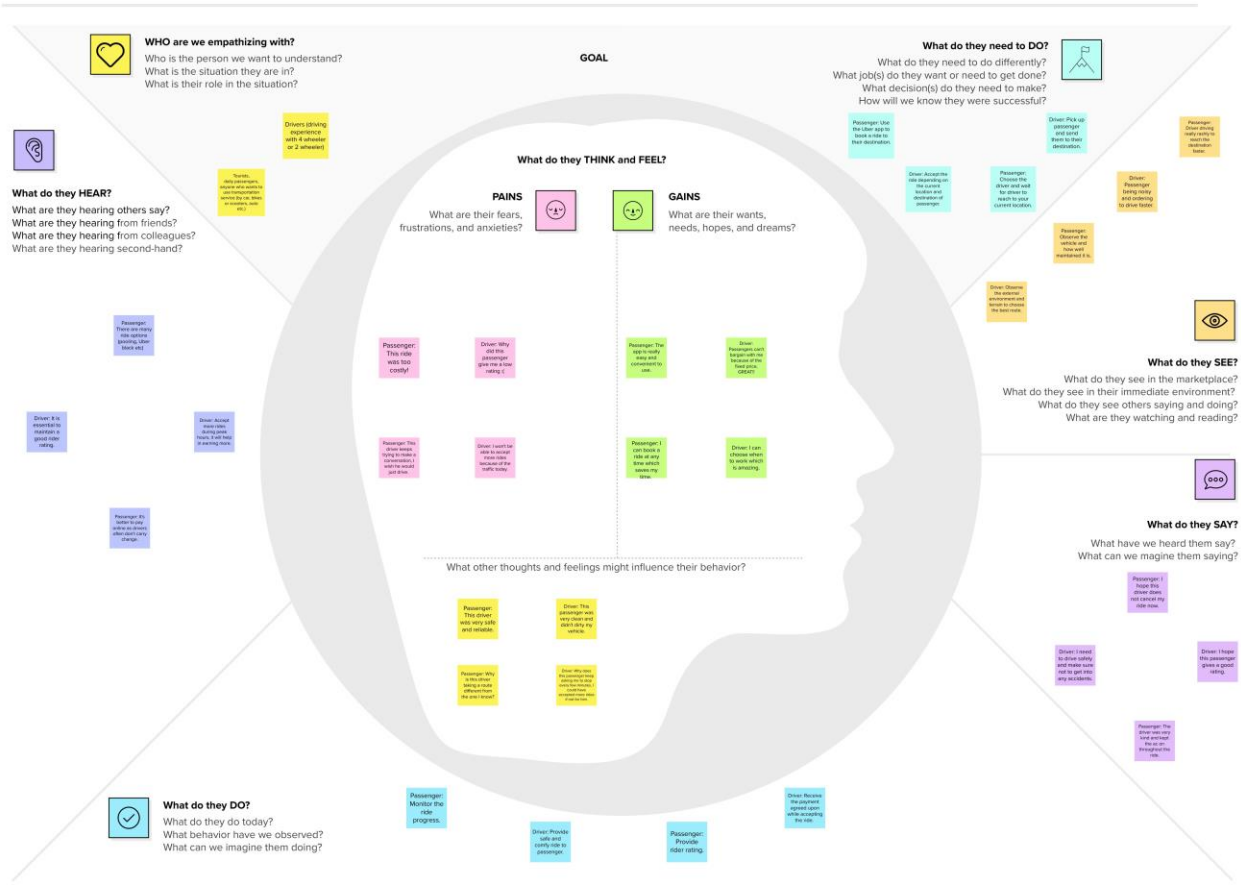
2.3 Problem Statement Definition:

Based on the existing problems and the references, the problem statement for this project can be defined as:

During peak hours, Uber faces challenges related to supply-demand imbalances, traffic congestion, driver fatigue, and pricing strategies. This project aims to analyze Uber's operations during peak hours to identify trends, issues, and potential solutions to enhance the passenger experience, optimize driver utilization, and improve overall service quality.

IDEATION & PROPOSED SOLUTION

3.1 Empathy Map Canvas:

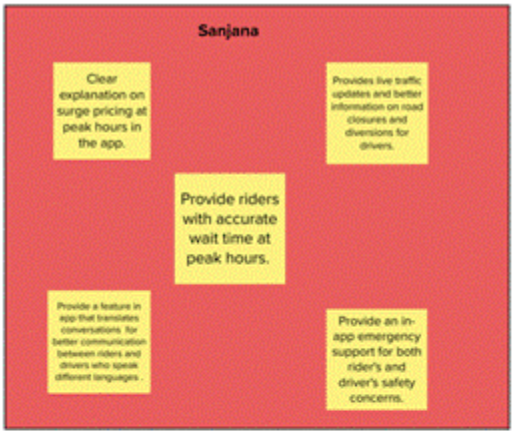


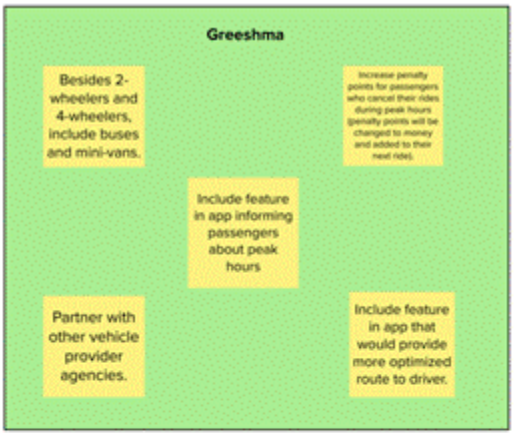
3.2 Ideation & Brainstorming:

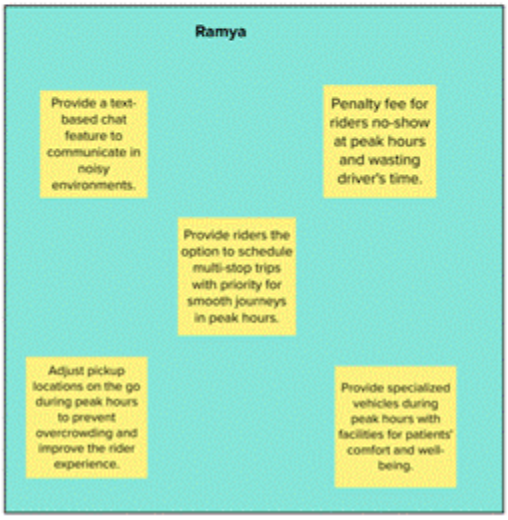
PROBLEM STATEMENT:

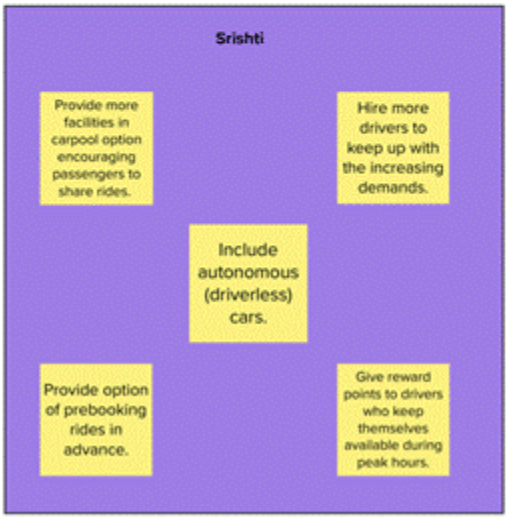
How to keep up with the increased ride requests during peak hours?

Brainstorm:

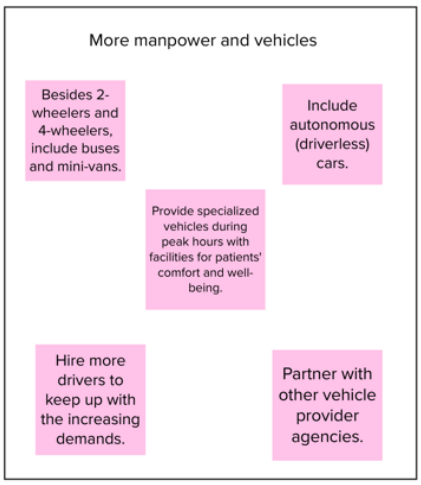

Sanjana
Clear explanation on surge pricing at peak hours in the app.
Provides live traffic updates and better information on road closures and diversions for drivers.
Provide riders with accurate wait time at peak hours.
Provide a feature in app that translates conversations for better communication between riders and drivers who speak different languages .
Provide an in-app emergency support for both rider's and driver's safety concerns.

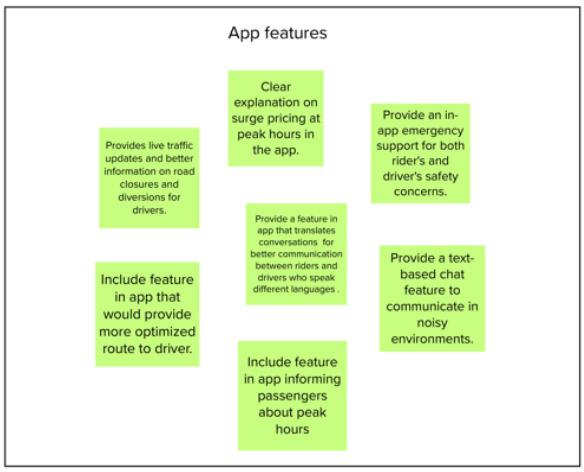

Greeshma
Besides 2-wheelers and 4-wheelers, include buses and mini-vans.
Increase penalty points for passengers who cancel their rides during peak hours (penalty points will be changed to money and added to their next rides).
Include feature in app informing passengers about peak hours
Partner with other vehicle provider agencies.
Include feature in app that would provide more optimized route to driver.

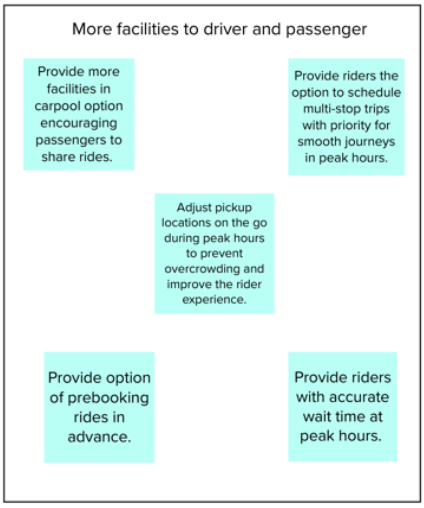

Ramya
Provide a text-based chat feature to communicate in noisy environments.
Penalty fee for riders no-show at peak hours and wasting driver's time.
Provide riders the option to schedule multi-stop trips with priority for smooth journeys in peak hours.
Adjust pickup locations on the go during peak hours to prevent overcrowding and improve the rider experience.
Provide specialized vehicles during peak hours with facilities for patients' comfort and well-being.

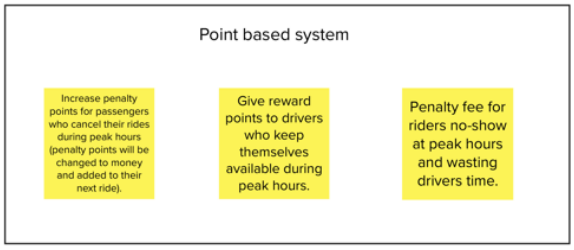

Srishti
Provide more facilities in carpool option encouraging passengers to share rides.
Hire more drivers to keep up with the increasing demands.
Include autonomous (driverless) cars.
Provide option of prebooking rides in advance.
Give reward points to drivers who keep themselves available during peak hours.

Group Ideas:

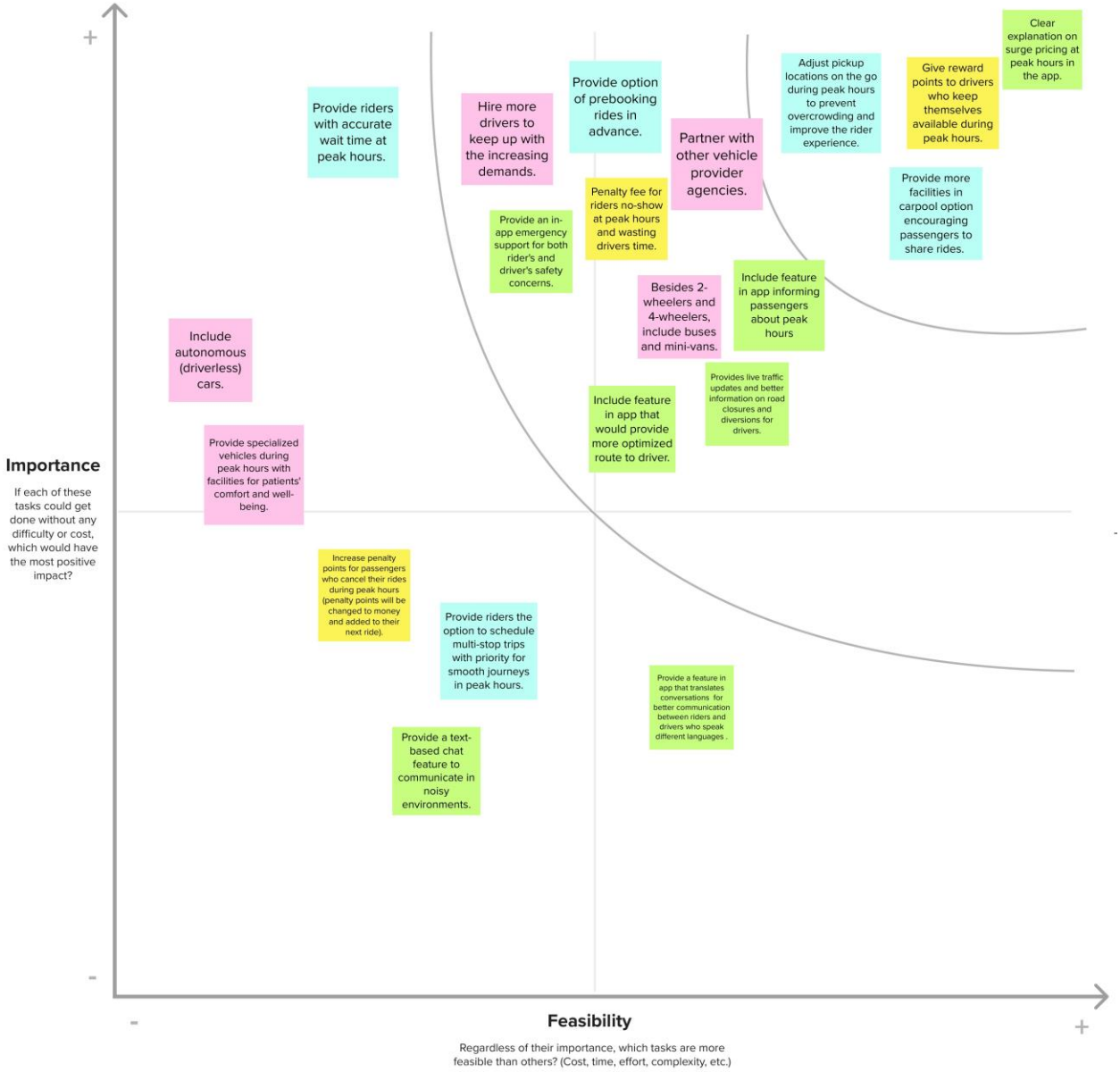

More manpower and vehicles
Besides 2-wheelers and 4-wheelers, include buses and mini-vans.
Include autonomous (driverless) cars.
Provide specialized vehicles during peak hours with facilities for patients' comfort and well-being.
Hire more drivers to keep up with the increasing demands.
Partner with other vehicle provider agencies.


App features
Clear explanation on surge pricing at peak hours in the app.
Provides live traffic updates and better information on road closures and diversions for drivers.
Provide an in-app emergency support for both rider's and driver's safety concerns.
Provide a feature in app that translates conversations for better communication between riders and drivers who speak different languages .
Include feature in app that would provide more optimized route to driver.
Provide a text-based chat feature to communicate in noisy environments.
Include feature in app informing passengers about peak hours


More facilities to driver and passenger
Provide more facilities in carpool option encouraging passengers to share rides.
Provide riders the option to schedule multi-stop trips with priority for smooth journeys in peak hours.
Adjust pickup locations on the go during peak hours to prevent overcrowding and improve the rider experience.
Provide option of prebooking rides in advance.
Provide riders with accurate wait time at peak hours.


Point based system
Increase penalty points for passengers who cancel their rides during peak hours (penalty points will be changed to money and added to their next ride).
Give reward points to drivers who keep themselves available during peak hours.
Penalty fee for riders no-show at peak hours and wasting drivers time.

Prioritize:


+
Importance
If each of these tasks could get done without any difficulty or cost, which would have the most positive impact?
-
-
Feasibility
Regardless of their importance, which tasks are more feasible than others? (Cost, time, effort, complexity, etc.)
+
Provide riders with accurate wait time at peak hours.
Hire more drivers to keep up with the increasing demands.
Provide option of prebooking rides in advance.
Partner with other vehicle provider agencies.
Adjust pickup locations on the go during peak hours to prevent overcrowding and improve the rider experience.
Give reward points to drivers who keep themselves available during peak hours.
Clear explanation on surge pricing at peak hours in the app.
Provide more facilities in carpool option encouraging passengers to share rides.
Penalty fee for riders no-show at peak hours and wasting drivers time.
Provide an in-app emergency support for both rider's and driver's safety concerns.
Include feature in app informing passengers about peak hours
Besides 2-wheelers and 4-wheelers, include buses and mini-vans.
Include autonomous (driverless) cars.
Provides live traffic updates and better information on road closures and diversions for drivers.
Include feature in app that would provide more optimized route to driver.
Provide specialized vehicles during peak hours with facilities for patients' comfort and well-being.
Increase penalty points for passengers who cancel their rides during peak hours (penalty points will be changed to money and added to their next ride).
Provide riders the option to schedule multi-stop trips with priority for smooth journeys in peak hours.
Provide a feature in app that translates conversations for better communication between riders and drivers who speak different languages .
Provide a text-based chat feature to communicate in noisy environments.

REQUIREMENT ANALYSIS

4.1 Functional Requirements:

- Collection, cleaning and preparation of the dataset for further analysis

- Examining and analysing the dataset using visualizations, dashboards and stories

- Gaining insights from the analysis performed

- Make plans and programs using the insights gained

4.2 Non-Functional Requirements:

- Integrating the visualizations into a website that is user-friendly
- Implementing the plans and programs formulated

PROJECT DESIGN

5.1 Proposed Solution:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Uber (a company that provides ride-hailing services) is sometimes unable to meet the increased demands during peak hours (8-9 am, 6-8 pm) and days (festivals) which leads to longer waiting times for passengers and surging prices which will eventually lead to customer dissatisfaction. Uber must find a solution to retain its current market (as well as customers) and sales.
2.	Idea / Solution description	To solve this problem we need to identify the peak hours and days so that the drivers can be asked to make themselves available during these times. They can then be given award points for the same which will reflect in additional benefits (or salary). Similarly, the passengers will also be informed about the peak hours/days along with a clear explanation of the surge prices so that they can accordingly book their rides in advance.
3.	Novelty / Uniqueness	Encouraging drivers to be available during peak hours and rewarding them with reward points addresses driver availability and potentially reduces waiting time. Furthermore, informing passengers about peak- hours and surge pricing in advance improves the overall experience and reduces frustration. By this, Uber is trying to make their service better during busy times, making it different from other ride-hailing options, and making customers more satisfied and likely to keep using Uber.
4.	Social Impact / Customer Satisfaction	Addressing the issues related to longer waiting times during peak hours and surge pricing can lead to greater customer satisfaction. Passengers will benefit from reduced wait times and clear information about surge pricing, making their rides more convenient and an informed ride-hailing experience. This leads to a positive effect, satisfaction, and trust for Uber services. Encouraging Uber drivers to work during peak hours and giving rewards can provide additional income and job stability. It will make both riders and drivers happier and also help drivers to have better job satisfaction.

5.	Business Model (Revenue Model)	Uber can introduce a Peak-Hour Driver Incentive Program, to encourage drivers who are available during peak hours by rewarding points and bonuses to them. Additionally, Uber can also implement features like the Peak-Hours Passenger Advisory program to notify customers about peak hours and surge prices, to allow them to schedule advanced informed ride decisions. Introducing Subscription plans or discounts where customers can have a fixed fee for unlimited rides during peak hours or on specific days. This guarantees availability and a source of recurring revenue. Uber can develop a data-driven business model by using data analysis services, offering insights to businesses and governments on traffic patterns and peak hours trends that can enhance operational efficiency and revenue generation.
6.	Scalability of the Solution	Peak-Hour Driver Incentive Program, Peak-Hours Passenger Advisory program, and Subscription plan or discounts will aim to integrate Uber's scalable solutions. This approach boosts the availability of drivers, ensures convenient rides for customers, and recurring revenue. Moreover, Uber's data analysis services provide traffic insights, benefiting both government and businesses. The data-driven model optimizes a scalable solution not only to reach current demand but also to open doors to future opportunities for growth and expansion.

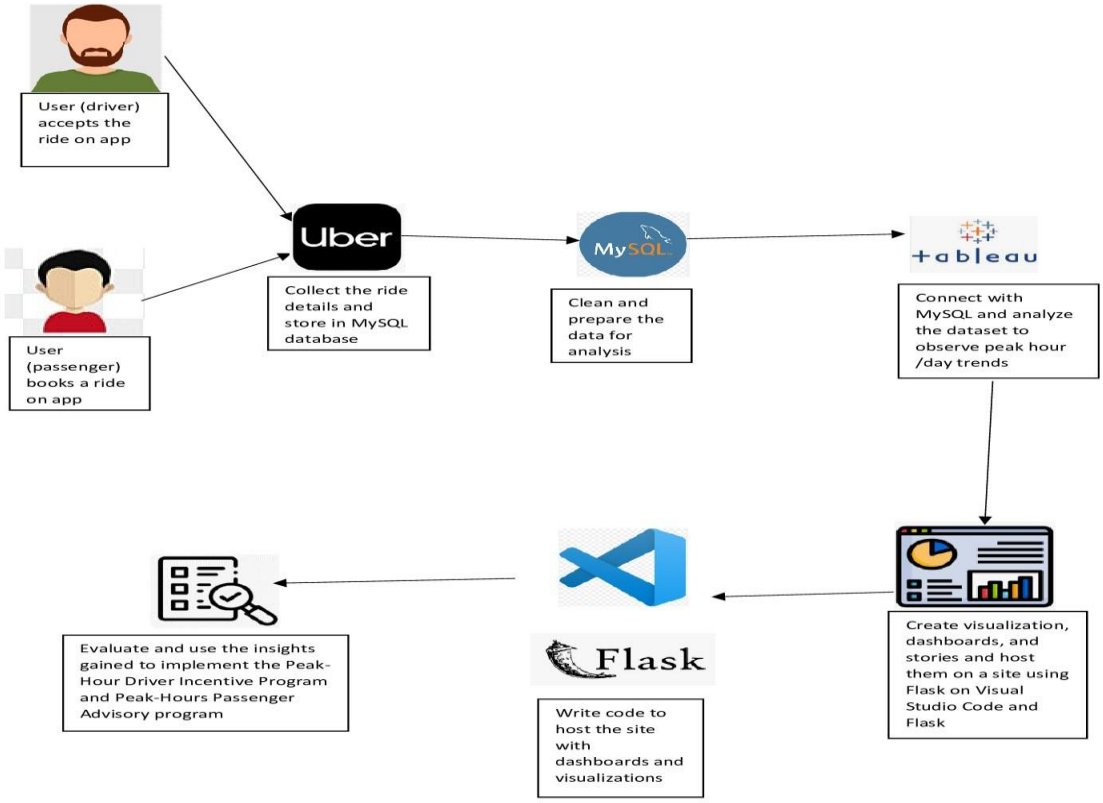
5.2 Solution Architecture:

To implement the Peak-Hour Driver Incentive program and Peak-Hour Passenger Incentive program, we need to first identify the peak hour/day trends from the previously collected data of ride details (booked by passengers). Analyzing this data will assist the company in not only identifying areas that need attention but also ensuring customer satisfaction and maintaining its market position and sales. The above-mentioned programs will encourage drivers to make themselves available during peak hours and also inform passengers about the surge prices and advance booking options.

Our solution leverages analyzing the data of previously booked ride details to address the problem of managing the surge in ride requests during peak hours.

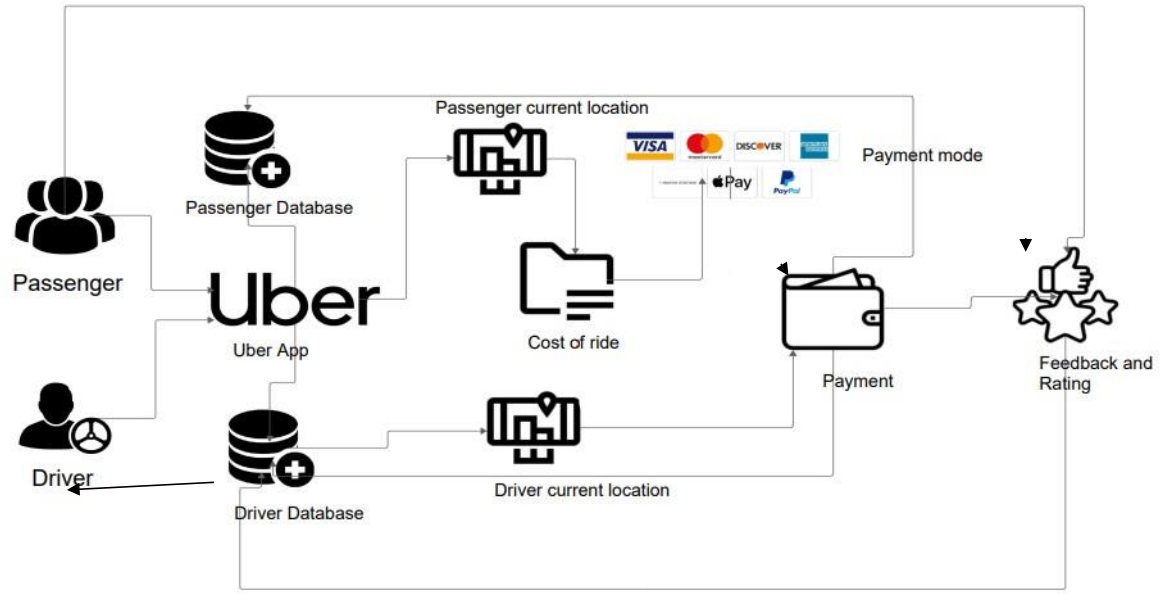
- Data gathering (from Uber)
- Cleaning and preparing data
- Analyzing the data
- Making visualizations, dashboards, and stories

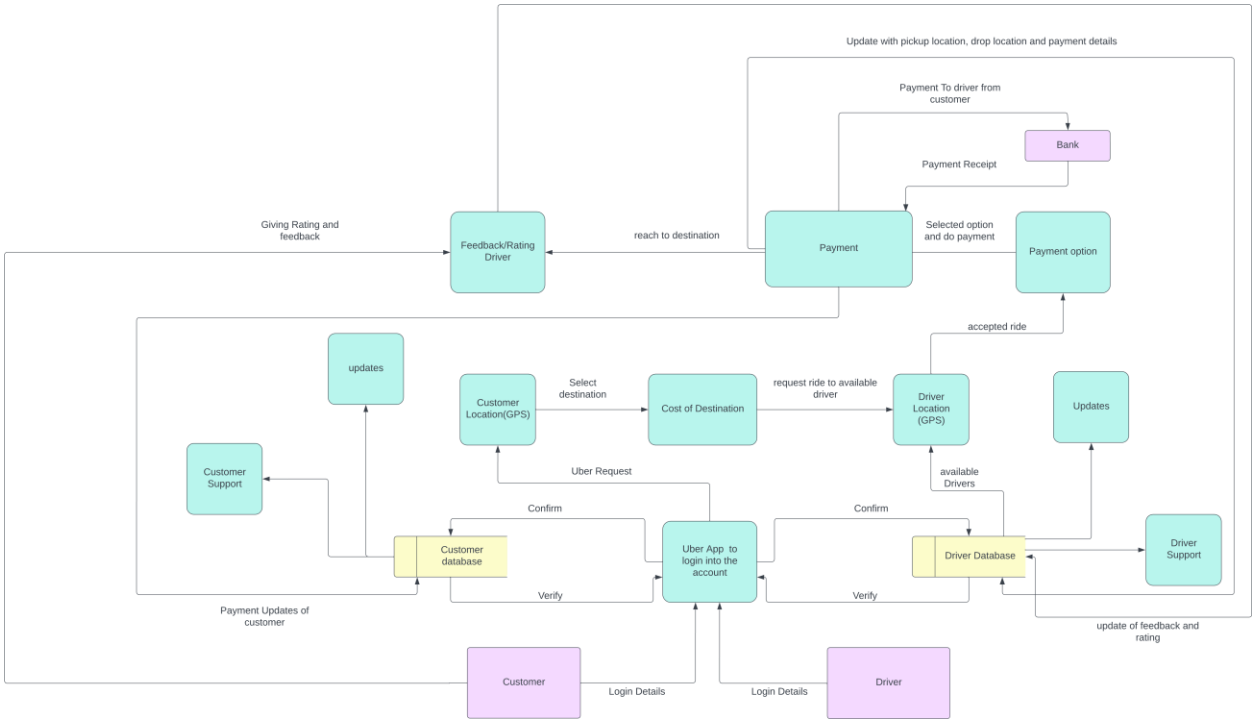
Solution Architecture Diagram:



5.3 Data Flow Diagrams & User Stories:

Data Flow Diagrams:





User Stories:

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Passengers and drivers	Collection of data	USN-1	Collect the ride and transaction details from the app.	Use MySql as database to store this data.	High	Sprint-1
Data Analytics Team in Uber company	Cleaning and preparing data	USN-2	Clean and prepare the data to be further analyzed.	Use MySql to write queries in order to make the dataset ready for analysis.	High	Sprint-2
Data Analytics Team in Uber company	Examining the data	USN-3	Thoroughly examine and comprehend the data including details within each attribute.	Connect Tableau with MySql to link with the dataset and study the data.	High	Sprint-2
Data Analytics Team in Uber company	Analyze the data	USN-4	Analyze the data to observe any trends.	Make visualizations, dashboards, and stories on Tableau.	High	Sprint-3
Web Design Team in Uber company	Incorporate the visualizations into a site	USN-5	Create a site (private for company use only) to host the visualizations, dashboards, and stories.	Use Visual Studio and Flask to create the website for the company.	Medium	Sprint-4
Data Analytics Team in Uber company	Insights from visualizations	USN-6	Study the visualizations and gain insights from the same.	Look for peak hour/day trends, driver performance metrics etc.	High	Sprint-3
Operation Management Team in Uber company	Plan programs for handling surge in ride request	USN-7	Develop strategies and initiatives (based on insights gained from visualizations) to ensure the company users' satisfaction.	Make thorough plans and programs and how to implement them.	High	Sprint-5
Uber company	Implementing programs	USN-8	Put the program into action ensuring that it benefits both the company and its users.	Implement the Peak-Hour Driver Incentive Program, Peak-Hours Passenger Advisory program.	High	Sprint-5

PROJECT PLANNING & SCHEDULING

6.1 Technical Architecture:

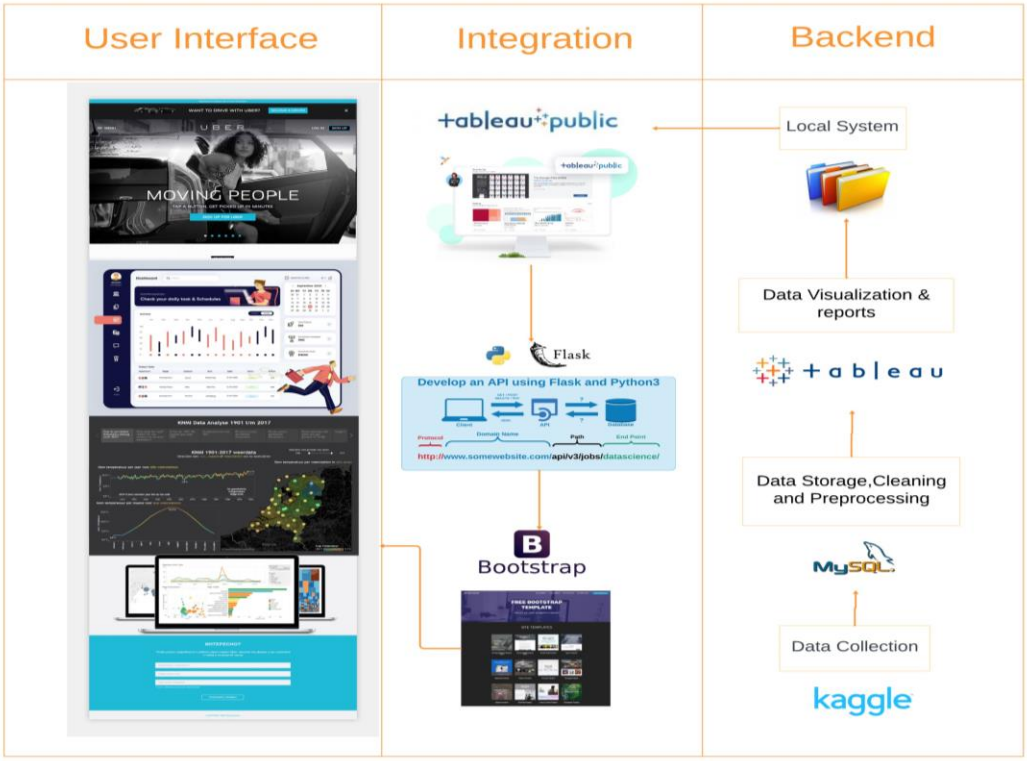


Table-1: Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How the user interacts with the application e.g. Web UI	HTML, Python in Visual Studio Code.
2.	Database	Data Type, Configurations, etc.	MySQL
3.	Client Application	Connect to data sources, process and analyze it.	Tableau Desktop (make visualizations)
4.	File Storage	File storage requirements for storing datasets and other required files	Local Filesystem
5.	Framework-1	Used to Create a web Application, Integrating Frontend and Back End	Python Flask
6.	Framework-2	Used to Create a web Application, Integrating Frontend and Back End	Bootstrap
7.	Hosting Tool	Provides resources necessary to make the website accessible over the Internet (in our case for making visualizations made in Tableau desktop available for access to our website).	Tableau Public (publishing the visualizations made in Tableau desktop)
8.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Python Flask- a micro web framework for building web applications with minimal code. Bootstrap- a front-end framework for creating responsive and visually appealing web interfaces with predesigned components and styles.
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	-
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	Tableau- a data visualization platform used for creating interactive and shareable data visualizations and dashboards to gain insights from data.
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	-
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc	-

6.2 Sprint Planning & Estimation:

Product Backlog, Sprint Schedule, and Estimation:

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Collection of data	USN-1	Collect the ride and transaction details (download Uber dataset from Kaggle for our project) and store in MySQL database.	10	High	Sanjana
Sprint-2	Cleaning and preparing data	USN-2	Clean and prepare the data to be further analyzed using MySQL queries	5	High	Greeshma, Srishti
Sprint-2	Examining the data	USN-3	Thoroughly examine and comprehend the data including details within each attribute by connecting with Tableau desktop.	5	High	Sanjana, Ramya
Sprint-3	Analyze the data	USN-4	Make 10 visualizations in Tableau desktop.	3	High	Sanjana, Ramya, Greeshma, Srishti
Sprint-3	Analyze the data	USN-5	Make 2 dashboards in Tableau desktop.	3	High	Ramya, Srishti
Sprint-3	Analyze the data	USN-6	Make a story with 8 scenes in Tableau desktop.	3	High	Sanjana, Ramya, Greeshma, Srishti
Sprint-3	Insights from visualizations	USN-7	Study the visualizations and gain insights from the same.	1	Medium	Srishti
Sprint-4	Incorporate the visualizations into a site	USN-8	Choose template from Bootstrap for site and download it.	2	Medium	Greeshma
Sprint-4	Incorporate the visualizations into a site	USN-9	Make appropriate changes to site template using Visual Studio code.	3	Medium	Srishti
Sprint-4	Incorporate the visualizations into a site	USN-10	Publish dashboard and story to Tableau Public and retrieve the embedded link to use for site.	3	Medium	Sanjana, Greeshma
Sprint-4	Incorporate the visualizations into a site	USN-11	Use Python Flask to finally host the site for public viewing.	2	Medium	Ramya
Sprint-5	Plan appropriate programs and plans	USN-12	Develop strategies and initiatives (based on insights gained from visualizations) to ensure the company users' satisfaction.	10	High	Sanjana, Greeshma

Sprint Delivery Schedule:

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	10	1 Day	25 Oct 2023	25 Oct 2023	10	25 Oct 2023
Sprint-2	10	3 Days	25 Oct 2023	28 Oct 2023	10	28 Oct 2023
Sprint-3	10	3 Days	29 Oct 2023	31 Oct 2023	10	31 Oct 2023
Sprint-4	10	3 Days	1 Nov 2023	3 Nov 2023	10	3 Nov 2023
Sprint-5	10	1 Day	3 Nov 2023	3 Nov 2023	10	3 Nov 2023

Velocity:

Imagine we have a 10-day sprint duration, and the velocity of the team is 10 (points per sprint). Let's calculate the team's average velocity (AV) per iteration unit (story points per day)

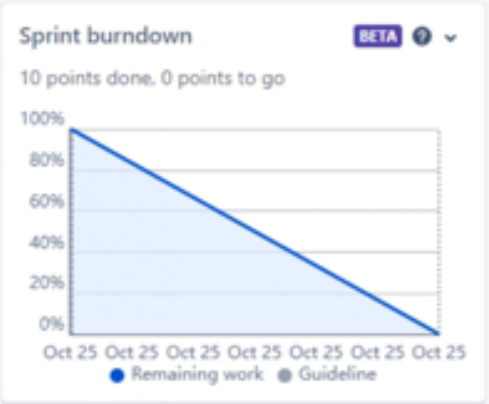
$$AV = \frac{sprint\ duration}{velocity} = \frac{20}{10} = 2$$

$$\text{Velocity} = \frac{\text{Total story points (for all sprints)}}{\text{Number of sprints}} = 50/5 = 10$$

$$\text{Average velocity} = 10/10 = 1$$

Burn-down Chart:

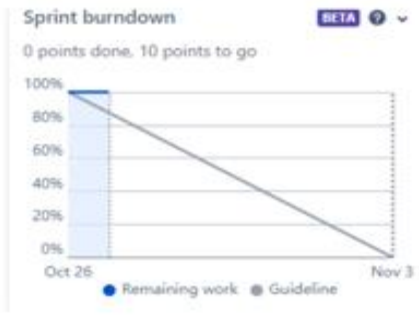
Sprint-1 burn-down chart:-



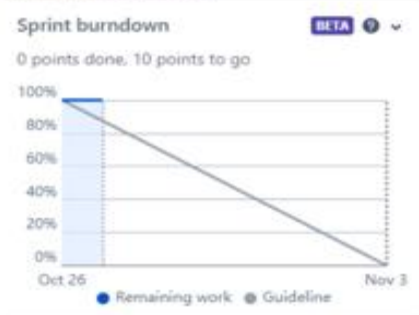
Sprint-2 burn-down chart:-

Sprint-3 burn-down chart:-

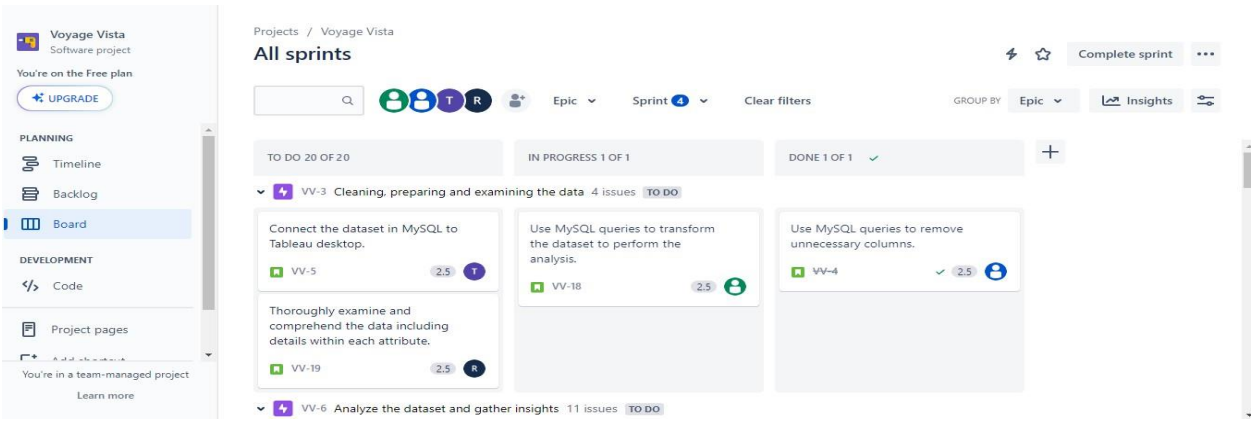
Sprint-4 burn-down chart:-



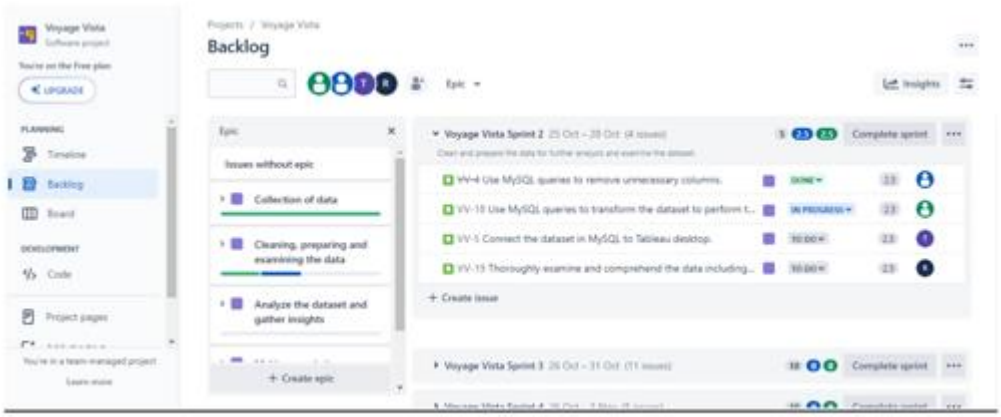
Sprint-5 burn-down chart:-



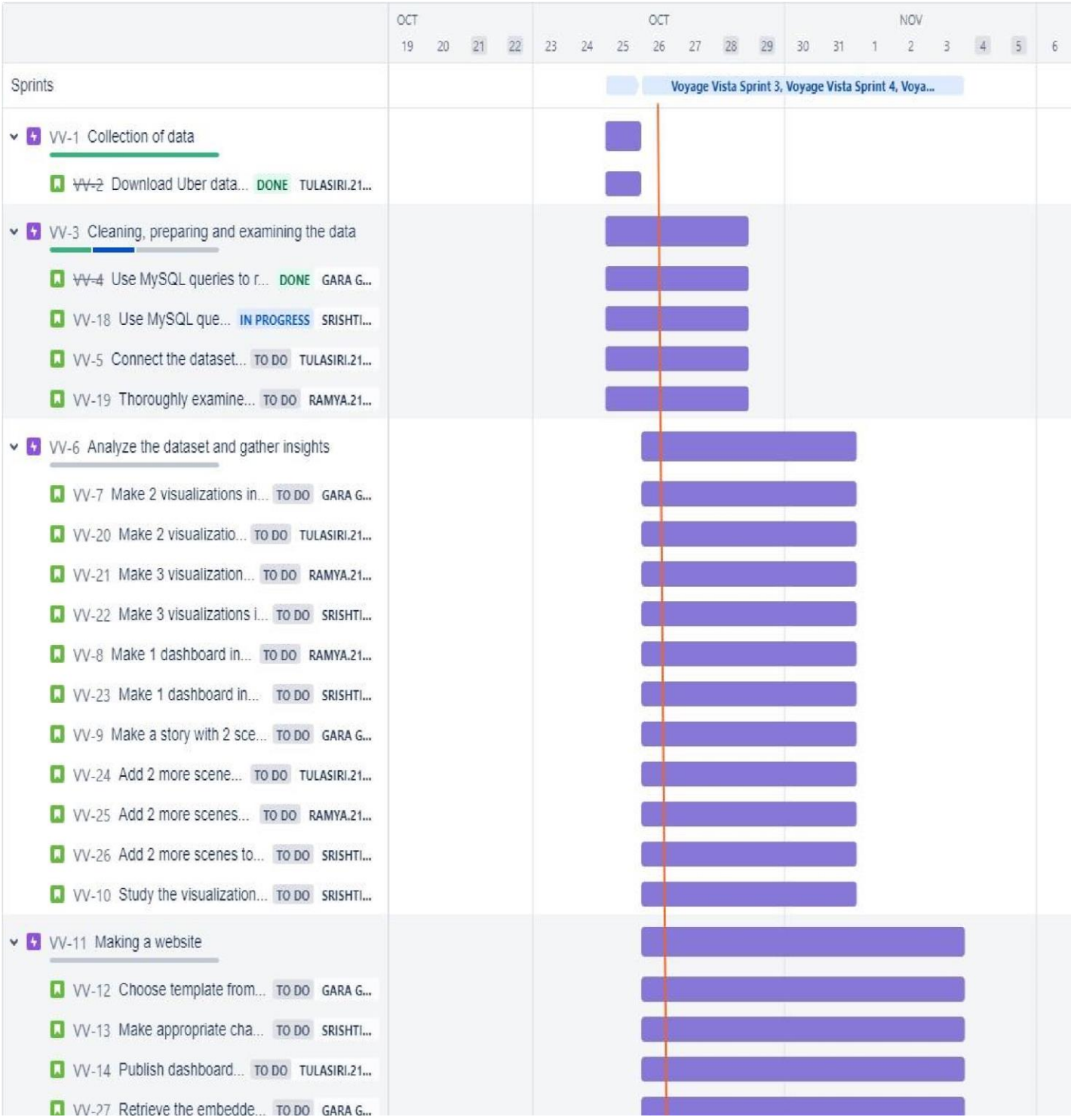
Board Section:



Backlog Section:


Voyage Vista
Backlog
Epic
Insights
UPGRADE
Timeline
Backlog
Board
Code
Project pages
Issues without epic
Collection of data
Cleaning, preparing and examining the data
Analyze the dataset and gather insights
+ Create epic
Voyage Vista Sprint 2
Complete sprint
VV-4 Use MySQL queries to remove unnecessary columns.
VV-10 Use MySQL queries to transform the dataset to perform t...
VV-1 Connect the dataset in MySQL to Tableau desktop.
VV-15 Thoroughly examine and comprehend the data including...
+ Create issue
Voyage Vista Sprint 3
Complete sprint

Timeline:

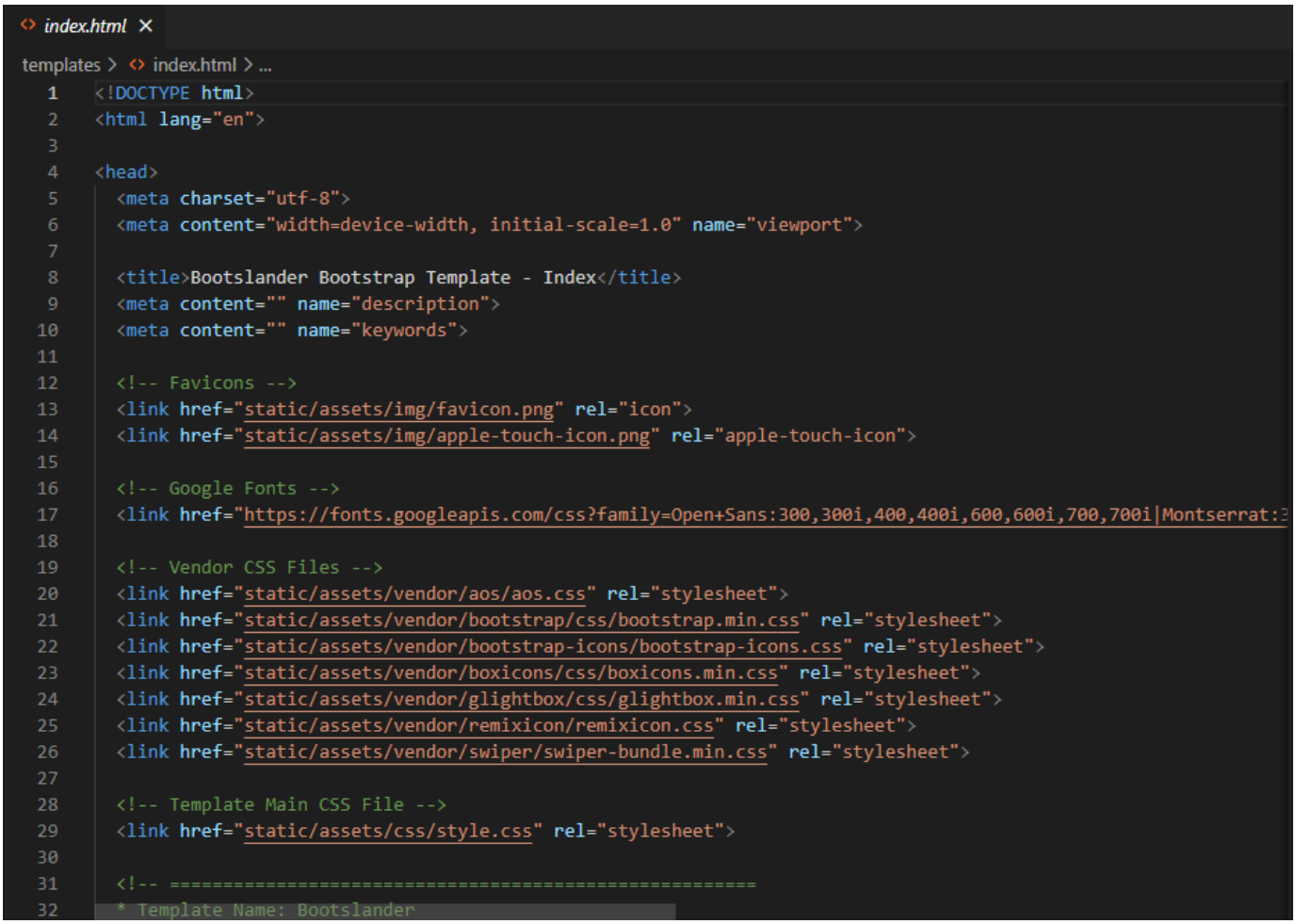

OCT
19 20 21 22
OCT
23 24 25 26 27 28 29
NOV
30 31 1 2 3 4 5 6
Sprints
Voyage Vista Sprint 3, Voyage Vista Sprint 4, Voya...
VV-1 Collection of data
~~VV-2~~ Download Uber data... DONE TULASIRI.21...
VV-3 Cleaning, preparing and examining the data
~~VV-4~~ Use MySQL queries to r... DONE GARA G...
VV-18 Use MySQL que... IN PROGRESS SRISHTI...
VV-5 Connect the dataset... TO DO TULASIRI.21...
VV-19 Thoroughly examine... TO DO RAMYA.21...
VV-6 Analyze the dataset and gather insights
VV-7 Make 2 visualizations in... TO DO GARA G...
VV-20 Make 2 visualizatio... TO DO TULASIRI.21...
VV-21 Make 3 visualization... TO DO RAMYA.21...
VV-22 Make 3 visualizations i... TO DO SRISHTI...
VV-8 Make 1 dashboard in... TO DO RAMYA.21...
VV-23 Make 1 dashboard in... TO DO SRISHTI...
VV-9 Make a story with 2 sce... TO DO GARA G...
VV-24 Add 2 more scene... TO DO TULASIRI.21...
VV-25 Add 2 more scenes... TO DO RAMYA.21...
VV-26 Add 2 more scenes to... TO DO SRISHTI...
VV-10 Study the visualization... TO DO SRISHTI...
VV-11 Making a website
VV-12 Choose template from... TO DO GARA G...
VV-13 Make appropriate cha... TO DO SRISHTI...
VV-14 Publish dashboard... TO DO TULASIRI.21...
VV-27 Retrieve the embedde... TO DO GARA G...

CODING & SOLUTIONING

7.1 Preparing and cleaning the data in MySQL:

```
use voyage_vista;
select * from uber;
alter table uber rename column `START_DATE*` to START_DATE;
alter table uber rename column `END_DATE*` to END_DATE;
alter table uber rename column `CATEGORY*` to CATEGORY;
alter table uber rename column `START*` to PICKUP_LOCATION;
alter table uber rename column `DESTINATION` to `DROP-OFF_LOCATION`;
alter table uber rename column `MILES*` to MILES;
alter table uber rename column `PURPOSE*` to PURPOSE;
delete from uber where START_DATE='Totals';
alter table uber add column START_DAY_DATE date, add column START_DAY_TIME time;
update uber set START_DAY_DATE= str_to_date(substring_index(START_DATE,' ',1), '%m/%d/%Y'),
START_DAY_TIME=str_to_date(substring_index(START_DATE,' ',-1), '%H:%i');
alter table uber add column END_DAY_DATE date, add column END_DAY_TIME time;
update uber set END_DAY_DATE= str_to_date(substring_index(END_DATE,' ',1), '%m/%d/%Y'),
END_DAY_TIME=str_to_date(substring_index(END_DATE,' ',-1), '%H:%i');
alter table uber drop column START_DATE;
alter table uber drop column END_DATE;
ALTER TABLE uber ADD START_DATE VARCHAR(25);
UPDATE uber SET START_DATE = CONCAT(START_DAY_DATE,' ', START_DAY_TIME);
ALTER TABLE uber ADD END_DATE VARCHAR(25);
UPDATE uber SET END_DATE = CONCAT(END_DAY_DATE,' ', END_DAY_TIME);
```

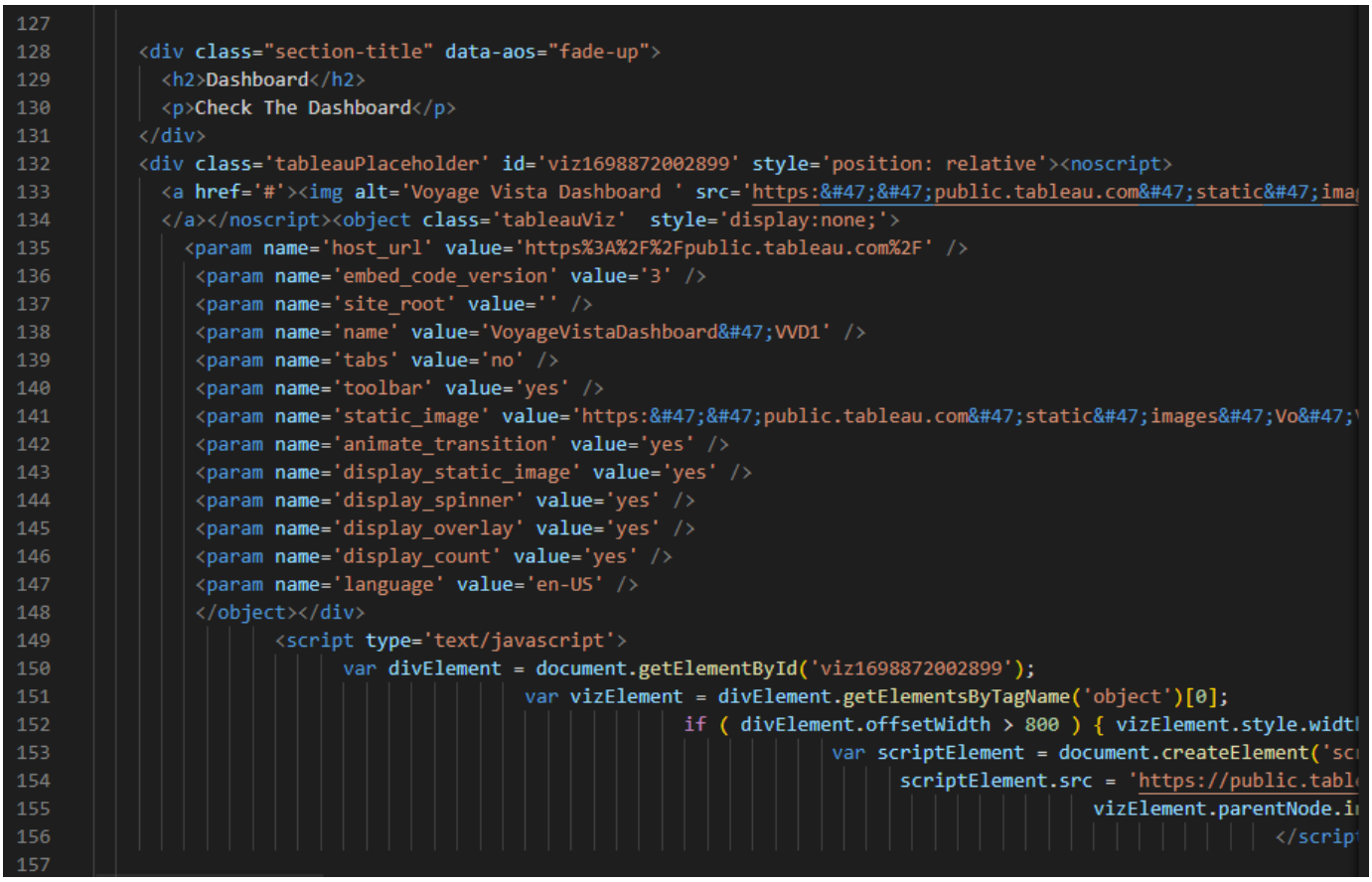
7.2 Website Integration:


index.html
templates > index.html > ...
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="utf-8">
<meta content="width=device-width, initial-scale=1.0" name="viewport">
<title>Bootslander Bootstrap Template - Index</title>
<meta content="" name="description">
<meta content="" name="keywords">
<!-- Favicons -->
<link href="static/assets/img/favicon.png" rel="icon">
<link href="static/assets/img/apple-touch-icon.png" rel="apple-touch-icon">
<!-- Google Fonts -->
<link href="https://fonts.googleapis.com/css?family=Open+Sans:300,300i,400,400i,600,600i,700,700i|Montserrat:
<!-- Vendor CSS Files -->
<link href="static/assets/vendor/aos/aos.css" rel="stylesheet">
<link href="static/assets/vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">
<link href="static/assets/vendor/bootstrap-icons/bootstrap-icons.css" rel="stylesheet">
<link href="static/assets/vendor/boxicons/css/boxicons.min.css" rel="stylesheet">
<link href="static/assets/vendor/glightbox/css/glightbox.min.css" rel="stylesheet">
<link href="static/assets/vendor/remixicon/remixicon.css" rel="stylesheet">
<link href="static/assets/vendor/swiper/swiper-bundle.min.css" rel="stylesheet">
<!-- Template Main CSS File -->
<link href="static/assets/css/style.css" rel="stylesheet">
<!-- ===
* Template Name: Bootslander

```
33    * Updated: Sep 18 2023 with Bootstrap v5.3.2
34    * Template URL: https://bootstrapmade.com/bootslander-free-bootstrap-landing-page-template/
35    * Author: BootstrapMade.com
36    * License: https://bootstrapmade.com/license/
37    ======================================================== -->
38  </head>
39
40  <body>
41
42    <!-- ======= Header ======= -->
43    <header id="header" class="fixed-top d-flex align-items-center header-transparent">
44      <div class="container d-flex align-items-center justify-content-between">
45
46        <div class="logo">
47          <h1><a href="index.html"><span>Uber Expeditionary Analysis</span></a></h1>
48          <!-- Uncomment below if you prefer to use an image logo -->
49          <!-- <a href="index.html"><img src="static/assets/img/logo.png" alt="" class="img-fluid"></a>-->
50        </div>
51
52        <nav id="navbar" class="navbar">
53          <ul>
54            <li><a class="nav-link scrollto active" href="#hero">Home</a></li>
55            <li><a class="nav-link scrollto" href="#about">About</a></li>
56            <li><a class="nav-link scrollto" href="#features">Dashboard</a></li>
57            <li><a class="nav-link scrollto" href="#gallery">Story</a></li>
58            <li><a class="nav-link scrollto" href="#pricing">Plans and Programs</a></li>
59            <li><a class="nav-link scrollto" href="#team">Team</a></li>
60          </ul>
61          <i class="bi bi-list mobile-nav-toggle"></i>
62        </nav><!-- .navbar -->
63
```

```
64      </div>
65    </header><!-- End Header -->
66
67    <!-- ======= Hero Section ======= -->
68    <section id="hero">
69
70      <div class="container">
71        <div class="row justify-content-between">
72          <div class="col-lg-7 pt-5 pt-lg-0 order-2 order-lg-1 d-flex align-items-center">
73            <div data-aos="zoom-out">
74              <h1>Welcome to our website <span>Voyage Vista</span></h1>
75              <h2>We are a team of talented individuals analyzing data and providing useful insights.</h2>
76              <div class="text-center text-lg-start">
77                <a href="#about" class="btn-get-started scrollto">Get Started</a>
78              </div>
79            </div>
80          </div>
81          <div class="col-lg-4 order-1 order-lg-2 hero-img" data-aos="zoom-out" data-aos-delay="300">
82            <img src="static/assets/img/hero-img.png" class="img-fluid animated" alt="">
83          </div>
84        </div>
85      </div>
86
87      <svg class="hero-waves" xmlns="http://www.w3.org/2000/svg" xmlns:xlink="http://www.w3.org/1999/xlink" viewBo
88        <defs>
89          <path id="wave-path" d="M-160 44c30 0 58-18 88-18s 58 18 88 18 58-18 88-18 58 18 88 18 v44h-352z">
90        </defs>
91        <g class="wave1">
92          <use xlink:href="#wave-path" x="50" y="3" fill="rgba(255,255,255, .1)">
93        </g>
94        <g class="wave2">
```

```
95          <use xlink:href="#wave-path" x="50" y="0" fill="rgba(255,255,255, .2)">
96        </g>
97        <g class="wave3">
98          <use xlink:href="#wave-path" x="50" y="9" fill="#fff">
99        </g>
100     </svg>
101
102   </section><!-- End Hero -->
103
104   <main id="main">
105
106     <!-- ======= About Section ======= -->
107     <section id="about" class="about">
108       <div class="container-fluid">
109
110         <div class="row">
111           <div class="col-xl-5 col-lg-6 video-box d-flex justify-content-center align-items-stretch" data-aos="f
112             <a href="https://youtu.be/I1DdoN6NLDg?si=9IMUmOmFOXyBPmbc" class="glightbox play-btn mb-4"></a>
113           </div>
114
115           <div class="col-xl-7 col-lg-6 icon-boxes d-flex flex-column align-items-stretch justify-content-center
116             <h3>Uber's Data Driven Solutions</h3>
117             <p>Uber is a global company providing ride hailing services, food delivery and freights transport th
118           </div>
119         </div>
120
121       </div>
122     </section><!-- End About Section -->
123
124     <!-- ======= Features Section ======= -->
125     <section id="features" class="features">
126       <div class="container">
```



```
127
128     <div class="section-title" data-aos="fade-up">
129       <h2>Dashboard</h2>
130       <p>Check The Dashboard</p>
131     </div>
132     <div class='tableauPlaceholder' id='viz1698872002899' style='position: relative'><noscript>
133       <a href='#'><img alt='Voyage Vista Dashboard ' src='https:&#47;&#47;public.tableau.com&#47;static&#47;ima
134       </a></noscript><object class='tableauViz'  style='display:none;'>
135         <param name='host_url' value='https%3A%2F%2Fpublic.tableau.com%2F' />
136         <param name='embed_code_version' value='3' />
137         <param name='site_root' value='' />
138         <param name='name' value='VoyageVistaDashboard&#47;VVD1' />
139         <param name='tabs' value='no' />
140         <param name='toolbar' value='yes' />
141         <param name='static_image' value='https:&#47;&#47;public.tableau.com&#47;static&#47;images&#47;Vo&#47;
142         <param name='animate_transition' value='yes' />
143         <param name='display_static_image' value='yes' />
144         <param name='display_spinner' value='yes' />
145         <param name='display_overlay' value='yes' />
146         <param name='display_count' value='yes' />
147         <param name='language' value='en-US' />
148         </object></div>
149                     <script type='text/javascript'>
150                         var divElement = document.getElementById('viz1698872002899');
151                                     var vizElement = divElement.getElementsByTagName('object')[0];
152                                                 if ( divElement.offsetWidth > 800 ) { vizElement.style.widt
153                                                             var scriptElement = document.createElement('sc
154                                                                         scriptElement.src = 'https://public.tabl
155                                                                                     vizElement.parentNode.i
156                                                                                                 </scrip
157
```

```
158        </div>
159      </section><!-- End Features Section -->
160
161      <!-- ======= Gallery Section ======= -->
162      <section id="gallery" class="gallery">
163       <div class="container">
164         <div class="section-title" data-aos="fade-up">
165           <h2>Story</h2>
166           <p>Check The Story</p>
167         </div>
168         <div class='tableauPlaceholder' id='viz1698872334793' style='position: relative'><noscript>
169           <a href='#'><img alt='Voyage Vista Story ' src='https:&#47;&#47;public.tableau.com&#47;static&#47;imag
170           </a></noscript><object class='tableauViz'  style='display:none;'><param name='host_url' value='https%3
171             <param name='embed_code_version' value='3' /> <param name='site_root' value='' />
172             <param name='name' value='VoyageVistaStory_16988723064170&#47;VVS' />
173             <param name='tabs' value='no' /><param name='toolbar' value='yes' />
174             <param name='static_image' value='https:&#47;&#47;public.tableau.com&#47;static&#47;images&#47;Vo&#4
175             <param name='animate_transition' value='yes' />
176             <param name='display_static_image' value='yes' />
177             <param name='display_spinner' value='yes' />
178             <param name='display_overlay' value='yes' />
179             <param name='display_count' value='yes' />
180             <param name='language' value='en-US' />
181             <param name='filter' value='publish=yes' /></object></div>
182                       <script type='text/javascript'>
183                         var divElement = document.getElementById('viz1698872334793');
184                                                   var vizElement = divElement.getElementsByTagName('object')[0];
185       </div>
186      </section><!-- End Gallery Section -->
187
188      <!-- ======= Pricing Section ======= -->
189      <section id="pricing" class="pricing">
```

```
190         <div class="container">
191
192           <div class="section-title" data-aos="fade-up">
193             <h2>Plans and Programs</h2>
194             <p>Check our Plans and Programs</p>
195           </div>
196           <!-- ======= Details Section ======= -->
197       <section id="details" class="details">
198         <div class="container">
199
200           <div class="row content">
201             <div class="col-md-4" data-aos="fade-right">
202               <img src="static/assets/img/details-1.png" class="img-fluid" alt="">
203             </div>
204             <div class="col-md-8 pt-4" data-aos="fade-up">
205               <h3>Insights Gained</h3>
206               <p >
207                 The dashboard and story help us gain various insights regarding Uber. Some of them are the follow
208               </p>
209               <ul>
210                 <li><i class="bi bi-check"></i> Peak Uber ride booking hour is 15.00 -16.00 pm.</li>
211                 <li><i class="bi bi-check"></i> Majority of the vehicles used during Uber ride belong to business
212                 <li><i class="bi bi-check"></i> The hottest pickup and drop point and Cary.</li>
213                 <li><i class="bi bi-check"></i> Most people book an Uber ride for attending meetings.</li>
214                 <li><i class="bi bi-check"></i> The average ride duration for Uber rides which are booked for the
215               </ul>
216
217             </div>
218           </div>
219
220           <div class="row content">
```

```
221            <div class="col-md-4 order-1 order-md-2" data-aos="fade-left">
222              <img src="static/assets/img/details-2.png" class="img-fluid" alt="">
223            </div>
224            <div class="col-md-8 pt-5 order-2 order-md-1" data-aos="fade-up">
225              <h3>Subscription Plans and Discounts</h3>
226
227              <p>
228                We can implement subscription plans and discounts where the customers can opt for a fixed fee in e
229              </p>
230
231            </div>
232          </div>
233
234          <div class="row content">
235            <div class="col-md-4" data-aos="fade-right">
236              <img src="static/assets/img/details-3.png" class="img-fluid" alt="">
237            </div>
238            <div class="col-md-8 pt-5" data-aos="fade-up">
239              <h3>Peak-Hour Driver Incentive Program</h3>
240              <p>This program is designed to encourage driver availability duing increased demand periods. Drivers
241
242            </div>
243          </div>
244
245          <div class="row content">
246            <div class="col-md-4 order-1 order-md-2" data-aos="fade-left">
247              <img src="static/assets/img/details-4.png" class="img-fluid" alt="">
248            </div>
249            <div class="col-md-8 pt-5 order-2 order-md-1" data-aos="fade-up">
250              <h3>Peak-Hour Passenger Advisory Program</h3>
251              <p>
```

```
252                 This is a strategic initiative which aims at enhancing ride experience for passengers during high
253               </p>
254             </div>
255           </div>
256
257         </div>
258       </section><!-- End Details Section -->
259         </div>
260       </div>
261     </section><!-- End Pricing Section -->
262
263     <!-- ======= Team Section ======= -->
264     <section id="team" class="team">
265       <div class="container">
266
267         <div class="section-title" data-aos="fade-up">
268           <h2>Team</h2>
269           <p>Our Great Team</p>
270         </div>
271
272         <div class="row" data-aos="fade-left">
273
274           <div class="col-lg-3 col-md-6">
275             <div class="member" data-aos="zoom-in" data-aos-delay="100">
276               <div class="pic"><img src="static/assets/img/team/team-1.jpg" class="img-fluid" alt=""></div>
277               <div class="member-info">
278                 <h4>Srishti Mohanty</h4>
279                 <span>21BCE8296
280                 <div class="social">
281                   <p><a href=""><i class="bi bi-envelope"></i></a>srishti.21bce8296@vitapstudent.ac.in</p>
```

```
282
283                 </div></span>
284               </div>
285             </div>
286           </div>
287
288           <div class="col-lg-3 col-md-6 mt-5 mt-md-0">
289             <div class="member" data-aos="zoom-in" data-aos-delay="200">
290               <div class="pic"><img src="static/assets/img/team/team-2.jpg" class="img-fluid" alt=""></div>
291               <div class="member-info">
292                 <h4>Batchu Ramya</h4>
293                 <span>21BCE9106
294                   <div class="social">
295                     <p><a href=""><i class="bi bi-envelope"></i></a>ramya.21bce9106@vitapstudent.ac.in</p>
296
297                   </div></span>
298               </div>
299             </div>
300           </div>
301
302           <div class="col-lg-3 col-md-6 mt-5 mt-lg-0">
303             <div class="member" data-aos="zoom-in" data-aos-delay="300">
304               <div class="pic"><img src="static/assets/img/team/team-3.jpg" class="img-fluid" alt=""></div>
305               <div class="member-info">
306                 <h4>Kaki Tulasi Sri Sanjana</h4>
307                 <span>21BCE9524
308                   <div class="social">
309                     <p><a href=""><i class="bi bi-envelope"></i></a>tulasisri.21bce9524@vitapstudent.ac.in</p>
310
311                   </div></span>
312               </div>
313             </div>
```

```
314                </div>
315
316                <div class="col-lg-3 col-md-6 mt-5 mt-lg-0">
317                  <div class="member" data-aos="zoom-in" data-aos-delay="400">
318                    <div class="pic"><img src="static/assets/img/team/team-4.jpg" class="img-fluid" alt=""></div>
319                    <div class="member-info">
320                      <h4>G.Greeshma Sai Koushika</h4>
321                      <span>21BCE8236
322                        <div class="social">
323                          <p><a href=""><i class="bi bi-envelope"></i></a>greeshma.21bce8236@vitapstudent.ac.in</p>
324
325                        </div></span>
326                    </div>
327                  </div>
328                </div>
329
330              </div>
331
332            </div>
333          </section><!-- End Team Section -->
334        </main><!-- End #main -->
335
336        <!-- ======= Footer ======= -->
337        <footer id="footer">
338          <div class="footer-top">
339            <div class="container">
340              <div class="row">
341
342                <div class="col-lg-4 col-md-6">
343                  <div class="footer-info">
344                    <h3>Uber Expeditionary Analysis</h3>
```

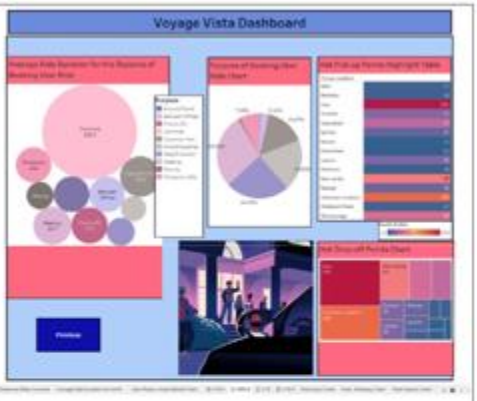
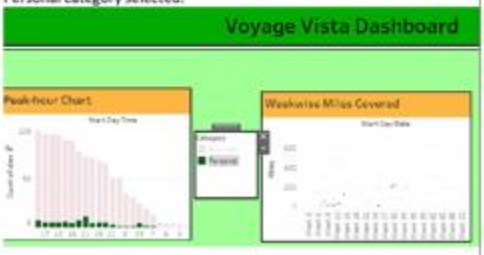
```
345                     <p class="pb-3"><em>Uber is a ride-hailing company that relies heavily on data science and analysi
346                     </div>
347                   </div>
348                 </div>
349               </div>
350             </div>
351             <div class="container">
352               <div class="copyright">
353                 &copy; Copyright <strong><span>Voyage Vista</span></strong>. All Rights Reserved
354               </div>
355               <div class="credits">
356                 <!-- All the links in the footer should remain intact. -->
357                 <!-- You can delete the links only if you purchased the pro version. -->
358                 <!-- Licensing information: https://bootstrapmade.com/license/ -->
359                 <!-- Purchase the pro version with working PHP/AJAX contact form: https://bootstrapmade.com/bootslander-
360                 Designed by <a href="https://bootstrapmade.com/">Team-591256</a>
361               </div>
362             </div>
363           </footer><!-- End Footer -->
364
365           <a href="#" class="back-to-top d-flex align-items-center justify-content-center"><i class="bi bi-arrow-up-shor
366           <div id="preloader"></div>
367
368           <!-- Vendor JS Files -->
369           <script src="static/assets/vendor/purecounter/purecounter_vanilla.js"></script>
370           <script src="static/assets/vendor/aos/aos.js"></script>
371           <script src="static/assets/vendor/bootstrap/js/bootstrap.bundle.min.js"></script>
372           <script src="static/assets/vendor/glightbox/js/glightbox.min.js"></script>
373           <script src="static/assets/vendor/swiper/swiper-bundle.min.js"></script>
374           <script src="static/assets/vendor/php-email-form/validate.js"></script>
375
```

```
376           <!-- Template Main JS File -->
377           <script src="static/assets/js/main.js"></script>
378
379         </body>
380
381         </html>
```

app.py

```
1  from flask import Flask, render_template, request
2  uber=Flask(__name__)
3  @uber.route('/')
4  def helloworld():
5      return render_template("index.html")
6  if __name__=="__main__":
7      uber.run(debug=False, port=7000)
```

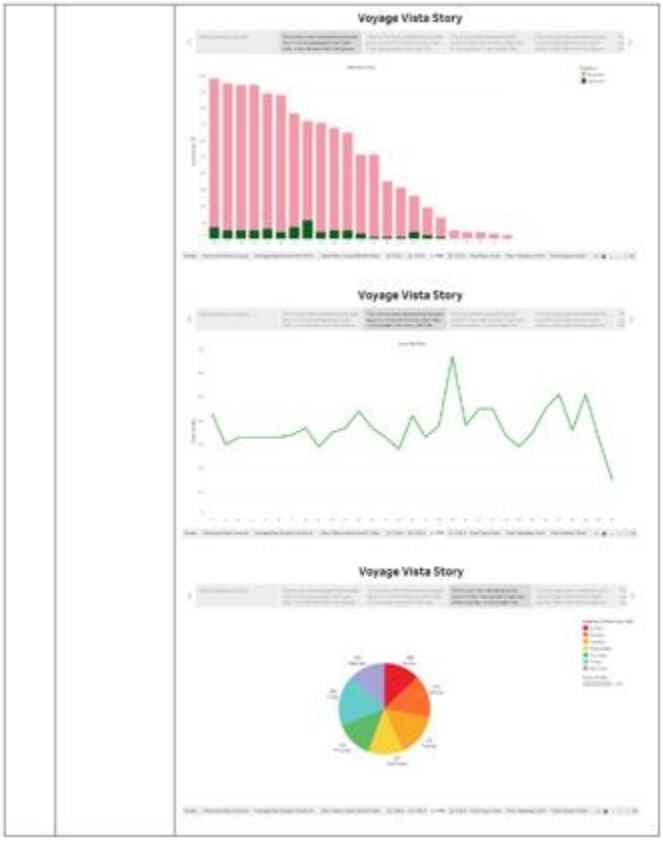
PERFORMANCE TESTING

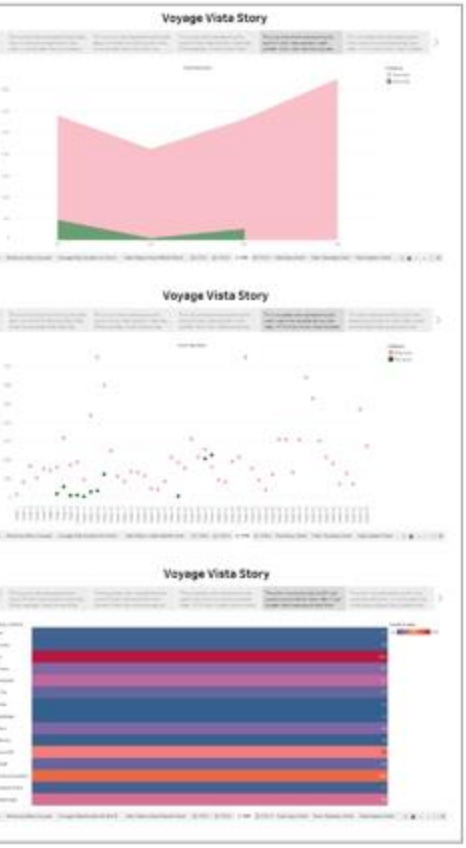
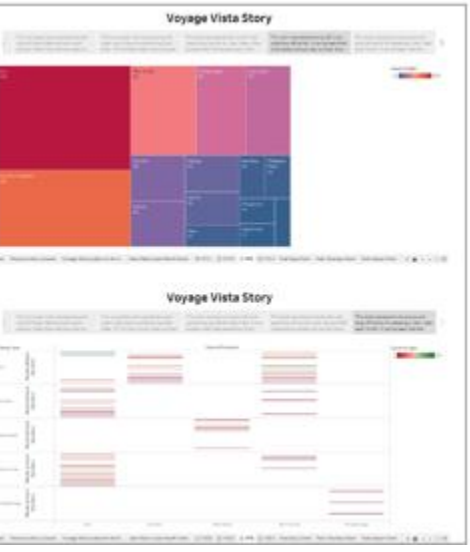
S.No.	Parameter	Screenshot / Values
1.	Dashboard design	No.of visualizations- 8 No. of tabs- 2 
		
2.	Data Responsiveness	Personal category selected:  Airport/travel category selected:

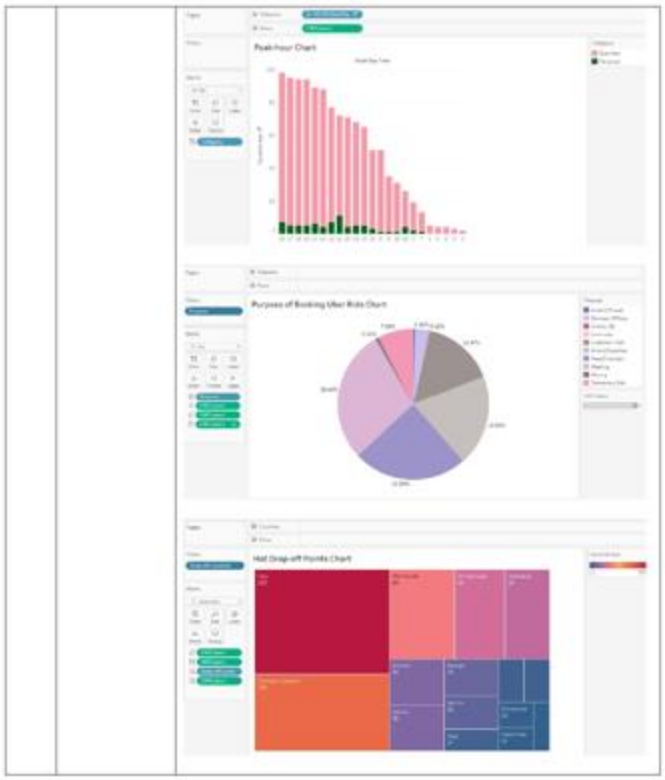
		
3.	Amount Data to Rendered (DB2 Metrics)	No. of rows read-1155 No. of columns read- 11 No. of rows rejected-1 (downloaded Uber dataset 2016 from Kaggle website and stored it in MySQL which is then used to connect to Tableau desktop) (1 more calculated field: ride duration made in Tableau Desktop). 
4.	Utilization of Data Filters	 Remove the records that do not have any purpose filled).

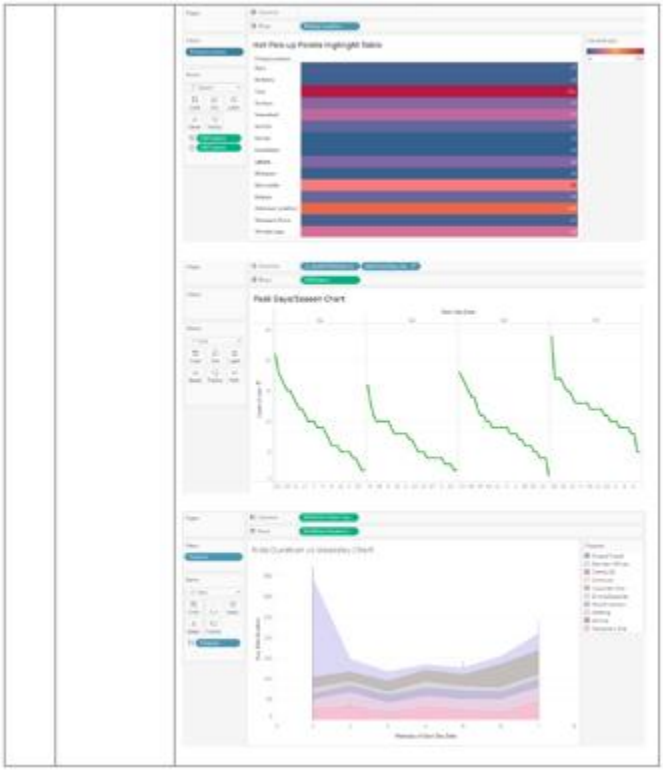
		 Top 15 drop-off points.  Top 15 pick-up points.

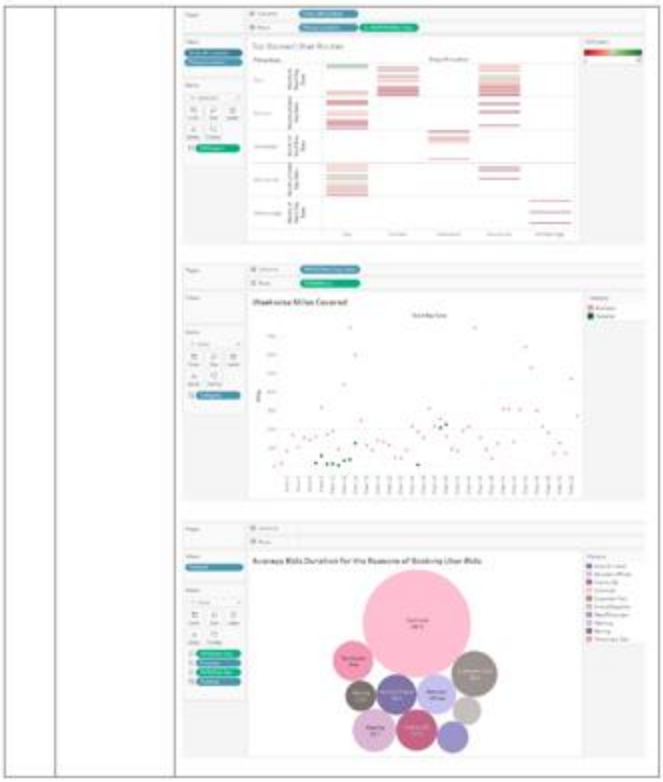
		 Top 5 drop-off and pick-up points.
5.	Effective User Story	Story-8 scenes 

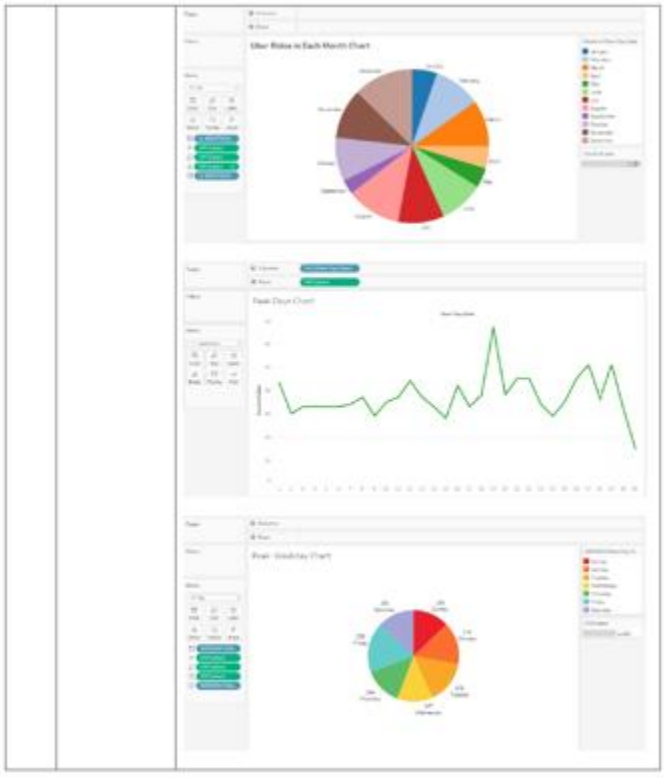


		
		
6.	Descriptive Reports	Visualizations: 13 visualizations (no report, Tableau Desktop used)


Peak Hour Chart
Purpose of Booking Uber Ride Chart
Hot Drop-off Points Chart


Hot Pick-up Points Highlight Table
Peak Days/Season Chart





		 Pages Filters Marks Columns Rows Peak Season Chart Count of Jobs Category

RESULTS

From analysing the Uber 2016 dataset we are able to gain some useful insights. Some of them are listed below:

- Peak Uber ride booking hour is 15.00 -16.00 pm.
- Majority of the vehicles used during Uber rides belong to the business category.
- The hottest pickup and drop point and Cary.
- Most people book an Uber ride to attend meetings.
- The average ride duration for Uber rides which are booked for the purpose of errands/supplies is the least.

In order to address the problem of increased Uber ride demands during peak times we analysed the Uber dataset and formulated some plans and programs which can be implemented to benefit both the company and its users.

Subscription Plans and Discounts:

We can implement subscription plans and discounts where the customers can opt for a fixed fee in exchange of unlimited rides during peak hours or specific days offering a dual advantage. It not only guarantees availability of rides during high demand periods enhancing passenger experience but also establishes a reliable source of income for the service provider (driver). This approach encourages customer loyalty and consistent income contributing to a more stable business model.

Peak-Hour Driver Incentive Program:

This program is designed to encourage driver availability duing increased demand periods. Drivers who choose to be on the road during peak times are rewarded with award points or bonuses. This not only meets the increased rider demand but also encourages drivers to provide services when they are needed most.

Peak-Hour Passenger Advisory Program:

The mobile app will provide real-time alerts and notifications to help passengers plan their rides effectively. It provides information about expected pricing, estimated wait times and service availability. By offering recommendations and saving opportunities the program empowers passengers to make informed decisions and minimize inconvenience during peak-hours.

ADVANTAGES & DISADVANTAGES

Advantages:

1. Improved Traffic Management

2. Optimal resource allocation

3. Improve customer satisfaction and enhance rider loyalty

4. Strategic Decision-Making

5. Data-Driven Innovation

6. Increased Earnings for drivers

7. Optimized Rider Experience

8. Reduction of waiting times during peak hours

9. Predictive Pricing

10. Safety Enhancements

11. Driver Incentives such as bonuses

12. Environmental Initiatives like encouraging carpooling or electric vehicle use.

Disadvantages:

1. Privacy Concerns of users.

2. Data Security Risks

3. Overreliance on Data

4. Network issues

5. User Dependency

6. Driver Competition

7. Fairness and Bias

8. Environmental Impact

9. Market Saturation growth in particular areas.

10. Rating Pressure

11. Rider Cancellations

12. Increase Price Surges

CONCLUSION

Data analysis plays a very major role in the everyday operations of Uber by optimizing its services and improving user experiences. It helps predict rider demand, peak times, setting prices and various other

things. Uber leverages data-driven insights to streamline operations, reduce costs, optimize routes and enhance customer satisfaction, ultimately leading to the company's success.

FUTURE SCOPE

1. Market Trends and Competition:

   Uber competes with other ride-sharing services and trends are shaping the industry. This could include understanding how new entrants impact the market.

2. Customer Behaviour:

   user behaviour, such as when and why people use Uber, and how Uber can improve its services to attract and retain customers.

3. Economic Implications:

   Analyzing the economic impact of Uber on drivers, passengers, and local economies can be a fascinating research topic for students.

4. Safety and Trust:

   Uber maintains trust and safety for both drivers and passengers. This might include looking at safety features and customer ratings.

5. Sustainability:

   The growing concern for the environment, Uber's efforts in adopting electric vehicles, and the impact on reducing carbon emissions.

6. Regulation and Compliance:

   Understanding the regulatory challenges Uber faces and how it navigates them could be an insightful research area for students.

7. COVID-19 Impact and Recovery:

   Researching how Uber coped with the challenges posed by the pandemic and its strategies for recovery could be a current and relevant topic.

8. Technological Innovations:

   Analyzing the role of technology in Uber's success, such as its use of AI and data analytics, can be an exciting research area for tech-savvy students.

9. Social and Cultural Impact:

Uber has influenced social behaviors, urban transportation, and cultural norms in different regions.

10. Financial Performance:

Analyzing Uber's financial performance, including revenue, profit margins, and capital investments, will be a key aspect of future analysis. This will involve assessing how they manage costs, set pricing, and handle investments.

11. Employment and the Gig Economy:

Examine how Uber's business model has contributed to the growth of the gig economy. This research could focus on the working conditions of drivers, their job security, and the broader societal implications of non-traditional employment.

APPENDIX

Source Code: https://drive.google.com/drive/folders/1e2_0uB6WiKempEn4dmHic_-1zORSfF4V?usp=sharing

GitHub Link: //github.com/smartinternz02/SI-GuidedProject-587731-1696857945.git

Project Demo Link: https://drive.google.com/file/d/1VIUccUgTIAQN236nWcFtx674mHiqImrV/view?usp=sharing