**Uber Drives 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 Drives Analyses refers to the Analysing 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 analysed 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 analysed 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 Analysing techniques to find out unknown patterns in the Uber Drives dataset. The research is carried on Uber drives data collected from the year 2016.

**Technical Architecture:**

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**Pre-Requisites:**

* Microsoft SQL server management studio - <https://youtu.be/VKWIiJUl70A>
* Create a Tableau Desktop Account with a student’s ID
* Create a Tableau Public account with a personal ID

**Prior Knowledge:**

Basic Concept of Tableau

<https://help.tableau.com/current/pro/desktop/en-us/gettingstarted_overview.htm>

**Project Objectives:**

By the end of this project, you will

* Know to connect any database with Tableau.
* Know fundamental concepts and can work on Tableau.
* Gain a broad understanding of plotting different graphs/charts.
* Able to create meaningful dashboards.
* Able to integrate with web, using Bootstrap templates.

**Project Flow:**

1. Users create multiple analysis graphs/charts.
2. User create dashboard & story with the help of charts.
3. Publishing dashboard & story with tableau public.

To accomplish this, we must complete all the activities and tasks listed below

* Microsoft SQL Database
* Login to Tableau
* Working with the Dataset
  + Understand the Dataset
  + Database connection
* Data visualization charts
  + Problem Statement 1: Miles Covered in different Purpose and Category Analysis
  + Problem Statement 2: Miles Covered in different Category Analysis
  + Problem Statement 3: Total Miles Covered in Quarter wise Analysis
  + Problem Statement 4: Total Miles Covered in Month wise Analysis
  + Problem Statement 5: Total Miles Covered in Week wise Analysis.
  + Problem Statement 6: Distance Between Start and Stop Analysis
  + Problem Statement 7: Total Trips in Quarter wise Analysis
  + Problem Statement 8: Total Trips in Month wise Analysis
* Dashboard Creation
* Story Creation
* Conclusion

**Milestone 1: Microsoft SQL Database**

**Activity 1: Install MySQL Workbench**

**Link:** <https://youtu.be/VKWIiJUl70A>

**Milestone 2:** **Install Tableau Desktop**

**Activity 1: Create Tableau Desktop account with students ID.**

**Link:** [Tableau for Students](https://www.tableau.com/academic/students)

**Milestone 3: Working with Dataset**

**Activity 2:** **Understand the data**

The data source of this project contains 1155 uber drives. It was posted by Zeeshan-ul-hassan Usmani.

Fields include

* Start Date – Start date of the Trip
* End Date – End date of the Trip
* Start – Starting Location of Trip
* Stop – Destination Location of Trip
* Miles – Miles Driven in the Trip
* Purpose – Purpose of the Trip
* Category – Category of the Trip (Business/Personal)

Dataset can be accessed [here](https://www.kaggle.com/code/mohamed08/exploratory-data-analysis-for-uber-trips/input).

**Activity 2: Import Dataset into Database and connect Tableau Desktop to Database server.**

**Explanation video link:**

<https://drive.google.com/file/d/1iqL_OjqCHAZLioXqumGoPU1_v6_SC7lB/view?usp=sharing>

**Milestone 4: Data Visualization charts**

**Activity 1:** **Miles Covered per Category and Purpose Analysis**

**Explanation video link:**

<https://drive.google.com/file/d/1PnqwqaTlObOvhGRca4QCbGFeKbgOW7Ji/view?usp=sharing>

**Activity 2: Miles Covered in Category Analysis**

**Explanation video link:**

<https://drive.google.com/file/d/1mZtCtrT7DwgJae-hekuQ1fodm9rV7mxQ/view?usp=sharing>

**Activity 3: Month wise Uber Miles Analysis**

**Explanation video link:** <https://drive.google.com/file/d/1YKwCna4MnUjOKJdbGWCIlHQEm0WFDqX5/view?usp=sharing>

**Activity 4: Week wise Uber Miles Analysis**

**Explanation video link:**<https://drive.google.com/file/d/1zAJDlWaHTb0neFZfCl9rkr_dn9EK526V/view?usp=sharing>

**Activity 5: Quarter Wise Uber Miles Analysis**

**Explanation video link:**

<https://drive.google.com/file/d/1qsTuilI8PWFHTxo-OSEZUsxhovrwWYio/view?usp=sharing>

**Activity 6: Month Wise Uber Trips Analysis**

**Explanation video link:**

<https://drive.google.com/file/d/16przl4TMcsrHraIkycXMvOTbZybaWENS/view?usp=sharing>

**Activity 7: Quarter wise Uber Trips Analysis**

**Explanation video link:**

<https://drive.google.com/file/d/1JPz3s73_METtmyo7QJm1ioNhWGCKfB8/view?usp=share_link>

**Activity 8: Start and Stop Location Analysis**

**Explanation video link:**

<https://drive.google.com/file/d/16przl4TMcsrHraIkycXMvOTbZybaWENS/view?usp=drive_link>

**Milestone 5: Create Tableau Dashboard**

Once you have created views on different sheets in Tableau, you can pull them into a dashboard.

**Explanation video link:**

<https://drive.google.com/file/d/1ZVAk9ncWegENAbKhfqQ4f3Z9lfjtSdbD/view?usp=sharing>

**Milestone 6: Create Tableau Story**

**Explanation video link:**

**Story Part 1:** [https://drive.google.com/file/d/1Ece7JJN8lEET4tnhH0lxWPP84y0yz8UN/view?usp=share\_link](https://drive.google.com/file/d/1nRCag2PewJBGGFk_cRuRRYqYKwJnMBjJ/view?usp=drive_link)

**Story Part 2:**

[https://drive.google.com/file/d/1LhQqrYfWKAgsmg8K36mRHsBLYvv9j8rn/view?usp=share\_link](https://drive.google.com/file/d/1TmQklyW-hlAq2UVaiyd7-X_wykNSUQuG/view?usp=sharing)

**Milestone 7: Publishing and Web integration**

**Activity 1: Create Tableau Public Account with personal ID**

**Reference link:** <https://public.tableau.com/app/discover>

**Activity 2: Integrating with Web with Embed code**

**Explanation video link:**

<https://drive.google.com/file/d/1TOULdcmAfHmBPBPO7OrpL7sAgedcog-1/view?usp=sharing>

**Milestone 8: Using Bootstrap templates for web integration**

**Explanation video link:**

<https://drive.google.com/file/d/1IQJH5IcJMpF8pFYpy9GbQ9Y3M9VZ-SjB/view?usp=sharing>

**Conclusion:**

* Most Number of Uber Bookings are taking place for Business Category and very few Trips are taking place for Personal Category.
* Uber Trips are best opted for the Meetings Purpose. As a greater number of Users are Picking uber trips to reduce the cost of Travel.
* More Number of Uber Trips are placed in Evening i.e. from 5-7 Pm.
* In Q4, More number of Bookings have been Taken place for the Uber than other quarters, especially In December, More number of Bookings took place.