# Uber Trip Data Analysis Report

## 1. Introduction

This report analyzes Uber trip data focusing on trip volumes, dispatching base performance, and temporal patterns. The dataset contains dispatch base numbers, dates, active vehicle counts, and trip counts.

## 2. Key Questions to Answer

- What are the busiest days for Uber trips?  
- Which dispatch bases have the highest demand?  
- Are there monthly variations in trip demand?  
- Which weekdays are the busiest for trips?

## 3. Tasks Performed

- Loaded and cleaned the dataset.  
- Extracted date features: day, month, year, weekday.  
- Plotted total trips per day.  
- Analyzed trips by dispatching base.  
- Visualized trips by month and by weekday.  
- Summarized key findings about busiest days and top-performing bases.

## 4. Analysis Approach

The dataset was analyzed using Python libraries including pandas, matplotlib, and seaborn. The 'date' column was converted to datetime format for easier extraction of day, month, and year components. Group-by operations and visualizations were performed to understand patterns in trip counts.

## 5. Findings

- The busiest single day was identified based on total trips.  
- The top dispatching base was determined by the total number of trips dispatched.  
- Monthly variations in demand were observed with peaks in specific months.  
- Weekday analysis revealed which days are generally busier.

## 6. Conclusion

The Uber trip dataset provided insights into urban mobility trends based on dispatching base and date. Understanding daily, monthly, and weekday patterns can assist Uber and city planners in resource management, driver allocation, and improving service delivery.