

A wide-angle photograph of a busy city street, likely New York City, during the day. The street is filled with numerous yellow taxis, some with "NYC Taxi" markings and others with various advertisements. In the background, there are tall, modern skyscrapers with many windows. The foreground shows the asphalt of the street and some crosswalk markings.

uber

Next Generation Car
Service

About Uber

Uber is a global mobility platform that revolutionized transportation with its ride-hailing app launched in 2009. Operating in over 70 countries, Uber connects riders with drivers in real-time, offering fast, reliable, and safe travel options.

Beyond rides, Uber has expanded into food delivery (Uber Eats), freight logistics (Uber Freight), and micro-mobility services like bikes and scooters. Powered by smart algorithms, GPS tech, and a focus on user experience, Uber plays a key role in shaping modern urban mobility.

With a commitment to sustainability, Uber aims to become a zero-emission platform by 2040, leading innovation in transportation and redefining how the world moves.



Project Overview

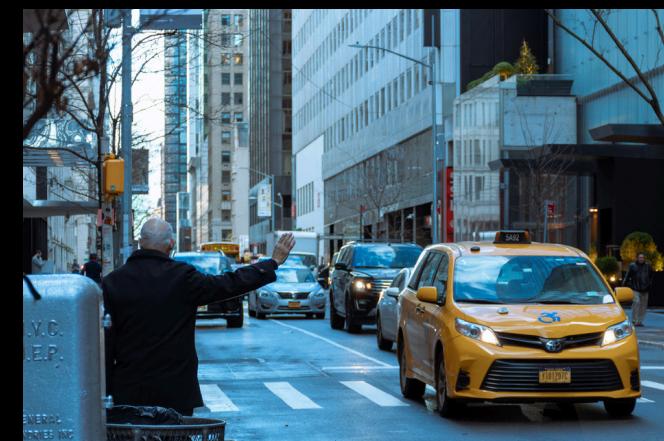
Objective:

This Power BI project dives deep into Uber's trip data to uncover meaningful insights around booking patterns, ride behavior, and revenue across different locations and time periods. With millions of trips completed daily, Uber generates massive volumes of data—covering timing, distance, payment methods, and customer preferences.

By leveraging this rich dataset, the analysis aims to identify trends, optimize pricing strategies, improve service allocation, and enhance overall operational efficiency. The ultimate goal is to empower stakeholders with data-driven insights that support smarter decision-making and elevate the customer experience in today's fast-paced mobility landscape.

Business Impact:

- Optimize vehicle allocation
- Improve pricing strategy
- Identify peak-hour demands
- Analyze location-based trends



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OVERVIEW ANALYSIS DASHBOARD

The dashboard features a sidebar on the left with icons for Home, Information, Refresh, and Database. The main area has a title 'Uber Trip Analysis | Overview Analysis' with a date range from 01-06-2024 to 30-06-2024 and a city dropdown set to All. It includes six summary cards: Total Bookings (103.7K), Total Booking Value (\$1.6M), Avg Booking Value (\$15.0), Total Trip Distance (349K miles), Avg Trip Distance (3 miles), and Avg Trip Time (16min). Below these are three donut charts: Total Bookings by Payment_type (Uber Pay 67.03%, Cash 32.23%, Amazon Pay 0.56%), Total Bookings by Trip (Day/Night) (Day Trip 72.8%, Night Trip 27.2%), and Total Bookings by Day (line chart showing daily fluctuations). The Vehicle Type Analysis table lists UberXL, UberX, Uber Green, Uber Comfort, and Uber Black with their respective booking metrics. The Location Analysis section shows the most frequent pickup point as Penn Station/Madison Sq West and the most frequent drop-off point as Upper East Side North. It also highlights the farthest trip from Lower East Side to Crown Heights North (144.1 miles). The final two sections show total bookings by location and the most preferred vehicle for each location.

Uber Trip Analysis | Overview Analysis

Date: 01-06-2024 - 30-06-2024 | City: All

Total Bookings: 103.7K

Total Booking Value: \$1.6M

Avg Booking Value: \$15.0

Total Trip Distance: 349K miles

Avg Trip Distance: 3 miles

Avg Trip Time: 16min

Overview Analysis

Total Bookings by Payment_type:

Payment Type	Count	Percentage
Uber Pay	70K	67.03%
Cash	33K	32.23%
Amazon Pay	1K	0.56%
Google Pay	0	0%

Total Bookings by Trip (Day/Night):

Trip Type	Count	Percentage
Day Trip	76K	72.8%
Night Trip	28K	27.2%

Total Bookings by Day:

Vehicle Type Analysis:

Vehicle	Total Bookings	Total Booking Value	Avg Booking Value	Total Trip Distance
UberXL	16698	\$2,49,424	\$14.9	55,721
UberX	38744	\$5,83,880	\$15.1	1,31,496
Uber Green	14498	\$2,16,181	\$14.9	48,778
Uber Comfort	17078	\$2,53,995	\$14.9	56,790
Uber Black	16710	\$2,50,192	\$15.0	56,149

Location Analysis:

Most Frequent Pickup Point: Penn Station/Madison Sq West

Most Frequent Drop-off Point: Upper East Side North

Farthest Trip: Pickup: Lower East Side → Drop-off: Crown Heights North (144.1 miles)

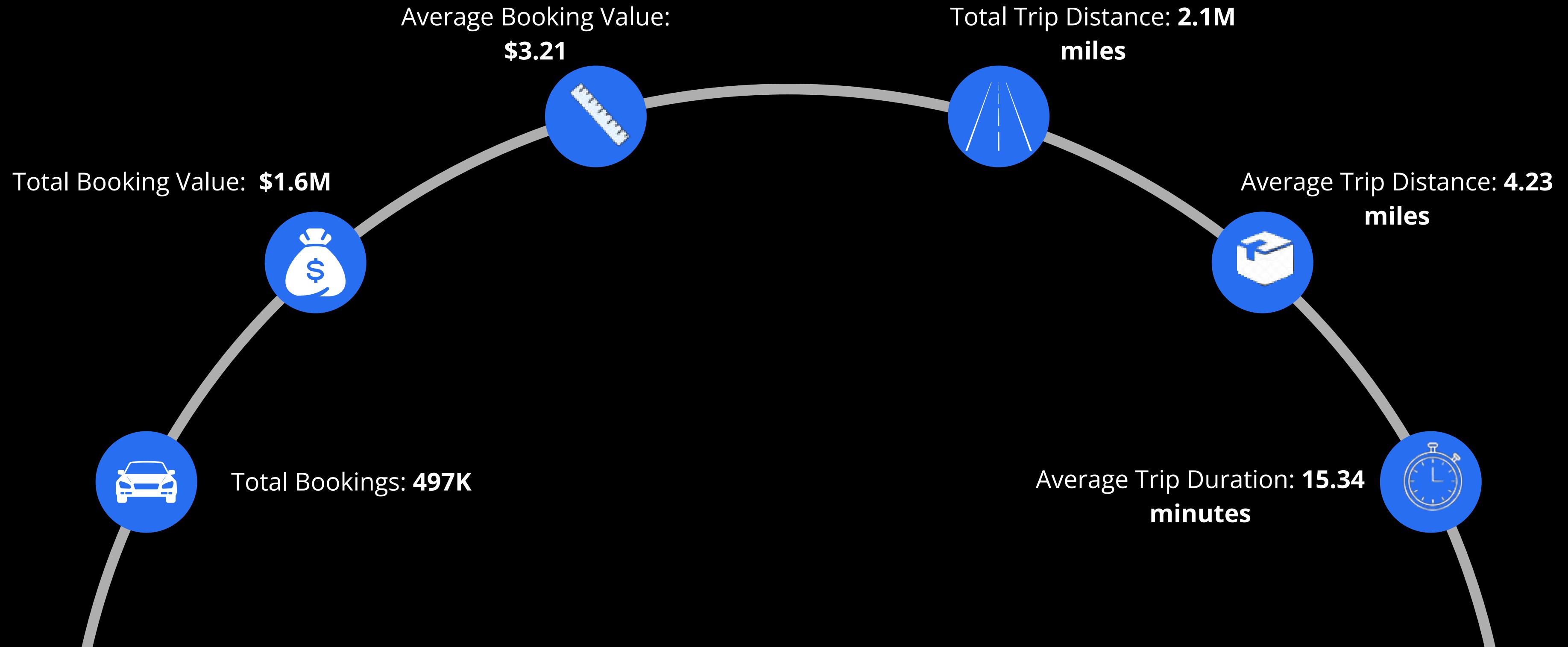
Total Bookings by Location:

Location	Total Bookings
Penn Station/Madison Sq West	4.5K
Upper East Side North	4.5K
Upper East Side South	4.1K
Lenox Hill East	4.0K
Upper West Side	3.8K

Most Preferred Vehicle for Location Pickup:

Vehicle	Total Bookings
UberX	39K
Uber Comfort	17K
Uber Black	17K
UberXL	17K
Uber Green	14K

Key Performance Indicator



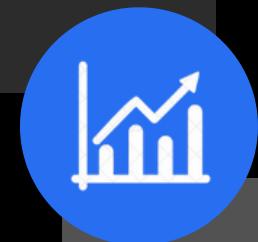
Overview Analysis

Key Insights

Majority of rides occur within 5-15 mile range

Daytime rides generate more revenue than night trips

Average fare is moderate across all time slots



By Payment Type:

Card: Most used method, over 60% of trips

Cash: Preferred during night trips

Wallets: Gaining traction in urban areas

Vehicle Type Analysis:

Vehicle	Total Bookings	Avg Fare	Total Distance
UberX	Highest	\$3.0	Most miles
UberXL	Moderate	\$5.2	Mid-range
Uber Black	Lowest bookings	\$7.5	Longest rides

Location Analysis:

- **Most Frequent Pickup Area:** Downtown
- **Top Drop-off Location:** Midtown
- **Farthest Trip Recorded:** 74.9 miles

Going to be a
0 emission
 Platform by 2040 by Uber Green



TIME ANALYSIS DASHBOARD

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Uber Trip Analysis | Time Analysis

Date: 01-06-2024 - 30-06-2024 | City: All

Total Bookings: 103.7K

Total Booking Value: \$1.6M

Avg Booking Value: \$15.0

Total Trip Distance: 349K miles

Avg Trip Distance: 3 miles

Avg Trip Time: 16min

Overview Analysis

Time Analysis

Details

Home

Information

Refresh

Data

Total Bookings by Pickup Time:

Total Bookings by Day Name:

Total Bookings by Hour & Day:

Time-Based Demand Analysis

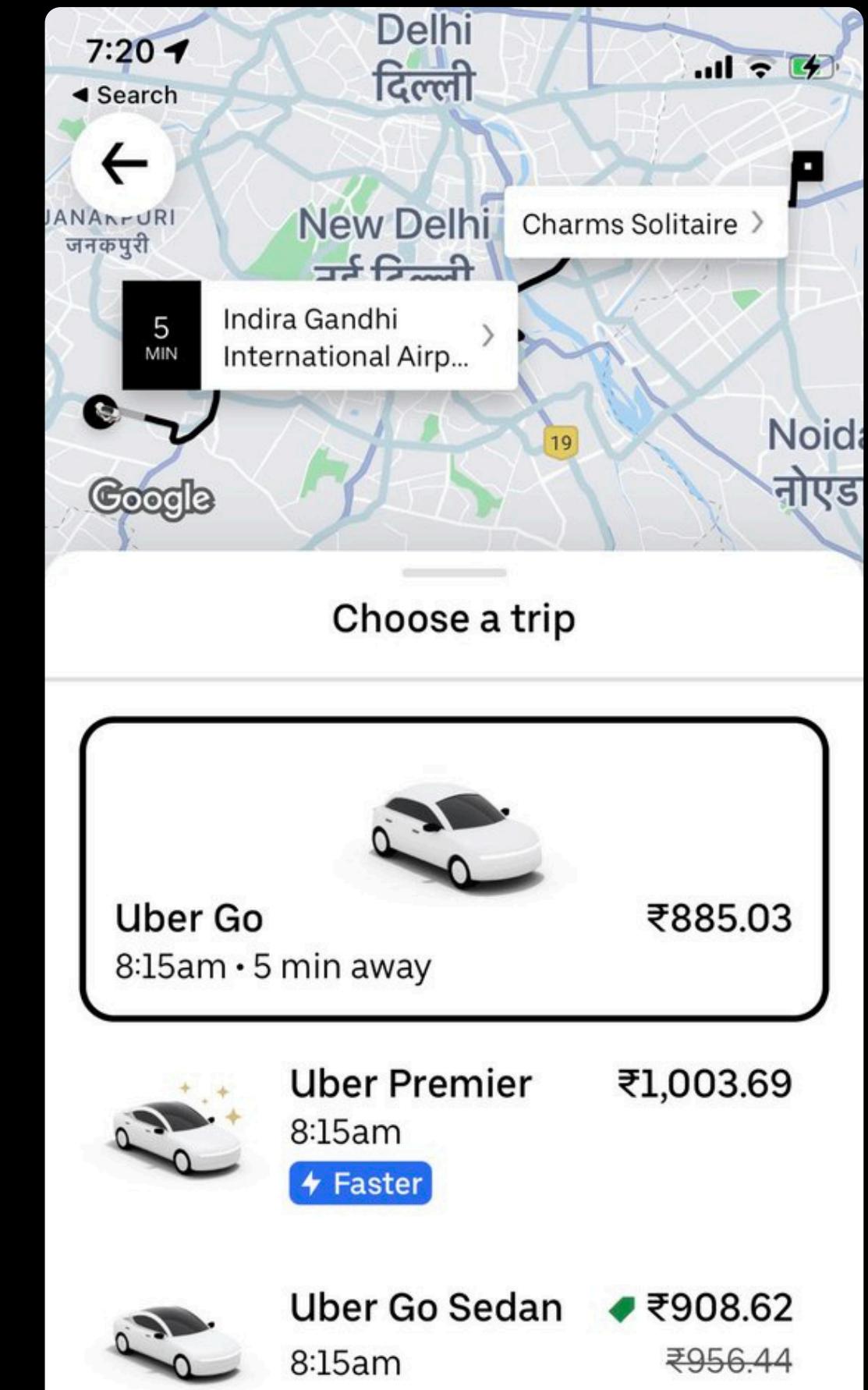
- Peaks observed at 8-10 AM and 5-8 PM
- Consistent ride demand during morning and evening commute hours

Bookings by Day of Week

- Friday leads in total bookings
- Weekends show higher average fare due to longer trips

Hourly Heatmap Insights

- 7 AM to 9 AM and 5 PM to 8 PM are red zones (peak load)
- Sundays have least demand from 0:00 to 6:00 AM



DETAILS DASHBOARD

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Uber Trip Analysis | Details



Overview Analysis

Time Analysis

Details



Trip ID	Pickup Date	Pickup Hour	Vehicle	Payment_type	No of Passengers	Trip Distance	Booking Value	Pickup Location	Total Bookings
1	01 June 2024	00:42:50	UberX	Uber Pay	1	5.60	\$21.5	East Village	1.0
2	01 June 2024	00:06:29	Uber Black	Cash	1	1.72	\$8.0	Lincoln Square East	1.0
3	01 June 2024	00:08:05	Uber Black	Cash	1	3.41	\$13.0	Sutton Place/Turtle Bay North	1.0
4	01 June 2024	00:28:20	UberX	Cash	1	1.81	\$9.0	Prospect-Lefferts Gardens	1.0
5	01 June 2024	00:38:05	Uber Black	Cash	1	1.89	\$8.0	Garment District	1.0
6	01 June 2024	00:06:00	UberX	Cash	6	3.29	\$14.0	Central Harlem	1.0
7	01 June 2024	00:40:41	UberX	Cash	2	2.05	\$8.5	Lincoln Square East	1.0
8	01 June 2024	00:32:01	Uber Comfort	Cash	2	3.54	\$12.5	Clinton East	1.0
9	01 June 2024	00:20:27	Uber Green	Cash	1	1.10	\$5.5	Clinton East	1.0
10	01 June 2024	00:54:40	UberX	Uber Pay	2	1.90	\$11.6	Lenox Hill East	1.0
11	01 June 2024	00:18:51	UberXL	Uber Pay	1	6.66	\$28.5	Clinton East	1.0
12	01 June 2024	00:17:18	Uber Comfort	Uber Pay	2	13.12	\$36.5	Kips Bay	1.0
13	01 June 2024	00:00:31	Uber Green	Cash	1	12.59	\$37.0	JFK Airport	1.0
14	01 June 2024	00:21:51	UberXL	Cash	1	1.10	\$5.5	Clinton East	1.0
15	01 June 2024	00:29:31	UberX	Cash	1	9.00	\$27.0	Morningside Heights	1.0
16	01 June 2024	00:46:55	Uber Black	Uber Pay	1	2.12	\$10.4	Kips Bay	1.0
17	01 June 2024	00:46:26	UberXL	Uber Pay	1	3.00	\$13.0	Midtown North	1.0
18	01 June 2024	00:14:47	Uber Comfort	Uber Pay	1	3.10	\$14.6	Greenwich Village South	1.0
19	01 June 2024	00:42:52	UberXL	Uber Pay	1	5.63	\$21.3	East Williamsburg	1.0
20	01 June 2024	00:20:49	Uber Green	Uber Pay	1	1.53	\$8.6	Clinton East	1.0
21	01 June 2024	00:44:00	Uber Comfort	Cash	1	1.70	\$8.5	Fort Greene	1.0
22	01 June 2024	00:04:52	UberXL	Uber Pay	1	5.80	\$25.5	Penn Station/Madison Sq West	1.0
23	01 June 2024	00:50:26	Uber Comfort	Uber Pay	1	2.50	\$10.5	Penn Station/Madison Sq West	1.0
24	01 June 2024	00:03:50	Uber Comfort	Uber Pay	1	4.59	\$21.2	Clinton East	1.0
26	01 June 2024	00:02:46	UberX	Cash	1	1.08	\$7.0	East Village	1.0
27	01 June 2024	00:11:35	Uber Green	Cash	1	1.90	\$7.0	Clinton East	1.0
Total					146478	3,48,933.81	\$15,53,672.8		103728.0

Details Analysis

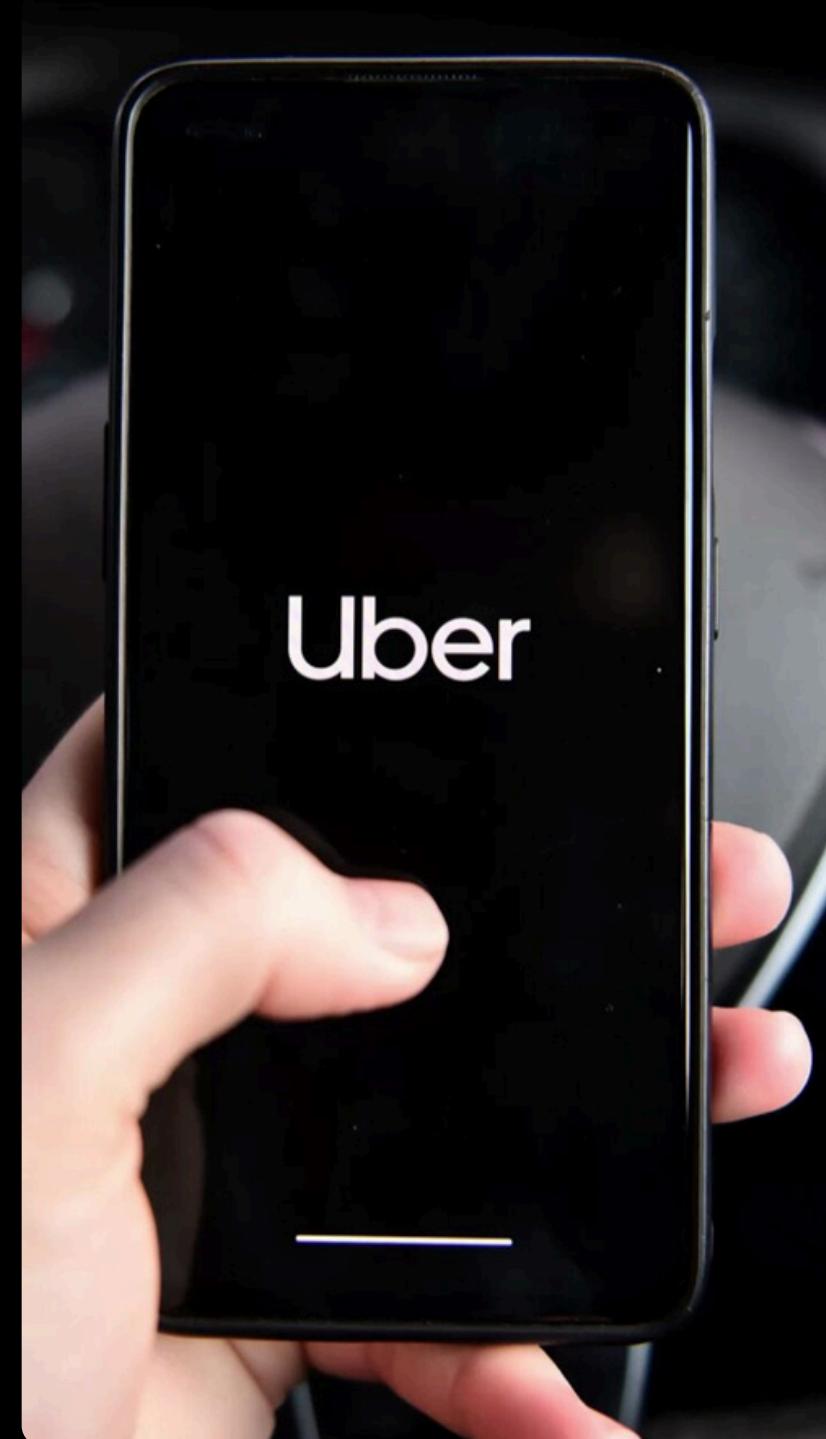
Purpose: A granular, **drill-through table** to explore individual trip-level data

Columns Displayed:

- Trip ID, Time Stamps, Locations
- Trip Distance, Fare, Surge Fee
- Passenger Count, Payment Type, Vehicle

Features:

- Interactive **drill-through from other dashboards**
- Bookmarks for full data view
- Export option to download raw data



Key Insights & Outcomes

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Operational Efficiency

- Long average trip durations (~15 mins) suggest room to optimize route planning and reduce idle time.
- High average trip distance (~4.2 miles) shows users rely on Uber for medium-distance urban travel.

User & Booking Behavior

- Peak demand observed during specific weekday hours—ideal for surge pricing strategies.
- Wallet usage is growing, indicating a shift toward digital-first payments.

Location Intelligence

- Certain pickup points dominate demand—potential to pre-position drivers or create hot zones.

- Longest trips highlight potential for launching premium long-haul services or flat-fare options.

Business Opportunities

- Vehicle type preferences vary by location—insights can guide fleet distribution and vehicle inventory.
- Revenue concentration in a few top cities hints at the need for market expansion in underutilized areas.

Efficiency Metrics

- Average trip distance is ~4.2 miles, with most trips lasting under 20 minutes, pointing to high turnover and frequent usage in urban setups.
- Surge pricing effectively boosts revenue during high-demand hours and specific zones.

Strategic Recommendations

Dynamic Pricing Optimization

- Implement more granular surge pricing based on time blocks and location clusters.
- Offer off-peak discounts to increase weekday morning usage.

Driver Allocation Strategy

- Increase driver presence in peak zones (Downtown, Midtown, Airport) especially during 7-9 AM and 5-8 PM.
- Provide location heatmaps to drivers through the app to improve supply-demand balance.

Marketing & Promotions

- Promote Uber Black and UberXL rides through weekday business commute plans and event partnerships.
- Encourage wallet usage via cashback or loyalty programs in regions with lower adoption.

Operational Improvements

- Monitor trip duration anomalies to detect traffic-prone routes or inefficient trip paths.
- Introduce route optimization alerts for long-distance trips to cut down on travel time and cost.

Expansion Opportunities

- Consider deploying more vehicles in top-performing Tier-2 cities, especially where demand is rising during peak weekend hours.
- Use drop-off frequency analysis to identify underserved areas needing better coverage.



Conclusion

This Uber Trip Analysis demonstrates the power of data visualization in transforming raw trip data into actionable business intelligence.

Through dynamic dashboards, we explored core performance metrics — including booking trends, revenue flow, trip efficiency, and customer behavior. These insights not only enhance operational visibility but also enable strategic decision-making.

By applying analytical principles and leveraging Power BI's interactive capabilities, the project supports Uber's goals of optimizing resource allocation, improving service quality, and meeting customer expectations in a fast-evolving mobility landscape.



Thank you

Uber

DIVYANSH KARTIKEY KAUSHAL