🚖 Uber Trip Analysis – Insight Report

📊 1. Overview Analysis

🔹 Total Summary (01 June - 30 June 2024)

- **Total Bookings:** 103.7K
- **Total Booking Value:** $1.6M
- **Average Booking Value:** $15.0
- **Total Trip Distance:** 349K miles
- **Average Trip Distance:** 3 miles
- **Average Trip Time:** 16 minutes

🔹 Booking Patterns

- **Most Frequent Pickup Point:** *Penn Station / Madison Sq West*
- **Most Frequent Drop-off Point:** *Upper East Side North*
- **Farthest Trip:** *Lower East Side → Crown Heights North (14.4 miles)*

🔹 Vehicle Type Performance

Vehicle Type	Total Bookings	Avg Booking Value	Total Distance
UberX	38,744	$15	93.5K miles
Uber Comfort	17,078	$15	56.7K miles
Uber Black	16,710	$15	56.1K miles
UberXL	16,598	$15	55.7K miles
Uber Green	14,948	$15	48.4K miles

🚗 **Insight:** UberX is the most used service, followed by Uber Comfort.

🔹 Payment Type and Time-of-Day Patterns

- **Payment Type (by trip distance):**
  - Uber Pay: 71%
  - Cash: 27%
- **Trip Time Distribution:**
  - **Day Trips:** 60.1%

- **Night Trips:** 39.9%

🕑 2. Time Analysis

🔹 Filtered Duration: 01 June - 13 June 2024

- **Total Bookings:** 39.6K
- **Total Booking Value:** $590.3K
- **Average Booking Value:** $14.9
- **Total Trip Distance:** 134K miles

🔹 Booking by Pickup Time

- Peak booking hours are **10:00 AM - 6:00 PM**
- Booking sharply increases from **6:00 AM**, peaks around **12:00 PM - 1:00 PM**, then declines after **8:00 PM**

🔹 Booking by Day Name

Day	Bookings
Monday	6.5K
Tuesday	6.5K
Wednesday	6.4K
Thursday	5.1K
Friday	6.5K
Saturday	6.4K
Sunday	6.4K

🗓️ **Insight:** Thursday sees a slight dip; other days have consistent bookings.

🧾 3. Detailed Data View

- Total Booking Records: **103,728**
- Total Trip Distance: **348,933.81 miles**
- Total Booking Value: **$1,563,672.8**

🔹 Sample Record Insight:

- Most trips are **short-distance (~3-6 miles)** with an average fare of **~$15**
- Passenger count is mostly **1**, indicating solo rides dominate

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🧩 4. Data Model Overview

Entity Relationships:

- **Trip Details** (Fact Table)
    - Linked to:
        - **Location Table** via `LocationID`
        - **Calendar Table** via `Date`
- **Dynamic Measure Table** for dynamic aggregation across visualizations

📐 **Insight:** Well-normalized star schema enhances performance and scalability

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🧠 Key Insights & Recommendations

🔍 Insights:

- **High Dependence on UberX:** Indicates it's preferred for affordability and availability
- **Uber Pay Dominance:** Majority of users prefer digital payment
- **Strong Daytime Activity:** Aligns with office commute and daytime errands
- **Location Relevance:** Pickup hotspots suggest these areas may benefit from fleet optimization.

✅ Recommendations:

1. **Optimize Vehicle Allocation** in peak pickup locations like *Penn Station* and *Upper East Side*.
2. **Promote Off-Peak Discounts** to increase night-time or Thursday bookings.
3. **Introduce Loyalty Programs** for UberX and Uber Comfort riders to boost engagement.
4. **Enhance App Experience** during 10 AM–6 PM for smoother trip handling and quick ride-matching.