

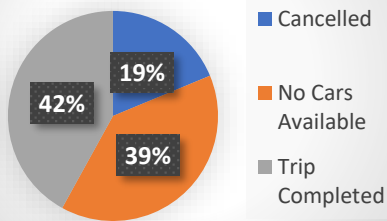
Uber Supply Demand Gap

EXCEL

1. Data was cleaned checked for null values, missing data, blank spaces.
2. Converted the timestamp to Date time format for further easy working in excel and sql.
3. Created new columns-“Request _day”, ”Request _time” from the “request timestamp” column.
4. Created new columns –“Drop day”, ” Drop time” from the “drop timestamp” column.
5. Replacing the NA values in “Driver id” and “Drop timestamp” by 0

Request id	Pickup point	Driver id	Status	Request_day	Request_time	Drop_day	Drop_time
619	Airport	1	Trip Completed	11/7/2016	11:51	11/7/2016	1:00
867	Airport	1	Trip Completed	11/7/2016	5:57	11/7/2016	6:47
1807	City	1	Trip Completed	12/7/2016	9:17	12/7/2016	9:58
2532	Airport	1	Trip Completed	12/7/2016	9:08	12/7/2016	10:03
3112	City	1	Trip Completed	13/07/16	8:33	13/07/16	9:25
3879	Airport	1	Trip Completed	13/07/16	21:57	13/07/16	22:28
4270	Airport	1	Trip Completed	14/07/16	6:15	14/07/16	7:13
5510	Airport	1	Trip Completed	15/07/16	5:11	15/07/16	6:07
6248	City	1	Trip Completed	15/07/16	17:57	15/07/16	18:50
267	City	2	Trip Completed	11/7/2016	6:46	11/7/2016	7:25
1467	Airport	2	Trip Completed	12/7/2016	5:08	12/7/2016	6:02
1983	City	2	Trip Completed	12/7/2016	12:30	12/7/2016	12:57

Request Status Distribution



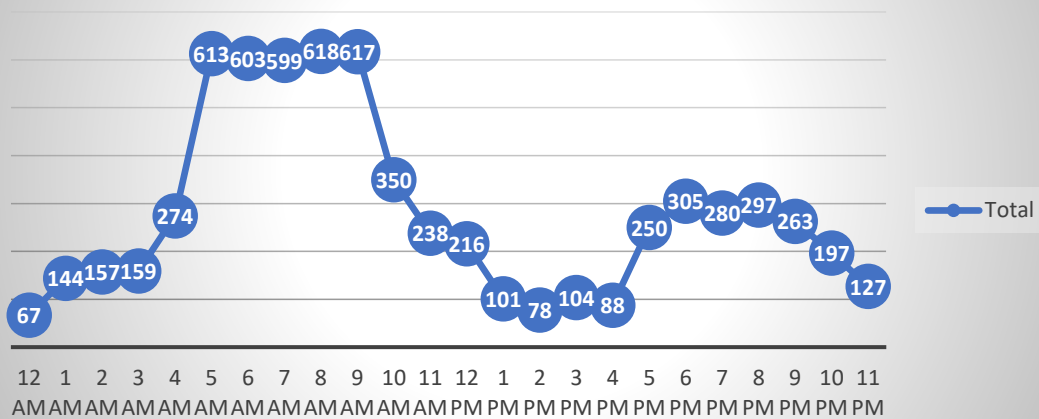
It shows how each status Cancelled, No Cars Available, Trip Completed contributes to the total. We can see that "Trip Completed" is the smallest slice, highlighting the core issue.

19% of requests were completed-A significant portion may point to delays, customer dissatisfaction, or logistical issues like long wait times.

42% were cancelled-the highest proportion indicating successful fulfilment of customer requests.

39% had no cars available-Nearly as common as completed trips suggests demand often exceeds driver availability, possibly during peak hours or underserved locations.

Peak Demand Hours



Early Morning Surge (4 AM–9 AM) There's a massive spike starting around 4 AM, peaking at 618 requests at 8 AM. This suggests a rush of ride requests—possibly from commuters, airport travellers, or early-shift workers.

Midday Slump (10 AM–4 PM) Demand tapers off steeply after 9 AM and stays low through the afternoon, dropping to as few as 78 requests at 2 PM. These hours may be ideal for scheduling driver breaks or system maintenance.

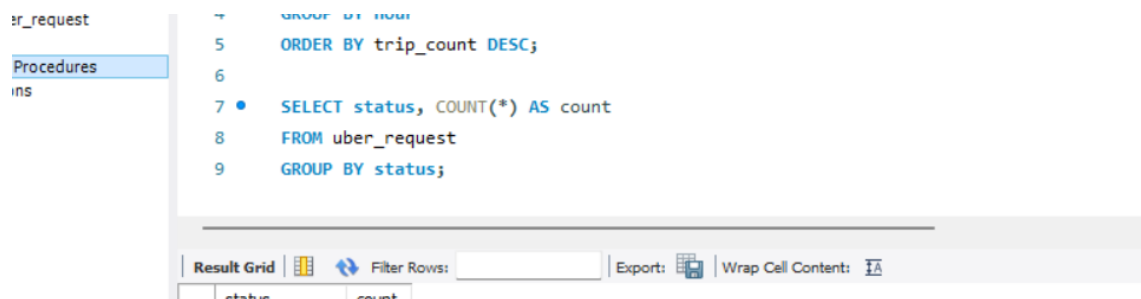
Evening Recovery (5 PM–9 PM) Demand ramps up again in the evening, reaching 305 at 6 PM, likely due to post-work travel and dinner outings. This second peak could inform driver allocation strategies.

After 9 PM, request volume declines steadily, bottoming out again by 11 PM—which may indicate low activity zones or reduced rider availability.

SQL

Queried key insights like count of number of trips cancelled, distribution request by pickup points (city or airport), driver with high request

Status and cancellation insight



Python-GOOGLE Colab EDA (Exploratory Data Analysis)

- 1.Imported cleaned data
- 2.Imported libraries pandas, seaborn, matplotlib, checked rows, columns and datatypes.
- 3.Displayed datatype size rows:6745, column:8
- 4.Checked head, duplicate rows
- 5.Checked unique values for each variables
- 6.Plotted visualization using pandas, seaborn, matplotlib
 - Pie chart for status
 - Number of uber drive over time
 - Pie chart for pickup point vs request volume
 - Histogram chart