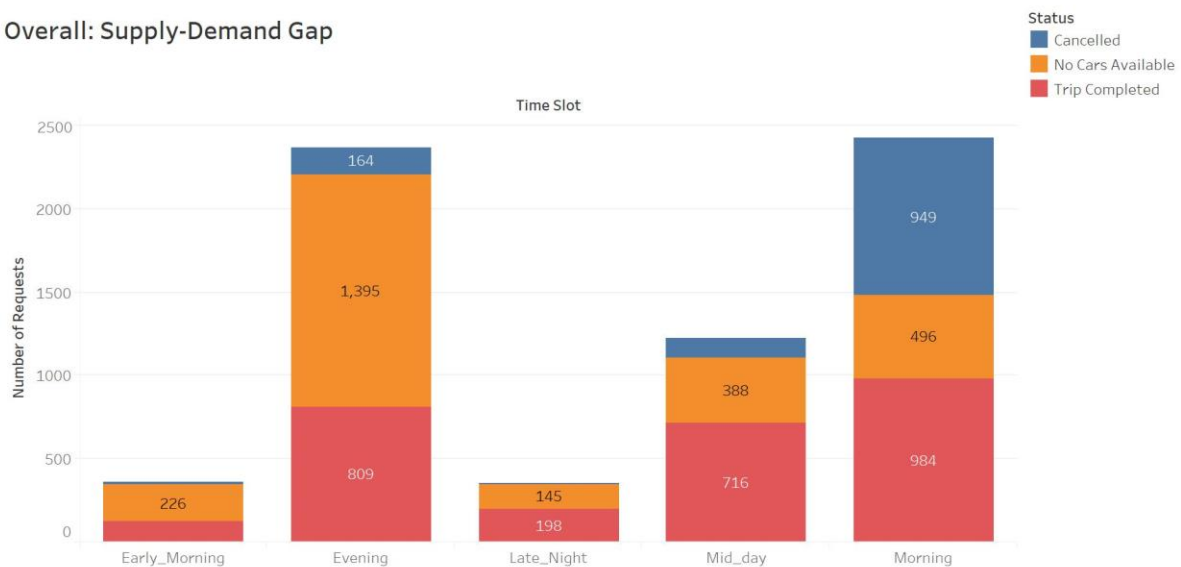# Analysis of Uber Supply-Demand Gap

The 24 hours in a day is divided into the following slots:
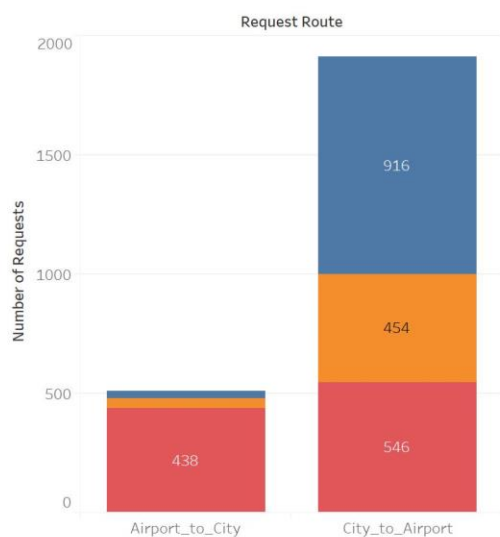 - ➢ 1 to 4: Early morning
  - ➢ 5 to 10: Morning
  - ➢ 11 to 17: Mid-day
  - ➢ 18 to 22: Evening
  - ➢ 23 to 24/0: Late Night

Based on the below plots, we have determined two important time-slots: **Morning and Evening**, where we have a surge in demand for cabs but there isn't enough supply to cater the demand.
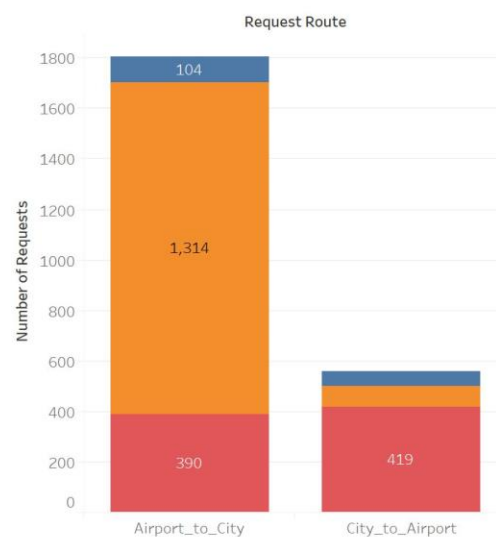
Reasons & Recommendations for Supply-Demand Gap:
Let's understand the reasons for supply demand gap for each of the time slot.

- **Morning Time-slot:**
  - ➢ **Observation**: We can see that a large number of requests in the morning time slot are from "City to Airport" **(1916 requests)**. Off these many requests from "City to Airport", only **546 requests** are completed. Many requests are cancelled by the drivers **(916)**.
  - ➢ **Reason:** Drivers might be cancelling trips because of the less number of requests from "Airport to City" on return which would result in more waiting time for the next trip.
  - ➢ **Recommendation:** We would recommend Uber to increase the fare price on all trips from "City to Airport" in the morning slot. This would encourage more drivers to accept the requests.

- **Evening Time-slot:**
  - ➢ **Observation**: We can see that a large number of requests in the evening time slot are from "Airport to city" **(1808 requests)**. Off these many requests from "Airport to city", only **390 requests** are completed. Many requests are unanswered because of no cabs available **(1314)**.
  - ➢ **Reason:** There might not be enough cars to cater the huge demand in this time slot.
  - ➢ **Recommendation:** We would recommend Uber to increase the number of cars from airport in the evening time slot to leverage this huge demand.