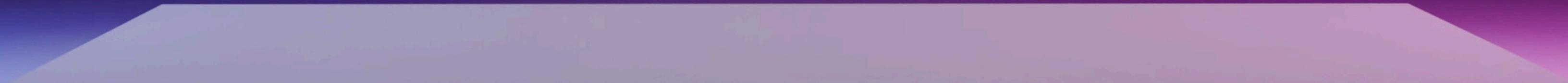


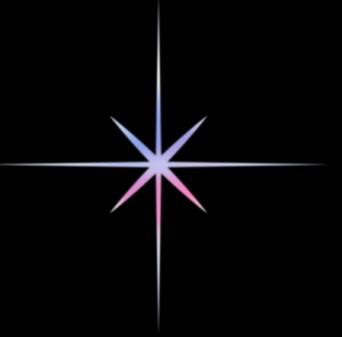


TRAFFIC INDEX IN SAUDI ARABIA AND MIDDLE EAST

Bayader Aljondeby

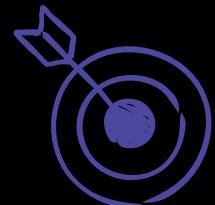


Dataset Overview



- **City:** City name
- **Datetime:** Timestamp of the traffic record
- **TrafficIndexLive:** Current traffic congestion level
- **JamsCount:** Number of active traffic jams
- **JamsDelay:** Extra delay caused by jams (minutes)
- **JamsLength:** Total jam length (km)
- **TrafficIndexWeekAgo:** Traffic index from the same time last week
- **TravelTimeHistoric:** Typical travel time under normal conditions
- **TravelTimeLive:** Current travel time based on live traffic

Problem Definition

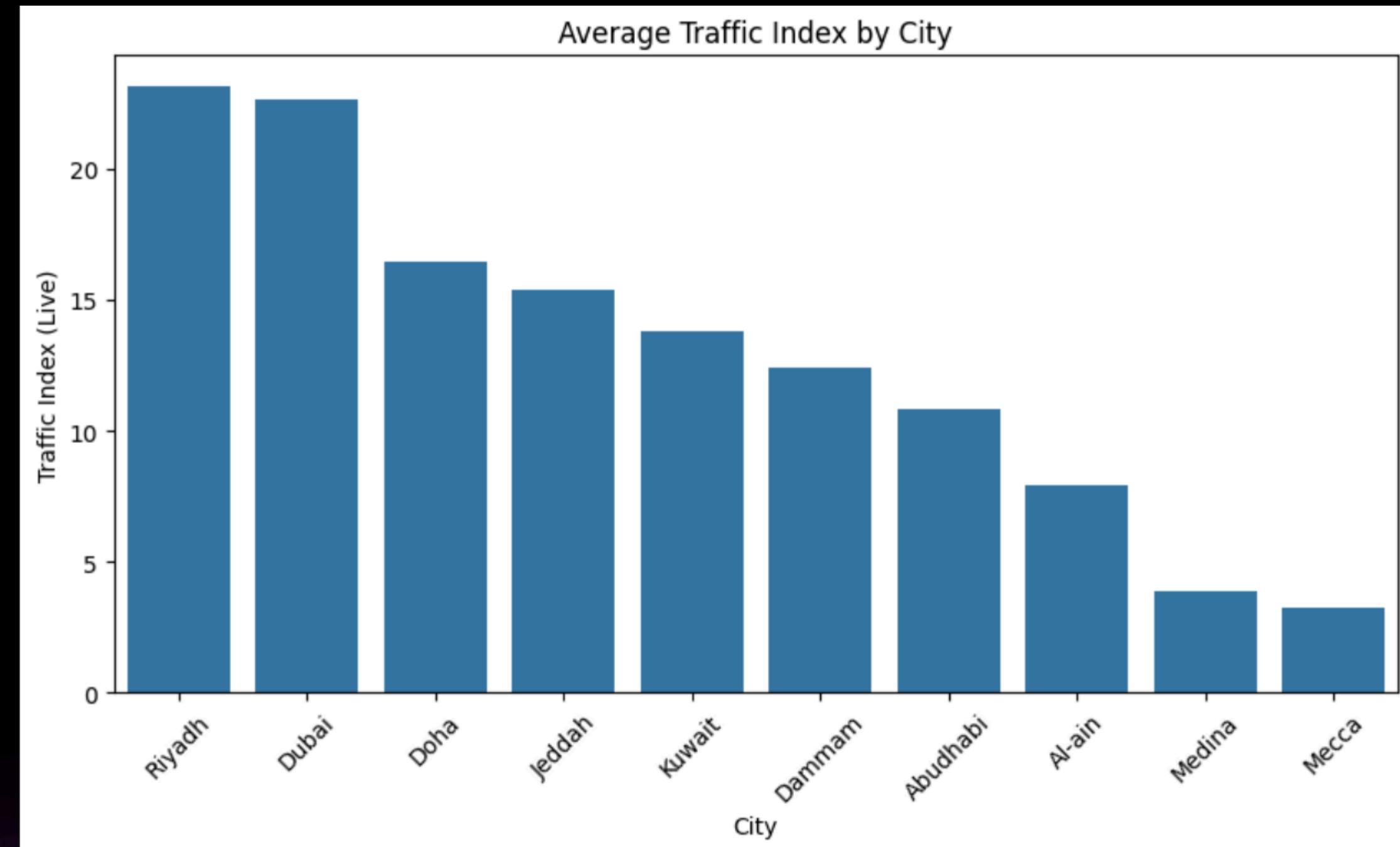


- Explore and understand traffic congestion patterns
- Which cities are most congested?
- When are peak hours?
- How do weekdays vs. weekends differ?
- How extreme are outlier events?

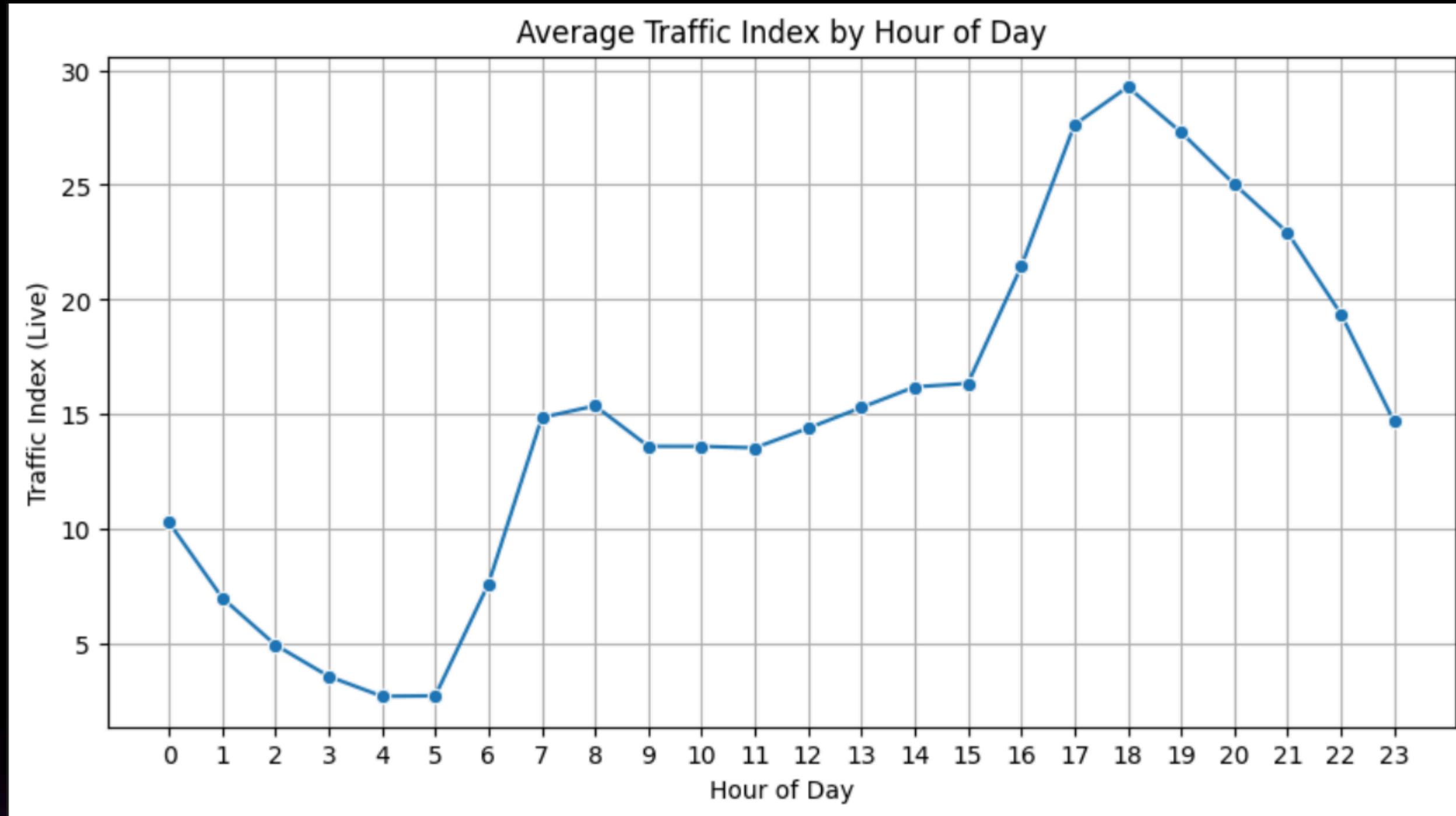


Exploratory Data Analysis (EDA)

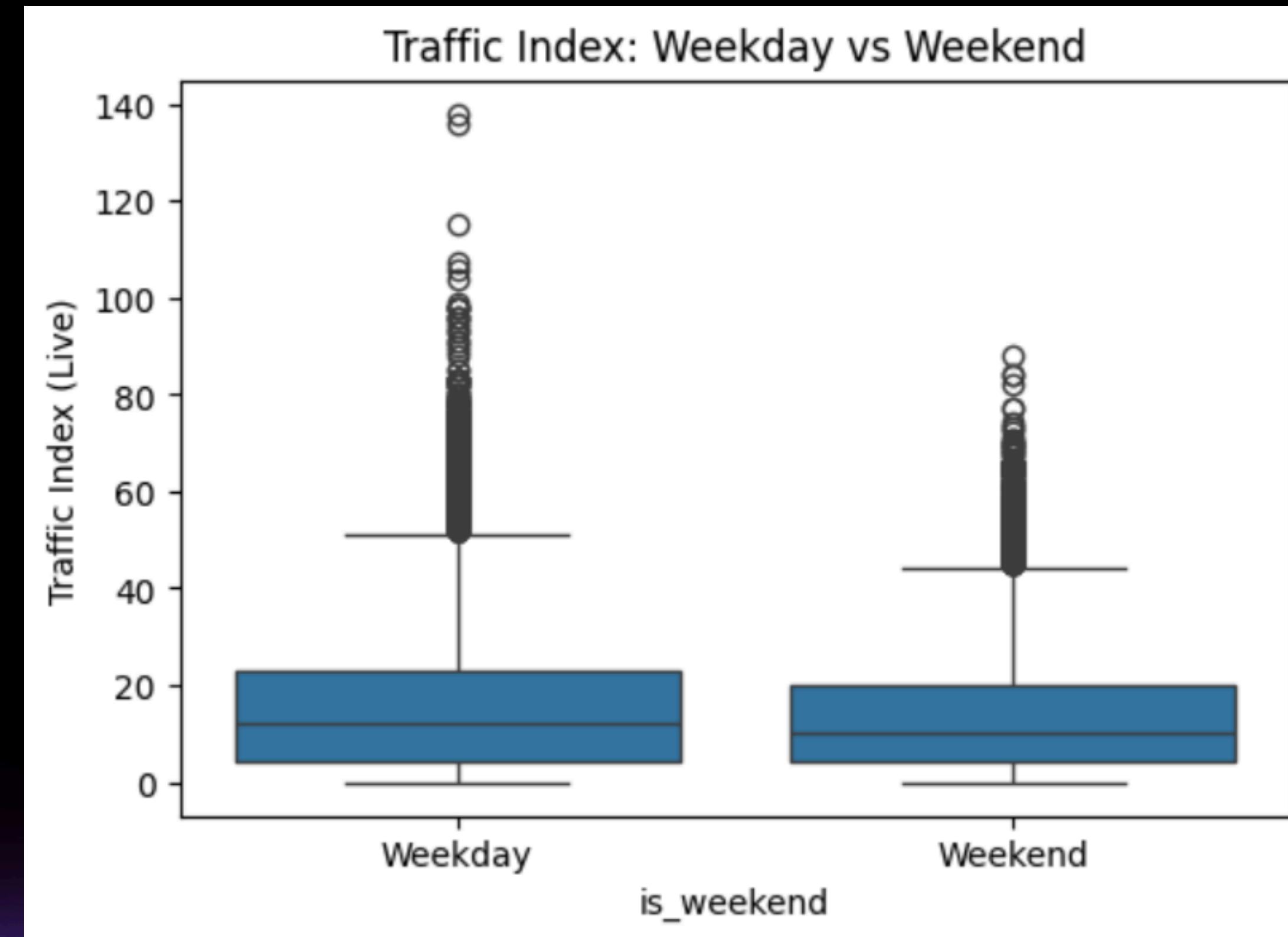
Which Middle Eastern cities have the highest average traffic?



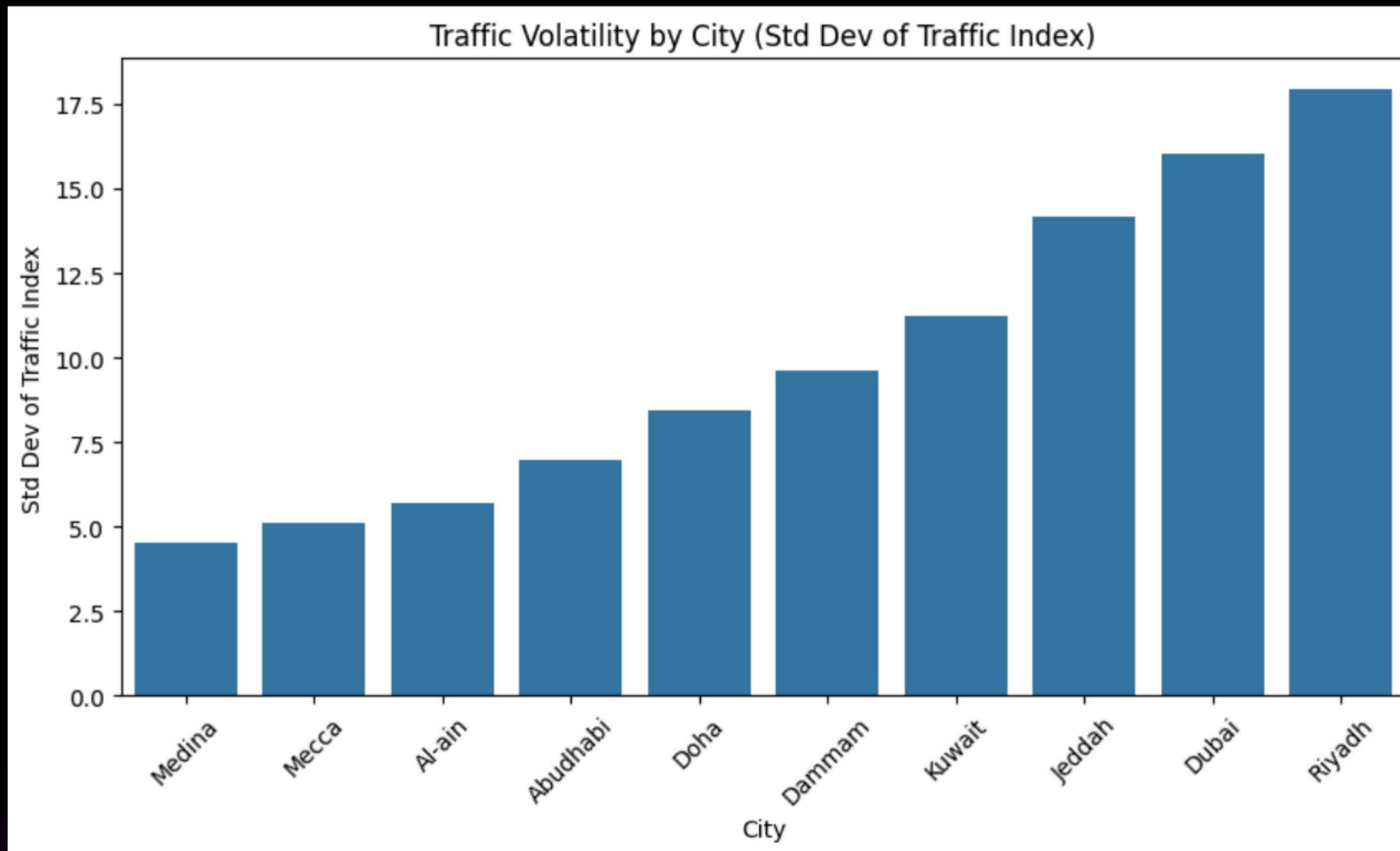
What are the peak congestion hours across all cities?



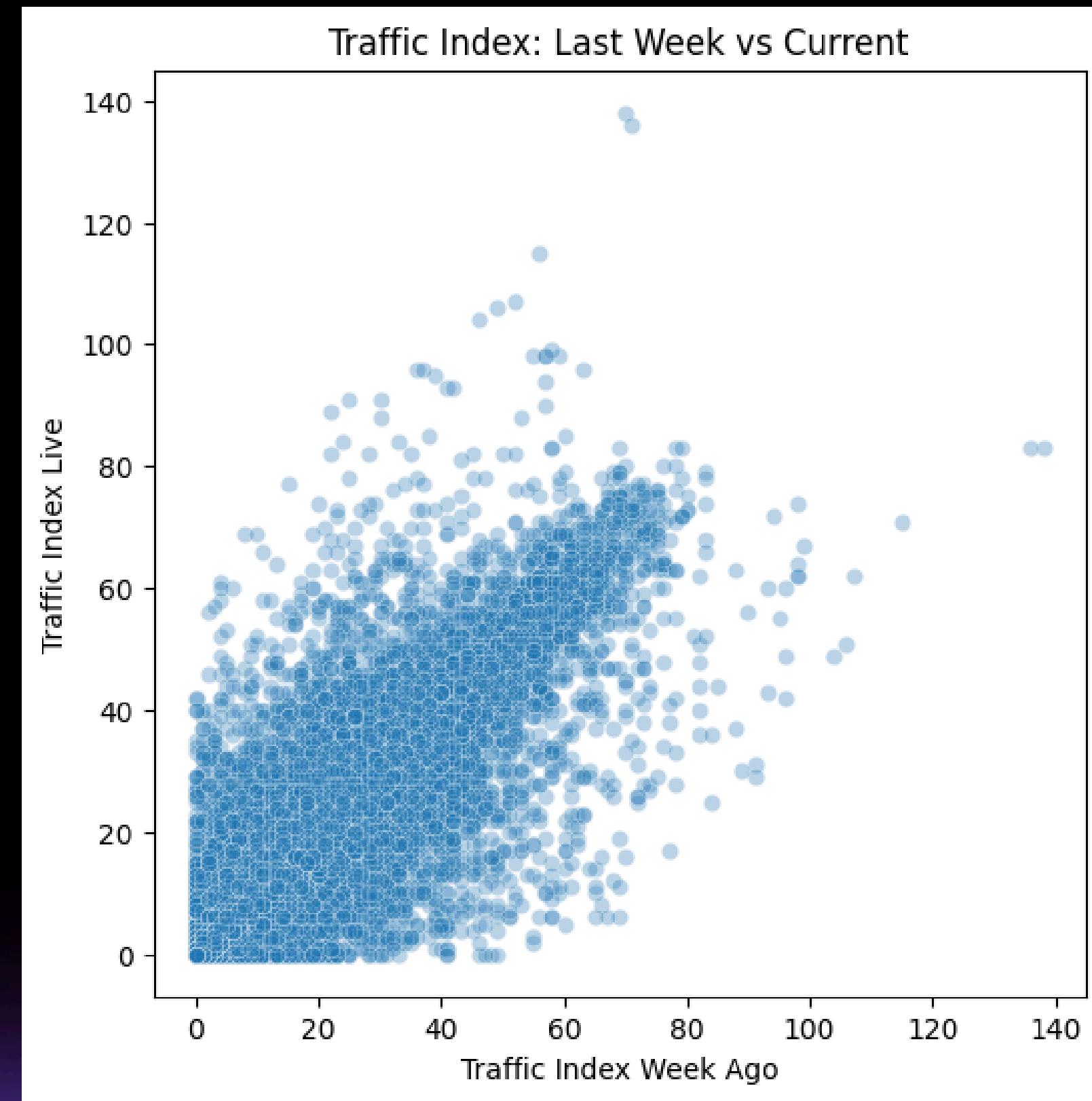
Do weekends show significantly lower congestion than weekdays?



Are there cities with consistently stable versus volatile traffic patterns?



Can last week's traffic index predict current traffic levels?



Dashboard

Demo

Final Insights



Traffic spikes during daytime



Extreme outliers needs planning & mitigation

Why would we study traffic?



Enhancing Safety



Informing Infrastructure Planning and Design



Reducing Congestion and Pollution

THANK YOU!