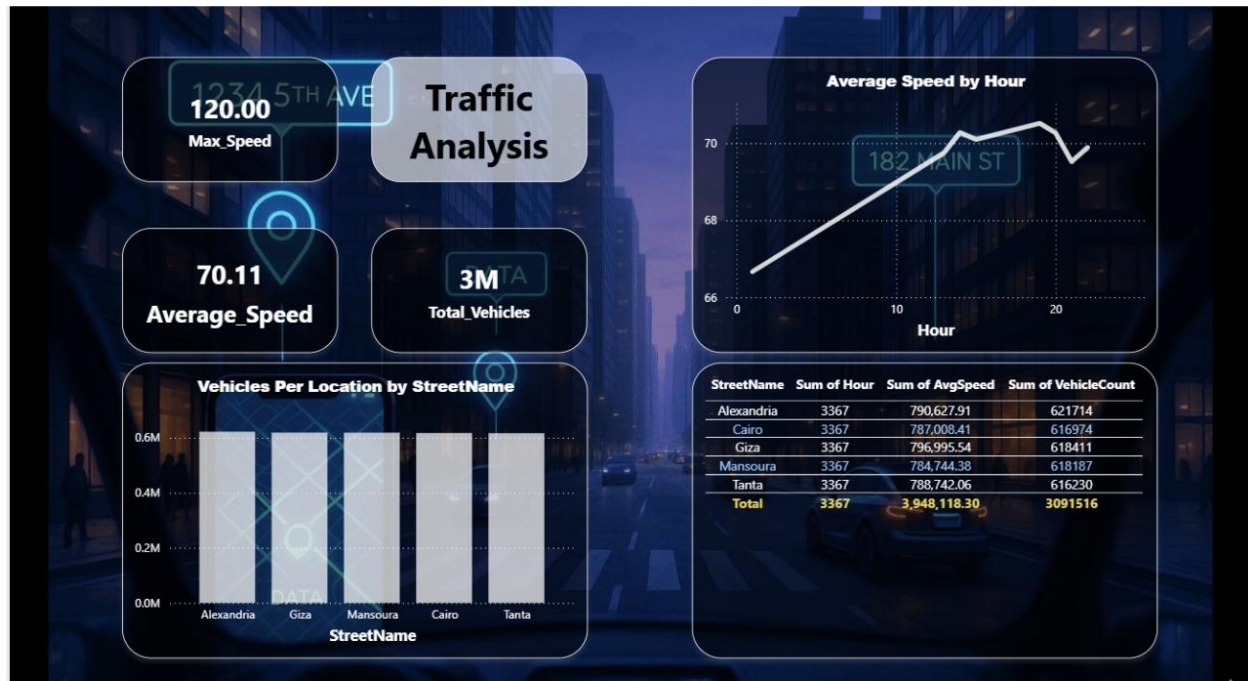# The Dashboard and some Insights from it



## 1. Traffic Overview

- Maximum Speed recorded: 120 km/h — indicates occasional high-speed vehicles.
- Average Speed across all locations: 70.11 km/h — shows the general traffic flow is moderate.
- Total Vehicles counted: ~3 million (3M) — gives an idea of traffic volume during the monitored period.

## 2. Traffic by Location (Vehicles Per Street)

- The bar chart shows that vehicle counts are relatively similar across Alexandria, Giza, Mansoura, Cairo, and Tanta, with each street handling roughly 0.6 million vehicles.
- From the table:
  - Alexandria has the highest vehicle count: 621,714 vehicles.
  - Tanta has the lowest vehicle count: 616,230 vehicles.
  - The difference between streets is minor, indicating a relatively uniform distribution of traffic.

## 3. Speed Analysis (Average Speed by Hour)

- The line chart shows average speed trends throughout the day:
  - Speeds increase gradually as the day progresses, peaking near hour 20 (8 PM).
  - There is a slight dip at the end, which could indicate evening traffic congestion.
- This pattern suggests rush hour congestion is earlier in the day, and traffic smooths out later.

## 4. Aggregate Speed and Vehicle Data

- Total sum of average speeds across all hours and streets: 3,948,118.3 (likely cumulative).
- Vehicle counts sum up to 3,091,516, confirming the total vehicles metric.
- Mansoura has the lowest sum of average speed (784,744.38) — may indicate slightly slower traffic there.

## 5. Key Insights

- Traffic is fairly balanced across major streets.
- Alexandria sees slightly more vehicles, so it could benefit from traffic management strategies.
- Peak speeds occur in the evening, which might suggest that traffic congestion occurs during daytime and slows speeds earlier.
- Speed monitoring is important since the maximum speed (120 km/h) is significantly higher than average — could indicate potential safety risks.