

CityPulse: Urban Traffic & Pollution Dashboard

"Analyzing traffic patterns and air quality across simulated smart cities"

Brief Description:

Explore how traffic congestion and air pollution intersect across six futuristic cities. This dashboard reveals hourly trends, city-wise AQI breakdowns, and time-of-day correlations. Use filters to dive into specific cities, days, or pollution categories.

Creator Info:

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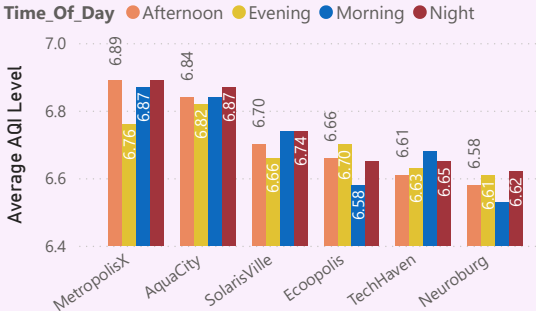
Tools Used:

Power BI, Python, SQL

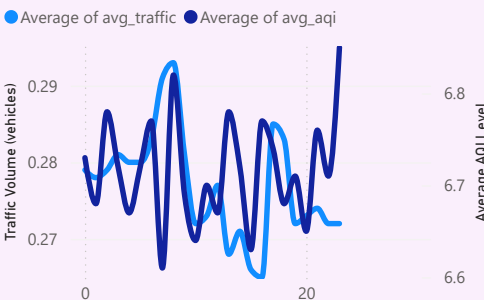
Date:

June2025

Average AQI by City and Time of Day



Hourly Traffic & AQI Patterns by Hour of Day



Average Simulated AQI Across All Cities

6.72

Average of Simulated_AQI_Capped

Select A...

Good

Select City

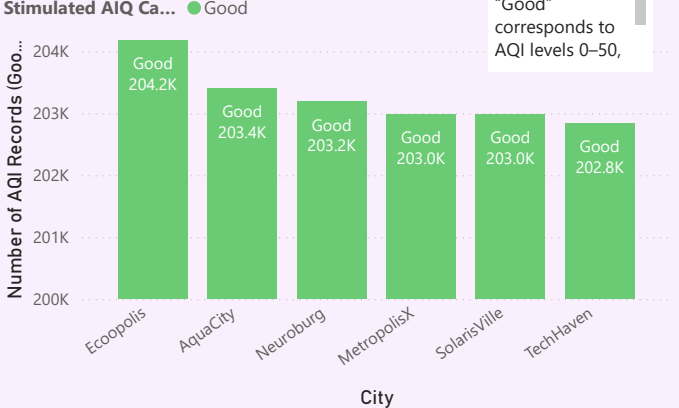
City

All

Select Day Of Week

All

AQI Category Distribution – Good Days by City



Key Insights

- **Neuroburg** has the cleanest air across all time slots.
- **MetropolisX** shows the highest AQI spikes, especially at night.
- **Traffic congestion** peaks between **8 AM** and **6 PM**, correlating with minor AQI rises.
- AQI remains **mostly in the “Good”** range for all cities — indicating efficient air management.

AQI & Traffic by City and Time

City	Day Of Week	AQI_Category	Sum of Simulated_AQI_Capped	Time_Of_Day	Sum of Traffic_Density_Capped
MetropolisX	Saturday	Good	67459	Night	4,512.33
AquaCity	Sunday	Good	67695	Night	4,478.34
AquaCity	Friday	Good	69039	Night	4,461.91
AquaCity	Saturday	Good	67440	Night	4,433.08
AquaCity	Wednesday	Good	65050	Night	4,413.63
Total			8190825		3,37,912.85