

Here is an overview of the columns in the four datasets you provided. These datasets cover various aspects of urban management in Pune, including citizen grievances, energy, traffic, and waste management.

1. Citizen Grievances Dataset (pune_citizen_grievances.csv)

This dataset tracks complaints and issues reported by citizens across different zones.

- **Date:** The date when the grievance was reported (e.g., 2025-01-24).
- **Zone_Name:** The specific administrative zone in Pune where the issue occurred (e.g., Koregaon Park, Kothrud).
- **Ticket_ID:** A unique alphanumeric identifier for each grievance ticket (e.g., PMC46535).
- **Department:** The municipal department responsible for handling the issue (e.g., Water, Waste, Traffic).
- **Issue_Type:** A more specific description of the problem (e.g., No Water Supply, Bin Overflowing).
- **Status:** The current state of the ticket (e.g., Open, Resolved).
- **SLA_Days:** Service Level Agreement days, likely indicating the number of days allotted to resolve the issue or the time taken so far.

2. Energy Consumption Dataset (pune_energy_consumption.csv)

This dataset records hourly electricity consumption and grid status.

- **Date:** The date of the recording.
- **Hour:** The hour of the day in 24-hour format (0 to 23).
- **Zone_Name:** The zone where the energy data was recorded.
- **Feeder_ID:** Identifier for the specific electrical feeder supplying the area (e.g., MSEDCL_Hin_F1).
- **Energy_Consumption_kWh:** The amount of electricity consumed in kilowatt-hours during that hour.
- **Grid_Voltage:** The voltage level of the power grid.
- **Power_Cut_Flag:** A binary indicator (0 or 1) where 1 likely indicates a power outage or interruption occurred during that hour.

3. Traffic Flow Dataset (pune_traffic_flow.csv)

This dataset monitors traffic conditions at various junctions.

- **Date:** The date of the observation.
- **Hour:** The hour of the day (0 to 23).
- **Zone_Name:** The zone where the traffic junction is located.
- **Junction_ID:** A unique identifier for the traffic junction (e.g., HIN_J01).
- **Vehicle_Volume:** The count of vehicles passing through the junction during that hour.

- **Avg_Speed_Kmph:** The average speed of vehicles in kilometers per hour.
- **Congestion_Index:** A numerical value representing the severity of traffic congestion (higher values likely indicate more traffic).

4. Waste Management Dataset (pune_waste_management.csv)

This dataset tracks daily waste collection and management efficiency.

- **Date:** The date of the record.
- **Zone_Name:** The zone where the waste data was collected.
- **Total_Waste_Collected_Kg:** The total weight of waste collected in kilograms.
- **Avg_Bin_Fill_Level_Percent:** The average fullness of waste bins in the area, expressed as a percentage.
- **Segregation_Efficiency_Percent:** The percentage of waste that was correctly segregated (e.g., wet vs. dry waste).
- **Missed_Pickups:** The count of scheduled waste pickups that were missed on that day.