CASE STUDY

Design and develop an interactive, real-time dashboard to help the police gain insights and monitor key metrics. The dashboard should allow police D.P.O and department heads to access the latest crime rate and analyze trends for efficient decision-making and skip-tracing.

Prepare a professional presentation for the D.P.O., summarizing key findings and actionable insights derived from the analysis.

Note: Clean Data if Required

 What is the average response time by crime type, and how does it compare across states?

 Which cities have the highest rates of specific crimes (e.g., Theft), and how do they rank within each state?

 What is the trend of crime severity over time, especially in major cities?

 Identify the top 5 states with the highest percentage of unsolved cases.

 What is the monthly trend in the number of arrests by crime type?

 Which officers have handled the most severe cases, and what is the average severity rating they deal with?

 Calculate the average age difference between victims and suspects by crime type and city.

 What percentage of crimes are reported by citizens versus authorities, and does this vary by region?

 Find the top 3 cities with the highest response times and analyze the average severity of cases in these cities.

 What is the average case resolution time by crime type, and how does it vary between states?

 Identify the state and city combinations with the highest rate of violent crimes (e.g., Homicide, Assault).

 What is the distribution of crime types among different age groups of victims?

 Identify the top 5 officers based on case closure rates and their average response times.

 Calculate the monthly increase or decrease in crime rates per state and rank them.

 Find the average severity of crimes over time for each state and determine if there is a significant upward or downward trend.

Data Dictionary

- **Crime_ID** – Unique identifier for each crime record
- **Date_Reported** – Date the crime was reported
- **State** – Nigerian state where the crime occurred
- **City** – City within the state
- **Crime_Type** – Type of crime (e.g., Theft, Assault, Homicide)
- **Severity** – Severity rating of the crime (1-5 scale)
- **Victim_Age** – Age of the victim
- **Victim_Gender** – Gender of the victim
- **Reported_By** – Authority that reported the crime (Police, Citizen, Media)
- **Arrest_Made** – Boolean (Yes/No) if an arrest was made
- **Suspect_Age** – Age of the primary suspect
- **Suspect_Gender** – Gender of the primary suspect
- **Outcome** – Case outcome (e.g., Open, Closed, In Court)
- **Officer_ID** – ID of the officer handling the case
- **Response_Time** – Response time in minutes from reporting to arrival