**Emergency Room Visit Dashboard**

**Objective**

The goal of this project is to analyze patient emergency room (ER) visit data and provide actionable insights into patient demographics, satisfaction, referral patterns, and waiting times. By building an interactive dashboard, this project supports healthcare administrators in improving patient care delivery, reducing waiting times, and optimizing resource allocation.

**Project Overview**

This project presents a data-driven Emergency Room Visit Report that captures patient visit trends, demographic breakdowns, departmental referrals, and satisfaction ratings.

The analysis provides answers to key healthcare questions such as:

* How many patients visited the ER, and what proportion were administrative vs. non-administrative appointments?
* Which departments received the most patient referrals?
* What are the waiting time trends across age groups?
* How satisfied are patients with their ER visits?
* What gender, age, and racial patterns exist among patients?

**Key Features**

1.Patient Visit Overview

2. Patient Demographics

3. Patient Satisfaction & Service Experience

4. Referral Insights

5. Annual Trends

6. Racial & Age Group Insights

**Tools & Technologies**

* **Visualization Tool:** Microsoft Power BI (Dashboard creation)
* **Data Source:** Emergency room patient visit dataset (de-identified sample data)
* **Techniques Used:**
  + Data Cleaning (handling missing values, standardizing age groups & referrals)
  + Data Transformation (categorizing patients by demographics and referral types)
  + Interactive Visual Analysis (using KPIs, line charts, bar charts)

**Visualizations Included**

* **KPI Cards:** Total visits, satisfaction score, waiting time.
* **Bar Charts:** Patient visits by department referral and age group.
* **Line Chart:** Patient visits by year.
* **Area/Line Chart:** Monthly patient visit trends.
* **Donut/Percentage Charts:** Appointment type (admin vs. non-admin).
* **Heatmap:** Race vs. age group satisfaction & waiting time.
* **Gender Breakdown:** Male vs. Female patient ratio.

**Conclusion**

This Emergency Room Dashboard highlights critical bottlenecks in waiting times and patient satisfaction, while also revealing demographic and referral trends. By acting on these insights, hospital administrators can:

* Reduce waiting times.
* Improve service delivery.
* Strengthen patient feedback mechanisms.
* Optimize departmental resource allocation.