Project Summary: Outpatient Efficiency Dashboard (Simulated Epic BI Report)

Created by Brayden Johnson
For: Epic Business Intelligence Analyst Interview – Freeman Health System
Date: July 8, 2025

Objective

This project was developed to simulate how a Business Intelligence Analyst might use data sourced from Epic (Clarity or Caboodle) to identify and address operational inefficiencies within an outpatient setting. The focus is on improving patient wait times and reducing no-show rates through clear, actionable insights.

Tools Used

- Python (for dataset generation)
- Power BI (for data modeling and visualization)
- DAX (for calculated metrics and interactivity)

Background

I created a realistic mock dataset of 200 outpatient appointments, including fields such as provider name, department, scheduled and check-in times, and no-show indicators. The dataset was generated in Python and structured to reflect Epic-like reporting fields. Metrics were calculated using DAX within Power BI, including average wait time and appointment duration.

Key Metrics and Visuals

- **Average Wait Time** by Provider (KPI and bar chart)
- **No-Show Rate** by Department (KPI and bar chart)
- **Top 5 Longest Individual Wait Times** (ranked table)
- **Interactive Slicer** to explore trends by Appointment Type

Findings

- One provider exhibited an average patient wait time over 12 minutes, well above peers
- No-show rates were highest in Oncology and Neurology, each above 18%
- Several appointments had wait times of 29 to 30 minutes, concentrated within a short date range

Why It Matters

The ability to surface these insights supports the core responsibilities of the Epic BI Analyst role. It allows the organization to monitor and respond to trends that directly impact clinical workflow, patient satisfaction, and resource allocation. This project demonstrates how I would approach reporting development at Freeman: with initiative, structure, and a focus on operational value.