GitHub Repository Write-Up for Healthcare Data Analysis Project

Project Title:

Healthcare Data Analysis – Improving Patient Outcomes with Data

Description:

This project analyzes **hospital data** to uncover trends in **patient admissions, readmission rates, wait times, and risk factors** such as **blood pressure and glucose levels**. The goal is to provide **data-driven insights** to optimize **hospital operations and patient care**.

Key KPIs Analyzed:

✔ **Total Admissions** – Understanding hospital patient flow.

✔ **Readmission Rate (%)** – Identifying trends in patient returns.

✔ **Average Wait Time** – Measuring hospital efficiency.

✔ **Average Length of Stay (LOS)** – Evaluating resource utilization.

✔ **Patient "At Risk" %** – Assessing high-risk cases (BP ≥ 130 mmHg, Glucose ≥ 126 mg/dL).

Data Visualizations:

📌 **Glucose Level by Readmission Status Trend** – Identifying diabetes-related readmission risks.

📌 **Patient "At Risk" Analysis** – Percentage of high-risk patients.

📌 **Blood Pressure by Age Group** – Understanding hypertension trends.

📌 **Glucose Level Distribution** – Visualizing glucose variations.

📌 **Blood Pressure Status Trend** – Monitoring BP progression over time.

Files in this Repository:

- 📄 **healthcare_data.xlsx** – Raw dataset used for analysis.

- 📊 **Healthcare_Dashboard.xlsx** – Interactive Excel dashboard with insights.

- 📘 **README.md** – This document with project details.

🛠 **Tools & Technologies Used:**

🔷 **Excel (Pivot Tables, Charts, Formulas)**

Insights & Key Findings:

✓ **Diabetic patients have higher readmission rates.**

✓ **Older patients are more prone to hypertension.**

✓ **Emergency admissions have longer wait times.**

By leveraging **data analytics**, hospitals can **reduce readmissions, optimize patient care, and improve resource allocation.**