Healthcare Appointment No-Show Prediction

Introduction

This project analyzes patient appointment data to understand factors influencing no-shows in healthcare. The goal is to provide insights that can help reduce missed appointments and improve resource utilization.

Abstract

The dataset includes 111K appointments with attributes like age, gender, medical conditions, and SMS reminders. Analysis focuses on no-show patterns across demographics, weekdays, and communication methods.

Tools Used

Tools Used: - Power BI for data visualization and dashboard creation - Excel/Python for initial data cleaning and preprocessing

Steps Involved in Building the Project

Steps Involved in Building the Project: 1. Data cleaning (handling null values, removing duplicates, formatting dates) 2. Importing dataset into Power BI 3. Creating calculated columns and measures (e.g., no-show %) 4. Designing visuals such as pie charts, bar charts, line charts, and KPIs 5. Adding slicers for interactivity (Gender, SMS Reminder)

Conclusion

The dashboard highlights that no-shows are higher among younger patients, females, and when SMS reminders are not received. Quarterly and weekly trends also show patterns that can help hospitals plan better. This analysis can guide strategies to reduce missed appointments and improve healthcare delivery.

Final Dashboard