

# HOSPITAL EMERGENCY ROOM PROJECT OVERVIEW

The Hospital Patient

Records Analysis project



aims to gain valuable insights from a dataset containing hospital patient records. The dataset comprises various attributes, including patient demographics, medical information, patient satisfaction scores, and wait times. The project seeks to understand patient characteristics, assess patient satisfaction, identify potential areas for improvement, and optimize hospital services.

## **PROBLEM STATEMENT**

The problem at hand is to analyze and gain valuable insights from the

hospital patient records dataset. The dataset contains various attributes related to patients' demographics, medical information, and their experience within the hospital. The goal of this analysis is to understand patient characteristics, identify patterns, and assess the quality of services provided by the hospital.

## **OBJECTIVES INCLUDE;**

- Analyzing patient demographics to understand the distribution of gender, age groups, and race among hospital visitors.
- Investigating wait times experienced by patients and identify factors influencing variations

in wait times.

- Assessing patient satisfaction levels based on SAT scores to gauge overall hospital performance.
- Assessing departmental performance based on referral patterns, wait times, and patient satisfaction.

## **EXPECTED OUTCOMES;**

- A comprehensive understanding of patient demographics and satisfaction levels.
- Identification of factors influencing wait times and potential areas for wait time

reduction.

- Tailored strategies for enhancing experiences for repeat patients.
- Recommendations for improving departmental performance and resource allocation.
- Seasonal patterns and forecasts to optimize hospital operations.

## Data Dictionary

- **Date:** The date when the patient's data was recorded or the event occurred.

- **Patient ID:** A unique identifier assigned to each patient, used for tracking and reference purposes.
- **Patient Gender:** The gender of the patient.
- **Patient Age:** The age of the patient at the time of the record.
- **Patient\_sat\_score:** The patient's satisfaction score to know how satisfied they are.
- **Patient\_first\_initial:** The first initial of the patient's first name.
- **Patient\_last\_name:** The last name (surname) of the patient.
- **Patient\_race:** The race or ethnic background of the patient.

- **Patient\_admin\_flag:** A flag indicating whether the patient's record is admitted or not.
- **Patient\_wait time:** The amount of time (in minutes) the patient waited before receiving treatment or service.
- **Department\_referral:** The department or service the patient was referred to or received treatment from.

## Questions to Answer with the Dataset;

- What's the total patient count?

- What is the average age of patients in the hospital?
- What is the average patient satisfaction score?
- What is the average wait time score?
- Can we identify any trends or patterns in the patient data over time?
- What is the gender distribution of patients in the hospital?

**Questions to Answer with the Dataset;**



- How does the wait time vary across different departments or services in the hospital?
- How does the satisfaction score vary across different departments or services in the hospital?
- What is the distribution of patient races or ethnic backgrounds in the hospital?