Structured Data Assignment

Problem statement - 2

Objective:

- The objective of this analysis is to study the drop-off behavior of patients using the "Target Drug" over time. Specifically, the aim is to understand the drop-off rate, which is the number of patients discontinuing the treatment each month. Additionally, the analysis seeks to identify the events or reasons that drive patients to stop taking the "Target Drug."

Dataset:

- Patient-Uid - Unique Alphanumeric Identifier for a patient
- Date - Date when patient encountered the event.
- Incident - This column describes which event occurred on the day.

Approach:

- Data Collection: Gather data related to patients' usage of the "Target Drug," including prescription start dates, prescription end dates, and any events or reasons for discontinuation.
- Data Preprocessing: Calculate the treatment duration for each patient by finding the difference between the prescription start and end dates. Identify the month in which each patient discontinues the treatment.
- Drop-off Rate Analysis: Calculate the drop-off rate by counting the number of patients who discontinue the treatment in each month. This analysis helps in visualizing how drop-off rates change over time.
- Event and Reason Analysis: Examine the events or reasons associated with patients discontinuing the treatment. Common events may include adverse effects, improvement in health, physician's advice, etc. Analyze the frequency and patterns of these events to generate insights into what drives patients to stop taking the "Target Drug."
- Visualization: Create visualizations such as line plots or bar charts to show the drop-off rate over time and the distribution of events leading to discontinuation.