Problem 2 Documentation: Analyzing Drug Prescription Patterns and Drop-off Rates for "Target Drug"

Introduction

In Problem 2, we delve into the analysis of drug prescription patterns and drop-off rates for the "Target Drug." The goal is to gain insights into how the drug is prescribed over time, identify dominant prescription patterns, and analyze events leading to patients discontinuing the treatment.

Step 1: Data Preparation and Exploration

1. Load the dataset containing patient information, prescription dates, and incidents.

2. Explore the dataset to understand its structure and contents.

Step 2: Determining Prescription Patterns

1. Group patients by their unique identifiers (Patient-Uid).

2. Analyze prescription patterns by plotting the number of prescriptions per month for each patient.

Step 3: Analyzing Drop-off Rates

1. Calculate the drop-off rate for each month by counting the number of patients who discontinued the treatment.

2. Visualize the drop-off rates over time to identify trends and patterns.

Step 4: Event Analysis for Drop-off

1. Group the data by specific event categories (e.g., symptoms, diagnoses).

2. Calculate the drop-off rate for each event category.

3. Visualize the drop-off rates associated with different events.