Project Proposal: Book Recommendation System Using FP-Growth Algorithm

Tazmeen Afroz

September 6, 2024

> **Project Overview**
>
> I have chosen to develop a **Book Recommendation System** using the **FP-Growth algorithm**. This system will recommend books to users based on their past ratings by discovering patterns of frequently rated books.

Dataset

The dataset used for this project is the **Book Recommendation Dataset** from Kaggle here.

Approach

FP-Growth Algorithm

- Implement the FP-Growth algorithm to discover frequent itemsets in user-book interactions.
- Generate association rules to recommend books frequently rated together.

Tools and Technologies

- **Python**: For data processing and algorithm implementation.
- **Pandas**: For data manipulation and cleaning.
- **FP-Growth (MLxtend)**: For frequent itemset mining and rule generation.
- **Matplotlib/Seaborn**: For visualizing data and insights.
- **Streamlit**: To develop an interactive user interface for book recommendations.