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| **Topic :** | **BOOK RECOMMENDATION SYSTEM** |
| **Document Type:** | **High-Level-Design (HLD)** |
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**1. Introduction:**

**The Book Recommendation System aims to enhance user experience by providing personalized book recommendations based on user preferences and book characteristics. The system leverages various data points such as book titles, authors, genres, and user interaction history to suggest relevant books to users. By analyzing user behavior and book metadata, the system can recommend books that users are likely to enjoy, improving their engagement and satisfaction with the platform.**

**2. Problem Statement:**

**With the increasing number of books available, users often face difficulties in finding books that match their preferences. A recommendation system is needed to analyze user preferences and book attributes to provide tailored recommendations. The goal is to predict which books a user is likely to find interesting based on historical data and book characteristics, helping users discover new books and enhancing their reading experience.**

**3. Dataset Information**

**The dataset used for this project contains information about books, including titles, authors, genres, and user interactions. The key variables in the dataset are:**

**# About the data Variables:**

**There are 6 variables:**

**• Title: The name of the book.**

**• Author: The author of the book.**

**• Genre: The main genre the book falls into.**

**• Subgenre: The subcategory within the genre.**

**• Publisher: The company or entity that published the book.**

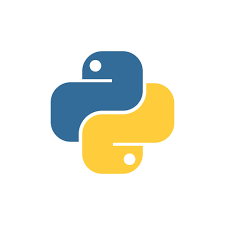
**• Height: The physical height of the book in centimeters.**

**4. Tools Used:**

**• Programming Language: Python**

**• Libraries and Frameworks:**

* **Pandas: Data manipulation and analysis**
* **Scikit-learn: Machine learning algorithms and model evaluation**
* **Numpy: Numerical operations**
* **Matplotlib & Seaborn: Data visualization**
* **Streamlit: Deployment of the recommendation system**

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**5. Design Details:**

**Methodology and Deployment:**

**6. Conclusion:**

**The Book Recommendation System is designed to improve user experience by providing personalized book recommendations based on various factors. By leveraging data preprocessing, feature extraction, and advanced recommendation algorithms, the system will help users discover books that match their interests. The deployment on a cloud platform ensures the system is scalable and accessible, while the user-friendly interface allows for easy interaction without requiring technical knowledge.**