Generate Personalized Reading Recommendations from a Book Dataset

Task: You have been given a dataset containing information about various books, including the title, author, genre, and a brief summary. Your task is to develop a simple but creative recommendation system using Python to provide personalized reading recommendations.

Guide: Here's the step-by-step breakdown of the assignment:

1. Data preprocessing: Load the data, clean it, and prepare it for the recommendation system. This may involve removing missing values, handling outliers, or other relevant data preprocessing steps.
2. Feature engineering: Transform or combine the existing features in the dataset to create new ones that can be more useful for the recommendation system. This might involve extracting keywords from the book summaries or creating binary 'dummy' variables for the different genres.
3. Recommendation model: Based on the user's input (favorite book, preferred genre, etc.), build a recommendation model. For example, you can use cosine similarity to recommend books that have similar features to the user's input.
4. Evaluation: Create a way to evaluate the performance of your recommendation system. This could be as simple as manually checking if the recommendations seem appropriate or more complex like creating a function that simulates users with different preferences and measures how often they would be happy with the recommendations.
5. User Interface: Even though this is a coding assignment, having a basic user interface can make your project stand out. It could be as simple as a function that takes input and returns recommendations, or as complex as a small web app (using, for example, Flask or Streamlit).

Remember to comment your code thoroughly, explaining your rationale for any important decisions and the functionality of each section of the code. This helps others understand your thought process and the function of each part of your code.

Dataset: You can find many book datasets online, but here are a couple of suggestions:

- Goodreads Book Datasets
- Book-Crossings Dataset