

Personal Book Collection Tracker - Project Proposal




Team Members:

- ✦ Sreepada Vallab Kandi
- ✦ Keerthana Nallabolu
- ✦ Sreejha Kurapati
- ✦ Bhargavi Karnavath
- ✦ Hari Haran Yellendula


1. Project Title

- ◆ Personal Book Collection Tracker

2. Problem Domain


 Many people struggle with keeping track of the books they own or have read. Without an organized system, it can be difficult to remember whether a book has been read, which books are pending, and which genres or authors are frequently enjoyed.

3. Need for the Database

 A structured database is essential for efficiently managing book collections. This system will help users:


- ✓ Maintain a personal record of books they own and have read.
- ✓ Track reading progress (Not Read, Reading, Completed) with clear status updates.
- ✓ Categorize books by genre and author for better organization.
- ✓ Easily retrieve book information for future reference.
- ✓ Avoid duplicate purchases by knowing what is already in their collection.
- ✓ Generate reports based on book categories, authors, and reading trends.

4. Context and Scope

 The database is designed for book enthusiasts, students, researchers, or anyone who wants to systematically

track their book collection. It will provide an organized way to store and retrieve book-related data efficiently.

5. Motivation

 This project was chosen because book collection tracking is a common yet often overlooked challenge. The team members, being students, recognize the importance of maintaining a well-organized book database for academic and leisure reading.

6. Database Design and Entities:

Entity	Description
Users	Stores user information
Books	Stores book details
Authors	Contains author names
Genres	Defines book categories
Reading Status	Tracks the reading progress of books

7. SQL Schema:

```
CREATE TABLE Users (  
  user_id INT PRIMARY KEY AUTO_INCREMENT,  
  name VARCHAR(100),  
  email VARCHAR(100) UNIQUE  
);
```

```
CREATE TABLE Authors (  
  author_id INT PRIMARY KEY AUTO_INCREMENT,  
  name VARCHAR(100)  
);
```


```
CREATE TABLE Genres (  
  genre_id INT PRIMARY KEY AUTO_INCREMENT,  
  genre_name VARCHAR(50)  
);
```

```
CREATE TABLE ReadingStatus (  
  status_id INT PRIMARY KEY AUTO_INCREMENT,  
  status_name ENUM('Not Read', 'Reading', 'Completed')  
);
```

```
CREATE TABLE Books (  
  book_id INT PRIMARY KEY AUTO_INCREMENT,
```


```
title VARCHAR(255),
author_id INT,
genre_id INT,
status_id INT,
FOREIGN KEY (author_id) REFERENCES Authors(author_id),
FOREIGN KEY (genre_id) REFERENCES Genres(genre_id),
FOREIGN KEY (status_id) REFERENCES ReadingStatus(status_id)
);
```

8. Expected Outcome

 The database will provide an efficient and structured way to:


- ✓ Store book details, authors, and genres.
- ✓ Track reading status with a clear indication of progress.
- ✓ Retrieve book information quickly using structured queries.
- ✓ Provide users with an organized digital catalog of their books.

9. Future Enhancements

 In the future, this database could be extended with:

- ◆ A mobile app interface for easy access and updates.
- ◆ A recommendation system based on users' reading history.
- ◆ Integration with online book databases (such as Goodreads API) to fetch book details automatically.

10. Conclusion

 This project is a practical and straightforward approach to managing book collections. By implementing this database, users can keep their reading progress and book ownership records well-organized, making it easier to track and access books effectively.