SE Final Project Synopsis

GOVERNMENT ENGINEERING COLLEGE AURANGABAD

(An Autonomous Institute of Government of Maharashtra)

SYNOPSIS REPORT

ON

"Book Recommendtion System"

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DEPARTMENT OF INFORMATION TECHNOLOGY ACADEMIC YEAR 2023-24

Project Synopsis: Face Recognition

1. Name / Title of the Project

Title: Library Book Recommendation System

2. Problem Statement

Develop a Library Book Recommendation System to assist students in discovering relevant books based on their interests and preferences. The project aims to create an intuitive and efficient platform that recommends books to users, ultimately enhancing their library experience.

3. Why is the particular topic chosen:

The selection of this topic is motivated by several compelling reasons:

- Enhancing User Experience: A personalized book recommendation system can greatly improve the library experience for students by suggesting books aligned with their interests.
- Maximizing Library Resources: Efficient book recommendations can help students discover and utilize a wider range of library resources.
- Utilizing Modern Technology: Implementing a mobile app in Flutter with a PHP backend aligns with modern technology trends and enhances accessibility.
- Learning Opportunity: Developing a recommendation system involves machine learning, database management, and mobile app development, providing valuable learning experiences.
- Project Impact: A successful system can positively impact students' academic journeys by making relevant resources readily available.
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- Data Analysis: The project allows for the exploration of data analytics and user behavior analysis to improve recommendations.
- Scalability: The system can be expanded to include additional features and recommendation algorithms to serve a broader audience.

4. Objective and scope of the project

• Objective: The objective of the Library Book Recommendation System is to provide personalized book recommendations to students based on their interests, reading history, and preferences, ultimately enhancing their library experience.

• Scope:

1. Developing a mobile app in Flutter for Android.
2. Designing an intuitive user interface for students to interact with the recommendation system.
3. Implementing recommendation algorithms and data analytics to generate book suggestions.
4. Creating a PHP-based backend to handle user data and book information.
5. Ensuring data privacy and compliance with relevant regulations.
6. Integrating user feedback mechanisms to improve recommendations over time.
7. Documenting the system for installation and usage.
8. Deployment and ongoing support

5. Methodology

Requirement Analysis: Understand the library's user base and their preferences.

Data Collection: Gather book information, user profiles, and reading history.

User Interface Design: Create an intuitive and user-friendly mobile app interface.

Recommendation Algorithms: Implement recommendation algorithms based on user behavior and book characteristics.

Backend Development: Build a PHP-based backend to handle user data and book information.

Security & Privacy: Implement robust security measures to protect user data.

Testing & Evaluation: Test recommendation accuracy, app usability, and performance.

Optimization: Optimize algorithms for efficient recommendations.

Documentation: Provide installation and usage documentation.

Deployment: Deploy the system and offer ongoing support.

6. Hardware & Software to be used

- Hardware:

  Android mobile devices for app testing.

- Software:

  Flutter for Android app development.

  PHP for backend development.

MySQL

Recommendation algorithms and data analytics libraries.

7. <u>Testing Technologies used</u>

-The project's functionality and recommendation accuracy are tested using various user profiles and book datasets.

-Testing involves monitoring the system's ability to provide relevant book recommendations.

8. <u>What contribution would the project make?</u>

- Enhanced library experience for students.
- Improved utilization of library resources.
- Efficient book discovery based on user preferences.
- A valuable tool for students' academic success.
- Learning experiences in app development and recommendation systems.

<u>Conclusion</u>

In conclusion, the Library Book Recommendation System built in Flutter for Android with a PHP backend has the potential to significantly enhance students' library experiences. By providing personalized book recommendations, it can improve resource utilization, academic success, and user satisfaction. The project combines modern technology with valuable learning opportunities, making it a meaningful endeavor for our institution.