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MINI-PROJECT

FinderX BMSCE

Problem Statement:

Develop an application called FinderX BMSCE that aims to bridge the gap between students and professors at BMS College of Engineering (BMSCE) by connecting them based on their shared project interests. The application should provide a platform for students to easily find and connect with professors who have expertise in their desired project domains, fostering collaboration and enhancing the learning experience.

The application should address the following challenges:

Limited awareness: Students often struggle to find professors who specialize in their project domains due to a lack of centralized information or platforms. This leads to missed opportunities for collaboration and guidance.

Inefficient communication: Existing communication channels between students and professors, such as email or physical office visits, are often cumbersome and time-consuming. Students need a more efficient and streamlined method to connect with professors who share their project interests.

Missed collaborations: Without a dedicated platform to facilitate connections, many potential collaborative projects between students and professors go undiscovered, limiting the exploration of diverse ideas and reducing the overall academic growth within the institution.

The goal of the FinderX BMSCE application is to address these challenges and provide an intuitive and user-friendly platform that enables students to easily search and connect with professors who have expertise in their desired project areas. By doing so, the application aims to foster a collaborative environment, encourage knowledge exchange, and enhance the overall academic experience at BMSCE.

Software Requirement Specification(SRS)

1 Introduction

1.1 Purpose of this document

The purpose of this document is to define the requirements for the FinderX BMSCE application. It outlines the functionality, performance, design constraints, and other attributes of the application.

1.2 Scope of this document

This document provides a detailed description of the requirements for the FinderX BMSCE application, which is aimed at connecting students with professors who share similar project interests. It covers the features, interfaces, and constraints of the application.

1.3 Overview

FinderX BMSCE is a mobile application that enables students at BMS College of Engineering (BMSCE) to find and connect with professors who have expertise and interest in specific project areas. The application aims to facilitate collaboration and enhance the project selection process by providing a platform for students and professors to connect.

2 General Description

FinderX BMSCE will be a mobile application compatible with iOS and Android platforms. It will allow students to create profiles, search for professors based on project interests, view professor profiles, and send connection requests. Professors will have the ability to create profiles, specify their project interests, view student profiles, and accept or decline connection requests.

3 Functional Requirements

- **User Registration:** Students and professors can create accounts and provide necessary information for profile creation.
- **Profile Creation:** Users can create profiles with details such as name, contact information, project interests, and expertise areas.
- **Project Interest Search:** Students can search for professors based on project interests.
- **Professor Profile View:** Students can view professor profiles, including their project interests and expertise areas.
- **Connection Requests:** Students can send connection requests to professors.
- **Connection Acceptance/Decline:** Professors can accept or decline connection requests from students.
- **Notification System:** Users will receive notifications for connection requests, acceptances, and declines.

4 Interface Requirements

4.1 User Interface

The user interface should be intuitive, user-friendly, and visually appealing. It should provide easy navigation and clear information presentation for profile creation, search, and connection functionalities.

4.2 Integration Interface

The application should integrate with the college's existing database to retrieve and update user profiles and connection data.

5 Performance Requirements

Response Time: The application should provide quick response times to ensure a smooth user experience. This includes fast search query results, loading of user profiles, and handling of connection requests. Users should not experience significant delays or lags.

Scalability: The application should be designed to handle a growing number of users and profiles. As the user base expands, the performance should not significantly degrade. The system should be able to handle increased data load and user interactions without compromising response times or overall functionality.

Reliability: The application should be reliable, with minimal downtime or disruptions. It should be able to handle concurrent user activity, database interactions, and network connectivity issues without crashing or causing data loss. The system should be designed to recover gracefully from failures and provide a stable user experience.

6 Design Constraints

- **Mobile Platform:** The application needs to be developed for both iOS and Android platforms. It should adhere to the respective platform guidelines and design principles to ensure a consistent and familiar user experience on each platform.
- **Compatibility:** The application should be compatible with the college's existing database and systems. It should integrate seamlessly with the database to retrieve and update user profiles and connection data. The development process should consider any existing technical constraints and requirements imposed by the college's infrastructure.

7 Non-Functional Attributes

- **Security:** User data should be securely stored and transmitted. The application should implement robust authentication mechanisms to verify user identities and prevent unauthorized access. Data transmission should be encrypted to protect sensitive information. Appropriate security measures, such as secure coding practices and regular security audits, should be implemented to mitigate potential vulnerabilities and ensure user data privacy.
- **Usability:** The application should be designed with a focus on usability and user experience. It should provide clear instructions and intuitive interfaces, making it easy for users to navigate and understand the application's functionalities. The design should consider factors such as readability, logical information grouping, and consistent visual elements to enhance usability.
- **Accessibility:** The application should adhere to relevant accessibility standards, making it accessible to users with disabilities. This includes providing support for assistive technologies, ensuring proper color contrast for visually impaired users, and implementing alternative text for images. The application should be designed to be inclusive and provide a seamless experience for all users, regardless of their abilities.

8 Preliminary Schedule and Budget

The development of the Library Management System is estimated to take three months. The project will include design, development, testing, and deployment phases. The project will be managed using agile development methodologies. A preliminary schedule and budget for the development of the FinderX BMSCE application will be created and outlined in a separate project plan document.