Software Requirements Specification

MU Connect: Mobile Application for MU Students and Alumni

Prepared by
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1. Introduction

1.1 Document Purpose

This document outlines the software requirements for **MU Connect**, a mobile application designed to enhance the experience of MU students and alumni by providing a centralized platform for communication,career networking, and access to university resources. The purpose of this document is to define the scope, functionality, and constraints of the application to ensure it meets the needs of its users.

1.2 Product Scope

MU Connect is a mobile application that serves as a one-stop solution for MU students and alumni. It provides features such as alumni networking, access to academic resources, and university news updates. The application aims to foster a strong community among current students and alumni while facilitating career growth and academic success.

1.3 Intended Audience and Document Overview

This document is intended for:

- **Developers**: To understand the technical requirements and constraints.
- **Project Managers**: To oversee the development process and ensure alignment with project goals.
- **MU Administration**: To review the application's features and ensure it meets institutional standards.
- **Students and Alumni**: To understand the application's functionality and benefits.

The document is organized into sections that cover the overall description, specific requirements, and non-functional requirements of the application.

1.4 Definitions, Acronyms, and Abbreviations

- **MU**: Mahindra University
- **SRS**: Software Requirements Specification
- **API**: Application Programming Interface
- **UI**: User Interface
- **UX**: User Experience

1.5 Document Conventions

This document follows the IEEE formatting standards. The font used is Arial, size 11, with single spacing and 1-inch margins. Section titles are bolded, and subsections are italicized.

2. Overall Description

2.1 Product Overview

MU Connect is a mobile application designed to bridge the gap between current students and alumni of Metropolitan University. The application will provide a platform for networking, event management, and access to university resources. It will be available on both iOS and Android platforms.

Context Diagram:

[Students/Alumni] --> [MU Connect App] --> [University Database]

2.2 Product Functionality

- **Networking**: Students and alumni can connect and communicate.
- **Job Board**: Access to job postings and career resources.
- **Academic Resources**: Access to library resources, course materials, and academic calendars.
- **News Updates**: Real-time updates on university news and announcements.

2.3 Design and Implementation Constraints

- The application must be compatible with iOS and Android.
- The backend will use APIs to communicate with the university database.
- The application must adhere to MU's branding guidelines.
- Security protocols must be implemented to protect user data.

2.4 Assumptions and Dependencies

- The university will provide access to its database for academic and event-related information.
- The application will rely on third-party services for push notifications.
- The development team assumes that users will have access to a stable internet connection.

3. Specific Requirements

3.1 External Interface Requirements

3.1.1 User Interfaces

- **Home Screen**: Displays upcoming events, news, and quick links.
- **Profile Page**: Allows users to update their personal information and preferences.
- **Networking Page**: Displays a list of alumni and students for networking.

3.1.2 Hardware Interfaces

- The application will be compatible with smartphones and tablets running iOS 12+ and Android 8+.

3.1.3 Software Interfaces

- The application will integrate with the university's existing database via APIs.
- Push notifications will be handled by Firebase Cloud Messaging.

3.2 Functional Requirements

F1: The system shall allow users to register for university news.
F2: The system shall enable users to connect with alumni and students.
F3: The system shall provide access to academic resources.

3.3 Use Case Model

Use Case #1: Register for an Event (U1)

- **Author**: John Doe
- **Purpose**: To allow users to register for university events.
- **Priority**: High
- **Preconditions**: User must be logged in.
- **Post Conditions**: User is registered for the event.
- **Actors**: Student, Alumni
- **Flow of Events**:
  - User selects an event from the event list.
  - User clicks "Register."
  - System confirms registration.

1. **User Authentication**: Secure login/registration using MU email or student ID.
2. **Profile Management**: Create/edit profiles with academic and professional details.
3. **Networking**: Search and connect with students/alumni by name, major, or graduation year.
4. **Groups/Communities**: Join or create groups based on interests, clubs, or majors.
5. **Messaging**: Real-time chat for one-on-one or group conversations.
6. **Events**: View, RSVP, and get reminders for university events and reunions.
7. **Career Support**: Access job postings, mentorship programs, and alumni networking opportunities.
8. **Newsfeed**: Personalized feed with updates from connections, groups, and university announcements.
9. **Privacy Controls**: Customizable settings to manage profile visibility and data sharing.
10. **Notifications**: Push alerts for messages, friend requests, event updates, and important deadlines.

4. Other Non-functional Requirements

4.1 Performance Requirements

- The application must load within 3 seconds on a stable internet connection.
- Push notifications must be delivered within 5 seconds of being triggered.

4.2 Safety and Security Requirements

- User data must be encrypted.
- The application must comply with regulations for data privacy.

4.3 Software Quality Attributes
4.3.1 Reliability

- The application must have an uptime of 99.9%.

4.3.2 Usability

- The application must have an intuitive UI/UX design to ensure ease of use.
- **The application must support multiple languages (English)**

6. Compatibility

- Support **iOS and Android** devices with seamless cross-platform functionality.

7. Maintainability

- Use a **modular codebase** for easy updates and bug fixes.

8. Data Storage

- Efficiently manage **large volumes of user-generated content**.

9. Response Time

- Ensure API responses are under **500ms** for 95% of requests.

10. Disaster Recovery

- Restore services within **1 hour** in case of failure.

Appendix A -- Data Dictionary

Variable Name	Description	Type	Possible Values
User ID	Unique identifier for users	String	Alphanumeric

Appendix B -- Group Log

Date	Activity	Notes
17/2/2025	Initial Meeting	Discussed project scope and assigned tasks.
3/03/2025	SRS Draft Completed	Finalized the first draft of the SRS document.

This document provides a comprehensive overview of the requirements for the **MU Connect** mobile application. It will serve as a guide for the development team and stakeholders throughout the project lifecycle.