Product Requirements Document (LoopU)

An AI-Driven Campus Coordination & Study Group Application.

Connecting Students. Simplifying Learning.

Course Details

Assignment: Campus Connect – AI-Driven Community & Study Coordination

Weightage: 10%

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Index (LoopU)

Table of Contents

Executive Summary

LoopU is a mobile application designed to help university students manage their academic and social responsibilities in one organized space. It solves the problem of scattered communication by bringing study groups, campus updates, and peer interactions together within a single, easy-to-use app.

The MVP introduces an AI-driven Study Group Matchmaker that quickly connects students with the right peers based on subjects, learning pace, and study preferences. This helps reduce academic stress, cuts through noisy communication channels, and makes collaborative learning simpler and more effective.

Target User & Persona

Primary Target User

University students who struggle with managing academic communication, forming study groups, and staying informed about relevant campus updates often face challenges due to the scattered and noisy nature of available channels.

Persona: Saloni Pandya – The First-Year Explorer

Age: 19
Course: B.Tech, Computer Science
Year: 1st Year
Campus Living: Hostel
Tech Comfort Level: High – regularly uses smartphone apps
Common Apps: WhatsApp, Instagram, Telegram, Google Calendar, YouTube

Motivations

- Wants to settle into college life quickly

- Look for study partners who match her pace

- Wants to stay updated on academic deadlines and events

- Prefers structured, distraction-free communication

- Wants to make meaningful connections on campus

Pain Points

- Too many scattered WhatsApp or Telegram groups

- Important academic messages get buried under irrelevant chatter

- Difficult to find serious study partners for specific subjects

- Misses updates about workshops or events

- Feels overwhelmed during exam periods due to a lack of coordination

- No simple way to find students who study at a similar pace or need help in the same topics

Needs

- A single app to manage academic and campus communication

- A reliable way to find balanced, subject-specific study groups

- Less noise, more relevant updates

- Easy discovery of campus opportunities without depending on random forwards

Why LoopU Helps

- Provides one organized application for study groups and campus updates

- AI-based matching reduces time and stress

- Helps her study smarter by connecting her with the right peers

Encourages healthy collaboration and better academic performance

Solution Overview (MVP)

The MVP version of LoopU focuses on solving the core problem: helping students quickly find relevant study partners without navigating multiple distracting communication channels. The central feature of the MVP is the **AI-Driven Study Group Matchmaker**, which connects students based on shared subjects, study pace, preferred timing, and academic goals.

The MVP will include only the essential features needed to validate whether students find value in AI-matched study groups. The initial version will allow students to create a basic profile, select their subjects or topics, provide study preferences, and receive AI-curated study group recommendations.

MVP Features (Included)

- **AI-Driven Study Group Matchmaker**
  Matches students based on subject, learning style, study pace, and availability.

- **Student Profile Setup**
  Basic academic details such as year, branch, subjects, and study preferences.

- **Study Group Recommendations**
  AI-generated group suggestions with a short description of why the match is relevant.

- **In-App Group Joining**
  Option to join a recommended group directly within the application.

Features Not Included in MVP (Future Scope)

- Full chat or messaging system

- Campus event discovery

- Club or community spaces

- Personalized dashboards

- Advanced analytics or progress tracking

- In-group scheduling tools

User Stories with Acceptance Criteria

User Story 1

As a student, I want to create my academic profile so that I can receive accurate study group recommendations.

Acceptance Criteria:

- I can enter my year, branch, and subjects.
- The system saves my profile successfully.
- I can edit my profile anytime.

User Story 2

As a student, I want to select my subjects and study topics so that the AI can match me with relevant peers.

Acceptance Criteria:

- I can see a list of subjects/topics to choose from.
- The system stores my selected subjects.
- I can add or remove subjects easily.

User Story 3

As a student, I want to provide my preferred study schedule so that I get matched with students who study at similar times.

Acceptance Criteria:

- I can select preferred study times (morning, evening, etc.).
- The system saves my schedule.
- I can update my schedule later.

User Story 4

As a student, I want to view recommended study groups so that I can join the ones that suit me.

Acceptance Criteria:

- I can see 3–5 recommended study groups.

- Each group shows subject and group details.

- Recommendations update when I change preferences.

User Story 5

As a student, I want to understand why a group was recommended so that I can decide if it fits my needs.

Acceptance Criteria:

- I can see a short explanation for each recommendation.

- Explanations load without extra steps.

- Explanations change when my preferences change.

User Story 6

As a student, I want to join a recommended study group directly from the app so that I can start studying immediately.

Acceptance Criteria:

- I can join a group with one tap.

- I get a confirmation after joining

- Joined groups appear under "My Groups"

User Story 7

As a student, I want to update my study preferences so that I continue receiving relevant recommendations.

Acceptance Criteria:

- I can edit my subjects and preferences.

- New recommendations reflect the updated preferences.

User Flow (Text Version for PRD)

1. App Launch
Student opens the LoopU application.

2. Sign Up / Log In
Student signs in using university email or mobile number.

3. Create Academic Profile
Student enters year, branch, and basic details.

4. Select Subjects / Topics
Student chooses the subjects and study topics they need help with.

5. Enter Study Preferences
Student selects preferred study timings (morning/afternoon/evening).
Student selects learning pace (slow/medium/fast).

6. AI Matchmaking Process
System processes profile + subjects + preferences.
AI generates recommended study groups.

7. View Recommended Groups
Student sees 3–5 suggested groups with basic details.
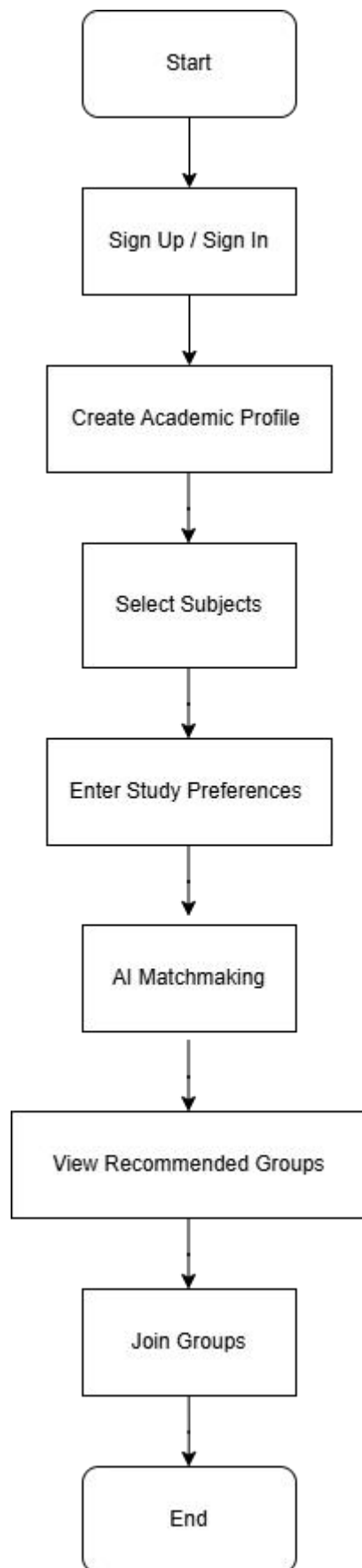Each recommendation shows match reasoning.

8. Join Group
Student selects a group and taps "Join".
System confirms successful joining.

9. My Groups Dashboard
Joined groups appear under "My Groups".
Student can revisit recommendations anytime.

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Technical Requirements

1. Core Functional Requirements:

- The application must allow students to create and edit their academic profile.

- Students should be able to select subjects, study topics, and study preferences.

- The AI system should generate study group recommendations based on inputs.

- Students must be able to join recommended groups from within the app.

2. AI Requirements:

AI Inputs:

- **Academic profile (year, branch)**

- **Selected subjects or study topics**

- **Preferred study timings**

- **Learning pace or study style**

- **Availability**

AI Outputs:

- **Ranked list of recommended study groups**

- **Match reasoning (e.g., same subject, similar schedule)**

AI Logic (High-Level):

- **Filter students by subject**

- **Cluster by study timing and availability**

- **Match based on pace preferences**

- **Generate 3–5 optimal group suggestions**

3. System Requirements:

- Secure authentication using **university email login or mobile OTP**

- Cloud database for storing user profiles and group data.

- Backend service to run AI matching logic.

- API layer for data exchange between app and server.

- Basic notification system for group join confirmation.

4. Third-Party Integrations:

- **University SSO / Email Verification API** (for student authentication).

- **Cloud Database** (Firebase / Supabase / MongoDB Atlas – depending on implementation).

- **AI/ML Library** (Python-based or cloud-based matching service).

4. Non-Functional Requirements:

- The app should load recommendations in under 3 seconds.

- Data must be encrypted and securely stored.

- System should support at least 1,000 concurrent students in MVP.

- The interface should work smoothly on Android and the web (future scope).

Launch Success Metrics

1. Acquisition Metrics:

New User Sign-Ups:

- Target: At least 300 students sign up within the first month of the MVP release.

- Why: Measures initial interest and reach of the application.

2. Activation Metrics:

Profile Completion Rate:

- Target: 70% of users complete their academic profile and subject selection.

- Why: Shows whether users understand and adopt the onboarding flow.

AI Match Usage:

- Target: 60% of active users request AI-based study group recommendations.

- Why: Indicates whether the core feature is being used.

3. Retention Metrics:

Group Join Rate:

- Target: At least 40% of matched users join one or more study groups.

- Why: Shows the value and relevance of the AI matching.

Week-2 Retention:

- Target: 30% of users return to check new recommendations or use "My Groups."

- Why: Measures ongoing usefulness of the application.

4. Success Indicator for Future Release:

User Feedback Score:

- Target: Minimum 4/5 average rating on relevance of group recommendations.

- Why: Helps validate whether the AI matchmaker is solving the core problem.

Conclusion

LoopU's MVP is designed to address one of the most common challenges faced by university students—finding the right study partners without getting lost in scattered communication channels. By focusing on the AI-driven Study Group Matchmaker, the application offers a simple, structured, and effective way for students to connect based on their subjects, preferences, and study habits.

The clearly defined user stories, technical requirements, and success metrics ensure that the MVP stays focused and measurable. Once the effectiveness of the matchmaker feature is validated, LoopU can gradually expand into broader campus coordination features such as event discovery, club communities, and in-app communication tools.

This PRD sets a strong foundation for building a practical and student-centered application that enhances academic collaboration and improves the campus experience.