

EduBuddy Requirements Document

Software Engineering Requirements

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Project Vision & Concept

The EduBuddy Platform is a web-based application designed to enhance the educational experience by providing students and faculty with comprehensive tools for academic resource management, performance tracking, and collaborative learning. The platform serves as a centralized hub for course materials, assignment management, grade tracking, and academic communication, enabling seamless interaction between students, instructors, and academic resources.

User Story Brainstorming & Product Backlog

Brainstormed Idea	User Story
User Login	As a user, I want to securely log into the platform, so that I can access my personalized academic dashboard.
User Registration	As a new user, I want to create an account with my academic credentials, so that I can join the platform and access resources.
User Profile	As a user, I want to view and manage my profile information, so that I can keep my academic details up to date.
Course Material Access	As a student, I want to access course materials and resources, so that I can study and prepare for assignments.
Rank/Grade Tracking	As a student, I want to track my grades and academic ranking, so that I can monitor my academic progress.
Resource Sharing	As a user, I want to share academic resources with peers, so that we can collaborate and learn together.
Assignment Stats	As a student, I want to view statistics about my assignments, so that I can understand my performance patterns.
Canvas Board	As a user, I want to use a visual canvas board for project management, so that I can organize my academic tasks effectively.
Password Recovery	As a user, I want to recover my forgotten password, so that I can regain access to my account.
AC Calendar Integration	As a user, I want to integrate with academic calendar systems, so that I can sync important dates and deadlines.
Attendance Record	As a student, I want to track my attendance across courses, so that I can maintain good attendance records.
AI Generated Quotes	As a user, I want to receive motivational AI-generated quotes, so that I can stay inspired during my studies.
Profile Management	As a user, I want to manage detailed profile settings, so that I can customize my platform experience.
System Announcements	As a user, I want to receive system-wide announcements, so that I can stay informed about platform updates.

Non-Functional Requirements (NFRs)

- **Performance:** Page load time should be less than 5 seconds under normal load conditions.
- **Usability:** A first-time user should be able to navigate to key features within 3 clicks.

- **Security:** All passwords must be hashed using industry-standard encryption and user data protected with appropriate security measures.
- **Reliability:** System uptime of at least 99% during academic periods.
- **Scalability:** System should support 500+ concurrent users during peak academic periods.
- **Compatibility:** Cross-browser support for major browsers and mobile-responsive design.

Preparing for Sprint 1: Detailing a User Story

User Story (Must Have):

As a student, I want to access course materials and resources, so that I can study and prepare for assignments.

Acceptance Criteria:

- **Scenario 1:** Viewing course materials
 - Given I am logged in as a student, When I navigate to my courses, Then I should see a list of all my enrolled courses with available materials.
- **Scenario 2:** Material details display correctly
 - Given I am browsing course materials, When I select a resource, Then I should see its title, description, upload date, and file type.
- **Scenario 3:** Materials organized by course
 - Given I am viewing materials, When I look at the organization, Then materials should be grouped by course and sorted by relevance or date.
- **Scenario 4:** No materials available
 - Given I am on the course materials page, And no materials are uploaded, When the page loads, Then I should see "No course materials available at this time."

Summary of Final Requirements

Functional Requirements (Product Backlog)

- **User Management:** Register, login, profile management with role-based access (student, faculty, admin).
- **Academic Resource Management:** Students and faculty can access, upload, and share course materials and resources.
- **Performance Tracking:** Students can view grades, rankings, and assignment statistics.
- **Collaboration Tools:** Resource sharing capabilities and canvas board for project management.
- **Communication System:** Notifications, announcements, and academic calendar integration.
- **Administrative Functions:** System-wide announcements and user management capabilities.

Prioritized Requirements (Release 1)

- **Must-Have:** User login, user registration, user profile, course material access, rank/grade tracking, resource sharing, assignment stats, canvas board.
- **Should-Have:** Password recovery, AC calendar integration, attendance record, AI generated quotes.
- **Could-Have:** Profile management, system announcements.

Non-Functional Requirements

- **Performance:** Page load time < 5 seconds.
- **Usability:** Key features accessible within < 3 clicks.
- **Security:** Hashed passwords + secure data handling.
- **Reliability:** 99% uptime during academic periods.
- **Scalability:** 500+ concurrent users supported.
- **Compatibility:** Cross-browser support and mobile responsive design.