

Frontend Requirements

1. User Roles & Authentication

- **Login & Registration:**
 - Register and login pages for professors and students.
 - OAuth or email-password authentication.
 - Password recovery option.

2. Dashboard & Navigation

- **Professor Dashboard:**
 - Upload documents (PDF/Word).
 - View and manage uploaded materials.
 - See AI-generated flashcards before publishing.
 - View each student's progress and leaderboard.
- **Student Dashboard:**
 - Browse subjects.
 - Select a subject and start answering flashcards.
 - View progress and leaderboard.

3. Flashcard Interaction

- **Flashcard Display:**
 - Display one question at a time with multiple-choice answers (A, B, C, D).
 - Timer option for answering.
 - Immediate feedback (green/red flashing based on chosen correct/incorrect answer).

4. Leaderboard

- **Ranking System:**
 - Display top 5 students based on scores.
 - Sorting/filtering (e.g., weekly, monthly, subject-based).
 - Profile picture and username display.

5. AI Processing Status (For Professors)

- **Document Processing Indicator:**
 - Show upload progress.
 - Notify when AI-generated flashcards are ready.

6. General UI/UX Considerations

- **Responsive Layout:** Scales properly for different screen sizes.
- **User-Friendly Navigation:** Clear menu options.