roject Summary: BrainBuddy - AI-Powered Learning Platform

Project Flow (User Journey)

- 1. Signup Page
- 2. Required fields:
 - Username
 - Name
 - Email
 - Password
 - Retype Password
- 3. Login Page
- 4. Login using:
 - Username or Email
 - Password
- 5. Post Login Redirection:
- 6. Redirect based on role:
 - User Dashboard
 - Upload profile picture
 - Logout button
 - Display: Username, Welcome Message with Name, Current Streak, Visual Progress Dashboard, Quotes
 - ∘ **Button:** Continue Learning → Redirects to Homepage
 - Admin Dashboard
 - Upload picture
 - Logout button
 - Middle section:
 - Upload Resources button
 - Search bar (Filter students by name)
 - Display student progress reports
- 7. Homepage (after clicking Continue Learning)

8. Top Section:

- Honour Board Button → Opens a sidebar with:
- Displays students with highest streaks (Visible to all users and admin)
- 9. Main Section: 5 Core Features



💡 Feature Descriptions (in standard format)

1) / AI Tutor Prompt

Main Idea: Learn any topic using preferred style + flashcard-based revision

Inputs: - topic: Subject entered by user (e.g., "Operating System") - mode: Learning style: quick, deep , or step

Expected AI Output: 1. **Explanation:** - Based on chosen mode: - Quick \rightarrow Short summary - Deep \rightarrow Indepth with examples - Step \rightarrow Step-by-step breakdown 2. **Flashcards:** - 5 related questions (no answers)

Extra Features: - Save response - Rate the session - Mark as "Understood" - Earn XP after completion - Auto flashcards: Suggest 3-4 related questions on given topic

2) AI Student Mode

Main Idea: User becomes teacher, AI becomes student

Flow: - User explains a topic to AI - AI: - Asks follow-up questions - Gives feedback - Reinforces learning - XP rewarded for completing interaction - Weak/flagged areas are tracked for review

3) **S**Gamified Learning

Main Idea: Make learning fun like a game

Features: - Earn XP from: - Lessons - Quizzes - AI interactions - Level up system - Badges for: - Streaks - Quiz performance - Milestones - Virtual Pet that evolves with levels - Visuals and achievements for motivation

4) 17 Habit-Building Engine

Main Idea: Encourage daily consistent study

Features: - Daily reminders (via email/notification) - Streak counter - Weekly goal tracking (e.g., "Finish 3 topics this week") - XP boosts for streaks - Optional reset for missed days

5) **Resource Library** (For CSIT)

Main Idea: One-stop platform for all CSIT materials

Features: - Filter/search by: - Semester - Subject - Resources: - Notes (PDF) - Practice sets - Syllabus-wise material - Admins: - Upload/manage resources - Users: - Download materials - Mark as completed - Earn XP

PDeveloper Notes

This document helps break down the required features and UI components for each page:

- Signup/Login: Basic auth setup
- Role-based Redirects: Separate dashboard for users and admins
- Homepage: Honors Board, AI Tutor, Gamified Learning, etc.
- XP System: Shared between features (track progress)
- Admin Tools: Upload content, view user progress

Keep each feature modular for scalability.