

# Project Design Phase-II

## Data Flow Diagram & User Stories

Date: 26 June 2025

Team ID: [To be assigned]

Project Name: Edu Tutor AI

Maximum Marks: 4 Marks (Placeholder, based on template)

### Data Flow Diagrams:

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.

### DFD Level 0 (Context Diagram) for Edu Tutor AI:

graph TD

```
A[Student] -->|Requests learning material/quiz| B(Edu Tutor AI System)
B -->|Provides learning material/quiz| A
B -->|Sends progress data/feedback| C[Teacher]
C -->|Sends student assignments/feedback requests| B
B -->|Accesses educational content/API| D[External Educational Content Providers]
D -->|Provides educational content| B
B -->|Stores user profiles/progress/content| E[Database]
E -->|Retrieves user profiles/progress/content| B
B -->|Sends administrative reports| F[Administrator]
F -->|Manages system settings/users/content| B
```

### Explanation:

- **Student:** The primary user who interacts with the system to access learning materials, take quizzes, and receive personalized tutoring.
- **Edu Tutor AI System:** The core of the application, responsible for processing requests, generating responses, managing content, and tracking progress.
- **Teacher:** Receives student progress reports, feedback, and potentially sets assignments or requests specific tutoring for students.
- **External Educational Content Providers:** Third-party APIs or databases that supply comprehensive educational content to the AI system.
- **Database:** Stores all persistent data including user profiles, learning progress, educational content, quizzes, and system configurations.

- **Administrator:** Manages the overall system, including user accounts, content moderation, system configurations, and performance monitoring.

## User Stories

Use the below template to list all the user stories for the product.

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Student	Registration	USN-1	As a student, I can register for the application by entering my email, password, and confirming my password.	I can access my account / dashboard	High	Sprint-1
		USN-2	As a student, I will receive a confirmation email once I have registered for the application.	I can receive a confirmation email & click confirm	High	Sprint-1
		USN-3	As a student, I can register for the application through	I can register & access the dashboard with Google	Medium	Sprint-1

			Google.	Login		
	<b>Login</b>	USN-4	As a student, I can log into the application by entering email & password.	I can successfully log in and see my dashboard	High	Sprint-1
		USN-5	As a student, I can reset my password if I forget it.	I can receive a password reset link and set a new password	High	Sprint-1
	<b>Dashboard/Learning</b>	USN-6	As a student, I can view my personalized learning dashboard.	I see my current subjects, progress, and suggested topics	High	Sprint-1
		USN-7	As a student, I can select a subject or topic to learn.	I can browse available subjects and choose one	High	Sprint-1
		USN-8	As a student, I can receive AI-powered explanations for concepts.	The AI provides clear, concise, and accurate explanations	High	Sprint-2

		USN-9	As a student, I can ask follow-up questions to the AI tutor.	The AI responds to my questions in a relevant manner	High	Sprint-2
		USN-10	As a student, I can practice with AI-generated quizzes.	The quiz questions are relevant to the topic and vary	High	Sprint-2
		USN-11	As a student, I can receive instant feedback on my quiz answers.	I see which answers are correct/in correct and why	High	Sprint-2
		USN-12	As a student, I can track my learning progress over time.	I see my scores, completed topics, and areas for improvement	High	Sprint-2
		USN-13	As a student, I can get recommendations for future learning based on my performance.	The system suggests relevant topics or areas to review	Medium	Sprint-3

<b>Teacher</b>	<b>Student Management</b>	USN-14	As a teacher, I can view the progress of my assigned students.	I see a list of my students and their overall progress	High	Sprint-2
		USN-15	As a teacher, I can view detailed reports on a student's performance in specific topics.	I see individual quiz scores and areas of difficulty for a student	High	Sprint-2
		USN-16	As a teacher, I can assign specific learning paths or quizzes to students.	Students receive the assigned tasks in their dashboard	Medium	Sprint-3
	<b>Communication</b>	USN-17	As a teacher, I can send feedback or messages to students.	Students receive my messages within the application	Medium	Sprint-3
<b>Administrator</b>	<b>User Management</b>	USN-18	As an administrator, I can manage student and teacher accounts	I can perform CRUD operations on user accounts	High	Sprint-1

			(add, edit, delete).			
	<b>Content Management</b>	USN-19	As an administrator, I can review and moderate AI-generated content or user queries.	I can flag inappropriate content and take action	Medium	Sprint-3
	<b>System Configuration</b>	USN-20	As an administrator, I can monitor system performance and usage statistics.	I see dashboards with system uptime, user activity, etc.	Low	Sprint-3