

Work Division for Project:

An Interactive Student Hub for Google Classroom with AI Revision and Assignment Management

Member 1 – Frontend Developer

Responsibilities:

- 1 Design and develop all UI components for the student hub.
- 2 Create pages for Dashboard, Assignments, Revision section, Profile, and Notifications.
- 3 Implement responsive design using HTML, CSS, JavaScript (or React).
- 4 Integrate frontend with backend APIs.
- 5 Ensure good user experience and accessibility.

Deliverables:

- 1 Fully functional and styled frontend interface.
- 2 API integration with backend endpoints.
- 3 User navigation flow tested and validated.

Member 2 – Backend Developer

Responsibilities:

- 1 Set up server-side logic and database structure.
- 2 Handle user authentication and data storage (Firebase / MongoDB).
- 3 Create REST APIs for assignments, revision materials, and notifications.
- 4 Integrate Google Classroom API for data synchronization.

Deliverables:

- 1 Working backend system with secure endpoints.
- 2 Integration with Google Classroom API.
- 3 Proper documentation for API routes.

Member 3 – AI/NLP Developer

Responsibilities:

- 1 Develop the AI Revision Assistant using NLP techniques.
- 2 Implement features to generate summaries, quizzes, and flashcards.
- 3 Provide AI-based feedback on assignments.

- 4 Use models like T5, GPT, or fine-tuned BERT for text understanding and generation.
- 5 Optimize model performance for quick responses.

Deliverables:

- 1 Functional AI module integrated into backend.
- 2 APIs for revision question generation and text summarization.
- 3 Documentation of AI pipeline and model usage.

Member 4 – Project Manager & Integration/Testing Engineer

Responsibilities:

- 1 Oversee team coordination, progress tracking, and documentation.
- 2 Handle system integration between frontend, backend, and AI modules.
- 3 Perform unit, integration, and usability testing.
- 4 Prepare project documentation (Problem statement, SRS, design diagrams, test report, and final report).
- 5 Manage deployment (GitHub Pages, Firebase, or Render).

Deliverables:

- 1 Working integrated system.
- 2 Complete project documentation and final presentation.
- 3 Fully tested and deployed version of the app.