1.Group Details:

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2. Title of the Project:

AI-Based MCQ Generator from Text/PDF

3. Area of Project:

Natural Language Processing (NLP), AI in Education

4. ML/ DL Algorithms:

- Transformer-based Models: Open AI/Gemini (for question generation)
- Keyword Extraction: TF-IDF, Named Entity Recognition (NER)
- Distractor Generation: WordNet-based methods, GPT fine-tuning
- Answer Validation: Embedding similarity (BERT-based models) or LLMs

5. Use Case:

- Automated MCQ generation for e-learning platforms
- Assisting teachers and educators in creating quizzes
- AI-powered test preparation tools for students
- Generating assessments from research papers, textbooks, or PDFs

TIMELINE OF THE PROJECT:

Weeks 1-3: Initial Research & Setup

- Understand the basics of NLP and MCQ generation.
- Extract and preprocess text from PDFs for further processing.

Weeks 4-8: Model Development & Testing

- Implement a model to generate MCQs from extracted text.
- Develop a method for generating relevant distractors (incorrect options).
- Validate the accuracy of generated questions and answers.

Weeks 9-12: Integration & Finalization

- Integrate the components into a functional pipeline.
- Integrate LLMs.
- Develop a simple UI for usability.
- Test, refine, and prepare the final version for presentation.