Module 01

Teacher task generator: Will generate Multiple questions
Input:
- Difficulty
- Subject
- Topic

Questions
1. Do we need to provide hints or explanations?
2. Is there a question limit for each quiz, for example for a topic "Second world war" a student can perform max 10 or 15 or maybe 50 questions?
3. Is there any possibility that we have time, and students can attempt maximum questions for separate modules?

We will have to train our ai model with separate data set for each subject , for example for math(the complex one) we have to train our model with questions, answers, out training data might look like following

ID	Question	Difficulty Level	Topic	Ans	Solution	Common Mistakes	Similar Problems (with Difficulty Level)
001	What is 5 + 3?	Easy	Basic Addition	8	Step 1: Identify numbers. Step 2: Add them: 5 + 3 = 8.	Miscounting, swapping numbers	6 + 2 (Easy), 15 + 5 (Medium)

Same is for other subjects

Time frame:

✅ Release the **static questions** generation asap,
Dynamic approach
Following steps might be followed,

Here's your implementation plan in a **tabular format** for better clarity:

Stage	Task	Time Estimate	Notes
1. Data Collection	Gather datasets (if not provided)	~1 day	Sources: Khan Academy, Math Exchange, Wolfram Alpha, etc.
2. Data Cleaning	Process, remove errors, structure the data	1-2 days	Ensures clean & optimized training data
3. Model Training	Train AI model based on subject complexity	Varies	Depends on data size & model complexity
4. Model Testing	Automated testing & performance evaluation	Ongoing	Ensures accuracy and adaptability
5. API Development	Build API for integration	~1 day	API to connect model with app/system
6. Deployment & Release	Final testing & system launch	Final phase	Ensure smooth rollout

Implementation Options

Option	Description	Pros	Cons
1. Use APIs (ChatGPT, etc.)	Use pre-built AI (e.g., OpenAI API) for question generation	Quick, less technical effort	Recurring API costs
2. Customize OpenAI + BERT	Fine-tune OpenAI GPT model & BERT for explanations	More control, better explanations	Requires training
3. Train Custom Model (TensorFlow/PyTorch)	train a model tailored to our and requirements	No API costs, highly optimized	Takes more time and resources

Module 02

Essay Evaluation:
Essay evaluation can be done in various ways,
Based on out requirements , we can do spell check, grammar and punctuation
We have following options

Grammer

For **grammar** related tasks LanguageTool, Hunspell (user by mozilla, libre office, safari and more)

Use of **BERT / RoBERTa** for **text evaluation**.

✅ Development might take 1-2 days, testing might time

Multiple subjects fact checking

We have other options, for more customization and for multiple subjects we need to customize and train our LLM

✅ Will be recurring api costs

For multiple subjects, we have to do multi agent models, using the Lang-chain.
Multiple ai agents, one for each subject will take subsequent model training time and respective cloud costs.

Module 3

For library,

Tools & Services

ChatGPT/Gemini/DeepSeek	AI content generation.
QuillBot	writing and editing.

Task management library for teachers might take 2-3 days depending on the task, here is the list

Front-end + api integration	2-3 days
API dev + testing	1 day

Few More Questions:

Do you have an existing dataset, or should we collect/create one?

Should AI generate all questions, or will it supplement human-curated questions?

Are there specific AI models you prefer (e.g., GPT-4, BERT, T5, or custom models)?[1]

Me:

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[1] 13-12-2025 3:50 pm Thursday

I have been developing Mern stack applications since 2021. And AI applications since chat gpt, more precisely 2022