

The GPTutor system is designed for students looking to enhance their learning experience.

System Components:

1. File Upload and Download
2. AI Quiz Generation
3. Storage for Generated Questions
4. Assessment result summary

This program uses AI to generate questions based on uploaded documents, where it supports different question types (MC, Long and short questions) with a summary of performance generated by local AI (LMStudio)

Team members:

- Frontend: Enoch (Chiu Yee Lok)
- Backend: Hei (Lam Ching Hei), Jacky (Leung Ho Yin)
- Design + fullstack: Noah (Cheuk Kui Yiu)

Programming Language: (HTML+JavaScript)

Easy modification of containers, simplicity for importing different npm packages using node.js localhost server.

I. Environment To deploy the program onto browsers, VS Code Live Server is used. Initially, the use of Tomcat was planned. However, due to setup difficulties, Live Server proved to be a more accessible option for all teammates.

II. Upload/Download Currently, documents are stored on local machines. Formidable is utilized for file uploads and retrieval, functioning as a storage management system. This setup allows us to add extra functionalities without compromising the program's stability. AI question generation

III. AI Question Generation While AI message generation is relatively straightforward, generating suitable questions for students poses a greater challenge. Since our AI model runs locally, implementing a model that ensures quality without slowing down the generation process has been difficult. Currently, we are facing issues with the subpar quality of questions generated by Llama.

IV. Assessment Results After AI question generation, the container parses the response to display the questions in a format that allows students to complete them. These responses are then assessed by the system.

Structure of code:

Server.mjs

- Handles AI response, file upload/download

Index (for navigation bar)

- Imports all the script inside the html for easier management.
- A blank container to show other pages

Index 1 (the real welcome page)

Question generation

- A page to show all the question generated

```
1 {
2   "questionId": 11002,
3   "questionText": "What is a popular dessert?",
4   "correctAnswer": 1,
5   "questionType": 2,
6   "answerShow": "",
7   "options": [
8     "mousse",
9     "cake",
10    "ice cream",
11    "sorbet"
12  ]
13 }
14
15 /* What is the main ingredient in stir-fries?
16 {
17   "questionId": 11003,
18   "questionText": "What is a common component of many Asian dishes?",
19   "correctAnswer": 1,
20   "questionType": 2,
21   "answerShow": "",
22   "options": [
23     "chicken",
24     "beef",
25     "pork",
26     "vegetables"
27   ]
28 }
29
30 /* What type of food is typically served hot?
31 {
32   "questionId": 11004,
33   "questionText": "What is a common type of cuisine?",
34   "correctAnswer": 2,
35   "questionType": 3,
36   "answerShow": "",
37   "options": [
38     "Italian",
```

File_upload

- To show all files that are uploaded

Questions:

Integration of three separate parts

Prompting

Running speed of the AI response