AI Tutor For Students (Project Updates)

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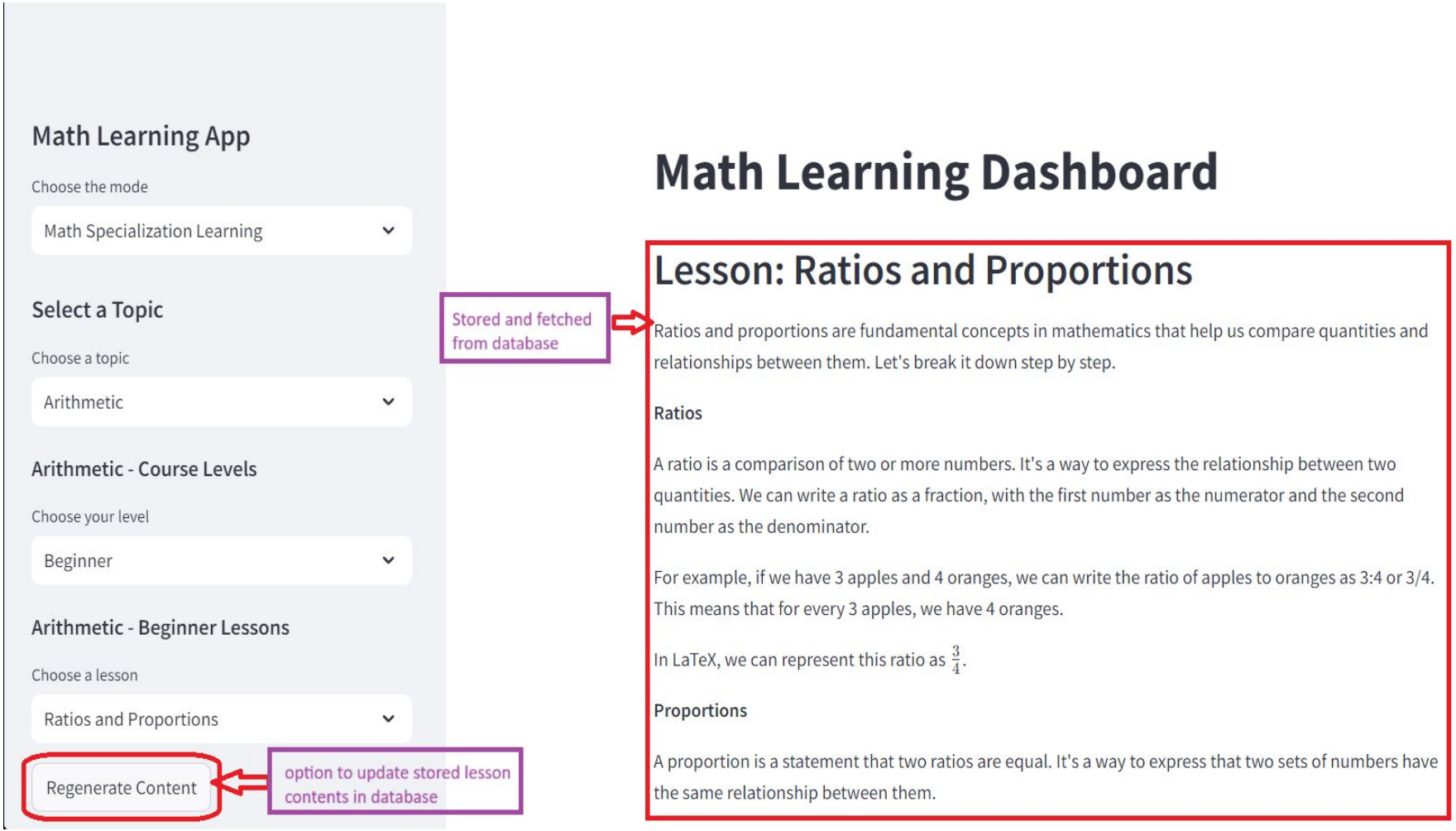

Math Learning App
Choose the mode
Math Specialization Learning
Select a Topic
Choose a topic
Arithmetic
Arithmetic - Course Levels
Choose your level
Beginner
Arithmetic - Beginner Lessons
Choose a lesson
Ratios and Proportions
Regenerate Content
option to update stored lesson contents in database
Stored and fetched from database
Math Learning Dashboard
Lesson: Ratios and Proportions
Ratios and proportions are fundamental concepts in mathematics that help us compare quantities and relationships between them. Let's break it down step by step.
Ratios
A ratio is a comparison of two or more numbers. It's a way to express the relationship between two quantities. We can write a ratio as a fraction, with the first number as the numerator and the second number as the denominator.
For example, if we have 3 apples and 4 oranges, we can write the ratio of apples to oranges as 3:4 or 3/4. This means that for every 3 apples, we have 4 oranges.
In LaTeX, we can represent this ratio as $\frac{3}{4}$.
Proportions
A proportion is a statement that two ratios are equal. It's a way to express that two sets of numbers have the same relationship between them.

Practice Problems

(response json in proper format)

Show Practice Problems

Question 1: What is an example of a natural number?

Show Answer to Q1

Answer: An example of a natural number is 5.

Question 2: What is the difference between a natural number and a whole number?

Show Answer to Q2

Question 3: What is the commutative property of numbers?

Show Answer to Q3

Question 4: What is an example of a rational number?

Show Answer to Q4

Question 5: Explain the distributive property of numbers and provide an example.

Show Answer to Q5

Question 6: How are numbers used in real-world applications, such as cooking and building?

Show Answer to Q6

New Practice Sets

Generate New practice problems and store in database.

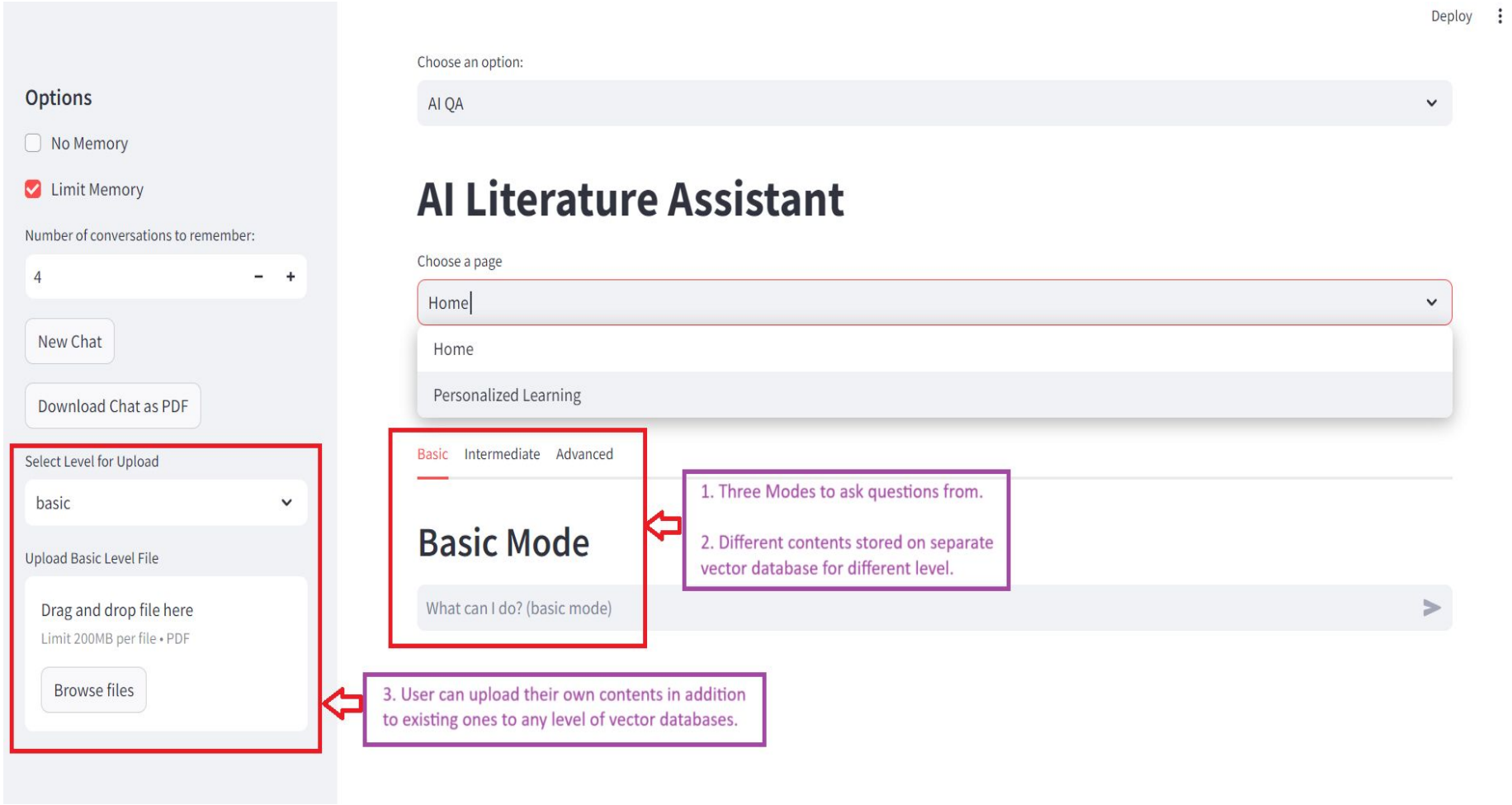
There was an error decoding the JSON response. Please generate again.

Error: Invalid \escape: line 6 column 57 (char 173)

error is obtained when json is not in expected format or invalid escape character present in response.


```
JSON string: {
  "questions": [
    {
      "difficulty": "simple",
      "question": "What is the period of the sine function?",
      "solution": "The period of the sine function is $2\pi$."
    },
    {
      "difficulty": "simple",
      "question": "What is the amplitude of the cosine function?",
      "solution": "The amplitude of the cosine function is 1."
    },
    {
      "difficulty": "intermediate",
      "question": "Graph the function $y = \sin(x + \frac{\pi}{6})$ and describe its
      "solution": "The graph of $y = \sin(x + \frac{\pi}{6})$ is a wave that oscilla
    },
    {
      "difficulty": "intermediate",
      "question": "Find the value of $x$ for which $y = \cos(x)$ and $y = \sin(x)$ i
      "solution": "The graphs of $y = \cos(x)$ and $y = \sin(x)$ intersect when $x =
    },
    {
      "difficulty": "complex",
      "question": "Graph the function $y = \tan(x)$ and describe its key features. W
      "solution": "The graph of $y = \tan(x)$ is a hyperbola that approaches infinit
    },
    {
      "difficulty": "complex",
      "question": "Graph the function $y = \csc(x)$ and describe its key features. W
      "solution": "The graph of $y = \csc(x)$ is a hyperbola that approaches infinit
    }
  ]
}
```


1. This error occured for both MCQs Assessment generation and practice problems generation.
2. Can be solved by retrying at different temperature. (In Progress)


Deploy
Options
No Memory
Limit Memory
Number of conversations to remember:
4
New Chat
Download Chat as PDF
Select Level for Upload
basic
Upload Basic Level File
Drag and drop file here
Limit 200MB per file • PDF
Browse files
Choose an option:
AI QA
AI Literature Assistant
Choose a page
Home
Home
Personalized Learning
Basic
Intermediate
Advanced
Basic Mode
What can I do? (basic mode)
1. Three Modes to ask questions from.
2. Different contents stored on separate vector database for different level.
3. User can upload their own contents in addition to existing ones to any level of vector databases.

Personalized Learning

Personalized Learning Page

Personalized Learning for Basic Level

Generating detailed content...

Let's start with a basic concept about Python programming: Variables.

In Python, a variable is like a container to store data. You can think of it as a label for a value or a data type.

Example:

```
# Let's create a variable
fruit = 'Apple'
print(fruit)
```

In this example, 'Apple' is the value and 'fruit' is the variable name. When we run this code, Python will output: 'Apple'. Here, 'fruit' is storing the value 'Apple'.

This is a simple and fundamental concept of Python programming.

Did you understand this step?

- (•) Select an option
- ( ) Yes
- ( ) No

1. Generates explanations using contents in specified level of vector storage.
2. If Yes, generates next new content. (IN PROGRESS)
3. If No, further clarifies the explanation.

Please select an option to continue.

Next Steps:

- ❏ Integration of “Specialized Math Learning” with “Math QA chatbot” and overall application.
- ❏ Proper Handling of json response extraction error for practice problems and MCQs generation.
- ❏ Implementing feedback mechanism for wrong answers in MCQs Assessment.
- ❏ Enhancing vector storage with high quality materials for AI QA.
- ❏ Next contents generation in AI QA.

Thank You !!!