

Day-1 Task Report – AI Question Generation Module

Name: Arya

Task: Review LLM Prompt Structure for Question Generation

Status: Completed

LLM Used

Gemini 3 Pro – Google AI Studio

Work Summary

- Designed prompt structure for generating MCQs from transcript text
 - Defined JSON output format
 - Tested prompt using Gemini 3 Pro with sample transcript
 - Successfully generated questions, options, correct answer & explanation
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Prompt Used

You are an educational content expert specializing in assessment design.

Your task is to generate high-quality Multiple-Choice Questions (MCQs) from the provided transcript.

Requirements:

1. All questions must be concept-based, not memory-based.
 2. Include four unique options.
 3. Provide correct answer and explanation.
 4. Align questions with the transcript meaning.
-

Output format (JSON):

```
[
{
"question": "",
"options": ["", "", "", ""],
"correct_answer": "",
"explanation": ""
}
]
```

Sample Transcript

Artificial Intelligence is a field of computer science that aims to build systems capable of performing tasks requiring human intelligence, such as reasoning, learning, and understanding language. Machine Learning is a subset of AI that uses data to improve performance automatically.

Generated Output

```
[
{
  "question": "Based on the relationship described in the text, which statement accurately illustrates the connection between Artificial Intelligence (AI) and Machine Learning (ML)?",
  "options": [
    "ML is the broad field that encompasses AI as a smaller component.",
    "AI and ML are distinct fields with no overlapping characteristics.",
    "ML is a specific category contained within the broader scope of AI.",
    "AI focuses on data processing, while ML focuses exclusively on human reasoning."
  ],
  "correct_answer": "ML is a specific category contained within the broader scope of AI.",
  "explanation": "The transcript defines Machine Learning as a 'subset' of AI. Conceptually, this means AI is the overarching field dealing with human-like intelligence, and ML is a specialized part of that field."
},
{
  "question": "A navigation app observes a driver's preferred routes over time and begins suggesting better paths based on that history. Which concept from the text best explains this capability?",
  "options": [
    "The system is using Machine Learning to improve performance automatically using data.",
    "The system is performing a basic calculation unrelated to Computer Science.",
    "The system is demonstrating human emotion rather than intelligence.",
    "The system is operating outside the field of Artificial Intelligence."
  ]
}
```

```
],
```

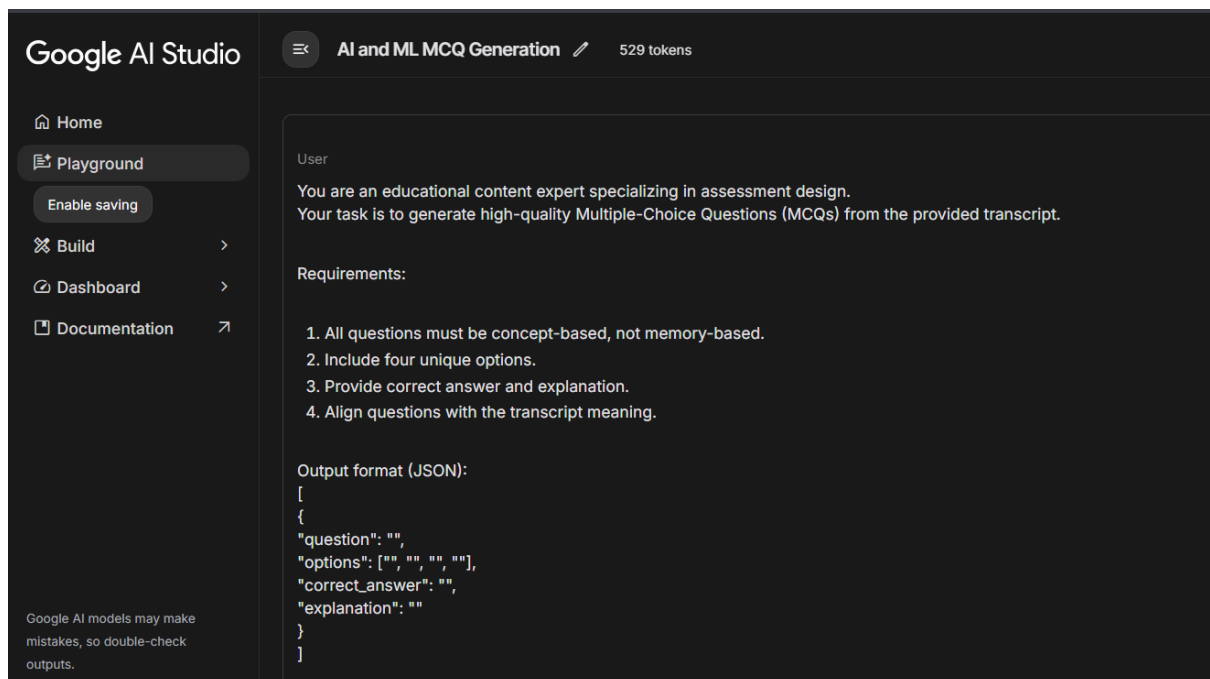
```
"correct_answer": "The system is using Machine Learning to improve performance automatically using data.",
```

```
"explanation": "The text states that Machine Learning 'uses data to improve performance automatically.' The app using historical data (preferred routes) to improve its suggestions exemplifies this concept."
```

```
}
```

```
]
```

User Question Screenshot



Transcript:

Artificial Intelligence is a field of computer science that aims to build systems capable of performing tasks requiring human intelligence, such as reasoning, learning, and understanding language. Machine Learning is a subset of AI that uses data to improve performance automatically.

Generated Output Screenshot

```
<> JSON [Download] [Copy] [Undo]

[
  {
    "question": "Based on the relationship described in the text, which statement accurately illustrates the connection between Artificial Intelligence (AI) and Machine Learning (ML)?",
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    "explanation": "The text states that Machine Learning 'uses data to improve performance automatically.' The app using historical data (preferred routes) to improve its suggestions exemplifies this concept."
  }
]
```

Conclusion:

Completed prompt testing using Gemini 3 Pro.

Submitted by:

Arya