

This code defines an API endpoint that evaluates candidate responses using OpenAI's GPT-4o-mini model. It scores responses based on predefined criteria and provides structured feedback. Here's a detailed breakdown:

1. Overview of the Algorithm

The core function of this script is to:

- Accept candidate responses as input.
 - Use OpenAI to analyze and score the responses based on six criteria.
 - Return the scores in a structured JSON format with feedback and suggested improvements.
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2. Breakdown of the Scoring Algorithm

2.1. Input Structure

- The API receives a JSON object containing an array of **questions** (which likely includes responses).
 - The function **POST(req)** extracts this input.
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2.2. Prompt Engineering for OpenAI

- The **prompt** is designed to instruct the AI to evaluate responses based on the following criteria:
 1. **Technical Acumen:** Measures technical knowledge.
 2. **Communication Skills:** Assesses clarity and effectiveness.

3. **Responsiveness & Agility:** Evaluates response speed based on timestamps.
4. **Problem-Solving & Adaptability:** Checks handling of follow-ups.
5. **Cultural Fit & Soft Skills:** Measures interpersonal skills.
6. **Overall Score:** Computed as the sum of all the above.

The AI is explicitly instructed to return results in the following **JSON format**:

```
{
  "OverAll": number,
  "Technical": number,
  "Communication": number,
  "Responsiveness": number,
  "ProblemSolving": number,
  "SoftSkills": number,
  "Responded": number,
  "feedback": [
    { "category": "Technical Acumen", "comment": "string" },
    { "category": "Communication Skills", "comment": "string" },
    { "category": "Responsiveness & Agility", "comment": "string" },
    { "category": "Problem-Solving & Adaptability", "comment": "string" },
    { "category": "Cultural Fit & Soft Skills", "comment": "string" }
  ],
  "suggestedImprovements": ["string"]
}
```

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2.3. OpenAI Request

- The function **getOpenAIChatCompletion()** sends a request to OpenAI.
- It uses the **GPT-4o-mini** model with:
 - **temperature: 0.7** (moderate randomness for diverse outputs).
 - A system role prompt: **"You are an AI interviewer and evaluator."**

- The candidate responses are injected into the **prompt**.
 - The model generates a response based on the instructions and input data.
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2.4. Error Handling

- **Try-Catch Block:** Ensures proper JSON parsing. If the AI response cannot be parsed, it returns an empty object `{}`.
 - If **too many tokens** are used, a **429 error** ("Too Many Request Token Limit Exceeded") is returned.
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3. How Scoring Works

Each criterion likely receives a **numerical score**, and the total score is computed as:

Overall

Score=Technical+Communication+Responsiveness+ProblemSolving+SoftSkills+Responded
$$\text{Overall Score} = \text{Technical} + \text{Communication} + \text{Responsiveness} + \text{ProblemSolving} + \text{SoftSkills} + \text{Responded}$$

- The **feedback array** contains specific comments for improvement.
 - **Suggested improvements** provide actionable recommendations.
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4. Potential Enhancements

- Implement **weighting factors** for different criteria.
 - Store historical scores to track improvements.
 - Fine-tune GPT responses by providing more structured examples in the prompt.
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5. Summary

- The API takes user responses, evaluates them using OpenAI, and returns structured feedback.
- Scoring is based on **six key factors**, with an overall score computed as their sum.
- Error handling ensures robustness in response parsing and token usage.