**Task 2- Overview**

This task involves integrating OpenAI API calls into **descriptive.py** to generate 3 challenging questions on topic chosen in dropdown and submit the questions and generate the feedback for all questions.

**Task List**

1. **Understand the Boilerplate Code**: Review the pre-existing structure and endpoints.
   * Understand the JSON response flow.
2. **Implement Prompt Formatting**: Write logic to create effective prompts for OpenAI API calls.
3. **Integrate OpenAI API**: Add OpenAI API integration for generating and evaluating responses.
4. **Test and Validate**: Ensure endpoints function correctly and validate all JSON responses.

**Task Description**

Update boilerplate **descriptive.py:**

**Challenge 1: (/generate-questions**)

Write a prompt to generate following o/p

1. 3 questions with properties "Id", "Question" and "ExpectedAnswer"

2. Json o/p

3. Answer in 2 or 3 sentences.

[

  {

    "Id": 1,

    "Question": \_\_\_\_,

    "ExpectedAnswer": \_\_\_\_"

  }

]

1. Call OpenAI API to execute the prompt. Choose an appropriate System Message. Temperature=0.2
2. Debug and find the response text and remove all the special characters (if any) to ensure that has only JSON object.

**Challenge 2 (/submitdescriptivequestions)**

1. Write a prompt instructing to evaluate all the questions in variable **user\_message**
   * You will need to debug and find the format of data in user\_message variable.
   * Get feedback for each question.
   * Overall rating should be between 1 and 10
2. Call OpenAI API to get response

**Tips for Success**

* Always test your prompts using simple examples.
* Use tools like Postman to test your API endpoints.

**Challenge 1 Solution**

**Challenge Solution 1.a:**

**Replace**

prompt = f""

**with**

prompt = f"""

    Create 3 challenging {topic} interview questions with concise, ideal answers (1-2 sentences). Output in JSON format using this schema:

    [

        {{

            "Id": "Question Number",

            "Question": "Question text",

            "ExpectedAnswer": "Ideal answer"

        }}

    ]

"""

**Note: Is Python {variable} is used with f"" to include the value of variable in string.**

**Challenge Solution 1.b:**

Use the following steps to complete the integration:

**Replace**

    response = {}

**With**

    response = client.chat.completions.create(

        model="gpt-4o-2024-05-13",

        temperature=0.2,

        messages=[

            {

                "role": "system",

                "content": "You are an expert in technical interviews...",

            },

            {"role": "user", "content": prompt},

        ],

    )

**Challenge Solution 1.c: Find the response text and remove all the special characters to match the response as in below JSON format**

questions\_json\_str = re.sub(r"^```json|```$", "", questions\_text.strip())

**Challenge 2 Solution**

**(/submitdescriptivequestions)**

1. Write a prompt instructing with following specification
   * Answer should be rated between 1 and 10
2. Call OpenAI API to get response

**Challenge Solution 2.a**

**Replace**

    prompt = f"""

                        """

with

    prompt = f"""

                        Evaluate the following candidate's answers to technical interview questions and provide:

                        - An overall rating out of 10.

                        - Specific feedback on each answer, highlighting strengths and weaknesses.

                        JSON Data:

                        { user\_message }

                        """

**Challenge Solution 2.b**

Use the OpenAI API to process the evaluation prompt:

Replace

feedback\_response = {}

with

feedback\_response = client.chat.completions.create(

            model="gpt-4o-2024-05-13",

            temperature=0.2,

            messages=[

                {"role": "system", "content": "You are an expert in technical interviews, providing feedback on answers."},

                {"role": "user", "content": prompt}

            ]

)