

**Task Title:** API Development

**Duration :** 1:30 hr

**Preferred Language:** Python/Node.js

**Task Description:**

Your objective is to develop a chat API that generates responses based on user input. The API should take in text input from the user and return a coherent completion of the conversation. API should use OpenAI model to understand questions and reply to the user.

Example:

API input:

*What is OpenAI?*

API returns:

*Response return from OpenAI completion API.*

**Requirements:**

**API Design:**

- Design a RESTful API that accepts POST requests with text input and returns completed responses.

**Example Request:**

```
POST /complete_chat HTTP/1.1
Host: your-api-domain.com
Content-Type: application/json
Authorization: Bearer your-api-key
{
    "partial_text": "What is OpenAI?"
}
```

**Example Response:**

```
Json
HTTP/1.1 200 OK
Content-Type: application/json

{
    "completed_text": "Return response from OpenAI chatCompletion API "
```

}

**User Input Handling:**

- Implement logic to process text input from users, ensuring proper parsing and handling of different input formats.

**Response Generation:**

Pass user input to openAI chat completion API, to generate response.

<https://platform.openai.com/docs/guides/text-generation/chat-completions-api>

**Error Handling:**

- Develop robust error handling mechanisms to gracefully manage invalid inputs, server errors, and other potential issues.
- Return informative error messages to clients in case of errors.

**Testing:**

- Conduct thorough testing of the API functionality, including unit tests for individual components and integration tests for the entire system.
- Validate the accuracy and coherence of generated responses through manual and automated testing.

**Submission:**

Submit the API code along with documentation in GitHub. Additionally, be prepared to present and discuss your implementation choices and demonstrate the functionality of the API during the interview process.

Note: While developing the API, prioritize clarity, reliability, and ease of integration to ensure that it can be effectively utilized by developers seeking chat completion capabilities in their applications.