



Students ID: 12230142  
12224879  
12230040  
12230035  
12110272



# Agenda

---

Information about  
application

01



03

List of future  
enhancements

Specific features

02



04

What issues have we  
faced while working



# About Application

---



This is simple chatbox application that allows user to chat with AI model, implementing ChatGPT features. Thus, it capable of generating human-like responses to user's input.

The application also has a feature that allows the user to generate images based on their input using OpenAI's Image API. The user can provide a description of the desired image, and the API will return an image URL that can be viewed in a browser.

It also includes error handling to allow the user to quit the chat or image generation process by entering "quit" or "q"; the user can also enter 'size' to change the size of the answer.



# About the Project

---



This project involves incorporating OpenAI's GPT-3 API into a Python-based command-line interface (CLI) without using any additional frameworks. Instead of using the software development kit (SDK) provided by OpenAI, the program will leverage REST APIs to integrate GPT-3's advanced language processing and image generation capabilities.

By utilizing REST APIs, the program can make HTTP requests to communicate with the GPT-3 API. Additionally, the program can leverage GPT-3's image generation capabilities to create realistic digital content.

Ultimately, this approach aims to cater to the growing demand for sophisticated language processing and image generation capabilities, providing users with innovative communication tools through a simple Python CLI.



## Future Enhancements (Backlog)

---

As our project evolves, it is crucial to continually refine and expand its features and capabilities. The purpose of this 'Future Enhancements (Backlog)' is to outline a collection of potential improvements that will drive our project forward. These enhancements aim to address user needs, improve the overall experience, and ensure the project's long-term success. In the following slides, we will discuss key enhancements and the prioritization process to determine the most valuable updates for future development.



# KEY FUTURE ENHANCEMENTS

---



## GENERATE IMAGE

Support for more image generation options (custom dimensions, styles, etc.)



## USER EXPERIENCE

Improve error handling and user input validation.



## USER EXPERIENCE

Expand the range of available chat modes (multi-turn conversations, topic-based chats, etc.)



# IMPLEMENTING ENHANCEMENTS

## Support for more image generation options

1. Update the API call with additional parameters to allow users to customize image dimensions, styles, and other properties.
2. Ensure compatibility with the underlying image generation API to enable the desired customizations.

1. Add appropriate condition checks in the code to identify invalid inputs and edge cases.
2. Implement exception handling to catch errors gracefully and provide informative feedback to users.

## Improve error handling and user input validation

## Expand the range of available chat modes

1. Design and implement a conversation state management system to facilitate multi-turn interactions.
2. Update user interface and user prompts to enable seamless switching between different chat modes.



# Issues that we faced while working

## 1) Integrating GPT-3/GPT-4 REST API with Python framework



Solution: We evaluated various Python frameworks/ libraries and adapted Lab 4.9.2 to integrate REST API

Solution: We collaborated well, shared tasks, used project management tools to stay on track



## 2) Collaboration and teamwork

## 3) Dealing with API authentication and authorization



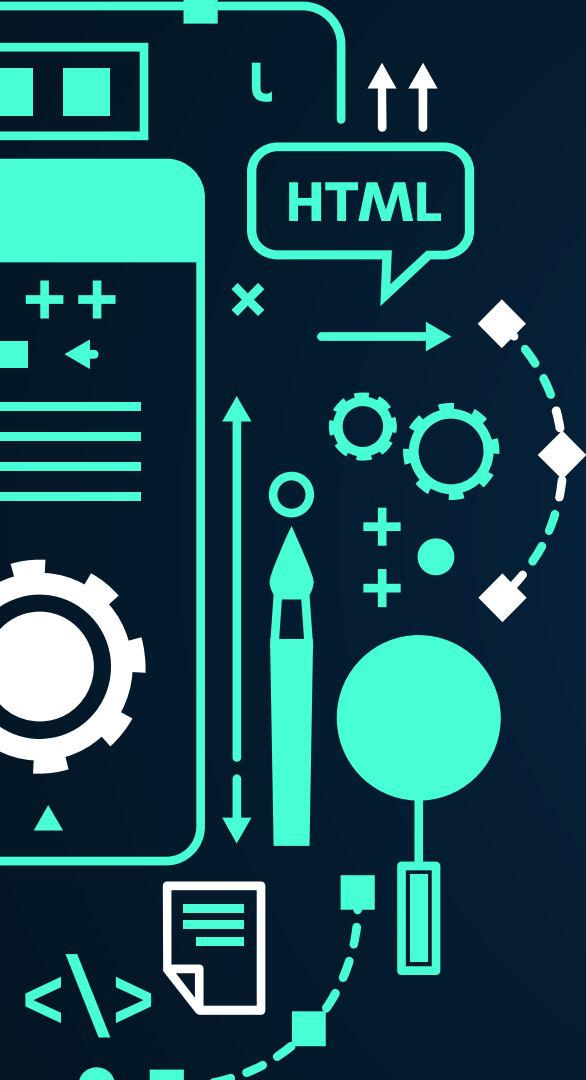
Solution: Followed API documentation and best practices

Solution: Used debugging tools and team communication



## 3) Debugging errors and troubleshooting issues





**THANKS!**