**Project Title:**

NikoAI: The Intelligent Chat Companion

**Abstract:**

The NikoAI Chatbot project aims to harness the power of OpenAI's ChatGPT large language models to create an advanced conversational AI system. By integrating the ChatGPT API, the chatbot will be capable of generating human-like responses to user queries, enabling natural and engaging interactions. This project seeks to enhance the conversational capabilities of chatbots by leveraging state-of-the-art language models.

**Existing System:**

Currently, existing chatbot systems rely on traditional rule-based or machine learning-based approaches for generating responses. These systems often struggle with generating contextually relevant and fluent responses, limiting the naturalness of conversations.

**Proposed System:**

The proposed system involves integrating the ChatGPT API into the existing chatbot infrastructure. By incorporating ChatGPT's advanced language models, the chatbot will be capable of understanding user input more comprehensively and generating responses that are contextually relevant, coherent, and human-like. Additionally, the chatbot will feature functionalities such as multi-turn conversations and support for both text and multimodal inputs.

**System Requirements:**

**Hardware Requirements:**

* Standard hardware configurations with sufficient processing power and memory to handle API requests and responses.

**Software Requirements:**

* **Programming Languages:** JavaScript for front-end and back-end development.
* **APIs:** ChatGPT API for language model integration.
* **Frameworks and Libraries:**
  + Express.js for the server
  + Axios for making HTTP requests
  + Node-fetch for fetching data
  + Body-parser for parsing JSON requests

**Gantt Chart:**

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| --- | --- | --- |
| **Task** | **Start Date** | **End Date** |
| Project Planning and Research | 15-Apr-24 | 30-Apr-24 |
| Setup ChatGPT API Integration | 01-May-24 | 15-May-24 |
| Develop Chatbot Core Functionality | 16-May-24 | 30-May-24 |
| Implement Multi-turn Conversations | 31-May-24 | 15-Jun-24 |
| Enhance Natural Language Processing | 16-Jun-24 | 30-Jun-24 |
| Testing and Debugging | 01-Jul-24 | 15-Jul-24 |
| Documentation and Finalization | 16-Jul-24 | 31-Jul-24 |
| Deployment and Release | 01-Aug-24 | 10-Aug-24 |

This Gantt chart outlines the timeline for various tasks involved in developing the NikoAI Chatbot from April 15th, 2024, to August 10th, 2024. Each task includes a start date and an end date to ensure timely completion of the project milestones.