BUILDING AN AI CHATBOT

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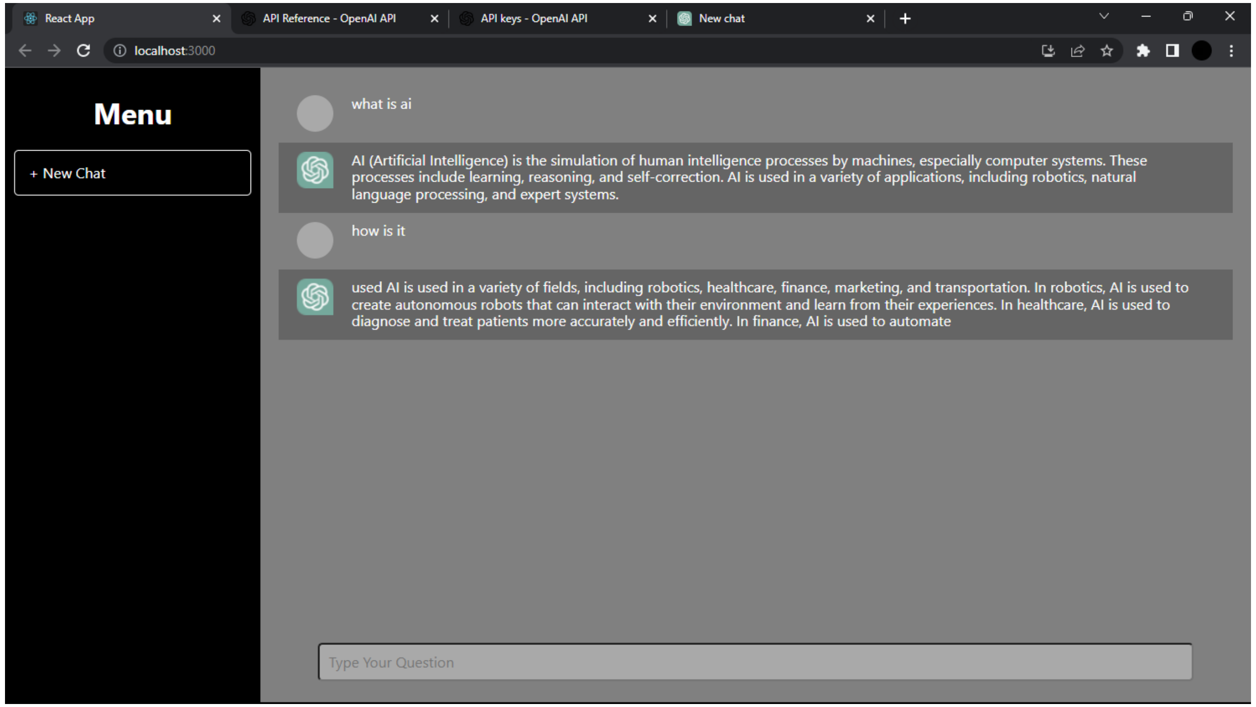
WHY A CHATBOT

- I choose a chatbot because it allows me to gain experience in the growing field of AI
- OpenAI has one of the best implementations of using AI to create a cutting-edge chatbot
- Creating a chatbot allows for someone to understand the way AI is designed, implemented, and put into code
- It allows me to create the code that can get information from OpenAI's AI models like Davinci or GPT-3
- I can apply what I learned about the theory of AI, Algorithm Design, Operating Systems(Managing Website Servers), and Website Development

RESEARCH AND DEVELOPMENT

- The risks of AI are not know yet nor are its possibilities
- It is a very useful tool for a variety of applications
- It can write code, books and business memos
- AI is great at problem-solving, research, and storytelling
- The power of AI models are increasing with how powerful computers are becoming and how much data exists for them to process
- Advancements in AI can be seen in the automation of jobs, developments in the medical field, developments in engineering, changes in education, and changes in lifestyle



what is ai

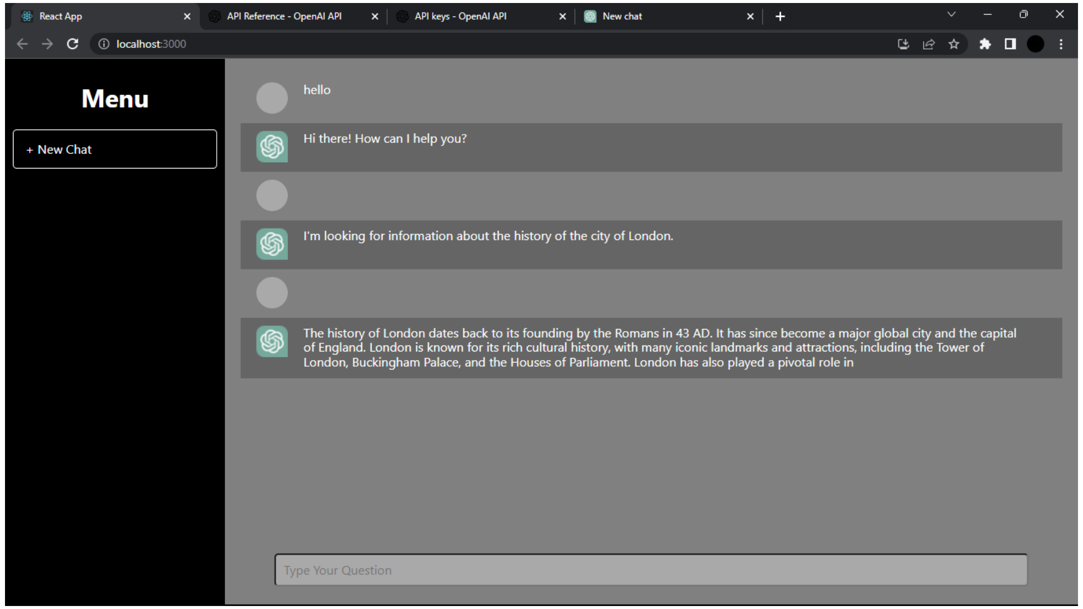
AI (Artificial Intelligence) is the simulation of human intelligence processes by machines, especially computer systems. These processes include learning, reasoning, and self-correction. AI is used in a variety of applications, including robotics, natural language processing, and expert systems.

how is it

used AI is used in a variety of fields, including robotics, healthcare, finance, marketing, and transportation. In robotics, AI is used to create autonomous robots that can interact with their environment and learn from their experiences. In healthcare, AI is used to diagnose and treat patients more accurately and efficiently. In finance, AI is used to automate

SYSTEM DESIGN AND IMPLEMENTATION

- I choose an AI model that I was familiar with OpenAI
- I decided on node.js and react because they allow writing code using JavaScript and work well with formatting the website with CSS
- OpenAI uses tokens to handle how large the input and output files are
  - A large amount of information will take a while to process
  - Similarity so would a large output
- How to apply AI temperature to get the desired project specific output
  - Temperature is how deterministic you want the output to be
  - It can be used to be very creative at a cost of not giving the best answer possible
  - A valid temperature ranges from 0 (least creative) to 1 (most creative)



hello

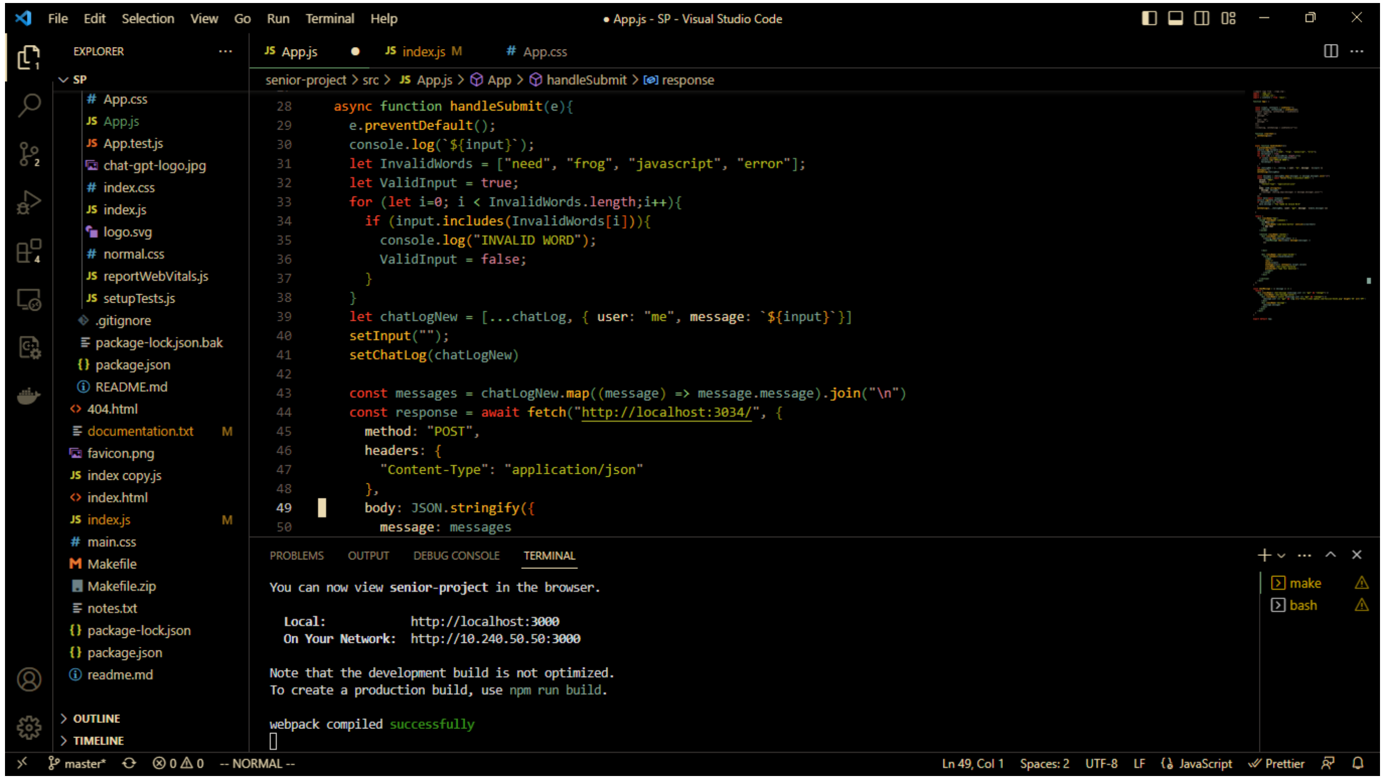
Hi there! How can I help you?

I'm looking for information about the history of the city of London.

The history of London dates back to its founding by the Romans in 43 AD. It has since become a major global city and the capital of England. London is known for its rich cultural history, with many iconic landmarks and attractions, including the Tower of London, Buckingham Palace, and the Houses of Parliament. London has also played a pivotal role in

FEATURES OF MY IMPLEMENTATION OF A CHATBOT

- Word Filtering to limit the content sent to OpenAI's API
  - An array contains words that the client cannot send to the API using the website
  - Such requests are not answered by the API
- Static site compactable
  - Implemented in a way that allows all the requests to be made on the client so that the server only needs to send the files form the server to connect directly to the API
  - Saves on computation and memory
  - Reduces latency

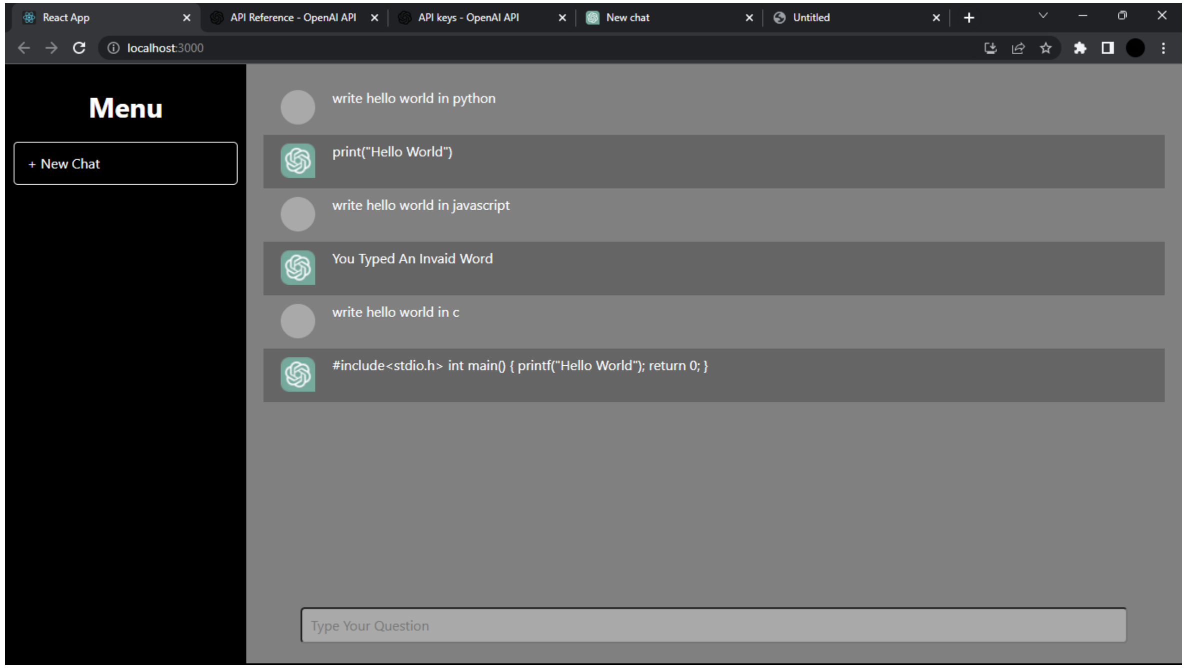


```javascript
    async function handleSubmit(e){
      e.preventDefault();
      console.log(`${input}`);
      let InvalidWords = ["need", "frog", "javascript", "error"];
      let ValidInput = true;
      for (let i=0; i < InvalidWords.length;i++){
        if (input.includes(InvalidWords[i])){
          console.log("INVALID WORD");
          ValidInput = false;
        }
      }
      let chatLogNew = [...chatLog, { user: "me", message: `${input}`}]
      setInput("");
      setChatLog(chatLogNew)

      const messages = chatLogNew.map((message) => message.message).join("\n")
      const response = await fetch("http://localhost:3034/", {
        method: "POST",
        headers: {
          "Content-Type": "application/json"
        },
        body: JSON.stringify({
          message: messages
```

```
You can now view senior-project in the browser.

  Local:            http://localhost:3000
  On Your Network:  http://10.240.50.50:3000

Note that the development build is not optimized.
To create a production build, use npm run build.

webpack compiled successfully
```

WHAT I LEARNED FROM THE PROJECT

- I learned how to apply the theories behind AI, Algorithm Design, Operating Systems(Managing Website Servers), and Website Development
- Some of the ways that OpenAI's API is different than chatGPT such as content filtering and speed
- How to build a website using node.js and react and implementing node modules like OpenAI's API
- How to create and connect the website front end to the back end of a website using http requests
- How to make API keys secure using a back-end website host



write hello world in python

print("Hello World")

write hello world in javascript

You Typed An Invaid Word

write hello world in c

#include<stdio.h> int main() { printf("Hello World"); return 0; }

DEMO & QUESTIONS

THANKS FOR WATCHING