

# AI Email Assistant Chatbot

With NGrok

Github: <https://github.com/Montegan/Ai-Email-Assistant>

Developer: Simon Fasil

Date: 10-16-2024



# Introduction to AI Email Assistant

- An AI-powered chatbot designed to assist businesses in automating email responses to customer comments on purchased products.
- To illustrate the capabilities of this Assistant the user comments are generated automatically by the Assistant.
- After generating a random comment then the Assistant first summarizes the comment, then extract the sentiment of the comment .
- Based on the above analysis it composes an email in the desired language and sends it automatically to the user.



# Development environment - FrontEnd

- Set up a Node.js environment to develop the React app.

```
npm init -y
```

- Create a React Project Using Vite

```
npm create vite@latest my-react-app --template react
```

- Create a React Project Using Vite

```
cd my-react-app  
npm install axios tailwindcss react-router-dom
```

- Launch App on Localhost

```
npm run dev
```



# Development environment - BackEnd

- Install Virtual Environment Package

```
pip install virtualenv
```

- Create a Virtual Environment

```
virtualenv Email_ai
```

- Activate the Virtual Environment

```
.\Email_ai\Scripts\activate
```

- Install Required Packages

```
pip install flask flask-cors openai python-dotenv
```

- Start Flask Server

```
flask run
```



# Development- Backend

- First i loaded my environment variables to enable me access my keys securely

```
load_dotenv()
```

- Then i created my flask App instance. To help me setup my API Endpoint and Flask webserver.

```
app = Flask(__name__)  
CORS(app)
```

- Then i created my opena ai instance to enable interact with the GPT-4o-mini model. As follows

```
client = OpenAI()
```



# Development- Backend

- First i created the “/originalComment” endpoint that is used to generate random user comment on a product. And sends the output comment to the frontend. It listens to Get requests

```
@app.route('/originalComment', methods=['GET'])  
def create_Comment():
```

- Then i implemented my “/composeEmail” Post RestAPI endpoint that is used to extract the sentiment of the comment summarize the original comment and then compose an email based on the provided above analysis. All the major functionalities of the app are inside this endpoint.

```
@app.route('/composeEmail', methods=['POST'])  
def compose_email():
```



# Development- Frontend

I started by designing the User Interface (UI) with a clear project name displayed prominently at the top for better identification.

## **Text Areas for Generated Output:**

- Two text areas were added:
  - One to display the **randomly generated customer comment**.
  - Another to show the **generated email response** based on that comment.

## **Action Buttons:**

- **Generate Comment Button:** I implemented a button to generate a random comment when clicked. This comment simulates feedback on a product.
- **Generate Email Button:** Another button was added to generate an email response based on the comment, providing a structured reply to the customer's feedback.

## **Language Selection:**

- I included a dropdown button that allows the user to select the **language** for the email response, making the app versatile for different language preferences.

# NGrok-Setup

- **Pip Install NGrok Locally:**
  - And then run the following command to initialize an environment:

```
./ngrok config add-authtoken <YOUR_AUTH_TOKEN>
```

- **Expose Your Localhost:**

```
ngrok http 5000
```

- **After starting NGrok, you'll see something like this in your terminal with the public url available in the forwarding section of the below output:**

```
ngrok
Share what you're building with ngrok https://ngrok.com/share-your-ngrok-story

Session Status      online
Account             stesfats595@student.sfbu.edu (Plan: Free)
Version             3.17.0
Region              United States (California) (us-cal-1)
Web Interface        http://127.0.0.1:4040
Forwarding           https://07b6-209-36-108-210.ngrok-free.app -> http://localhost:5000

Connections         ttl    opn    rt1    rt5    p50    p90
                   0      0      0.00   0.00   0.00   0.00
```



# Demo- App UI

Step2: Click  
Choose Language

The screenshot shows a web browser window with the URL `localhost:5173/Login`. The application title is "AI Email Assistant". It features two large text input areas labeled "Original Comment" and "Email to Customer". To the right of these inputs is a dropdown menu labeled "Output Language" with "English" selected. At the bottom, there are two buttons: "Generate Comment" (light blue) and "Generate Email" (green). Red arrows indicate the sequence of steps: from the "Generate Comment" button to the "Choose Language" dropdown, and from the "Generate Email" button to the "Choose Language" dropdown.

Original Comment

Email to Customer

Output Language English

Generate Comment

Generate Email

Step 1: Click  
Generate comment

Step3: Click  
Choose Language

# Demo- In English

DEV

Make your WebApp public tem

ChatGPT

Overview | ngrok documenta

Setup - ngrok

Vite + React

localhost:5173/Login

☆ ↶ 🔍 🗨

AI Email Assistant

Original Comment

Email to Customer

Output Language English

Username: TechGuru87

I recently purchased the SmartHome LED Light Bulbs, and I couldn't be happier! These bulbs are a game changer for my home automation setup. The installation was a breeze, connecting them to my Wi-Fi in minutes. The color options are endless, and the ability to control them via my smartphone is incredibly convenient. The brightness levels are impressive as well, making my living room feel cozy or bright depending on my mood. I also love the energy efficiency—they're saving me money on my electricity bill! Highly recommend these to anyone looking to upgrade their lighting!

Generate Comment

Subject: Thank You for Your Feedback on SmartHome LED Light Bulbs!

Dear TechGuru87,

Thank you for taking the time to share your experience with our SmartHome LED Light Bulbs! We're thrilled to hear that they've had such a positive impact on your home automation setup and that you're enjoying their versatility and energy efficiency.

We appreciate your recommendation and hope you continue to explore all the features these bulbs offer. If you have any further questions or need assistance with anything else, feel free to reach out.

Happy lighting!

Best regards,  
Jeff Bezos  
Manager  
Emax Electronics  
Contact: +1 925-22122-212

Generate Email

# Demo- In Vietnamese

Make your WebApp public tem

ChatGPT

Overview | ngrok documentati

Setup - ngrok

Vite + React

localhost:5173/Login

AI Email Assistant

Original Comment

Username: TechGuru87

I recently purchased the SmartHome LED Light Bulbs, and I couldn't be happier! These bulbs are a game changer for my home automation setup. The installation was a breeze, connecting them to my Wi-Fi in minutes. The color options are endless, and the ability to control them via my smartphone is incredibly convenient. The brightness levels are impressive as well, making my living room feel cozy or bright depending on my mood. I also love the energy efficiency—they're saving me money on my electricity bill!! Highly recommend these to anyone looking to upgrade their lighting!

Generate Comment

Email to Customer

Output Language Vietnamese

Subject: Cảm Ơn Bạn Đã Góp Ý Về Đèn LED Thông Minh!

Chào TechGuru87,

Cảm ơn bạn rất nhiều vì đã chia sẻ trải nghiệm của mình với Đèn LED Thông Minh! Chúng tôi rất vui khi biết rằng chúng đã trở thành một phần không thể thiếu trong hệ thống tự động hóa của bạn và rằng bạn thấy quy trình lắp đặt thật dễ dàng.

Thật tuyệt khi biết rằng bạn đang thưởng thức vô số tùy chọn màu sắc và sự tiện lợi của việc điều khiển qua điện thoại thông minh. Chúng tôi cũng vui mừng khi biết rằng tính năng tiết kiệm năng lượng đang giúp bạn giảm chi phí điện. Sự giới thiệu của bạn có ý nghĩa lớn với chúng tôi!

Nếu bạn có bất kỳ câu hỏi nào hoặc cần trợ giúp với đèn của mình, đừng ngần ngại liên hệ với chúng tôi. Chúng tôi luôn sẵn sàng hỗ trợ bạn!

Trân trọng,  
Jeff Bezos  
Quản lý  
Emax electronics  
Liên hệ: +1 925-22122-212

Generate Email



# Thank you!

Github: <https://github.com/Montegan/Ai-Email-Assistant>

Developer: Simon Fasil

Date: 10-16-2024