Customer Support System

An Email to the Customer

Index

Introduction

The Customer Support System is a web application that utilizes the OpenAI GPT-3.5 Turbo model to provide customer support for an electronic product company. This system generates customer comments, email subjects, comment summaries, and email responses based on user interactions. It offers support in multiple languages, including English, Spanish, and Portuguese.

Design

The system is designed as a Flask web application with a straightforward user interface. Users can select the language in which they want to generate email responses and view the generated customer comment and email response. The application follows these key design components:

- **Flask Web Application:** The application is built using Flask, a lightweight web framework in Python, to handle user interactions.
- **OpenAI Integration:** It integrates with the OpenAI GPT-3.5 Turbo model to generate text-based responses for customer support tasks.
- **HTML Template:** The user interface is designed using an HTML template (index.html) with a language dropdown menu, question, and answer containers.

Implementation

To run project on an Ubuntu System:

1. Create and activate the virtual environment

   Python3 -m venv venv

2. Activate environment

   . venv/bin/activate

3. Install the required python packages

   Pip install flask openai python-dotenv

```
● tvaitla1449@DESKTOP-DNVS32R:~$ cd email
● tvaitla1449@DESKTOP-DNVS32R:~/email$ python3 -m venv venv
● tvaitla1449@DESKTOP-DNVS32R:~/email$ . venv/bin/activate
● (venv) tvaitla1449@DESKTOP-DNVS32R:~/email$ pip install flask openai python-dotenv
  Requirement already satisfied: flask in ./venv/lib/python3.10/site-packages (3.0.0)
  Requirement already satisfied: openai in ./venv/lib/python3.10/site-packages (0.28.1)
```

Implementation

To Run the Flask Application:

Python3 app.py

Open http://127.0.0.1:5000 to see the result

Test Case 1: English to English

Choose the language of Email to be generated:

English

Question (Generated Comment):

I am extremely satisfied with the wide range of products offered by this electronic product company. The TechPro Ultrabook is a sleek and lightweight ultrabook that is perfect for everyday use. The BlueWave Gaming Laptop provides a high-performance gaming experience with its powerful specifications. The PowerLite Convertible is a versatile laptop with a responsive touchscreen. The TechPro Desktop is a powerful desktop computer suitable for both work and play. The SmartX ProPhone is a powerful smartphone with advanced camera features. The MobiTech PowerCase is a protective case with a built-in battery for extended usage. The SmartX MiniPhone is a

Answer (Generated Email):

Subject: Thank you for your feedback on our wide range of products!

Dear [Customer's Name],

Thank you for taking the time to provide us with your valuable feedback. We are thrilled to hear that you are extremely satisfied with the wide range of high-quality products offered by our electronic product company.

Your comment highlights specific products such as ultrabooks

Process

Test Case 2: English to Polish

Choose the language of Email to be generated:

English

Question (Generated Comment):

The TechPro Ultrabook is a sleek and lightweight laptop that is perfect for everyday use. With its 13.3-inch display, 8GB RAM, 256GB SSD, and Intel Core i5 processor, it offers a great balance of performance and portability. The BlueWave Gaming Laptop, on the other hand, is a high-performance gaming laptop that provides an immersive gaming experience. It features a 15.6-inch display, 16GB RAM, 512GB SSD, and NVIDIA GeForce RTX 3060. Both laptops come with a 1-year warranty and have received high ratings from customers. Overall, these products from the electronic company offer a range of options for different needs and preferences.

Answer (Generated Email):

Temat: Dziękujemy za zainteresowanie naszym TechPro Ultrabookiem i BlueWave Gaming Laptopem!

Szanowny Kliencie,

Dziękujemy za Twój komentarz dotyczący naszych produktów. Jesteśmy bardzo zadowoleni z Twojej opinii i doceniamy Twoje pozytywne słowa. Twoje zadowolenie jest dla nas najważniejsze!

Podsumowanie: Komentarz klienta podkreśla dwa laptopy od firmy elektronicznej: TechPro Ultrabook, który jest elegancki i

Process

Pollen tomorrow

12:29 AM
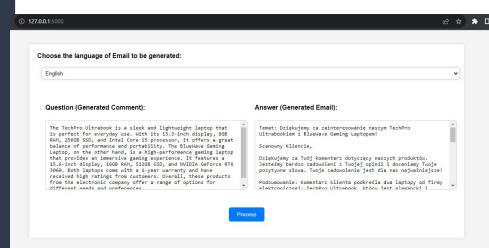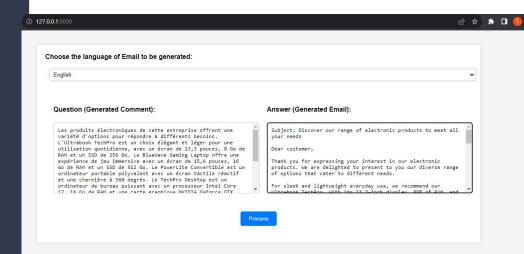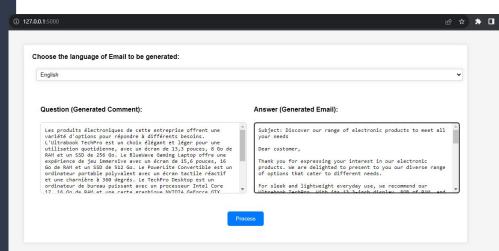
Test Case 3: French Comment

I changed input language to French in my application.

It generated comment in French

Test Case 3: French to English

127.0.0.1:5000

Choose the language of Email to be generated:

English

Question (Generated Comment):

Les produits électroniques de cette entreprise offrent une variété d'options pour répondre à différents besoins. L'Ultrabook TechPro est un choix élégant et léger pour une utilisation quotidienne, avec un écran de 13,3 pouces, 8 Go de RAM et un SSD de 256 Go. Le BlueWave Gaming Laptop offre une expérience de jeu immersive avec un écran de 15,6 pouces, 16 Go de RAM et un SSD de 512 Go. Le PowerLite Convertible est un ordinateur portable polyvalent avec un écran tactile réactif et une charnière à 360 degrés. Le TechPro Desktop est un ordinateur de bureau puissant avec un processeur Intel Core i7, 16 Go de RAM et une carte graphique NVIDIA GeForce GTX

Answer (Generated Email):

Subject: Discover our range of electronic products to meet all your needs

Dear customer,

Thank you for expressing your interest in our electronic products. We are delighted to present to you our diverse range of options that cater to different needs.

For sleek and lightweight everyday use, we recommend our Ultrabook TechPro. With its 13.3-inch display, 8GB of RAM, and

Process

Test Case 4: French to French

Choose the language of Email to be generated:

English

Question (Generated Comment):

Les produits électroniques de cette entreprise offrent une variété d'options pour répondre à différents besoins. L'Ultrabook TechPro est un choix élégant et léger pour une utilisation quotidienne, avec un écran de 13,3 pouces, 8 Go de RAM et un SSD de 256 Go. Le BlueWave Gaming Laptop offre une expérience de jeu immersive avec un écran de 15,6 pouces, 16 Go de RAM et un SSD de 512 Go. Le PowerLite Convertible est un ordinateur portable polyvalent avec un écran tactile réactif et une charnière à 360 degrés. Le TechPro Desktop est un ordinateur de bureau puissant avec un processeur Intel Core i7, 16 Go de RAM et une carte graphique NVIDIA GeForce GTX

Answer (Generated Email):

Cher client,

Nous vous remercions d'avoir partagé votre expérience positive avec nos produits électroniques. Vos paroles encourageantes sont très appréciées et nous sommes ravis de savoir que nos produits ont pu répondre à vos besoins.

Nous sommes heureux de vous présenter notre gamme variée d'options qui sont conçues pour satisfaire différents besoins.

Si vous recherchez un ordinateur portable élégant et léger

Process

Test Case 4: French to Polish

Choose the language of Email to be generated:

English

Question (Generated Comment):

Les produits électroniques de cette entreprise offrent une variété d'options pour répondre à différents besoins. L'Ultrabook TechPro est un choix élégant et léger pour une utilisation quotidienne, avec un écran de 13,3 pouces, 8 Go de RAM et un SSD de 256 Go. Le BlueWave Gaming Laptop offre une expérience de jeu immersive avec un écran de 15,6 pouces, 16 Go de RAM et un SSD de 512 Go. Le PowerLite Convertible est un ordinateur portable polyvalent avec un écran tactile réactif et une charnière à 360 degrés. Le TechPro Desktop est un ordinateur de bureau puissant avec un processeur Intel Core i7, 16 Go de RAM et une carte graphique NVIDIA GeForce GTX

Answer (Generated Email):

Szanowny Kliencie,

Dziękujemy za wyrażenie zainteresowania naszymi produktami elektronicznymi. Z radością przedstawiamy naszą różnorodną gamę opcji, które spełniają różne potrzeby.

Jeśli szukasz eleganckiego i lekkiego urządzenia do codziennego użytku, polecamy naszego Ultrabooka TechPro. Z 13,3-calowym ekranem, 8 GB pamięci RAM i dyskiem SSD o pojemności 256 GB, zapewnia płynne i szybkie doświadczenie.

Process

Enhancement Ideas

1. **Email Sending Integration:** Integrate with email APIs (e.g., SendGrid or SMTP) to allow users to send the generated email responses directly from the application.
2. **Bulk Response Generation:** Allow users to upload a list of customer comments in a CSV or Excel file and generate responses for all of them at once.
3. **Error Handling and Suggestions:** Provide helpful error messages and suggestions when users enter incomplete or unclear customer comments.

Conclusion

- The Customer Support System is a cutting-edge solution that combines advanced technology with a user-friendly design to transform customer interactions for businesses.
- By leveraging OpenAI's GPT-3.5 Turbo model and a user-intuitive Flask web interface, this platform empowers companies to provide exceptional customer support. Throughout this journey, we've discovered the AI's ability to bridge language gaps, generate contextually relevant responses, and assist customers across diverse linguistic backgrounds, showcasing the boundless potential of merging human creativity with artificial intelligence.

References

https://hc.labnet.sfbu.edu/~henry/sfbu/course/deeplearning_ai/chatgpt_prompt_eng_for_developer/slide/exercise_chatgpt_prompt_eng_for_developer.html

https://learn.deeplearning.ai/chatgpt-prompt-eng/lesson/1/introduction