Installation and User Guide for Emotion Aware AI Agent

Part One: Installation

Step 1: Install Python

- Python and a code editor is required. You can download and install the as follows:
    - Python –
        - https://www.python.org/downloads/ or
        - https://www.anaconda.com/products/distribution

Step 2: Download or Clone the code from

- https://github.com/atsui888/Pattern-Recognition-Systems/tree/main/Code

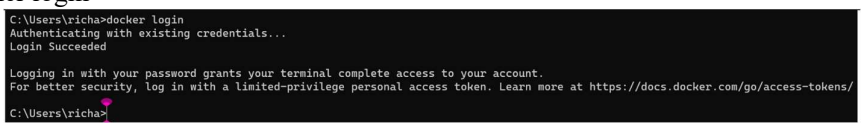
Step 3: Install the Python Package Requirements
(suggest creating a virtual environment to install in.)

- bentoml==1.1.6
- boto3==1.28.62
- huggingface-hub==0.17.3
- joblib==1.3.2
- langchain==0.0.320
- matplotlib==3.8.0
- openai==0.28.1
- pandas==2.1.1
- requests==2.31.0
- scikit-learn==1.3.1
- seaborn==0.13.0
- streamlit==1.27.2
- torch==2.1.0
- transformers==4.34.1

Step 4: Install Docker Desktop

- https://www.docker.com/products/docker-desktop/

Step 5: Set up and Run Emotion Classifier (Logistic Regression) end point

- Pull Docker Image from Docker Hub and use it to classify emotions
    - $> docker login
        - 

    - $> docker image pull rchai/text-emotion- detection:trained_on_dair-ai_emotion

```
C:\Users\richa>docker image pull rchai/text-emotion-detection:trained_on_dair-ai_emotion
trained_on_dair-ai_emotion: Pulling from rchai/text-emotion-detection
a378f10b3218: Already exists
c11bdfacfd25: Already exists
6846b6f09fa6: Already exists
9b7602d2af9e: Already exists
7df05b724c5b: Pull complete
bd72920ca41f: Pull complete
8368278b5a3b: Pull complete
a26d90799782: Pull complete
e81d96c6ed52: Pull complete
4f4fb700ef54: Pull complete
88ed2f065bca: Pull complete
845a9e932e22: Pull complete
c10c9fc29d8e: Pull complete
d8f1d61ba55b: Pull complete
9c40f8b0ab0a: Pull complete
Digest: sha256:5ea125b80cdf36d7262b7383fb0d3c1e60246a9d5e18af093557817a3f3f93ef
Status: Downloaded newer image for rchai/text-emotion-detection:trained_on_dair-ai_emotion
docker.io/rchai/text-emotion-detection:trained_on_dair-ai_emotion

C:\Users\richa>
```

- $> docker run --rm -p 3000:3000 rchai/text-emotion-detection:trained_on_dair-ai_emotion

- Test with curl command:
  - curl -X POST -H "accept: text/plain" -H "content-type: text/plain" --data "the cake was mouthwatering delicious! Yummy!" http://127.0.0.1:3000/classifyemotion
  -

```
C:\Users\richa>curl -X POST -H "accept: text/plain" -H "content-type: text/plain" --data "the cake was mouthwatering delicious! Yum
my!" http://127.0.0.1:3000/classifyemotion
joy
C:\Users\richa>
```

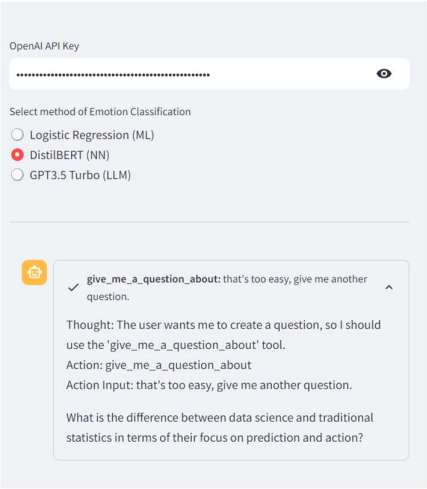
  - You should see the response: ‘joy’

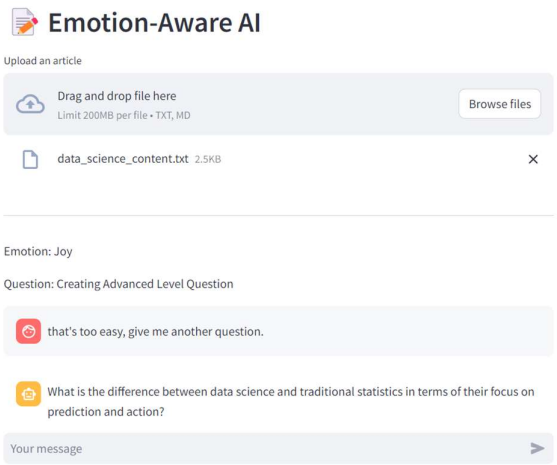
Step 6: Run Streamlit App

- $> streamlit run app.py

Part Two: User Guide

If you have installed the app successfully and run ‘streamlit run app.py, you should see the following screen in your default web browser.





1. Enter your OpenAI API Key and press “Enter”.
2. Select the method of Emotion Classification you wish to use.
3. Chat with the Agent in the message box.
4. When you wish to receive a question, ask the Agent to give you a question.
5. If you wish the Agent to generate a question from custom content, click the “Browse Files” button to upload your content. I suggest not uploading files that are too large as this proof-of-concept is not optimise to handle it.
6. If you did not upload any custom content, the Agent will randomly select a topic to generate a question for you to answer.
7. Note that the agent has not be programmed to be precise in handling your answers to the question you were asked, as the intent for this practice module (due to time constraints) is to showcase ability of the Agent to react according to user’s emotion. This aspect will be addressed in future Practice Modules until the full vision of the original proposal is realised.