Team 5 GitHub Documentation

1. Abstract
    - A brief summary of the implementation to the project and objectives.

    - Team 5 was tasked with creating a chatbot to aid users with general investment queries and price comparisons.

2. Features Implemented
    - A list of features developed, including descriptions and significance.

    - We as team 5 worked on a chatbot feature. The Front end was created using VoiceFlow and the backend implemented as a Flask API hosted on Render. The chatbot is capable of answering general investment questions using knowledge bases in the form of text files uploaded directly onto the voice flow platform and also answer stock prices queries using the RENDER API which pulls data from AlphaVantage. All the working files are on our team's branch specifically this path **prototypes/Fall2024/Team5/AutoProp_Codes.**

3. Code Highlights
    - Key pieces of code or logic that is worth mentioning

    - In the File path above, the API file currently working is named as **“compiled.py”**
    - Currently it uses the free version of RENDER which is limited in terms of up-time. It shuts down every 15 minutes if there is no activity. This means it takes longer to pull data when new requests come in, post 15 minutes of inactivity but it eventually runs.
    - The **intent.pkl** model classifies the questions then passes it to Alphavantage.
    - The chatbot has been **integrated** into the main application UI. The voiceFlow chatbot is in script tags near the closing <body> tag.

4. Challenges and issues
    - Possible challenges and issues arised or may arise in the future.

    - API downtime - the API goes to sleep after 15 minutes of inactivity and takes a bit longer to wake up. Eventually it wakes up. This is because the Free tier on render supports only 15 minutes of inactivity.
    - Tokens on VoiceFlow - Currently the chatbot uses the free tier of VoiceFlow which has a limit on the tokens.

5. Solutions and Fixes
    - Strategies to fix possible challenges

    - Consider Sourcing for funds and upgrading - engage the Professor on how to get funds to upgrade RENDER subscription.

- Regarding the Tokens, download the AutoProphet.vf file in the path above together with the knowledge_base.txt files. Create a voiceflow account and upload the files to voiceFlow. This ensures you have the full 100,000 tokens.

6. Future Work and suggestions

- Suggestions for further development or improvement of the project or the feature

- Integrate the AI-bot.py file in the path above into the API file (compiled,py). The AI-bot.py is capable of visualizing stock price comparisons.
- Expand the voiceflow chatbot capabilities. Connect the chatbot to the user database for more personalized responses.

7. Repository and Documentation Links

- URLs to any relevant documentation.

- https://github.com/jeffreywallphd/AutoProphet/tree/FALL2024-BA5200-Team5/prototypes/Fall2024/AutoProp_Codes