User Manual

Requirements

Ensure that the following packages are installed on a Python Environment <= 3.8.0.

- json
- random
- os
- keras==2.8.0
- Keras-Preprocessing==1.1.2
- tensorflow-cpu==2.8.0
- pickleshare==0.7.5
- python-telegram-bot==13.11
- h5py==2.10.0

Execution

- To run the developer mode of CompaNeo with all the 3 algorithms (SVM, HNN and LogReg), please run the **tkinter** on any Python IDE.
- To host the user mode of CompaNeo with the best-performing algorithm (HNN) on Telegram, please run the **main** on any Python IDE.
- Then on Telegram, search for the username **CompaNeoBot** and hit **/start** to begin the conversation.

Extra Files and How They Connect With Python Files

- **HNNWeights**.h5, **SVMWeights**, **LogRegWeights** are used by **main** and **tkinter** to load the weights for the trained HNN model, SVM model and Logistic Regression Model to gauge the user emotions respectively.
- **tokenizer.pickle** file is used to load in the serialised tokenizer object to assist the HNN model make predictions.
- **reponses.json** is used by CompaNeo to refer to the responses to be given to the user after the highest emotion felt is detected.