Access to source code: https://github.com/fyp20587/project

<u>READ ME:</u>

Main project (BERT finetuning): zakyabert/sentiment_modelling.ipynb

Data preprocessing: zakyabert/datasets/data_pre-processing

Supervised learning models: zakyabert/zakyascikit/supervisedmodels.ipynb

Website source code: zakyabert/UI/app.py To run the website: streamlit run app.py

Requirements:
streamlit>=0.84.0
torch==1.9.0
transformers==4.10.0
numpy==1.21.1
matplotlib==3.4.3
huggingface-hub>=0.15.1,<1.0

Steps:
1. To access the website, go to zakyabert/UI/app.py
2. On terminal run with 'streamlit run app.py'
                        AND/OR
1. To access deployed website: https://sentimentoday.streamlit.app/

If you want to run everything yourself, please follow these steps *(note that the processed dataset and models are already produced so the steps below are not necessary):*

1. Run 'data pre-processing' for datasets 'financialdata.csv', 'SEN_en_AMT_nooutlier.csv' and 'SEN_en_R_nooutlier.csv' to produce 'processed_data.csv'

2. Run 'sentiment_modelling' which is the BERT Finetuned code to produce the best models (bertModel.pt, config.json, pytorch_model.bin, special_tokens_map.json, tokenizer_config.json, vocab.txt) needed.

3. Run app.py with command 'streamlit run app.py' to access website with the deployed models'.

Note: Processing will take longer to when using CPU (instead of GPU)