AI/NLP Project

Goals:

1. Transcribe audio recordings of of post call survey.
2. Store the transcriptions on the Oracle database.
3. Do sentiment analysis on the surveys.

8 — Sentiment analysis

subject tagging
via zero-shot
text classification

1 — Survey calls are stored on the server. Located via an UNC file path which is accessible via intranet which requires a VPN

\\serverName\folder\subfolder\file.wav ← a type of audio file, predominantly seen on Windows /pc device

2 — Python has trouble accessing UNC so i mapped the audio files locally to a z drive

\\serverName\folder\subfolder\file.

z:\folder\file.wav

Recording01.wav

fun fact: the ID will match the basename of the audio file

PCS_ID | transcription | timestamp/datetime

Recording01

6 — Using Python to create a pandas table for short term data collection & storage

7 — Using SQL to insert pandas dataframe to the Oracle table for long term storage

3a — Connect to oracle db backend with python

solution: stored credentials externally on a CSV file and added a function to call on the external CSV file

need to hide my credentials (Oracle login information)

3b — Using SQL to set up a schema and table in preparation for data import

5 — Transcription data collection output needs to be stored somewhere
- ⊘ An excel table
- ⊘ An CSV table
- ⊘ A text file
- ◯ A table that will directly get imported into Oracle

4a — Python
- ☒ Google speech-to-text API (paid)
- ☒ Google speech recognizer (free)
- ☑ Hugging face 🙂

Wave2vec2 (Facebook/Meta's technology)

BERT

4b — Clean up audio, take out background/ambient noises to emphasize human speech

4c — Feed audio files into pre-trained model → Transcription

input → output

V2