ECE:4564, Project 2 Report

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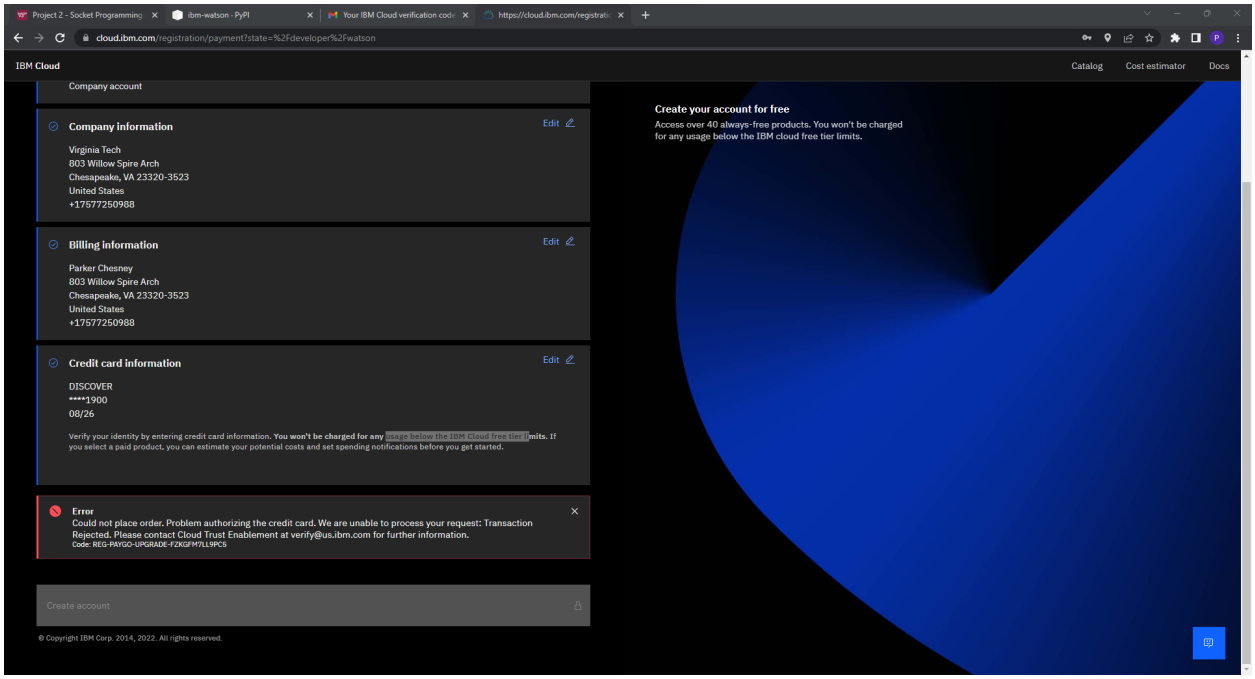
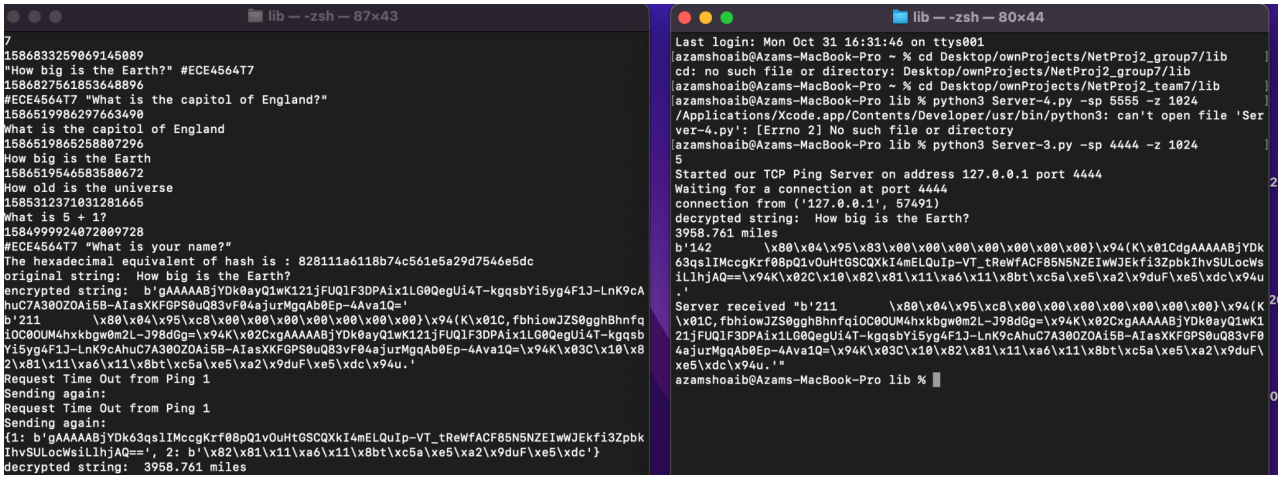
Description:

For this project we had a four file design: Client.py, Server.py, ClientKey.py, and ServerKey.py. The importance of ClientKey.py and ServerKey.py is that it gives the main code robustness. Our main inspiration for the Clieny.py and Server.py came from a TCP client and server assignment we all did in Intro to Computer Networking. Knowing there could be multiple different formats a question can be given to us, we made a for loop that extracts the question portion of the tweet. Once the question is extracted, we send an encrypted version to the server to be answered. The server will decrypt the message and send it over to Wolframalpha to get an answer. The server will also use the pyttxs3 library to make a .wav file that could be played to hear the question. The answer will be encrypted and sent over to the client. The client will decrypt the message and use the pyttxs3 library to make a .wav file that could be played to hear the answer.

There was a problem with the IBM watson because our cards would not process in the account making process. So we found an alternative to the text-to-speech using pyttsx3.



Testing:



Contributions:

Azam Contribution: Command line implementation, hash implementation, answer payload on client side, command line testing
Jihoon Contribution: Implemented the tweety library/creating a twitter developer account, implemented the server and client using the socket library, separated the api keys/identification into separate script files, README file.
Parker Contribution: speech-to-text implementation, pickle implementation, wolframalpha implementation

https://www.geeksforgeeks.org/python-hash-method/
https://pythonprogramming.net/pickle-objects-sockets-tutorial-python-3/
https://www.geeksforgeeks.org/how-to-save-pyttsx3-results-to-mp3-or-wav-file/
https://www.geeksforgeeks.org/python-convert-speech-to-text-and-text-to-speech/
https://www.geeksforgeeks.org/python-create-a-simple-assistant-using-wolfram-alpha-api/