

Team 9 Report

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ECE 4564, Assignment1

ReadMe

Process

Client

- Start client with command line parameters after starting Server
- Reads QR code with OpenCV
- Decodes question with pyzbar
- Encrypts question and computes checksum with Cryptography Fernet
- Builds and sends question payload with pickle and sockets
- After receiving answer it verifies checksum and decrypts answer with Fernet
- Then does Text-to-Speech Using watson-developer-cloud library. Uses the Watson key and URL with the text to speech API to create an mp3 file
- Next it plays the file audio answer file with omxplayer.

Server

- Start socket server with command line parameters
- Receives question then compares checksum and decrypts question with Fernet
- Downloads and plays text-to-speech question with IBM-watson and omxplayer
- Sends question and receives answer with Wolfram Alpha
- Build and sends answer to client with sockets

Steps

- Install the aforementioned libraries
- Create QR code question with the qr code generator
- Start Server with ""
- Start Client with ""
- Hold camera to QR Code
- Watch and listen for progress including the question and answer

