# CS436 PROJECT PLAN

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The application that we have decided to build on cloud is an open source alternative communication platform like messenger. We've found the application template on GitHub and decided to just take the web part of it to transfer into our cloud architecture. We have been planning to add a speech-to-text (STT) feature to the platform. By this added feature, when an individual sends a message to their friend, a transcript of the message will appear right below the message immediately. Apart from that, we have decided to add a chat bot to improve the interactive characteristics of our platform if we have enough time. Users can easily send prompts to this chat bot to be able to perform specific tasks. For instance, they could ask for converting the background of an image to black and white or deleting the background. It works in a similar manner to the telegram message bots. In terms of cloud architecture, we have planned to build the database on GraphQL along with its dependencies, postgres and redis provided by Google Cloud's built-in library. We will use the appropriate API calls to connect our application to the database. For file storage, we have decided to utilize a storage bucket from Google Cloud. For hosting the messenger app, we will create cloud containers on Google Cloud platform. For STT, we will use Google Cloud's Speech-To-Text API provided. The link for Cloud Speech-To-Text API is given below. For chat bot, we have still been discussing the technology we will use and the features we are going to add. The bot will be added in a serverless manner.

Here's a diagram of the cloud architecture mentioned above:  📄 CS 436 Mock Structure.png

GitHub Link of the application template: https://github.com/relatedcode/Messenger

GitHub Link of the cloud project: https://github.com/BarisUlas/CS436_Project

Cloud Speech-to-Text API:

https://console.cloud.google.com/marketplace/product/google/speech.googleapis.com