Anirudh Gadehothur Karanam
Student ID: 801276072

Azure Text to Speech
(System Integration ITIS-6177 Final Project)

Documentation

About:

In this application we convert text into humanlike synthesized speech using NodeJS – Express. It best allows to provide the audio without the cost of manually generating the audio.

Prerequisites:

- [Node.js 10.1+ and npm](#) - installed to your local machine.
- [Visual Studio Code](#) - installed to your local machine.
- [Git](#) - installed to your local machine.
- Use [Azure Cloud Shell](#) using the bash to create Speech resource. (This will require you to authenticate in a browser with your account and with a valid azure subscription)

  ** Note: For this application, the API keys have already been created and deployed from the DEV.env file (to protect the API key, this file is not exposed on the repository), but if one has to clone and run the app from git, they should set up their own.

** [Click here to create Speech resource](#). (API Keys)

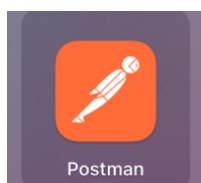**Running the server deployed Application:**

From Postman:

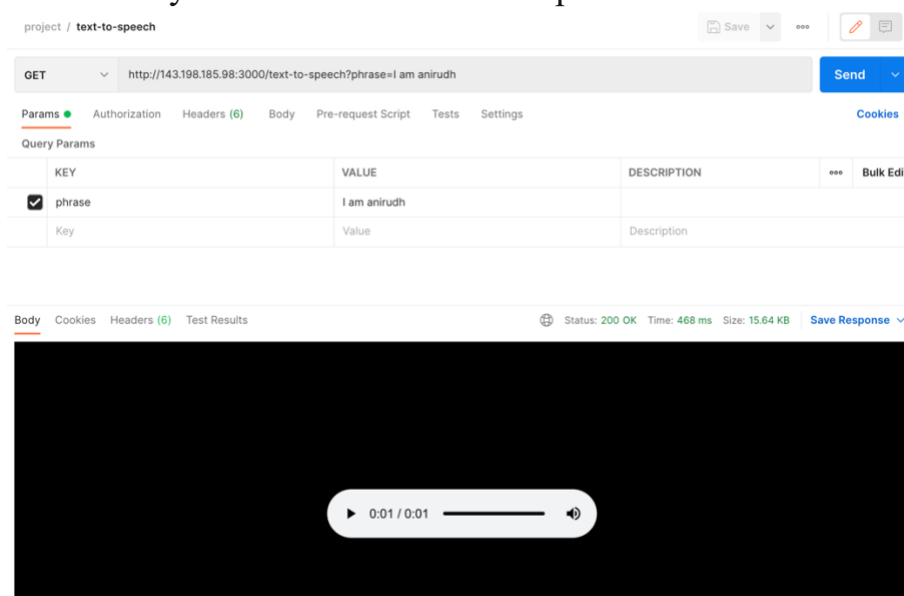- Import the COLLECTION: project_collection_postman.json from the docs folder in the repository and send the GET request.
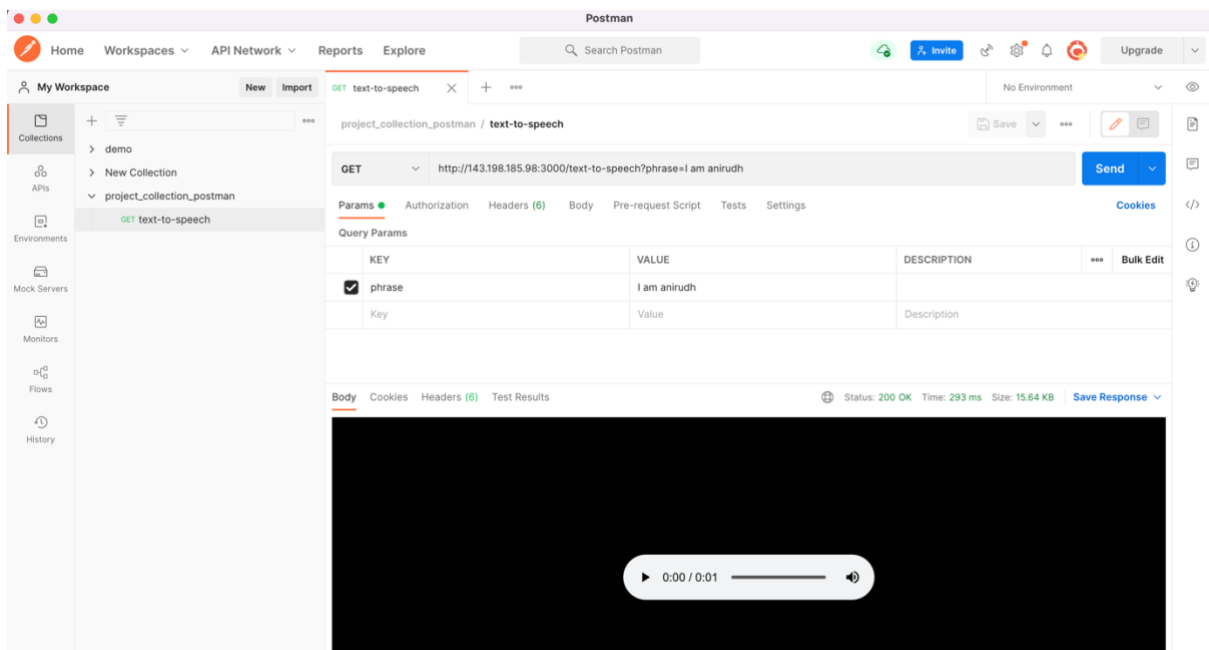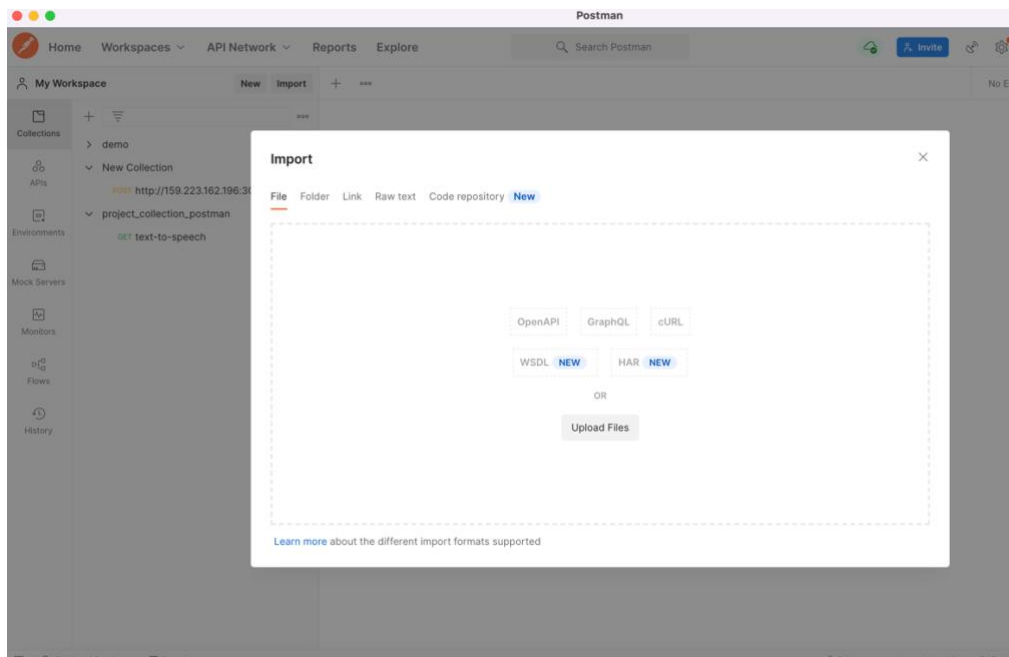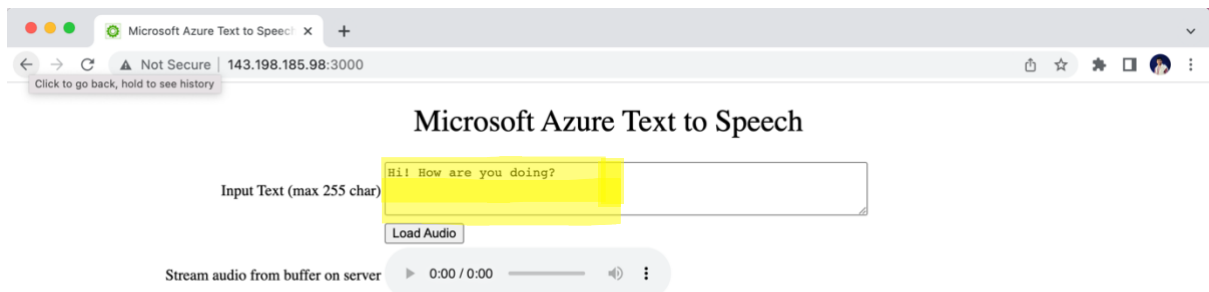
Or

- Open Postman

- Make a get request using the url: http://143.198.185.98:3000/text-to-speech

- Select params and add key as "phrase" and the value with any desired text you wish to convert into speech.

From the Browser:

- Click on the URL: http://143.198.185.98:3000/
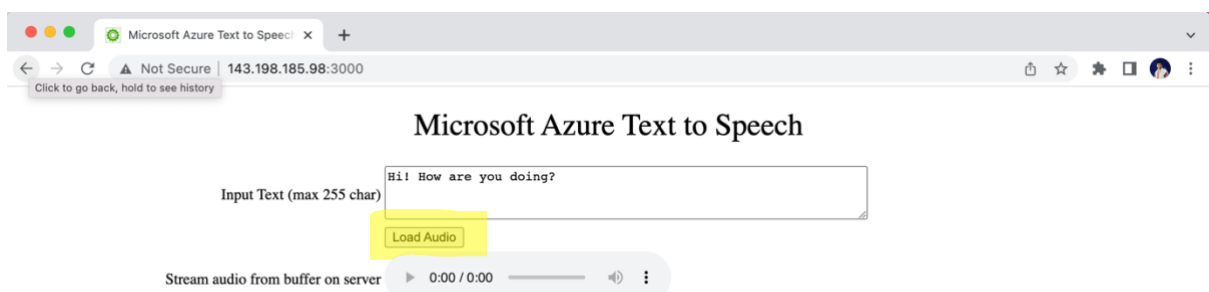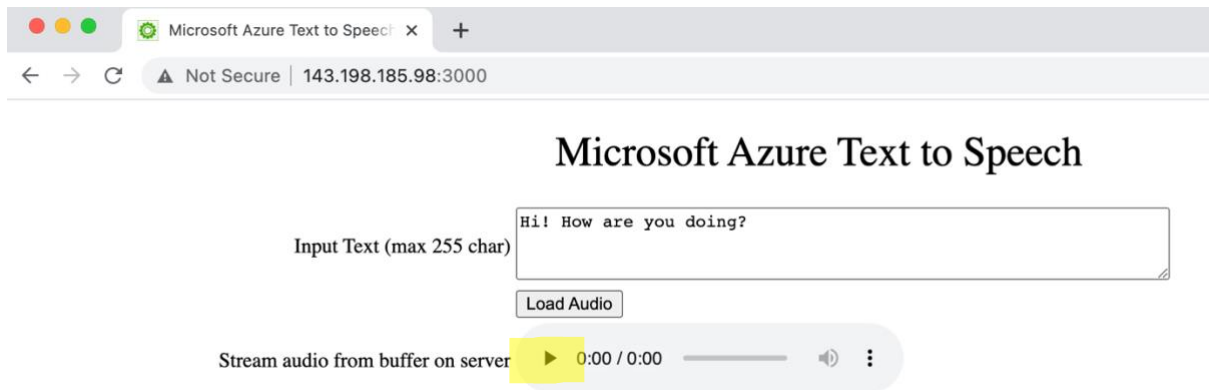- Type the text in the text field

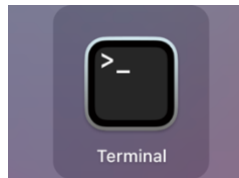- Click on Load Audio button.

- Now, click on the play button.
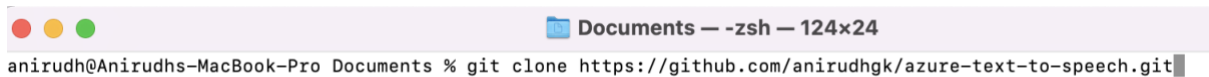 Tadaaaa! Your text is converted to speech and being played.

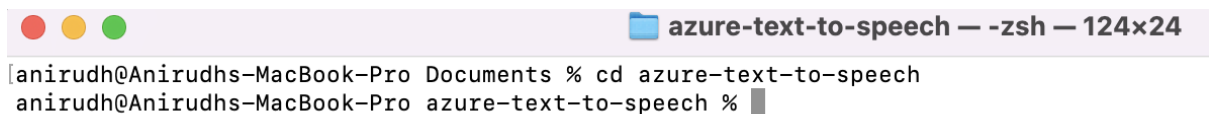## Cloning and Running the Application locally on your machine:
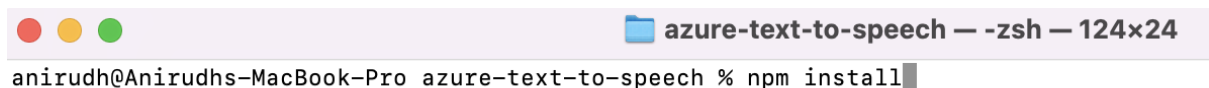
- Open Terminal (Mac users)/ git-bash (windows)

- Using git, clone the project repo to your local computer.

```
● ● ●                     📁 Documents — -zsh — 124×24
anirudh@Anirudhs-MacBook-Pro Documents % git clone https://github.com/anirudhgk/azure-text-to-speech.git▉
```

- Get inside the cloned directory from the terminal/ gitbash

```
● ● ●                     📁 azure-text-to-speech — -zsh — 124×24
[anirudh@Anirudhs-MacBook-Pro Documents % cd azure-text-to-speech
anirudh@Anirudhs-MacBook-Pro azure-text-to-speech % ▉
```

- Install the project dependencies.

```
● ● ●                     📁 azure-text-to-speech — -zsh — 124×24
anirudh@Anirudhs-MacBook-Pro azure-text-to-speech % npm install▉
```

- Create a DEV.env file and add the KEY and REGION ([Creating speech resource](#))
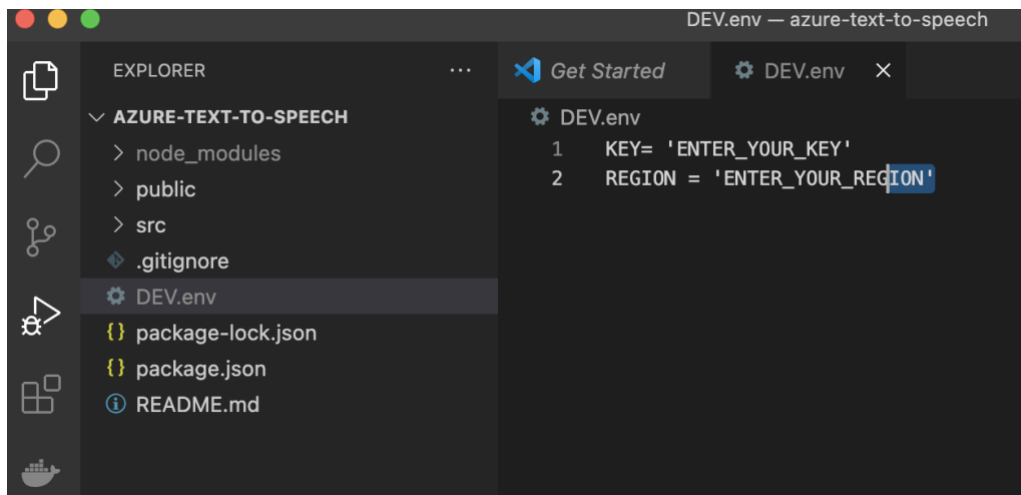
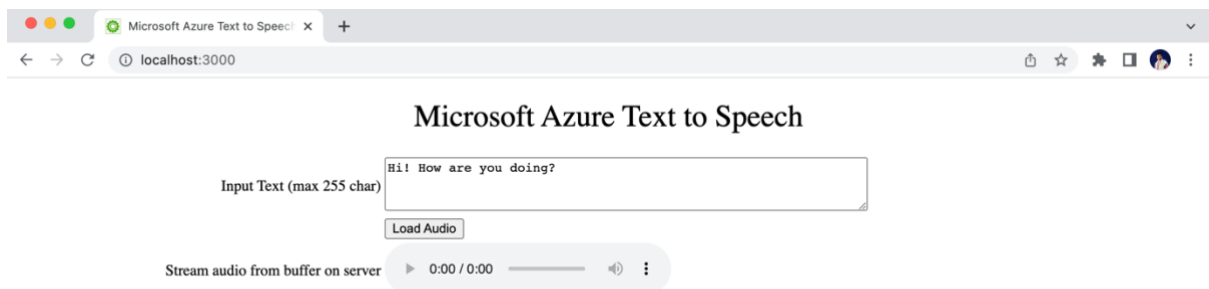- Run the application using the following command:
 **node index.js (after getting inside the src folder: cd src) or npm start**


```
anirudh@Anirudhs-MacBook-Pro azure-text-to-speech % cd src
anirudh@Anirudhs-MacBook-Pro src % node index.js
Azure text to speech, server running on port 3000!
```

- Open the application in the web browser at: *http://localhost:3000*

Or
- Use postman and follow the same steps shown in the server deployed application using the get URL as: *http://localhost:3000/ text-to-speech*
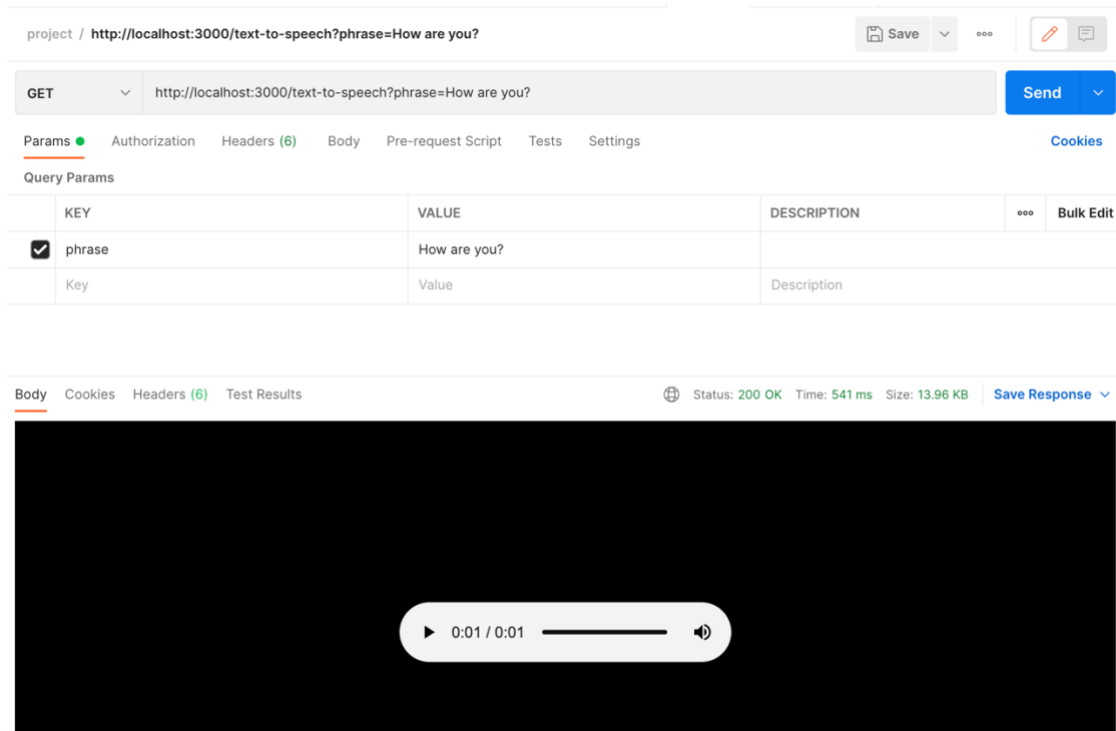
Steps to create Speech resource:

- Log in to the [Azure Cloud Shell](). This requires you to authenticate in a browser with your account, which has permission on a valid Azure Subscription.
- Create a resource group for your Speech resource.

```
az group create \
    --location eastus \
    --name tutorial-resource-group-eastus
```

- Create a Speech resource in the resource group.

```
az cognitiveservices account create \
    --kind SpeechServices \
    --location eastus \
    --name tutorial-speech \
    --resource-group tutorial-resource-group-eastus \
    --sku F0
```

This command will fail if your only free Speech resource has already been created.

- Use the command to get the key values for the new Speech resource.

Azure CLICopy

```
az cognitiveservices account keys list \
    --name tutorial-speech \
    --resource-group tutorial-resource-group-eastus \
    --output table
```

- Copy one of the keys and paste it in the DEV.env file you created. And the REGION as 'eastus'.

Error Codes:

404: Route not found

500: Unknown errors