

## Text to Speech

A speech service feature that converts text to life like speech. In this Project for a given input text the API converts it into audio Speech format. The Host address and Port are listed below

**Host Address:** 147.182.137.87

**Port:** 3000

## Technologies

This project works on various node modules which are listed as follows

- **Express.js** for API framework using JavaScript
- **Node.js** for JavaScript run engine
- **Cookies** for saving session information of logged users
- **Microsoft Azure** for converting users' text to speech
- **Jwt** is used for creating custom token for security purposes
- **npm** for package manager

## Subscription to Microsoft Azure portal

1. Firstly, take a Microsoft azure subscription for using the services.
2. Once subscription part is done, click on '+' which creates a resource group and specify appropriate region accordingly.
3. As a part of this project selecting "Speech Services" resource.
4. Connect file path in between Azure text and speech service. Finally, key and endpoint will be generated to be used.

## Installation

This project works on Node.js.

From package.json, install all the node modules using the following commands.

- cd project
- npm i
- node index.js

## API Usage

The API is designed to be used with web-service testing software such as Postman or SOAPUI

## Routes

There are 3 routes available for my project that user can use

### 1. http POST -/Signup

This route assists the user in registering for the application and logging in with their credentials. The following is the request's description.

Parameter	Input Type	Description
USERNAME	String	email is Required
PASSWORD	String	Password is Required

#### Request

```
{  
  "username" : String,  
  "password" : String  
}
```

#### Response

```
{  
  "message": String  
}
```

## 2. http POST -/Login

This route assists the user in logging in and storing information as a cookie in the browser after successful registration. Following successful login, this information is used in all API calls. The following are the details of the request.

Parameter	Input Type	Description
USERNAME	String	email is Required
PASSWORD	String	Password is Required

### Request

```
{
  "username" : String,
  "password" : String
}
```

### Response

```
{
  "message": String
}
```

## 3. http GET -/text2Speech

This route is used after successful registration and login and help in converting text to speech

Parameter	Input Type	Description
TEXT	String	Text input is Required

### Request

```
{
  "text" : String
}
```

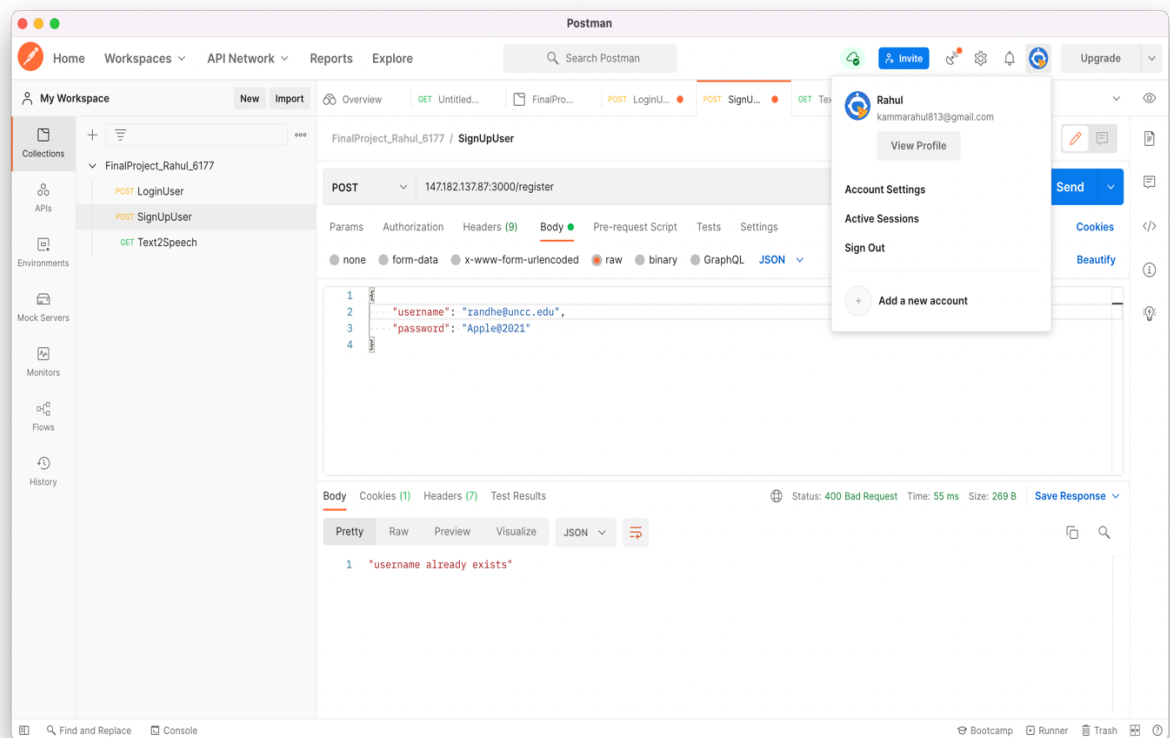
## Response

## Audio

### Features:

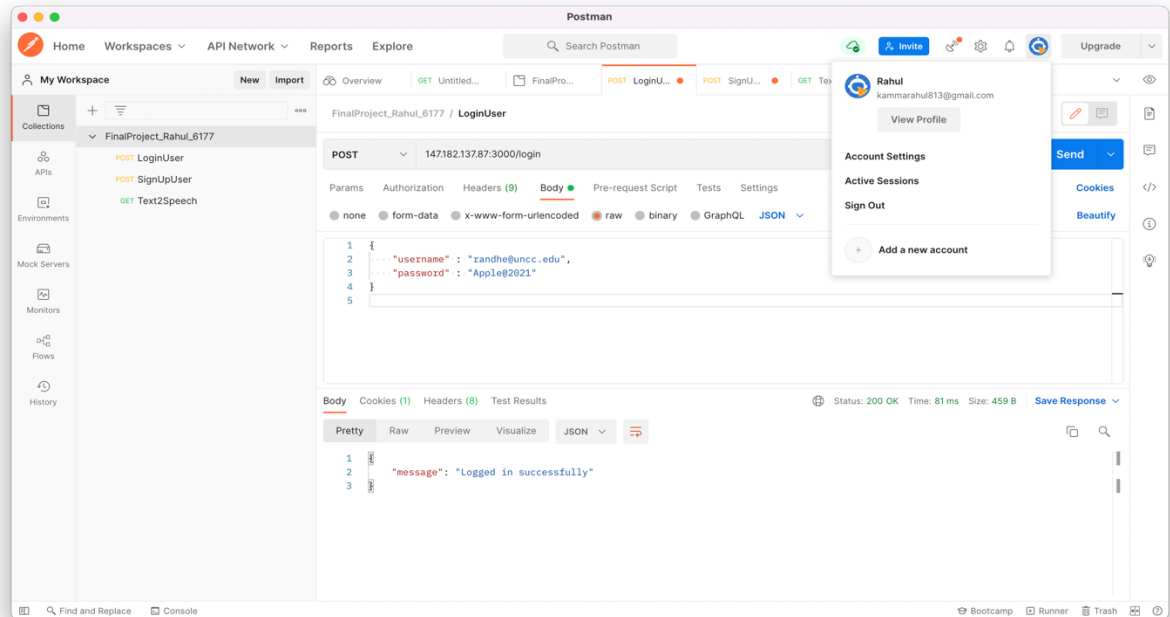
- **Signup**

Firstly, the user needs to create an account by signing up. The input parameters are username and password which are in JSON format. Then the username and password are stored in the database.



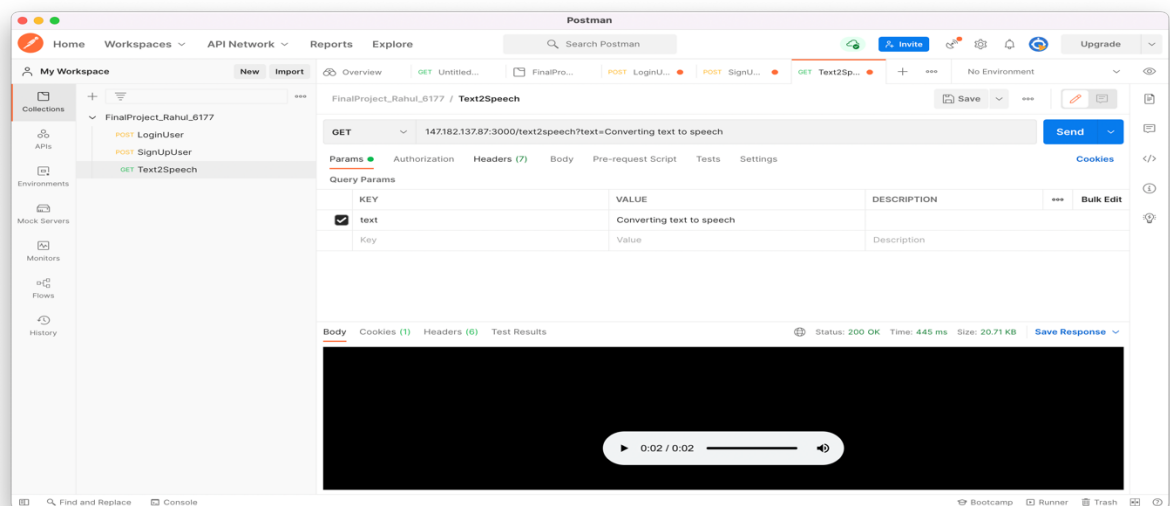
- **Login**

Once the user is successfully signed up, the next step is to login using username and password.



- **Text2Speech API**

Finally, the user successful logged in and gives text as input parameter which is sent through raw JSON format to get the output as speech type in audio format.



## Status Codes

In the API the status code returns the following responses.

Status Code	Description
200	OK
201	CREATED
400	BAD REQUEST
404	NOT FOUND
500	FORBIDDEN