

Name : Kavya Para

Student ID : 16326415

Mail : [kpkc8@umkc.edu](mailto:kpkc8@umkc.edu)

GitHub Link :

[https://github.com/KavyaPara/Web\\_Development\\_Course/tree/main/Mobile-Development/ICP11](https://github.com/KavyaPara/Web_Development_Course/tree/main/Mobile-Development/ICP11)

Name : Manikanta Kavitaapu

Student ID : 16322502

Mail : [mkmdy@umkc.edu](mailto:mkmdy@umkc.edu)

Github Link : <https://github.com/Manikantakavitaapu/Web-Development-Course/tree/main/Mobile-Development/ICP11>

## Text to Speech

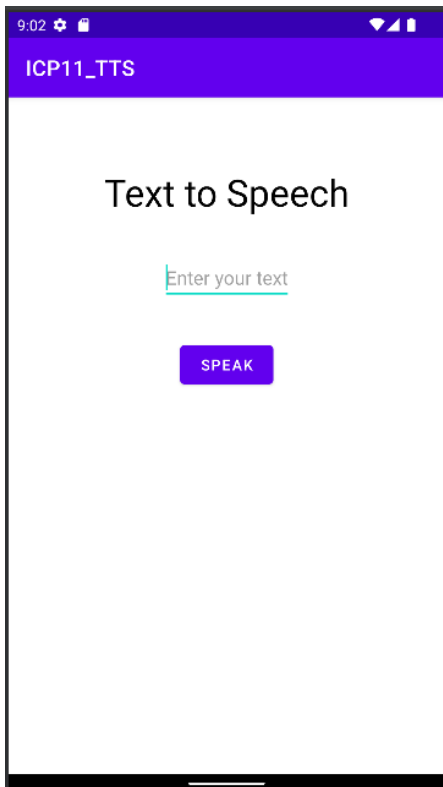
### Introduction:

TTS (text-to-speech) is a technology that reads digital text or any input text from the user out loud. It is also known as "read aloud" technology. TTS may translate words on a computer or other digital device into audio with the click of a button or the touch of a finger. The reading speed can also be controlled here. TTS may be helpful for the people who may have struggle to read. There are different types of text to speech tools like built in text-to-speech, web based text to speech, text to speech apps, software programs, chrome tools, etc.

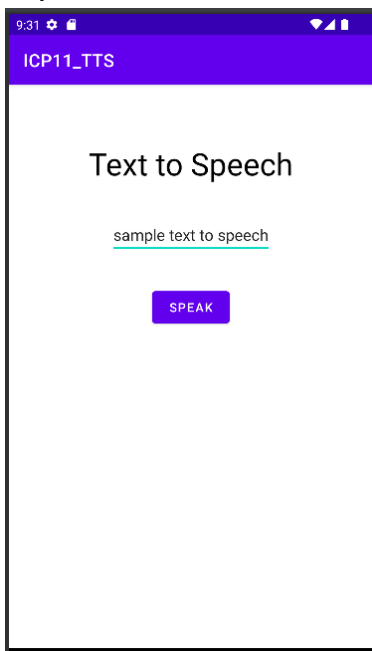
### Tasks:

- We have to build a mobile application where the user can give an input and can convert the input into a speech.

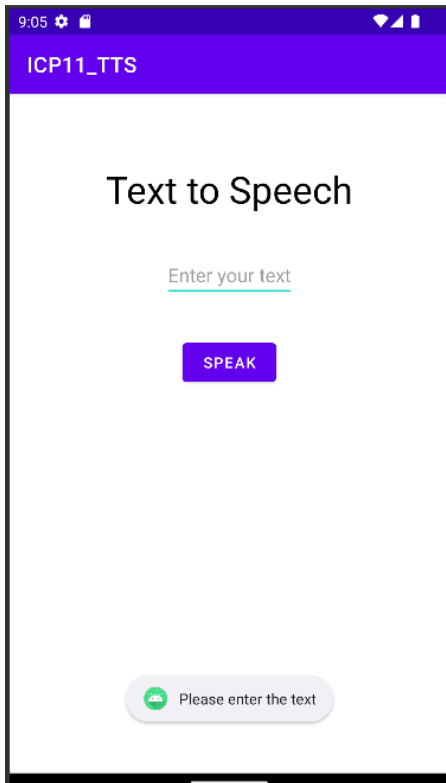
- Firstly, in the main screen we have created an editText field using which the user can provide an input text that he wants to convert into speech.



- We have created a button called “Speak”. After entering the input, the user has to click this button.



- By clicking the button, the user can hear the text in speech format.
- If the input field is empty and the user presses the speak button, we have provided an alert message using Toast saying to enter the text.



- For the text to be converted to speech we have imported the android tts.
- We have created a function called speak(). As we have said earlier we can set the speech rate also by using the setSpeechRate(). Here QUEUE\_ADD is where the new entry of the text is added to the end of the playback queue in queue mode.

```
void speak(){
    String text = editText.getText().toString();
    tts.setSpeechRate(0.5f);
    tts.speak(text, TextToSpeech.QUEUE_ADD, params: null);
}
```

- We can also use `QUEUE_FLUSH` if we want to drop all the entries in the playback queue and replace them with new entries.
- We have also used `stop()` and `shutdown()` functions.

```
@Override
protected void onPause(){
    super.onPause();
    tts.stop();
}

@Override
protected void onDestroy(){
    super.onDestroy();
    tts.shutdown();
}
```

- The `stop()` will interrupt the current speech and discards all the remaining text too.
- The `shutdown()` will release all the resources.

### **Contributions:**

We both have contributed equally.