Date:

Lab Session No.: 08

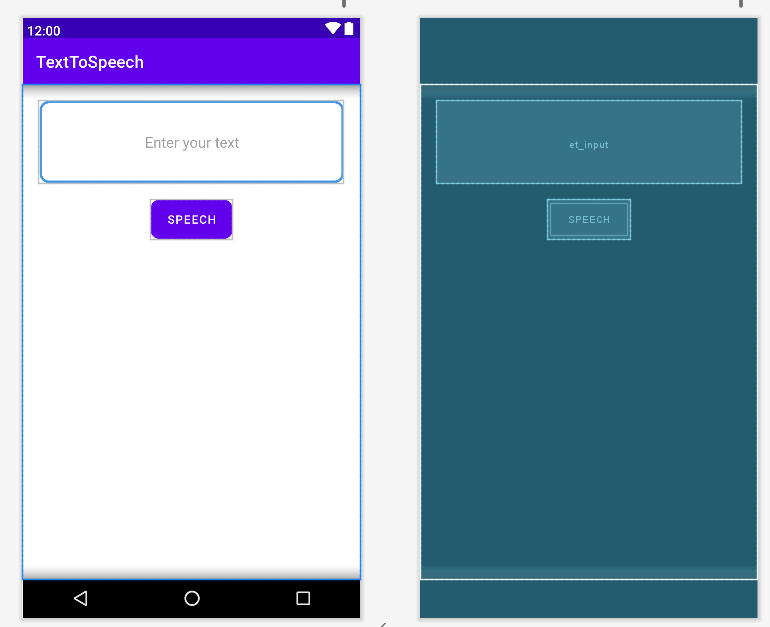
**Aim:**

Develop an android application that converts text to speech.

**Software’s /IDE Tools:**

Android Development Kit / Android Studio

**Application User interface design:**



**Application Programming Interface:**

|  |  |  |  |
| --- | --- | --- | --- |
| **API / PACKAGES** | **CLASSES / INTERFACES** | **METHODS** | **DESCRIPTION** |
| import androidx.appcompat.app.AppCompatActivity; | AppCompatActivity | protected void onCreate(Bundle savedInstanceState) | onCreate(Bundle) is where you initialize your activity. When Activity is started and application is not loaded, then both onCreate() methods will be called. |
|  |  |
| import android.widget.EditText; | EditText | getText() | Determines the minimum type that getText() will return. If set, specifies that this TextView has a textual input method and should automatically capitalize what the user types. |

**Code/Implementation:**

// Develop an android application that converts text to speech.

// Project Name : ShareMyApp

/\*

Lab Session No. : 08

Author : T.Avinash

Date :

Roll Number : 198W1A05C0

Description : Text to Speech

Softwares required : Android Studio

Topics Covered : TextToSpeech method

\*/

***MainActivity.java***

package com.avinash.texttospeech;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.speech.tts.TextToSpeech;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import java.util.Locale;

public class MainActivity extends AppCompatActivity {

EditText etinput;

Button btconvert;

TextToSpeech tts;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

etinput=findViewById(R.id.et\_input);

btconvert=findViewById(R.id.bt\_convert);

tts=new TextToSpeech(getApplicationContext(), new TextToSpeech.OnInitListener() {

@Override

public void onInit(int status) {

if(status==TextToSpeech.SUCCESS){

int lang=tts.setLanguage(Locale.ENGLISH);

}

}

});

btconvert.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

String message=etinput.getText().toString();

int speech=tts.speak(message,TextToSpeech.QUEUE\_FLUSH,null);

}

});

}

}

***Activity\_main.xml:***

<?xml version="1.0" encoding="utf-8"?>

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

xmlns:app="http://schemas.android.com/apk/res-auto"

xmlns:tools="http://schemas.android.com/tools"

android:orientation="vertical"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

tools:context=".MainActivity">

<EditText

android:layout\_width="match\_parent"

android:layout\_height="100dp"

android:gravity="center"

android:id="@+id/et\_input"

android:hint="Enter your text"

android:textColor="@color/black"

android:background="@drawable/edit\_text\_background1"

android:layout\_margin="20dp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintLeft\_toLeftOf="parent"

app:layout\_constraintRight\_toRightOf="parent"

app:layout\_constraintTop\_toTopOf="parent" />

<Button

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_gravity="center"

android:id="@+id/bt\_convert"

android:background="@drawable/edit\_text\_background1"

android:minWidth="100dp"

android:text="Speech"

/>

</LinearLayout>

***Edit\_text\_background1.xml:***

<?xml version="1.0" encoding="utf-8"?>

<shape xmlns:android="http://schemas.android.com/apk/res/android"

android:shape="rectangle">

<stroke android:width="3dp"

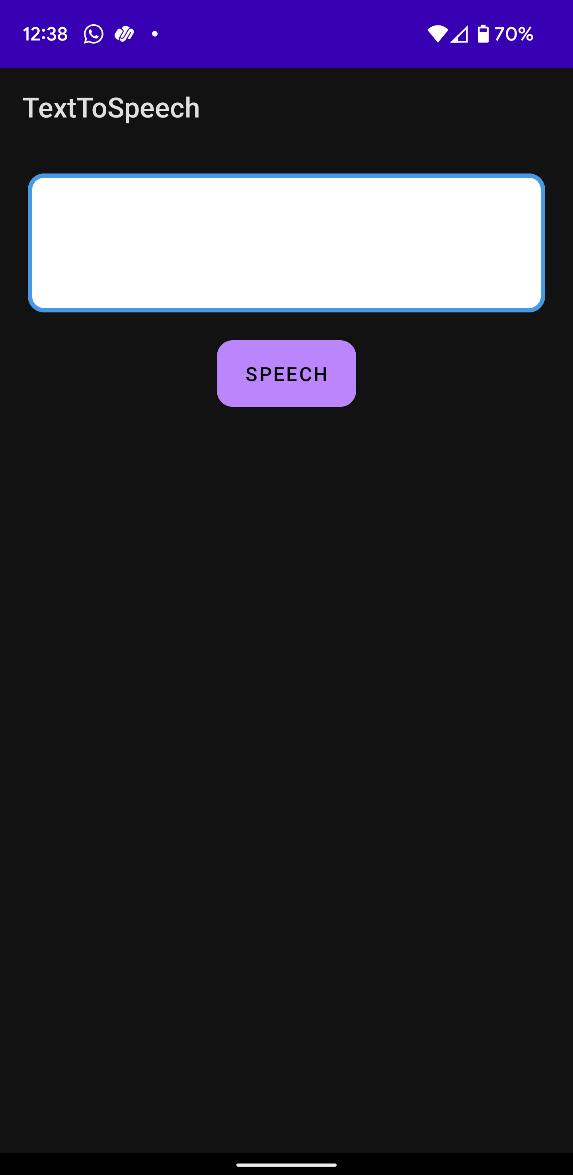
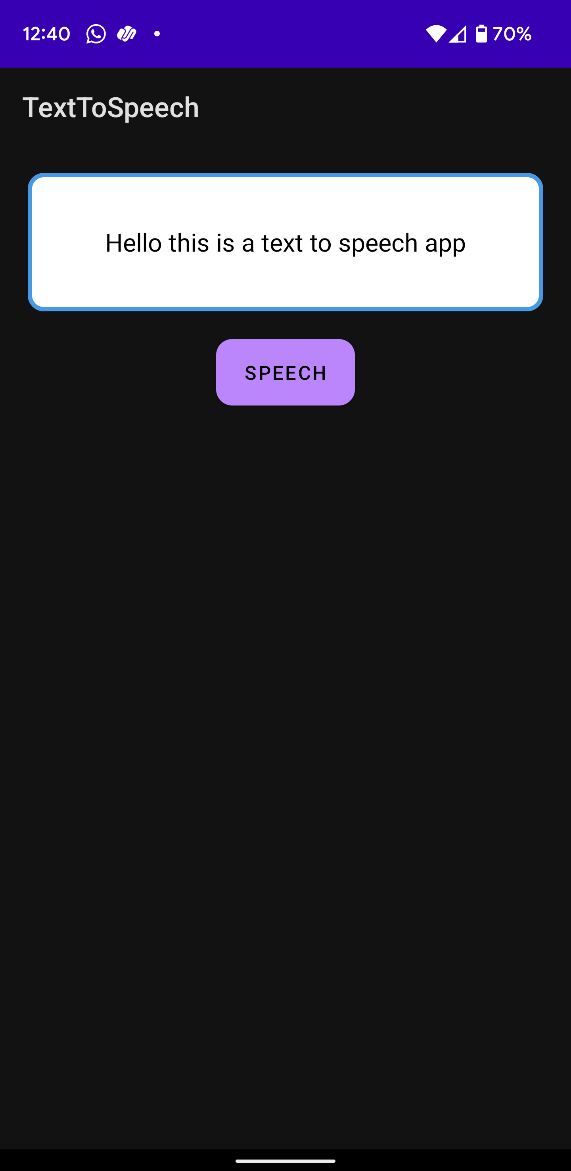
android:color="#4799E4"/>

<corners android:radius="10dp"/>

<solid android:color="@color/white"/>

</shape>

**Output:**

**Result:**

Demonstration of the Text to Speech app is done successfully.