

7 Develop a simple application with one Edit Text so that the user can write some text in it. Create a button called “Convert Text to Speech” that converts the user input text into voice.

XML Part– 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:layout_width="match_parent"
android:layout_height="match_parent"
android:orientation="vertical"
tools:context=".MainActivity">
<TextView
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:text="TEXT TO SPEECH APP"

android:textColor="@color/design_default_color_primary_dark"
android:textAlignment="center"
android:textSize="30sp"
/>
<EditText
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:id="@+id/pitch"
android:hint="Enter Pitch (1.0 is normal)"
android:textSize="20sp"
/>
<EditText
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:id="@+id/speechrate"
android:hint="Enter Speech Rate (1.0 is normal)"
android:textSize="20sp"
/>
<EditText
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:id="@+id/texttospeak"
android:hint="Enter Text to Speak"
android:inputType="textMultiLine"
/>
<Button
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:id="@+id/btnspeak"
android:text="SPEAK"
android:onClick="speak"
```

```
android:textSize="30sp"
/>
</LinearLayout>
```

Java Code – MainActivity.java

```
package com.example.textspeech;
import androidx.appcompat.app.AppCompatActivity;
import android.app.UiAutomation;
import android.os.Bundle;
import android.speech.tts.TextToSpeech;
import android.view.View;
import android.widget.EditText;
import android.widget.Toast;
import java.util.Locale;
import static android.speech.tts.TextToSpeech.*;
public class MainActivity extends AppCompatActivity {
    EditText pitchrate,setspeechrate,text;
    TextToSpeech t;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        pitchrate=findViewById(R.id.pitch);
        setspeechrate=findViewById(R.id.speechrate);
        text=findViewById(R.id.texttospeak);
        t=new TextToSpeech(this, new OnInitListener() {
            @Override
            public void onInit(int status) {
                if(status==SUCCESS)
                {
                    t.setLanguage(Locale.ENGLISH);
                }
                else
                {
                    Toast.makeText(MainActivity.this, "TextToSpeech
                    Initialization Failed",
                    Toast.LENGTH_LONG).show();
                }
            }
        });
    }
    public void speak(View v)
    {
        float pr,sr;
        String txt;
        if(pitchrate.getText().toString().equals(""))
        {
            pr=1.0f;
        }
        else
        {
            pr=Float.parseFloat(pitchrate.getText().toString());
        }
        if(setspeechrate.getText().toString().equals(""))
```

```
{  
  sr=1.0f;  
}  
else  
{  
  sr=Float.parseFloat(setspeechrate.getText().toString());  
}  
t.setPitch(pr);  
t.setSpeechRate(sr);  
t.speak(text.getText().toString(),QUEUE_FLUSH,null);  
}  
}
```