PRACTICAL – 10

Create an application of Text to Speech where user can type something which is spoken by clicking on Speak button. Also, add functionality to adjust the voice tone/speed.

Activity\_main.xml

*<?***xml version="1.0" encoding="utf-8"***?>*<**RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:tools="http://schemas.android.com/tools" android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent" android:paddingLeft="@dimen/activity\_horizontal\_margin"  
 android:paddingRight="@dimen/activity\_horizontal\_margin"  
 android:paddingTop="@dimen/activity\_vertical\_margin"  
 android:paddingBottom="@dimen/activity\_vertical\_margin"  
 tools:context=".MainActivity"  
 android:background="@drawable/ic\_launcher\_foreground"  
 android:transitionGroup="true"**>  
  
 <**TextView android:text="Text to Speech" android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:id="@+id/textview"  
 android:textSize="35dp"  
 android:layout\_alignParentTop="true"  
 android:layout\_centerHorizontal="true"** />  
  
 <**TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text=" "  
 android:id="@+id/textView"  
 android:layout\_below="@+id/textview"  
 android:layout\_centerHorizontal="true"  
 android:textColor="#000000"  
 android:textSize="35dp"** />  
  
 <**ImageView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:id="@+id/imageView"  
 android:layout\_below="@+id/textView"  
 android:layout\_centerHorizontal="true"  
 android:theme="@style/Base.TextAppearance.AppCompat"** />  
  
 <**EditText  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:id="@+id/editText"  
 android:layout\_below="@+id/imageView"  
 android:layout\_marginTop="46dp"  
 android:hint="Enter Text"  
 android:layout\_alignParentRight="true"  
 android:layout\_alignParentEnd="true"  
 android:layout\_alignParentLeft="true"  
 android:layout\_alignParentStart="true"** />  
  
 <**Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Text to Speech"  
 android:id="@+id/button"  
 android:layout\_below="@+id/editText"  
 android:layout\_centerHorizontal="true"  
 android:layout\_marginTop="46dp"** />  
  
</**RelativeLayout**>

MainActivity.java

**package** com.example.prac10;  
  
**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** android.widget.Toast;  
  
**import** java.util.Locale;  
  
**public class** MainActivity **extends** AppCompatActivity {  
 TextToSpeech **t1**;  
 EditText **ed1**;  
 Button **b1**;  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate( savedInstanceState );  
 setContentView( R.layout.***activity\_main*** );  
 **ed1**=(EditText)findViewById(R.id.***editText***);  
 **b1**=(Button)findViewById(R.id.***button***);  
  
 **t1**=**new** TextToSpeech(getApplicationContext(), **new** TextToSpeech.OnInitListener() {  
 @Override  
 **public void** onInit(**int** status) {  
 **if**(status != TextToSpeech.***ERROR***) {  
 **t1**.setLanguage( Locale.***UK***);  
 }  
 }  
 });  
  
 **b1**.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 String toSpeak = **ed1**.getText().toString();  
 Toast.*makeText*(getApplicationContext(), toSpeak, Toast.***LENGTH\_SHORT***).show();  
 **t1**.speak(toSpeak, TextToSpeech.***QUEUE\_FLUSH***, **null**);  
 }  
 });  
 }  
  
 **public void** onPause(){  
 **if**(**t1** !=**null**){  
 **t1**.stop();  
 **t1**.shutdown();  
 }  
 **super**.onPause();  
 }  
}

Output

 