**PART – A**

**Experiment-No: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.

**Components Used:**

* Edit Text: To get User input.
* Buttons: To interact with User for Speech.
* Linear Layout: To hold Edit Text and Button in correct orientation.

**Special classes and Functions:**

* TextToSpeech:To output user text to speech

**XML Code:**

<?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"  
 android:layout\_margin="30dp"  
 tools:context=".MainActivity">  
  
<EditText  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:id="@+id/Text"  
 android:layout\_marginBottom="20dp"  
 android:hint="Enter Any Sentence"  
 android:gravity="center"  
 android:textSize="16dp"/>  
  
<Button  
 android:id="@+id/btnText"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_gravity="center"  
 android:text="Speech" />  
  
<TextView  
 android:id="@+id/textView"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="70dp"  
 android:gravity="center\_horizontal"  
 android:text="TEXT TO SPEECH"  
 android:textAlignment="center"  
 android:textColor="@android:color/holo\_green\_dark"  
 android:textSize="36sp" />  
  
</LinearLayout>

**Java Code:**

*package* com.vinayak.text\_to\_speech;  
  
*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 Text;  
 Button btnText;  
 TextToSpeech textToSpeech;  
 *@Override  
 protected void* onCreate(Bundle savedInstanceState) {  
 *super*.onCreate(savedInstanceState);  
 setContentView(R.layout.activity\_main);  
  
 Text = findViewById(R.id.Text);  
 btnText = findViewById(R.id.btnText);  
  
  
 textToSpeech = *new* TextToSpeech(getApplicationContext(), *new* TextToSpeech.OnInitListener() {  
 *@Override  
 public void* onInit(*int* i) {  
  
  
 *if*(i!=TextToSpeech.ERROR){  
 textToSpeech.setLanguage(Locale.UK);  
 }  
 }  
 });  
  
  
 btnText.setOnClickListener(*new* View.OnClickListener() {  
 *@Override  
 public void* onClick(View view) {  
 textToSpeech.speak(Text.getText().toString(),TextToSpeech.QUEUE\_FLUSH,*null*);  
 }  
 });  
  
 }  
}

**Sample Output:**

