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
<?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"
```

```xml
                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:

```java
package com.keshavrkaranth.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
```

```java
    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: