PART - A

LAB - 07 TEXT TO SPEECH APP

activity_main.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
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"
  tools:context=".MainActivity">

  <TextView
      android:id="@+id/txtView"
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      android:text="Text to Speech Application"
      android:textAllCaps="true"
      android:textColor="@color/black"
      android:textSize="25sp"
      android:textStyle="bold"
      app:layout_constraintBottom_toBottomOf="parent"
      app:layout_constraintEnd_toEndOf="parent"
      app:layout_constraintHorizontal_bias="0.5"
      app:layout_constraintStart_toStartOf="parent"
      app:layout_constraintTop_toTopOf="parent"
      app:layout_constraintVertical_bias="0.105" />

  <EditText
      android:id="@+id/edtTxt"
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      android:layout_marginTop="140dp"
      android:textAlignment="center"
      android:ems="10"
      android:inputType="textPersonName"
      android:hint="@string/enter_the_text"
      app:layout_constraintEnd_toEndOf="parent"
      app:layout_constraintHorizontal_bias="0.497"
      app:layout_constraintStart_toStartOf="parent"
      app:layout_constraintTop_toBottomOf="@+id/txtView" />

  <Button
      android:id="@+id/button"
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      android:layout_marginTop="140dp"
      android:textSize="20sp"
```

```xml
        android:lineHeight="28sp"
        android:textStyle="bold"
        android:text="Convert text to speech"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.498"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/edtTxt" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

MainActivity.java

```java
package com.example.texttospeechapp;

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 implements View.OnClickListener {
    EditText edt;
    Button btn;
    TextToSpeech textToSpeech;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        btn = (Button) findViewById(R.id.button);
        btn.setOnClickListener(this);
        edt = (EditText) findViewById(R.id.edtTxt);

        textToSpeech = new TextToSpeech(getApplicationContext(), new TextToSpeech.OnInitListener() {
            @Override
            public void onInit(int i) {
                if(i!=textToSpeech.ERROR) {
                    textToSpeech.setLanguage(Locale.ENGLISH);
                }
            }
        });
    }

    @Override
    public void onClick(View view) {
```

```java
        textToSpeech.speak(edt.getText().toString(), textToSpeech.QUEUE_FLUSH, null);
    }
}
```