13.MINI-PROJECT

Text -to- Speech

Aim:

To Build the application that has to change the text into speech.

What is this app:

Text to Speech App converts the text written on the screen to speech like you have written “Hello World” on the screen and when you press the button it will speak “Hello World”. Text-to-speech is commonly used as an accessibility feature to help people who have trouble reading on-screen text, but it’s also convenient for those who want to be read too. This feature has come out to be a very common and useful feature for the users.

Procedure:

Step 1: Create a New Project Note that select Java as the programming language.

Step 2: Working with activity_main.xml file

Go to the **app -> res -> layout -> activity_main.xml** section and set the layout for the app. In this file add an EditText to input the text from the user, a Button, so whenever the user clicks on the Button is the complete code for the **activity_main.xml** file.

Step 3: Working with MainActivity.java file

Go to the app -> java -> com.example.GFG(Package Name) -> MainActivity.java section. Now join the Button and Edittext to Java

code and comments are added inside code to understand the code easily. Below is the complete code for the **MainActivity.java** file.

Program:

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"
  android:layout_margin="30dp"
  tools:context=".MainActivity">

  <!--when you press this button it will
      convert text into speech-->
  <EditText
      android:id="@+id/Text"
      android:layout_width="match_parent"
      android:layout_height="wrap_content"
      android:layout_marginBottom="20dp"
      android:gravity="center"
      android:hint="Enter Any Sentence"
      android:textSize="16dp" />

  <Button
      android:id="@+id/btnText"
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      android:layout_gravity="center"
      android:text="Click Here" />
</LinearLayout>
```

MainActivity.java:

```
package com.example.textspeech;

import android.os.Bundle;
import android.speech.tts.TextToSpeech;
import android.support.v7.app.AppCompatActivity;
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);

     // create an object textToSpeech and adding features into it
     textToSpeech = new TextToSpeech(getApplicationContext(), new
TextToSpeech.OnInitListener() {
         @Override
         public void onInit(int i) {

             // if No error is found then only it will run
             if(i!=TextToSpeech.ERROR){
                 // To Choose language of speech
                 textToSpeech.setLanguage(Locale.UK);
             }
         }
     });

     // Adding OnClickListener
     btnText.setOnClickListener(new View.OnClickListener() {
         @Override
         public void onClick(View view) {
```

```
textToSpeech.speak(Text.getText().toString(),TextToSpeech.QUEUE_FLUSH,null)
;
            }
        });

    }
}
```

OUTPUT:

RESULT:

So,the min project of text to speech converter is successfully implemented.