EX NO:13 **REGISTER NO:210701509**

DATE:

TEXT TO SPEECH

AIM:

Develop an android application to perform Text to Speech.

PROCEDURE:

- Open Android Studio and import the package
- In activity_main.xml drag and drop the buttons
- The button needs to perform actions to change the colour, font size and background colour
- Click android virtual device that should control the toolbar
- Design the graphical layout with the textview and buttons
- Run the application
- The version of android and name is displayed
- The theme of the file is also mentioned in a file
- Run the file using the version which is displayed to the users.

PROGRAM CODE:

AndroidManifest.xml:

```
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
package="com.example.texttospeech">
<uses-permission android:name="android.permission.INTERNET" />
<uses-permission android:name="android.permission.RECORD_AUDIO" />
<application
android:allowBackup="true"
android:icon="@mipmap/ic_launcher"
android:label="@string/app_name"
android:roundIcon="@mipmap/ic_launcher_round"
android:supportsRtl="true"
android:theme="@style/AppTheme">
<activity android:name=".MainActivity">
<intent-filter>
<action android:name="android.intent.action.MAIN" />
<category android:name="android.intent.category.LAUNCHER" />
</intent-filter>
</activity>
</application>
</manifest>
```

activity_main.xml:

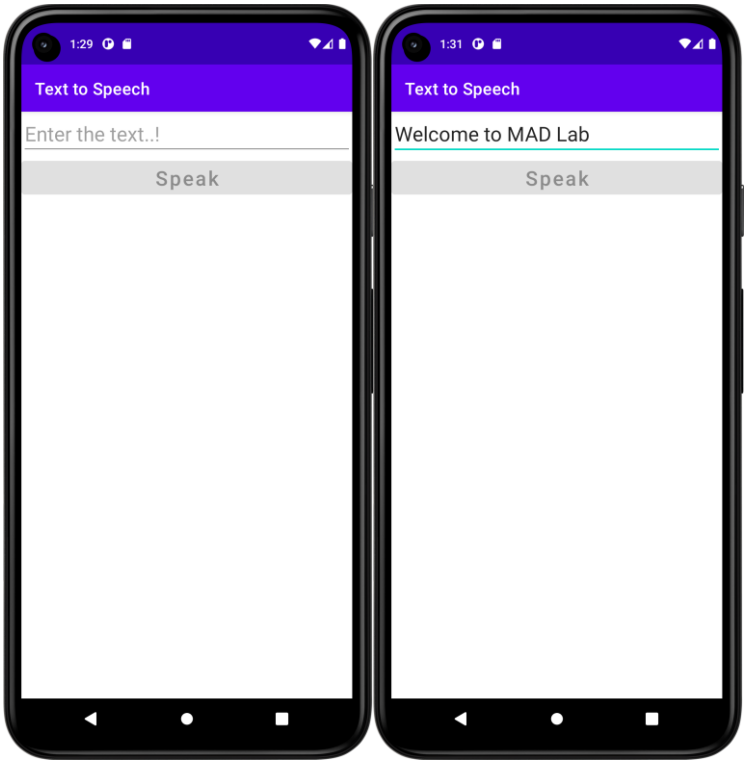
```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:tools="http://schemas.android.com/tools"
android:layout_width="match_parent"
android:layout_height="match_parent"
tools:context=".MainActivity">
<EditText
android:id="@+id/editText"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:hint="Enter text to speak"
android:layout_margin="16dp" />
<Button
android:id="@+id/buttonSpeak"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="Speak"
android:layout_below="@id/editText"
android:layout_centerHorizontal="true"
android:layout_marginTop="16dp" />
</RelativeLayout>
```

MainActivity.kt:

```
package com.example.texttospeech
import android.os.Bundle
import android.speech.tts.TextToSpeech
import android.widget.Button
import android.widget.EditText
import android.widget.Toast
import androidx.appcompat.app.AppCompatActivity
import java.util.*
class MainActivity : AppCompatActivity(), TextToSpeech.OnInitListener {
private lateinit var textToSpeech: TextToSpeech
private lateinit var editText: EditText
private lateinit var buttonSpeak: Button
override fun onCreate(savedInstanceState: Bundle?) {
super.onCreate(savedInstanceState)
setContentView(R.layout.activity_main)
editText = findViewById(R.id.editText)
buttonSpeak = findViewById(R.id.buttonSpeak)
textToSpeech = TextToSpeech(this, this)
buttonSpeak.setOnClickListener {
val text = editText.text.toString()
if (text.isNotEmpty()) {
speak(text)
```

```
} else {
Toast.makeText(this, "Please enter some text", Toast.LENGTH_SHORT).show()
}
}
}
override fun onInit(status: Int) {
if (status == TextToSpeech.SUCCESS) {
val result = textToSpeech.setLanguage(Locale.US)
if (result == TextToSpeech.LANG_MISSING_DATA || result ==
TextToSpeech.LANG_NOT_SUPPORTED) {
Toast.makeText(this, "Language not supported", Toast.LENGTH_SHORT).show()
}
} else {
Toast.makeText(this, "Initialization failed", Toast.LENGTH_SHORT).show()
}
}
private fun speak(text: String) {
textToSpeech.speak(text, TextToSpeech.QUEUE_FLUSH, null, "")
}
override fun onDestroy() {
if (textToSpeech.isSpeaking) {
textToSpeech.stop()
}
textToSpeech.shutdown()
super.onDestroy()
}
}
```

OUTPUT:



RESULT: