**Program7**

**Activity\_main.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">

<EditText

android:id="@+id/editText"

android:layout\_width="312dp"

android:layout\_height="146dp"

android:ems="10"

android:inputType="textPersonName"

android:text=" text"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.646"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.305" />

<Button

android:id="@+id/textToSpeechButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text=" textToSpeechButton"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.498"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.576" />

</androidx.constraintlayout.widget.ConstraintLayout>

**MainActivity.kt**

import androidx.appcompat.app.AppCompatActivity

import android.os.Bundle

import android.speech.tts.TextToSpeech

import android.util.Log

import android.widget.EditText

import com.google.android.material.button.MaterialButton

import java.util.\*

class MainActivity : AppCompatActivity(), TextToSpeech.OnInitListener{

private var textToSpeech: TextToSpeech? = null

private lateinit var textToSpeechButton : MaterialButton

private lateinit var textInput : EditText

override fun onCreate(savedInstanceState: Bundle?) {

super.onCreate(savedInstanceState)

setContentView(R.layout.activity\_main)

textToSpeechButton = findViewById(R.id.textToSpeechButton)

textInput = findViewById(R.id.editText)

textToSpeechButton!!.isEnabled= false

textToSpeech = TextToSpeech(this,this)

textToSpeechButton!!.setOnClickListener{convertToSpeech()}

}

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){

Log.e("TTS","Language specified NOT SUPPORTED")

}

else{

textToSpeechButton!!.isEnabled = true

}

}

else{

Log.e("TTS","Initialization Failed")

}

}

private fun convertToSpeech(){

val text = textInput!!.text.toString()

textToSpeech!!.speak(text, TextToSpeech.QUEUE\_FLUSH, null, "")

}

public override fun onDestroy()

{

if (textToSpeech != null)

{

textToSpeech!!.stop()

textToSpeech!!.shutdown()

super.onDestroy()

}}}