Date:
Lab Session No.: 08
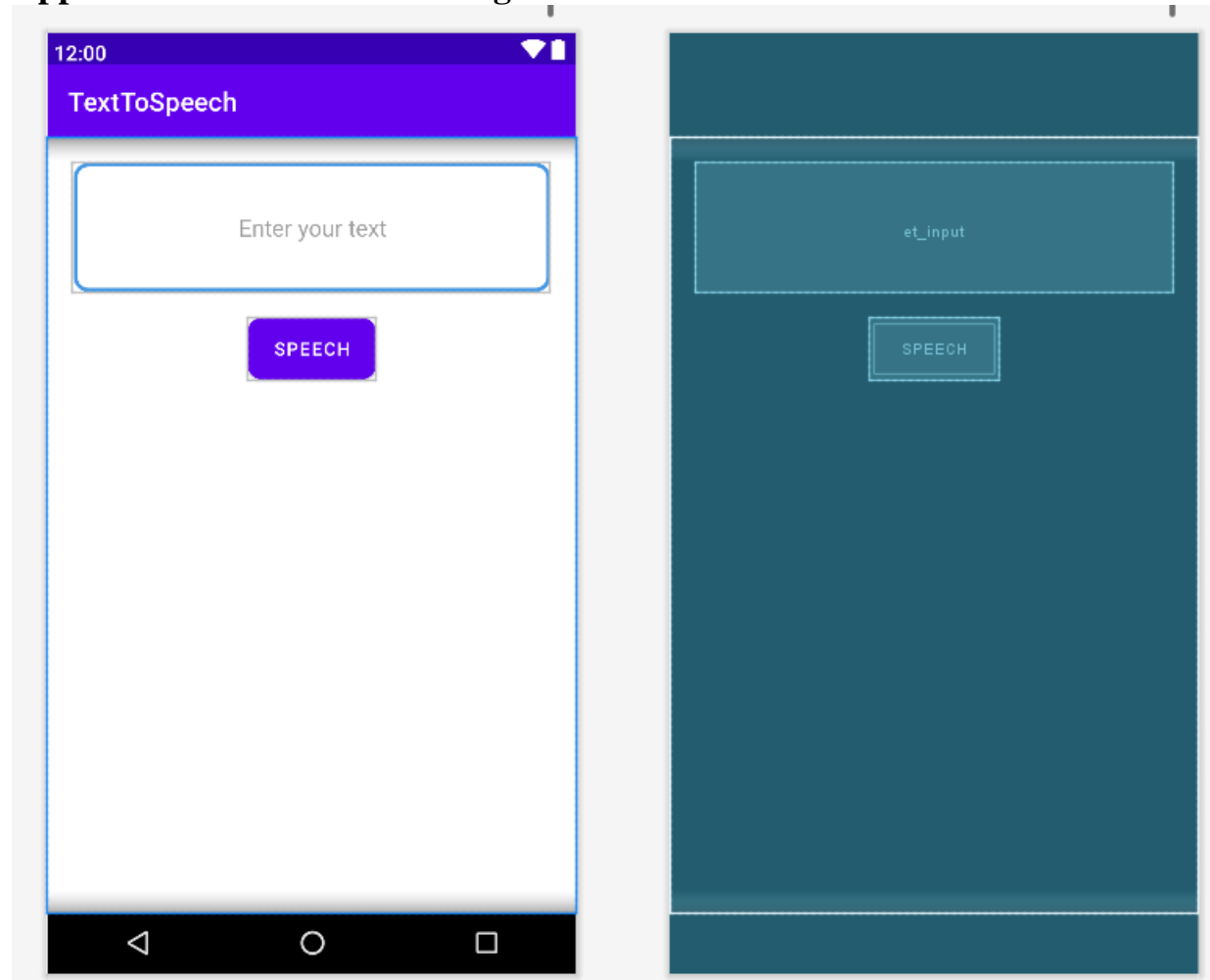
Aim:

Develop an android application that converts text to speech.

Software's /IDE Tools:

Android Development Kit / Android Studio

Application User interface design:

Application Programming Interface:

API / PACKAGES	CLASSES / INTERFACES	METHODS	DESCRIPTION
import androidx.appcompat.app.AppCompatActivity;	AppCompatActivity	protected void onCreate(Bundle savedInstanceState)	onCreate(Bundle) is where you initialize your activity. When Activity is started and application is not loaded, then both onCreate() methods will be called.
import android.widget.EditText;	EditText	getText()	Determines the minimum type that getText() will return. If set, specifies that this TextView has a textual input method and should automatically capitalize what the user types.

Code/Implementation:
// Develop an android application that converts text to speech.

// Project Name : ShareMyApp
```
/*
        Lab Session No.                   : 08
        Author                            : T.Avinash
        Date                              :
        Roll Number                       : 198W1A05C0
        Description                       : Text to Speech
        Softwares required                : Android Studio
        Topics Covered                    :  TextToSpeech method
*/
```
MainActivity.java

```
package com.avinash.texttospeech;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.speech.tts.TextToSpeech;

import android.view.View;

import android.widget.Button;
```

```java
import android.widget.EditText;

import java.util.Locale;


public class MainActivity extends AppCompatActivity {

    EditText etinput;

    Button btconvert;

    TextToSpeech tts;

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);


        etinput=findViewById(R.id.et_input);

        btconvert=findViewById(R.id.bt_convert);

        tts=new TextToSpeech(getApplicationContext(), new TextToSpeech.OnInitListener() {

            @Override

            public void onInit(int status) {

                if(status==TextToSpeech.SUCCESS){

                    int lang=tts.setLanguage(Locale.ENGLISH);

                }

            }

        });

        btconvert.setOnClickListener(new View.OnClickListener() {

            @Override

            public void onClick(View v) {

                String message=etinput.getText().toString();
```

```
            int speech=tts.speak(message,TextToSpeech.QUEUE_FLUSH,null);

        }

    });

  }

}
```

__Activity_main.xml:__

```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:orientation="vertical"

    android:layout_width="match_parent"

    android:layout_height="match_parent"


    tools:context=".MainActivity">


    <EditText

        android:layout_width="match_parent"

        android:layout_height="100dp"

        android:gravity="center"

        android:id="@+id/et_input"

        android:hint="Enter your text"

        android:textColor="@color/black"

        android:background="@drawable/edit_text_background1"

        android:layout_margin="20dp"

        app:layout_constraintBottom_toBottomOf="parent"
```

```
    app:layout_constraintLeft_toLeftOf="parent"

    app:layout_constraintRight_toRightOf="parent"

    app:layout_constraintTop_toTopOf="parent" />


  <Button

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:layout_gravity="center"

    android:id="@+id/bt_convert"

    android:background="@drawable/edit_text_background1"

    android:minWidth="100dp"

    android:text="Speich"


    />


</LinearLayout>
```

Edit_text_background1.xml:
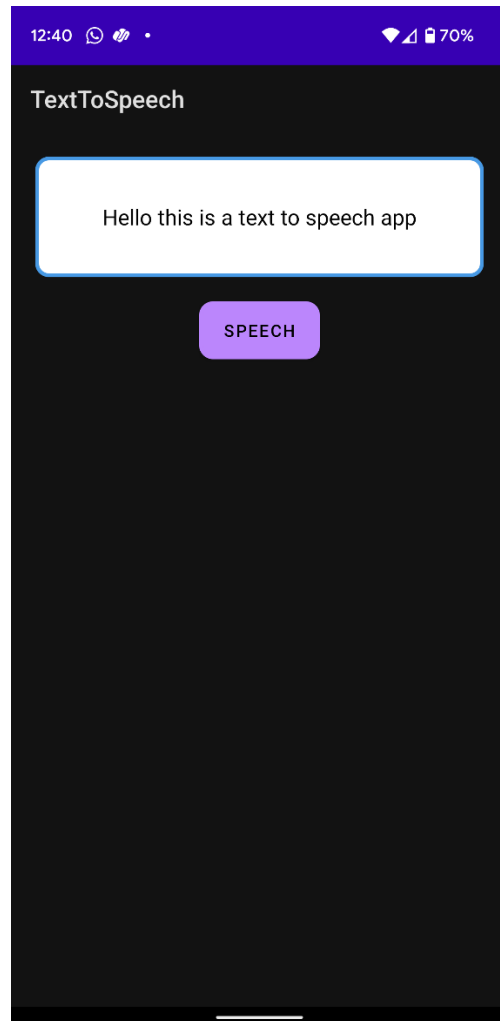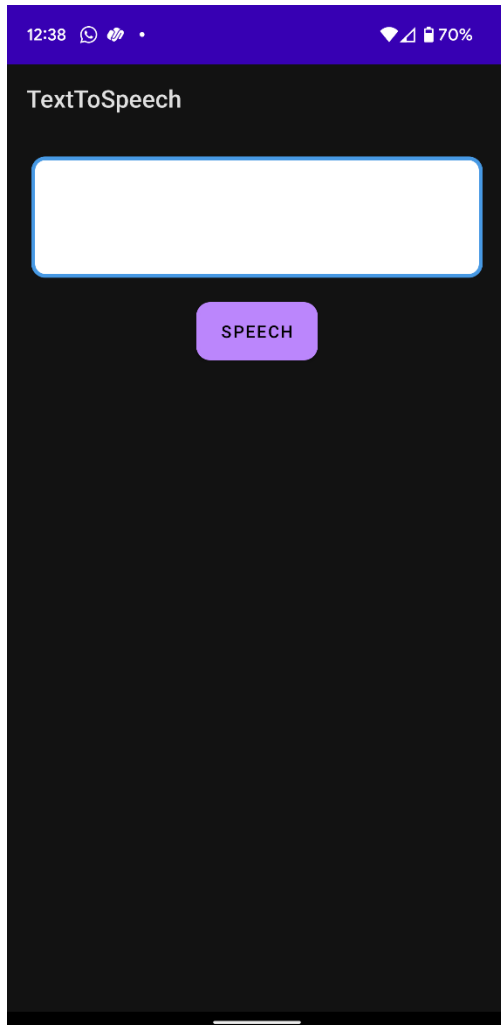
```
<?xml version="1.0" encoding="utf-8"?>

<shape xmlns:android="http://schemas.android.com/apk/res/android"

  android:shape="rectangle">

  <stroke android:width="3dp"

    android:color="#4799E4"/>

  <corners android:radius="10dp"/>

  <solid android:color="@color/white"/>

</shape>
```

Output:

Result:

Demonstration of the Text to Speech app is done successfully.