Text to speech

main\_activity.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:gravity="center"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity"**>  
  
 <**TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Text To Speech"  
 android:textSize="35dp"** />  
  
 <**EditText  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:id="@+id/txt\_input"  
 android:inputType="textMultiLine"**/>  
  
 <**Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Convert text to speech"  
 android:id="@+id/btn\_convert"**/>  
  
  
  
</**LinearLayout**>

Mainactivity.java

**package** com.example.texttospeech;  
  
**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** android.widget.Toast;  
  
**import** java.util.Locale;  
  
**public class** MainActivity **extends** AppCompatActivity {  
 TextToSpeech t1;  
 EditText txtinput;  
 Button btnconvert;  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.activity\_main);  
 txtinput=findViewById(R.id.txt\_input);  
 btnconvert=findViewById(R.id.btn\_convert);  
  
 t1=**new** TextToSpeech(getApplicationContext(), **new** TextToSpeech.OnInitListener() {  
 @Override  
 **public void** onInit(**int** status) {  
 **if**(status!=TextToSpeech.ERROR){  
 t1.setLanguage(Locale.UK);  
 }  
 }  
 });  
  
 btnconvert.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View view) {  
 String tospeak=txtinput.getText().toString();  
 t1.speak(tospeak,TextToSpeech.QUEUE\_FLUSH,**null**);  
 Toast.makeText(getBaseContext(),tospeak,Toast.LENGTH\_SHORT).show();  
  
 }  
 });  
 }  
  
 **public void** onPause(){  
 **if**(t1!=**null**){  
 t1.stop();  
 t1.shutdown();  
 }  
 **super**.onPause();  
 }  
}

json 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:orientation="vertical"  
 android:gravity="center"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity"**>  
  
 <**Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Parse JSON file"  
 android:id="@+id/btn\_parse"**/>  
  
 <**TextView  
 android:layout\_width="250dp"  
 android:layout\_height="wrap\_content"  
 android:text="Display Result"  
  
 android:id="@+id/txt\_parse"** />  
  
</**LinearLayout**>

MainActivity.java

**package** com.example.json174;  
  
**import** androidx.appcompat.app.AppCompatActivity;  
  
**import** android.os.Bundle;  
**import** android.view.View;  
**import** android.widget.Button;  
**import** android.widget.TextView;  
  
**import** org.json.JSONArray;  
**import** org.json.JSONObject;  
  
**import** java.io.InputStream;  
  
**public class** MainActivity **extends** AppCompatActivity **implements** View.OnClickListener {  
  
 Button **btnparse**;  
 TextView **txtres**;  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
  
 **btnparse**=findViewById(R.id.***btn\_parse***);  
 **btnparse**.setOnClickListener(**this**);  
 **txtres**=findViewById(R.id.***txt\_parse***);  
 }  
  
 @Override  
 **public void** onClick(View v) {  
 **if**(v.equals(**btnparse**)){  
 **try**{  
 InputStream is=getAssets().open(**"example.json"**);  
 **int** size=is.available();  
 **byte**[] buffer=**new byte**[size];  
 is.read(buffer);  
 is.close();  
 String json=**new** String(buffer,**"UTF-8"**);  
 JSONArray jss=**new** JSONArray(json);  
 **txtres**.setText(**""**);  
 **for**(**int** i=0;i<jss.length();i++){  
 JSONObject ob1=jss.getJSONObject(i);  
 String s1=ob1.getString(**"name"**);  
 String s2=ob1.getString(**"latitude"**);  
 String s3=ob1.getString(**"longitude"**);  
 String s4=ob1.getString(**"temperature"**);  
  
 **txtres**.setText(**txtres**.getText()+**"\nName:"**+s1+**"\nLatitude:"**+s2+**"\nLongitude:"**+s3+**"\nTemperature:"**+s4+**" \n\n"**);  
 }  
 }**catch**(Exception e){}  
 }  
 }  
}

example.json

[  
 {  
 **"name"**: **"Mysore"**,  
 **"latitude"**: **"12.29"**,  
 **"longitude"**: **"76.63"**,  
 **"temperature"**: **"23"** },  
 {  
 **"name"**: **"Bangalore"**,  
 **"latitude"**: **"12.12"**,  
 **"longitude"**: **"72.56"**,  
 **"temperature"**: **"25"** },  
 {  
 **"name"**: **"Chennai"**,  
 **"latitude"**: **"12.12"**,  
 **"longitude"**: **"72.56"**,  
 **"temperature"**: **"25"** }  
]

Text box with three buttons

Xml file

*<?***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:gravity="center"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity"**>  
  
 <**LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:orientation="horizontal"  
 android:gravity="center"**>  
  
 <**Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Create"  
 android:id="@+id/btn\_create"**/>  
  
 <**Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="open"  
 android:id="@+id/btn\_open"**/>  
  
  
 </**LinearLayout**>  
  
 <**EditText  
 android:layout\_width="200dp"  
 android:layout\_height="200dp"  
 android:id="@+id/txt\_inp"  
 android:inputType="textMultiLine"**/>  
  
 <**Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="save"  
 android:id="@+id/btn\_save"**/>  
  
</**LinearLayout**>

Java

**package** com.example.txtbox\_3buttons;  
  
**import** androidx.appcompat.app.AppCompatActivity;  
  
**import** android.os.Bundle;  
**import** android.view.View;  
**import** android.widget.Button;  
**import** android.widget.EditText;  
**import** android.widget.Toast;  
  
**import** java.io.BufferedReader;  
**import** java.io.FileInputStream;  
**import** java.io.FileNotFoundException;  
**import** java.io.FileOutputStream;  
**import** java.io.IOException;  
**import** java.io.InputStreamReader;  
  
**public class** MainActivity **extends** AppCompatActivity **implements** View.OnClickListener {  
 **static final** String ***FILE\_NAME***=**"example.txt"**;  
 Button **btncreate**,**btnsave**,**btnopen**;  
 EditText **txtinp**;  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
 **btncreate** =findViewById(R.id.***btn\_create***);  
 **btnsave**=findViewById(R.id.***btn\_save***);  
 **btnopen**=findViewById(R.id.***btn\_open***);  
 **btncreate**.setOnClickListener(**this**);  
 **btnsave**.setOnClickListener(**this**);  
 **btnopen**.setOnClickListener(**this**);  
 **txtinp**=findViewById(R.id.***txt\_inp***);  
  
 }  
  
 @Override  
 **public void** onClick(View v) {  
 **if**(v.equals(**btncreate**)){  
 FileOutputStream fos=**null**;  
 String text=**txtinp**.getText().toString();  
 **try** {  
 fos=openFileOutput(***FILE\_NAME***,***MODE\_PRIVATE***);  
 fos.write(text.getBytes());  
 Toast.*makeText*(**this**, **"saved to"**+getFilesDir()+**"/"**+***FILE\_NAME***, Toast.***LENGTH\_SHORT***).show();  
 } **catch** (Exception e) {  
  
 }  
 **finally** {  
 **if**(fos!=**null**){  
 **try** {  
 fos.close();  
 } **catch** (Exception e) {  
  
 }  
 }  
 }  
  
 }  
 **else if**(v.equals(**btnsave**)){  
 FileOutputStream fos=**null**;  
 String text=**txtinp**.getText().toString();  
 **try** {  
 fos=openFileOutput(***FILE\_NAME***,***MODE\_PRIVATE***);  
 fos.write(text.getBytes());  
 Toast.*makeText*(**this**, **"saved to"**+getFilesDir()+**"/"**+***FILE\_NAME***, Toast.***LENGTH\_SHORT***).show();  
 } **catch** (Exception e) {  
  
 }  
 **finally** {  
 **if**(fos!=**null**){  
 **try** {  
 fos.close();  
 } **catch** (Exception e) {  
  
 }  
 }  
 }  
 }  
 **else if**(v.equals(**btnopen**)){  
 FileInputStream fis=**null**;  
 **try** {  
 fis=openFileInput(***FILE\_NAME***);  
 InputStreamReader isr=**new** InputStreamReader(fis);  
 BufferedReader br=**new** BufferedReader(isr);  
 StringBuilder sb=**new** StringBuilder();  
 String text = **null**;  
 **while**((text=br.readLine())!=**null**){  
 sb.append(text).append(**"\n"**);  
 }  
 **txtinp**.setText(sb.toString());  
 Toast.*makeText*(**this**,**"File opened"**,Toast.***LENGTH\_LONG***).show();  
 } **catch** (Exception e) {  
  
 }  
  
 }  
 }  
}

SMS sender

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:orientation="vertical"  
 android:gravity="center"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity"**>  
  
 <**TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Phone"**/>  
  
 <**TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="40dp"  
 android:textSize="30dp"  
 android:id="@+id/txt\_num"**/>  
  
 <**TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Message"**/>  
  
 <**TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="40dp"  
 android:textSize="30dp"  
 android:id="@+id/txt\_msg"**/>  
  
  
</**LinearLayout**>

MainActivity.java

**package** com.example.smssender;  
  
**import** androidx.appcompat.app.AppCompatActivity;  
  
**import** android.os.Bundle;  
**import** android.widget.TextView;  
  
**public class** MainActivity **extends** AppCompatActivity {  
 TextView **txtnum**,**txtmsg**;  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
 **txtnum**=findViewById(R.id.***txt\_num***);  
 **txtmsg**=findViewById(R.id.***txt\_msg***);  
 Bundle b=getIntent().getBundleExtra(**"data"**);  
 **if**(b!=**null**){  
 String num=b.getString(**"number"**);  
 String msg=b.getString(**"Content"**);  
  
 **txtnum**.setText(num);  
 **txtmsg**.setText(msg);  
 }  
 }  
}

SMSREciever.java

**package** com.example.smssender;  
  
**import** android.content.BroadcastReceiver;  
**import** android.content.Context;  
**import** android.content.Intent;  
**import** android.os.Bundle;  
**import** android.telephony.SmsMessage;  
  
**public class** MySMSReceiver **extends** BroadcastReceiver {  
  
 @Override  
 **public void** onReceive(Context context, Intent intent) {  
 Object[] objmsg=(Object[])intent.getExtras().get(**"pdus"**);  
 **for**(**int** i=0;i<objmsg.**length**;i++){  
 SmsMessage sm=SmsMessage.*createFromPdu*((**byte**[]) objmsg[i]);  
 Bundle b1=**new** Bundle();  
 b1.putString(**"number"**,sm.getOriginatingAddress());  
 b1.putString(**"Content"**,sm.getMessageBody());  
 Intent it=**new** Intent(context,MainActivity.**class**);  
 it.putExtra(**"data"**,b1);  
 it.setFlags(Intent.***FLAG\_ACTIVITY\_NEW\_TASK***);  
 context.startActivity(it);  
 **break**;  
 }  
 }  
}

Manifest.xml

*<?***xml version="1.0" encoding="utf-8"***?>*<**manifest xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:tools="http://schemas.android.com/tools"**>  
 <**uses-permission android:name="android.permission.RECEIVE\_SMS"**/>  
 <**application  
 android:allowBackup="true"  
 android:dataExtractionRules="@xml/data\_extraction\_rules"  
 android:fullBackupContent="@xml/backup\_rules"  
 android:icon="@mipmap/ic\_launcher"  
 android:label="@string/app\_name"  
 android:roundIcon="@mipmap/ic\_launcher\_round"  
 android:supportsRtl="true"  
 android:theme="@style/Theme.Smssender"  
 tools:targetApi="31"**>  
 <**activity  
 android:name=".MainActivity"  
 android:exported="true"**>  
 <**intent-filter**>  
 <**action android:name="android.intent.action.MAIN"** />  
  
 <**category android:name="android.intent.category.LAUNCHER"** />  
 </**intent-filter**>  
  
 <**meta-data  
 android:name="android.app.lib\_name"  
 android:value=""** />  
 </**activity**>  
 <**receiver android:name="com.example.smssender.MySMSReceiver"  
 android:exported="true"**>  
 <**intent-filter**>  
 <**action android:name="android.provider.Telephony.SMS\_RECEIVED"**/>  
 </**intent-filter**>  
 </**receiver**>  
 </**application**>  
  
</**manifest**>