

Text-to-Speech Application

Activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    android:padding="20dp">

    <EditText
        android:id="@+id/inputText"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Enter text to speak"
        android:padding="10dp"
        android:textSize="18sp" />

    <Button
        android:id="@+id/speakButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Speak"
        android:layout_marginLeft="135dp"
        android:layout_below="@id/inputText"
        android:layout_marginTop="20dp"
        android:padding="10dp" />
</LinearLayout>
```

MainActivity.java

```
package com.example.texttospeech;
```

```
import androidx.appcompat.app.AppCompatActivity;
```

```
import android.os.Bundle;
```

```
import android.speech.tts.TextToSpeech;
```

```
import android.widget.Button;
```

```
import android.widget.EditText;
```

```
import android.widget.Toast;
```

```
import java.util.Locale;
```

```
public class MainActivity extends AppCompatActivity {
```

```
    EditText inputText;
```

```
    Button speakButton;
```

```
    TextToSpeech textToSpeech;
```

```
    @Override
```

```
    protected void onCreate(Bundle savedInstanceState) {
```

```
        super.onCreate(savedInstanceState);
```

```
        setContentView(R.layout.activity_main);
```

```
        inputText = findViewById(R.id.inputText);
```

```
        speakButton = findViewById(R.id.speakButton);
```

```
        textToSpeech = new TextToSpeech(MainActivity.this, status -> {
```

```
            if (status == TextToSpeech.SUCCESS) {
```

```
                int langResult = textToSpeech.setLanguage(Locale.US);
```

```
                if (langResult == TextToSpeech.LANG_MISSING_DATA || langResult ==  
TextToSpeech.LANG_NOT_SUPPORTED) {
```

```
                    Toast.makeText(getApplicationContext(), "Language not supported",  
Toast.LENGTH_SHORT).show();
```

```
                }
```

```
            } else {
```

```
                Toast.makeText(getApplicationContext(), "TTS Initialization failed!",  
Toast.LENGTH_SHORT).show();
```

```
            }
```

```

    });

    speakButton.setOnClickListener(v -> {
        String text = inputText.getText().toString();
        if (!text.isEmpty()) {
            textToSpeech.speak(text, TextToSpeech.QUEUE_FLUSH, null, null);
        } else {
            Toast.makeText(getApplicationContext(), "Please enter text",
Toast.LENGTH_SHORT).show();
        }
    });
}

@Override
protected void onDestroy() {
    if (textToSpeech != null) {
        textToSpeech.stop();
        textToSpeech.shutdown();
    }
    super.onDestroy();
}
}

```

Output

