Mobile Application Development

- ♣ Practical 3: Input Text and Speak / View text
 User login/ Password checkbox -> Show detials
 - 1) Translator -> Text input and speak in German

CODE:

Andriod_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout</pre>
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">
    <TextView
        android:id="@+id/textView"
        android:layout width="260dp"
        android:layout height="47dp"
        android: fontFamily="@font/aclonica"
        android:text="Translator"
        android: textColor="@color/teal 200"
        android:textSize="24sp"
        app:layout constraintBottom toBottomOf="parent"
        app:layout constraintEnd toEndOf="parent"
        app:layout constraintHorizontal bias="0.35"
        app:layout constraintStart toStartOf="parent"
        app:layout constraintTop toTopOf="parent"
        app:layout constraintVertical bias="0.036" />
    <EditText
        android:id="@+id/text"
        android:layout_width="296dp"
        android:layout height="47dp"
        android:ems="10"
        android:hint="Enter Text"
```

```
android:inputType="textPersonName"
        app:layout constraintBottom toBottomOf="parent"
        app:layout constraintEnd toEndOf="parent"
        app:layout_constraintHorizontal bias="0.495"
        app:layout constraintStart toStartOf="parent"
        app:layout constraintTop toBottomOf="@+id/textView"
        app:layout_constraintVertical bias="0.078" />
    <Button
        android:id="@+id/button"
        android:layout_width="143dp"
        android:layout height="40dp"
        android:backgroundTint="?attr/colorAccent"
        android: text="Speak"
        app:layout constraintBottom toBottomOf="parent"
        app:layout constraintEnd toEndOf="parent"
        app:layout constraintHorizontal bias="0.395"
        app:layout constraintStart toStartOf="parent"
        app:layout constraintTop toBottomOf="@+id/text"
        app:layout constraintVertical bias="0.103" />
    <TextView
        android:id="@+id/answer"
        android:layout_width="254dp"
        android:layout height="60dp"
        app:layout constraintBottom toBottomOf="parent"
        app:layout constraintEnd toEndOf="parent"
        app:layout constraintHorizontal bias="0.363"
        app:layout constraintStart toStartOf="parent"
        app:layout constraintTop toBottomOf="@+id/button"
        app:layout constraintVertical bias="0.134" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

Andriod_manifest.xml

MainActivity.java

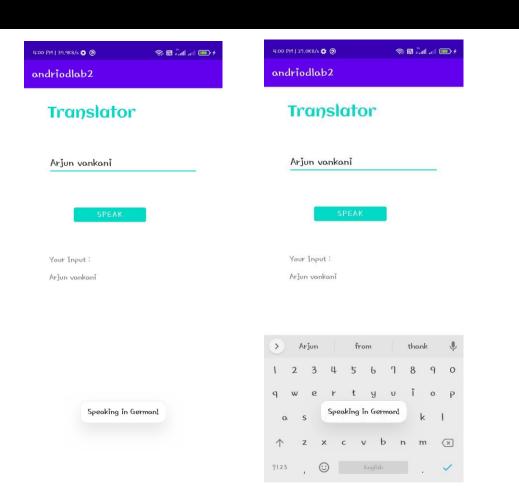
```
package com.example.andriodlab2;
import android.os.Bundle;
import android.speech.tts.TextToSpeech;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;
import androidx.appcompat.app.AppCompatActivity;
import java.util.Locale;
public class MainActivity extends AppCompatActivity {
   EditText Text;
    Button btnText;
    TextView answer;
    TextToSpeech textToSpeech;
    @Override
   protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        Text = findViewById(R.id.text);
        btnText = findViewById(R.id.button);
        answer = findViewById(R.id.answer);
        textToSpeech = new TextToSpeech(getApplicationContext(), new
TextToSpeech.OnInitListener() {
            @Override
            public void onInit(int i) {
                if(i!=TextToSpeech.ERROR) {
```

```
textToSpeech.setLanguage(Locale.GERMANY);
}
});

btnText.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        Toast.makeText(getApplicationContext(), "Speaking in
German!", Toast.LENGTH_SHORT).show();

textToSpeech.speak(Text.getText().toString(), TextToSpeech.QUEUE_FLUSH,null);
        answer.setText("Your Input: \n\n"+Text.getText());
    }
});
```

Output



2) User login/ Password checkbox -> Show details

CODE:

Andriod_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout</pre>
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">
    <TextView
        android:id="@+id/textView"
        android:layout width="109dp"
        android:layout height="48dp"
        android:backgroundTint="@android:color/holo blue light"
        android:fontFamily="@font/allura"
        android: text="Login"
        android:textColor="@android:color/holo red light"
        android:textColorHighlight="@color/design default color error"
        android: textSize="34sp"
        app:layout constraintBottom toBottomOf="parent"
        app:layout constraintEnd toEndOf="parent"
        app:layout constraintHorizontal bias="0.317"
        app:layout constraintStart toStartOf="parent"
        app:layout constraintTop toTopOf="parent"
        app:layout constraintVertical bias="0.043" />
    <EditText
        android:id="@+id/user"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:backgroundTint="@color/design default color error"
        android:ems="10"
        android:fontFamily="@font/allura"
        android:hint="Enter Name"
        android:inputType="textPersonName"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd toEndOf="parent"
        app:layout constraintHorizontal bias="0.298"
        app:layout constraintStart toStartOf="parent"
        app:layout constraintTop toBottomOf="@+id/textView"
        app:layout constraintVertical bias="0.103" />
    <EditText
        android:id="@+id/pass"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
```

```
android:backgroundTint="@color/design_default_color_error"
        android: ems="10"
        android:fontFamily="@font/allura"
        android:hint="Password"
        android:inputType="textPassword"
        app:layout constraintBottom toBottomOf="parent"
        app:layout constraintEnd toEndOf="parent"
        app:layout constraintHorizontal bias="0.298"
        app:layout constraintStart toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/user"
        app:layout constraintVertical bias="0.103" />
    <CheckBox
        android:id="@+id/checkBox"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android: fontFamily="@font/allura"
        android:text="Show Password"
        app:layout constraintBottom toBottomOf="parent"
        app:layout constraintEnd toEndOf="parent"
        app:layout constraintHorizontal bias="0.215"
        app:layout constraintStart toStartOf="parent"
        app:layout constraintTop toBottomOf="@+id/pass"
        app:layout_constraintVertical bias="0.092" />
    <Button
        android:id="@+id/button"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:backgroundTint="?android:attr/colorActivatedHighlight"
        android: fontFamily="@font/allura"
        android:text="Show Details"
        app:layout constraintBottom toBottomOf="parent"
        app:layout constraintEnd toEndOf="parent"
        app:layout constraintHorizontal bias="0.392"
        app:layout constraintStart toStartOf="parent"
        app:layout constraintTop toBottomOf="@+id/checkBox"
        app:layout constraintVertical bias="0.158" />
    <TextView
        android:id="@+id/output"
        android:layout width="334dp"
        android:layout height="121dp"
        android:fontFamily="@font/allura"
        android: textSize="20sp"
        app:layout constraintBottom toBottomOf="parent"
        app:layout constraintEnd toEndOf="parent"
        app:layout constraintHorizontal bias="0.413"
        app:layout_constraintStart_toStartOf="parent"
        app:layout constraintTop toBottomOf="@+id/button"
        app:layout constraintVertical bias="0.458" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

AndriodManifest.xml

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"</pre>
   package="com.example.andriodlab21">
    <application
        android:allowBackup="true"
        android:icon="@drawable/download"
        android:label="@string/app name"
        android:roundIcon="@mipmap/ic launcher round"
        android:supportsRtl="true"
        android: theme="@style/Theme.Andriodlab21">
        <activity android:name=".MainActivity">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />
                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
        <meta-data
            android:name="preloaded fonts"
            android:resource="@array/preloaded_fonts" />
    </application>
</manifest>
```

MainActivity.java

```
package com.example.andriodlab21;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Context;
import android.os.Bundle;
import android.text.InputType;
import android.text.method.HideReturnsTransformationMethod;
import android.text.method.PasswordTransformationMethod;
import android.view.View;
import android.view.inputmethod.InputMethodManager;
import android.widget.Button;
import android.widget.CheckBox;
import android.widget.EditText;
import android.widget.TextView;

public class MainActivity extends AppCompatActivity {
    EditText user,pass;
```

```
TextView output;
    CheckBox checkBox;
    Button button;
   private String Password;
    @Override
   protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity main);
        user = (EditText) findViewById(R.id.user);
        pass = (EditText) findViewById(R.id.pass);
        output = (TextView) findViewById(R.id.output);
        checkBox = (CheckBox) findViewById(R.id.checkBox);
        button = (Button) findViewById(R.id.button);
        checkBox.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                if(checkBox.isChecked()){
                    pass.setInputType(InputType.TYPE_CLASS_TEXT);
                }else{
pass.setInputType(InputType.TYPE CLASS TEXT|InputType.TYPE TEXT VARIATION PAS
SWORD);
                }
        });
            button.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                output.setText("User Name : \t "+user.getText() + "\n" +
"Password : \t " + pass.getText());
        });
    }
}
```

Output:

