

[2CEIT509 MOBILE APPLICATION DEVELOPMENT]

Assignment: 2

AIM: Create Android Application by using Kotlin language. Follow Following instructions for this assignment:

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1. Only one student is allowed for Android Application Project. (Individual Project)
2. Project must contain at least listview, animation, service, broadcastreceiver, intent, database, etc.
3. Project UI design should be impressive. For impressive design you can refer design of practical -7,9 and you can refer ui design from online available website.
4. Choose topic which should not be taken by other students. (Unique topic in class).

activity_main.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
    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"
    android:padding="16dp"
    tools:context=".MainActivity">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="50dp"
        android:text="Wel-Come"
        android:textAlignment="center"
        android:textColor="@color/teal_200"
        android:textSize="32sp"
        android:textStyle="bold"/>

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:gravity="center">

        <TextView
            android:id="@+id/textView"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:textColor="@color/teal_200"
            android:textSize="24sp"
            android:textStyle="bold|italic"/>

    </LinearLayout>
</RelativeLayout>
```

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```
        android:layout_height="wrap_content"
        android:layout_alignParentBottom="true"
        android:layout_centerInParent="true"
        android:orientation="vertical">

        <ImageView
            android:id="@+id/speakImageView"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:background="?selectableItemBackground"
            android:src="@drawable/ic_baseline_mic_24"/>

    </LinearLayout>
</RelativeLayout>
```

MainActivity.kt:

```
package com.example.texttospeech

import android.app.Activity
import android.content.Intent
import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import android.speech.RecognizerIntent
import android.widget.ImageView
import android.widget.TextView
import android.widget.Toast
import java.util.*
import kotlin.collections.ArrayList

class MainActivity : AppCompatActivity() {

    private val REQUESTCODE = 100
    lateinit var textView: TextView

    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)
        title = "Text To Speech"
        textView = findViewById(R.id.textView)
        val speakImageView: ImageView = findViewById(R.id.speakImageView)
        speakImageView.setOnClickListener {
            val intent = Intent(RecognizerIntent.ACTION_RECOGNIZE_SPEECH)
            intent.putExtra(RecognizerIntent.EXTRA_LANGUAGE_MODEL,
                RecognizerIntent.LANGUAGE_MODEL_FREE_FORM)
            intent.putExtra(RecognizerIntent.EXTRA_LANGUAGE, Locale.getDefault())
            intent.putExtra(RecognizerIntent.EXTRA_PROMPT, "Need to Speak")
            startActivityForResult(intent, REQUESTCODE)
            Toast.makeText(applicationContext, "Sorry your device not supported",
                Toast.LENGTH_SHORT).show()
        }
    }

    override fun onActivityResult(requestCode: Int, resultCode: Int, data: Intent?) {
        {
```

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```
        super.onActivityResult(requestCode, resultCode, data)
        if (resultCode == Activity.RESULT_OK && null != data) {
            val result: ArrayList<String> =
data.getStringArrayListExtra(RecognizerIntent.EXTRA_RESULTS) as ArrayList<String>
            textView.text = result[0]
        }
    }
}
```

AndroidManifest.xml:

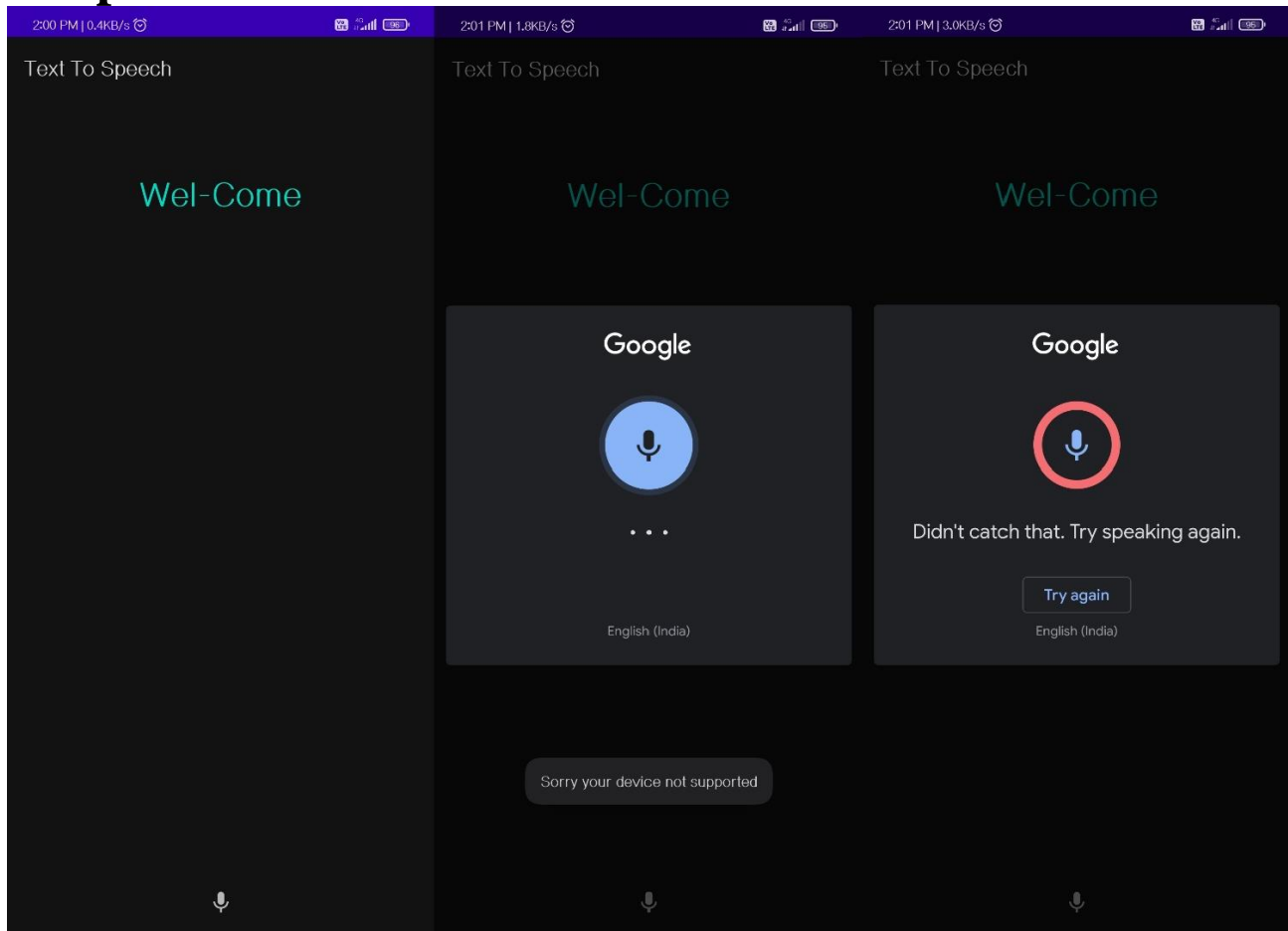
```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.texttospeech">
    <uses-permission android:name="android.permission.INTERNET"/>

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/Theme.TexttoSpeech">
        <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>
        </activity>
    </application>
</manifest>
```

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Output:



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