

PRACTICAL:12

AIM: Create an application to handle support voice interaction.

Source Code:

Program: activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<android.support.constraint.ConstraintLayout
    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="com.example.henyd.prac12.MainActivity">

    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="168dp"
        android:text="Wait till Question PopUP!!"
        android:textSize="24sp"
        app:layout_constraintHorizontal_bias="0.501"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
    <TextView
        android:id="@+id/textView1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginBottom="8dp"
        android:layout_marginEnd="8dp"
        android:layout_marginStart="8dp"
        android:layout_marginTop="8dp"
        android:text="Speak your answer"
        android:textSize="24sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.501"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/textView"
        app:layout_constraintVertical_bias="0.171" />
</android.support.constraint.ConstraintLayout>
```

Program: MainActivity.java

```
package com.example.henyd.prac12;
import android.content.Intent;
import android.speech.RecognizerIntent;
import android.speech.tts.TextToSpeech;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.TextView;
import java.util.List;
import java.util.Locale;

public class MainActivity extends AppCompatActivity {

    private TextToSpeech t1;
    private final int REQUEST_SPEECH_RECOGNIZER = 3000;
    private TextView question, answer;
    private final String mQuestion = "Who is the owner of this phone?";
    private String mAnswer = "";
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        question = (TextView) findViewById(R.id.textview);
        answer = (TextView) findViewById(R.id.textview1);
        t1=new TextToSpeech(getApplicationContext(), new TextToSpeech.OnInitListener() {
            @Override
            public void onInit(int status) {
                if(status != TextToSpeech.ERROR) {
                    t1.setLanguage(Locale.UK);
                }
            }
        });
        startSpeechRecognizer();
    }
    private void startSpeechRecognizer() {
        Intent intent = new Intent
            (RecognizerIntent.ACTION_RECOGNIZE_SPEECH);
        intent.putExtra(RecognizerIntent.EXTRA_LANGUAGE_MODEL,
            RecognizerIntent.LANGUAGE_MODEL_FREE_FORM);
        intent.putExtra(RecognizerIntent.EXTRA_PROMPT, mQuestion);
```

```

        startActivityResult(intent, REQUEST_SPEECH_RECOGNIZER);
    }
    @Override
    protected void onActivityResult(int requestCode, int resultCode,
                                    Intent data) {
        super.onActivityResult(requestCode, resultCode, data);

        if (requestCode == REQUEST_SPEECH_RECOGNIZER) {
            if (resultCode == RESULT_OK) {
                List<String> results = data.getStringArrayListExtra
                    (RecognizerIntent.EXTRA_RESULTS);
                mAnswer = results.get(0);
                question.setText(mQuestion);
                answer.setText(mAnswer);
                if (mAnswer.toUpperCase().indexOf("SMIT") > -1) {
                    t1.speak("Great You are correct", TextToSpeech.QUEUE_FLUSH, null,
"adfvsfgbrsgh");
                }
                else {
                    t1.speak("Wrong answer submit this phone to my owner Smit",
TextToSpeech.QUEUE_FLUSH, null, "adfvsfgbrsgh");
                }
            }
        }
    }
    @Override
    public void onPause(){
        if(t1 !=null){
            t1.stop();
            t1.shutdown();
        }
        super.onPause();
    }
}

```

Output:



