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);
```

```
startActivityForResult(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:











