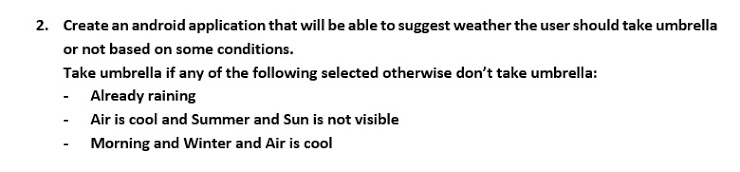
Question 2



**Activity\_main.xml:**

<?xml version="1.0" encoding="utf-8"?>  
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 android:orientation="vertical"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:padding="25dp"  
 android:background="@drawable/bg\_gradient">  
  
 <RelativeLayout android:id="@+id/mainContainer" android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent" android:visibility="visible">  
 <LinearLayout android:id="@+id/addressContainer" android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content" android:orientation="vertical"  
 android:gravity="center">  
 <TextView android:id="@+id/address" android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content" android:textSize="24dp"  
 android:text="Kharar, Punjab"/>  
 <TextView android:id="@+id/updated\_at" android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content" android:textSize="14dp"  
 android:text="15 April 2020, 20:08 PM"/>  
 </LinearLayout>  
  
  
 <LinearLayout android:id="@+id/overviewContainer" android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content" android:orientation="vertical"  
 android:layout\_centerInParent="true">  
  
 <TextView android:id="@+id/status" android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content" android:textSize="18dp"  
 android:layout\_gravity="center"  
 android:text="Clear Sky"/>  
 <TextView android:id="@+id/temp" android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content" android:textSize="90dp"  
 android:fontFamily="sans-serif-thin" android:layout\_gravity="center"  
 android:text="29°C"/>  
  
 <LinearLayout android:layout\_width="match\_parent" android:layout\_height="wrap\_content"  
 android:orientation="horizontal" android:gravity="center">  
 <TextView android:id="@+id/temp\_min" android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content" android:text="Min Temp: 05:05 AM"/>  
 <Space android:layout\_width="50dp" android:layout\_height="wrap\_content"/>  
  
 <TextView android:id="@+id/temp\_max" android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content" android:text="Max Temp: 05:05 PM"/>  
 </LinearLayout>  
  
 </LinearLayout>  
  
  
 <LinearLayout android:id="@+id/detailsContainer" android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content" android:orientation="vertical"  
 android:layout\_alignParentBottom="true">  
 <LinearLayout android:layout\_width="match\_parent" android:layout\_height="wrap\_content"  
 android:orientation="horizontal" android:weightSum="3">  
 <LinearLayout android:layout\_width="0dp" android:layout\_height="wrap\_content"  
 android:orientation="vertical" android:layout\_weight="1"  
 android:gravity="center" android:padding="8dp"  
 android:background="#3CF1EBF1">  
 <ImageView android:layout\_width="25dp" android:layout\_height="25dp"  
 android:src="@drawable/sunrise" android:tint="#FFFFFF"/>  
 <Space android:layout\_width="wrap\_content" android:layout\_height="5dp"/>  
 <TextView android:layout\_width="wrap\_content" android:layout\_height="wrap\_content"  
 android:textSize="12dp" android:text="Sunrise"/>  
 <TextView android:id="@+id/sunrise" android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content" android:textSize="14dp"  
 android:text="06:40 AM"/>  
 </LinearLayout>  
 <Space android:layout\_width="10dp" android:layout\_height="wrap\_content"/>  
 <LinearLayout android:layout\_width="0dp" android:layout\_height="wrap\_content"  
 android:orientation="vertical" android:layout\_weight="1"  
 android:gravity="center" android:padding="8dp"  
 android:background="#3CF1EBF1">  
 <ImageView android:layout\_width="25dp" android:layout\_height="25dp"  
 android:src="@drawable/sunset" android:tint="#FFFFFF"/>  
 <Space android:layout\_width="wrap\_content" android:layout\_height="5dp"/>  
 <TextView android:layout\_width="wrap\_content" android:layout\_height="wrap\_content"  
 android:textSize="12dp" android:text="Sunset"/>  
 <TextView android:id="@+id/sunset" android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content" android:textSize="14dp"  
 android:text="06:40 AM"/>  
 </LinearLayout>  
 <Space android:layout\_width="10dp" android:layout\_height="wrap\_content"/>  
 <LinearLayout android:layout\_width="0dp" android:layout\_height="wrap\_content"  
 android:orientation="vertical" android:layout\_weight="1"  
 android:gravity="center" android:padding="8dp"  
 android:background="#3CF1EBF1">  
 <ImageView android:layout\_width="25dp" android:layout\_height="25dp"  
 android:src="@drawable/wind" android:tint="#FFFFFF"/>  
 <Space android:layout\_width="wrap\_content" android:layout\_height="5dp"/>  
 <TextView android:layout\_width="wrap\_content" android:layout\_height="wrap\_content"  
 android:textSize="12dp" android:text="Wind"/>  
 <TextView android:id="@+id/wind" android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content" android:textSize="14dp"  
 android:text="06:40 AM"/>  
 </LinearLayout>  
 </LinearLayout>  
  
 <Space android:layout\_width="wrap\_content" android:layout\_height="10dp"/>  
  
 <LinearLayout android:layout\_width="match\_parent" android:layout\_height="wrap\_content"  
 android:orientation="horizontal" android:weightSum="3">  
 <LinearLayout android:layout\_width="0dp" android:layout\_height="wrap\_content"  
 android:orientation="vertical" android:layout\_weight="1"  
 android:gravity="center" android:padding="8dp"  
 android:background="#3CF1EBF1">  
 <ImageView android:layout\_width="25dp" android:layout\_height="25dp"  
 android:src="@drawable/pressure" android:tint="#FFFFFF"/>  
 <Space android:layout\_width="wrap\_content" android:layout\_height="5dp"/>  
 <TextView android:layout\_width="wrap\_content" android:layout\_height="wrap\_content"  
 android:textSize="12dp" android:text="Pressure"/>  
 <TextView android:id="@+id/pressure" android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content" android:textSize="14dp"  
 android:text="06:40 AM"/>  
 </LinearLayout>  
 <Space android:layout\_width="10dp" android:layout\_height="wrap\_content"/>  
 <LinearLayout android:layout\_width="0dp" android:layout\_height="wrap\_content"  
 android:orientation="vertical" android:layout\_weight="1"  
 android:gravity="center" android:padding="8dp"  
 android:background="#3CF1EBF1">  
 <ImageView android:layout\_width="25dp" android:layout\_height="25dp"  
 android:src="@drawable/humidity" android:tint="#FFFFFF"/>  
 <Space android:layout\_width="wrap\_content" android:layout\_height="5dp"/>  
 <TextView android:layout\_width="wrap\_content" android:layout\_height="wrap\_content"  
 android:textSize="12dp" android:text="Humidity"/>  
 <TextView android:id="@+id/humidity" android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content" android:textSize="14dp"  
 android:text="06:40 AM"/>  
 </LinearLayout>  
 <Space android:layout\_width="10dp" android:layout\_height="wrap\_content"/>  
 <LinearLayout android:layout\_width="0dp" android:layout\_height="wrap\_content"  
 android:orientation="vertical" android:layout\_weight="1"  
 android:gravity="center" android:padding="8dp"  
 android:background="#3CF1EBF1">  
 <ImageView android:layout\_width="25dp" android:layout\_height="25dp"  
 android:src="@drawable/info" android:tint="#FFFFFF"/>  
 <Space android:layout\_width="wrap\_content" android:layout\_height="5dp"/>  
 <TextView android:layout\_width="wrap\_content" android:layout\_height="wrap\_content"  
 android:textSize="12dp" android:text="Created By"/>  
 <TextView android:id="@+id/about" android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content" android:textSize="14dp"  
 android:text="AndroDocs"/>  
 </LinearLayout>  
 </LinearLayout>  
 </LinearLayout>  
 </RelativeLayout>  
  
 <ProgressBar android:id="@+id/loader" android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content" android:layout\_centerInParent="true"  
 android:visibility="gone"/>  
  
 <TextView android:id="@+id/errorText" android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content" android:layout\_centerInParent="true"  
 android:visibility="gone" android:text="Something went wrong"/>  
  
</RelativeLayout>

**MainActivity:**

package com.example.bm;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.os.AsyncTask;  
import android.os.Bundle;  
import android.view.View;  
import android.widget.TextView;  
import org.json.JSONException;  
import org.json.JSONObject;  
import java.net.HttpURLConnection;  
import java.text.SimpleDateFormat;  
import java.util.Date;  
import java.util.Locale;  
public class MainActivity extends AppCompatActivity {  
 String CITY = "dhaka,bd";  
 String API = "8118ed6ee68db2debfaaa5a44c832918";  
  
 TextView addressTxt, updated\_atTxt, statusTxt, tempTxt, temp\_minTxt, temp\_maxTxt, sunriseTxt,  
 sunsetTxt, windTxt, pressureTxt, humidityTxt;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 addressTxt = findViewById(R.id.*address*);  
 updated\_atTxt = findViewById(R.id.*updated\_at*);  
 statusTxt = findViewById(R.id.*status*);  
 tempTxt = findViewById(R.id.*temp*);  
 temp\_minTxt = findViewById(R.id.*temp\_min*);  
 temp\_maxTxt = findViewById(R.id.*temp\_max*);  
 sunriseTxt = findViewById(R.id.*sunrise*);  
 sunsetTxt = findViewById(R.id.*sunset*);  
 windTxt = findViewById(R.id.*wind*);  
 pressureTxt = findViewById(R.id.*pressure*);  
 humidityTxt = findViewById(R.id.*humidity*);  
  
 new weatherTask().execute();  
 }  
  
 class weatherTask extends AsyncTask<String, Void, String> {  
 @Override  
 protected void onPreExecute() {  
 super.onPreExecute();  
  
 findViewById(R.id.*loader*).setVisibility(View.*VISIBLE*);  
 findViewById(R.id.*mainContainer*).setVisibility(View.*GONE*);  
 findViewById(R.id.*errorText*).setVisibility(View.*GONE*);  
 }  
  
 protected String doInBackground(String... args) {  
 String response = HttpURLConnection.*guessContentTypeFromName*("https://api.openweathermap.org/data/2.5/weather?q=" + CITY + "&units=metric&appid=" + API);  
 return response;  
 }  
  
 @Override  
 protected void onPostExecute(String result) {  
  
  
 try {  
 JSONObject jsonObj = new JSONObject(result);  
 JSONObject main = jsonObj.getJSONObject("main");  
 JSONObject sys = jsonObj.getJSONObject("sys");  
 JSONObject wind = jsonObj.getJSONObject("wind");  
 JSONObject weather = jsonObj.getJSONArray("weather").getJSONObject(0);  
  
 Long updatedAt = jsonObj.getLong("dt");  
 String updatedAtText = "Updated at: " + new SimpleDateFormat("dd/MM/yyyy hh:mm a", Locale.*ENGLISH*).format(new Date(updatedAt \* 1000));  
 String temp = main.getString("temp") + "°C";  
 String tempMin = "Min Temp: " + main.getString("temp\_min") + "°C";  
 String tempMax = "Max Temp: " + main.getString("temp\_max") + "°C";  
 String pressure = main.getString("pressure");  
 String humidity = main.getString("humidity");  
  
 Long sunrise = sys.getLong("sunrise");  
 Long sunset = sys.getLong("sunset");  
 String windSpeed = wind.getString("speed");  
 String weatherDescription = weather.getString("description");  
  
 String address = jsonObj.getString("name") + ", " + sys.getString("country");  
  
  
 /\* Populating extracted data into our views \*/  
 addressTxt.setText(address);  
 updated\_atTxt.setText(updatedAtText);  
 statusTxt.setText(weatherDescription.toUpperCase());  
 tempTxt.setText(temp);  
 temp\_minTxt.setText(tempMin);  
 temp\_maxTxt.setText(tempMax);  
 sunriseTxt.setText(new SimpleDateFormat("hh:mm a", Locale.*ENGLISH*).format(new Date(sunrise \* 1000)));  
 sunsetTxt.setText(new SimpleDateFormat("hh:mm a", Locale.*ENGLISH*).format(new Date(sunset \* 1000)));  
 windTxt.setText(windSpeed);  
 pressureTxt.setText(pressure);  
 humidityTxt.setText(humidity);  
 findViewById(R.id.*loader*).setVisibility(View.*GONE*);  
 findViewById(R.id.*mainContainer*).setVisibility(View.*VISIBLE*);  
  
 } catch (JSONException e) {  
 findViewById(R.id.*loader*).setVisibility(View.*GONE*);  
 findViewById(R.id.*errorText*).setVisibility(View.*VISIBLE*);  
 }  
  
 }  
 }  
}

**OutPut:**

