

Create two files of XML and JSON type with values for City_Name, Latitude, Longitude, Temperature, and Humidity. Develop an application to create an activity with two buttons to parse the XML and JSON files which when clicked should display the data in their respective layouts side by side.

ActivityMain.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.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=".MainActivity">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="PARSING XML AND JSON"
        android:textColor="#43A047"
        android:textSize="24sp"
        android:textStyle="bold|italic"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintHorizontal_bias="0.496"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.155" />

    <Button
        android:id="@+id/bjson"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="parse json data"
        app:backgroundTint="#D81B60"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.453" />

    <Button
        android:id="@+id/bxml"
        android:layout_width="167dp"
        android:layout_height="48dp"
        android:text="parse xml data"
        app:backgroundTint="#FB8C00"
        app:layout_constraintBottom_toBottomOf="parent"
```

```
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.56" />
```

```
</androidx.constraintlayout.widget.ConstraintLayout>
```

ActivityView.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.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=".ViewActivity">
```

```
<TextView
    android:id="@+id/textView"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="PARSING XML AND JSON DATA"
    android:textColor="#43A047"
    android:textSize="24sp"
    android:textStyle="bold|italic"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.467"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.148" />
```

```
<TextView
    android:id="@+id/textView3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="XML DATA"
    android:textColor="#FB8C00"
    android:textSize="18sp"
    android:textStyle="bold"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.15"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.263" />
```

```
<TextView
    android:id="@+id/textView2"
```

```

        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="JSON DATA"
        android:textColor="#D81B60"
        android:textSize="18sp"
        android:textStyle="bold"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.848"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.263" />

<TextView
    android:id="@+id/jsondata"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Json Data"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.862"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.424" />

<TextView
    android:id="@+id/xmldata"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="XML Data"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.14"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.425" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

MainActivity.java

```

package com.example.parser;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;

public class MainActivity extends AppCompatActivity implements View.OnClickListener{

```

```
Button bjson,bxml;
```

```
@Override
```

```
protected void onCreate(Bundle savedInstanceState) {  
    super.onCreate(savedInstanceState);  
    setContentView(R.layout.activity_main);  
    bjson=(Button)findViewById(R.id.bjson);  
    bxml=(Button)findViewById(R.id.bxml);  
    bjson.setOnClickListener(this);  
    bxml.setOnClickListener(this);  
}
```

```
@Override
```

```
public void onClick(View v) {  
    if(v.equals(bjson))  
    {  
        Intent i=new Intent(this,ViewActivity.class);  
        i.putExtra("mode",1);  
        startActivity(i);  
    }  
    else if(v.equals(bxml))  
    {  
        Intent it=new Intent(this,ViewActivity.class);  
        it.putExtra("mode",2);  
        startActivity(it);  
    }  
}  
}
```

ViewActivity.java

```
package com.example.parser;
```

```
import androidx.appcompat.app.AppCompatActivity;
```

```
import android.os.Bundle;
```

```
import android.widget.TextView;
```

```
import org.json.JSONObject;
```

```
import org.w3c.dom.Document;
```

```
import org.w3c.dom.Element;
```

```
import org.w3c.dom.Node;
```

```
import org.w3c.dom.NodeList;
```

```
import java.io.InputStream;
```

```
import javax.xml.parsers.DocumentBuilder;
```

```
import javax.xml.parsers.DocumentBuilderFactory;
```

```

public class ViewActivity extends AppCompatActivity {

    TextView xmldata, jsontdata;
    int mode=0;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_view);
        xmldata=(TextView)findViewById(R.id.xmldata);
        jsontdata=(TextView)findViewById(R.id.jsontdata);
        mode=getIntent().getIntExtra("mode",0);

        if(mode==1)
            parseJson();
        else
            parseXml();
    }
    public String parseXml()
    {
        try {
            InputStream is = getAssets().open("input.xml");
            DocumentBuilderFactory dbf = DocumentBuilderFactory.newInstance();
            DocumentBuilder db = dbf.newDocumentBuilder();
            Document d = db.parse(is);
            Element e = d.getDocumentElement();
            e.normalize();
            NodeList nl = d.getElementsByTagName("employee");

            for (int i = 0; i < nl.getLength(); i++) {
                Node n = nl.item(i);
                if (n.getNodeType() == Node.ELEMENT_NODE) {
                    Element ele = (Element) n;
                    xmldata.setText("City Name : " + getValue("city_name", ele) + "\n");
                    xmldata.append("Latitude : " + getValue("Latitude", ele) + "\n");
                    xmldata.append("Longitude : " + getValue("Longitude", ele) + "\n");
                    xmldata.append("Temperature : " + getValue("Temperature", ele) + "\n");
                    xmldata.append("Humidity : " + getValue("Humidity", ele) + "\n");
                }
            }
        }
        catch (Exception e)
        {
            e.printStackTrace();
        }
        return null;
    }

    private static String getValue(String tag, Element e)
    {
        NodeList nl=e.getElementsByTagName(tag).item(0).getChildNodes();

```

```

        Node n=nl.item(0);
        return n.getNodeValue();
    }
    public void parseJson()
    {
        try{
            InputStream is = getAssets().open("Jsoninput.json");
            byte[] data=new byte[is.available()];
            is.read(data);
            String readdata=new String(data);
            JSONObject jobj=new JSONObject(readdata);
            JSONObject jobj1=jobj.getJSONObject("employee");
            jsondata.setText("City Name : " + jobj1.getString("city_name")+"\n");
            jsondata.append("Latitude : " + jobj1.getString("Latitude")+"\n");
            jsondata.append("Longitude : " + jobj1.getString("Longitude")+"\n");
            jsondata.append("Temperature : " + jobj1.getString("Temperature")+"\n");
            jsondata.append("Humidity : " + jobj1.getString("Humidity")+"\n");
        }
        catch (Exception e)
        {
            e.printStackTrace();
        }
    }
}

```

input.xml

```

<?xml version="1.0"?>
<record>
    <employee>
        <city_name>Mysore</city_name>
        <Latitude>12.295</Latitude>
        <Longitude>76.639</Longitude>
        <Temperature>22</Temperature>
        <Humidity>90%</Humidity>
    </employee>
</record>

```

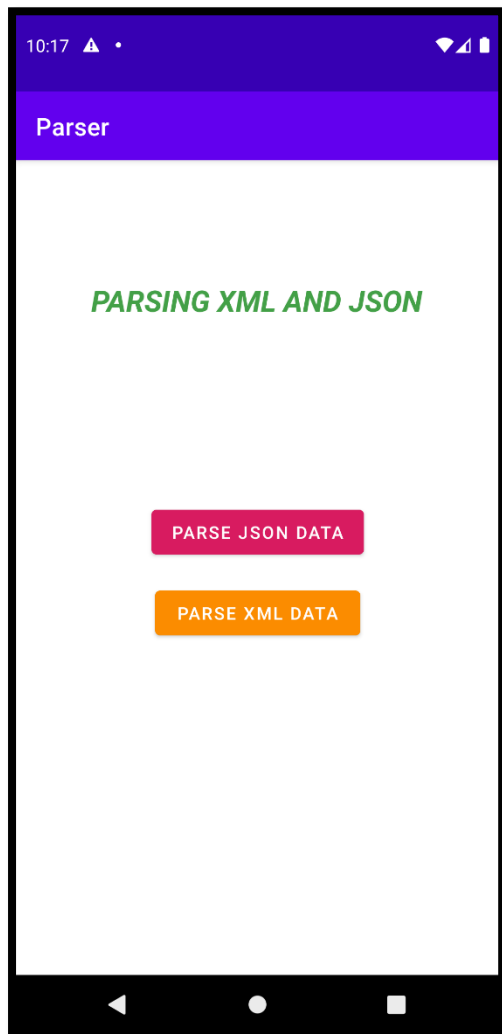
Jsoninput.json

```

{
    "employee": {
        "city_name": "Mysore",
        "Latitude": "12.295",
        "Longitude": "76.639",
        "Temperature": 22,
        "Humidity": "90%"
    }
}

```

Output:



10:17



Parser

PARSING XML AND JSON DATA

XML DATA

JSON DATA

City Name : Mysore
Latitude : 12.295
Longitude : 76.639
Temperature : 22
Humidity : 90%

Json Data