

## 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"
    tools:context=".MainActivity">
    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="10dp"
        android:layout_marginBottom="634dp"
        android:text="Parsing XML and JSON"
        android:textSize="36sp" />
    <Button
        android:id="@+id/button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="153dp"
        android:layout_marginBottom="484dp"
        android:onClick="parsexml"
        android:text="ParseXML" />
    <Button
        android:id="@+id/button2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="151dp"
        android:layout_marginBottom="364dp"
        android:onClick="parsejson"
        android:text="ParseJSON" />
    <TextView
        android:id="@+id/display"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="3dp"
        android:layout_marginBottom="68dp"
        android:text=""
        android:textAlignment="center" />
</RelativeLayout>
```

## MainActivity.java

```

import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.text.style.TabStopSpan;
import android.view.View;
import android.widget.TextView;
import android.widget.Toast;
import org.json.JSONArray;
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 java.nio.charset.StandardCharsets;
import javax.xml.parsers.DocumentBuilder;
import javax.xml.parsers.DocumentBuilderFactory;
public class MainActivity extends AppCompatActivity {
    TextView display;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        display = (TextView)findViewById(R.id.display);
    }
    public void parsexml(View V)
    {
        try {
            InputStream is = getAssets().open("city.xml");
            DocumentBuilderFactory documentBuilderFactory = DocumentBuilderFactory.newInstance();
            DocumentBuilder documentBuilder = documentBuilderFactory.newDocumentBuilder();
            Document document = documentBuilder.parse(is);
            StringBuilder stringBuilder = new StringBuilder();
            stringBuilder.append("XML DATA");
            stringBuilder.append("\n-----");
            NodeList nodeList = document.getElementsByTagName("place");
            for (int i = 0; i < nodeList.getLength(); i++)
            {
                Node node = nodeList.item(i);
                if (node.getNodeType() == Node.ELEMENT_NODE) {
                    Element element = (Element) node;
                    stringBuilder.append("\nName: ").append(getValue("name", element));
                    stringBuilder.append("\nLatitude: ").append(getValue("lat", element));
                    stringBuilder.append("\nLongitude: ").append(getValue("long", element));
                    stringBuilder.append("\nTemperature: ").append(getValue("temperature", element));
                    stringBuilder.append("\nHumidity: ").append(getValue("humidity", element));
                    stringBuilder.append("\n-----");
                }
            }
            display.setText(stringBuilder.toString());
        } catch (Exception e){
            e.printStackTrace();
            Toast.makeText(MainActivity.this,"Error Parsing XML",Toast.LENGTH_LONG).show();
        }
    }
}

```

```

public void parsejson(View V){
String json;
StringBuilder stringBuilder = new StringBuilder();
try {
InputStream is = getAssets().open("city.json");
int size = is.available();
byte[] buffer = new byte[size];
is.read(buffer);
json = new String(buffer, StandardCharsets.UTF_8);
JSONArray jsonArray = new JSONArray(json);
stringBuilder.append("JSON DATA");
stringBuilder.append("\n-----");
for (int i = 0; i < jsonArray.length(); i++) {
JSONObject jsonObject = jsonArray.getJSONObject(i);
stringBuilder.append("\nName: ").append(jsonObject.getString("name"));
stringBuilder.append("\nLatitude: ").append(jsonObject.getString("lat"));
stringBuilder.append("\nLongitude: ").append(jsonObject.getString("long"));
stringBuilder.append("\nTemperature: ").append(jsonObject.getString("temperature"));
stringBuilder.append("\nHumidity: ").append(jsonObject.getString("humidity"));
stringBuilder.append("\n-----");
}
display.setText(stringBuilder.toString());
is.close();
}
catch (Exception e){
e.printStackTrace();
Toast.makeText(MainActivity.this,"Error in reading",Toast.LENGTH_LONG).show();
}
}
private String getValue(String tag, Element element)
{
return element.getElementsByTagName(tag).item(0).getChildNodes().item(0).getNodeValue();
}
}

```