9.

Xml code:

*<?*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"  
 android:background="#9DB87F"  
 tools:context=".MainActivity">  
  
 <TextView  
 android:id="@+id/textView"  
 android:layout\_width="257dp"  
 android:layout\_height="59dp"  
 android:layout\_alignParentEnd="true"  
 android:layout\_alignParentBottom="true"  
 android:layout\_marginEnd="74dp"  
 android:layout\_marginBottom="453dp"  
 android:text="PARSER"  
 android:textSize="36sp"  
 tools:layout\_editor\_absoluteX="194dp"  
 tools:layout\_editor\_absoluteY="126dp" />  
 <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="260dp"  
 android:layout\_marginBottom="371dp"  
 android:backgroundTint="#182C9F"  
 android:onClick="parsexml"  
 android:text="XML"  
 android:textAlignment="center" />  
 <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="118dp"  
 android:layout\_marginBottom="373dp"  
 android:backgroundTint="#23669B"  
 android:onClick="parsejson"  
 android:text="JSON"  
 android:textAlignment="center" />  
 <TextView  
 android:id="@+id/display"  
 android:layout\_width="402dp"  
 android:layout\_height="332dp"  
 android:layout\_alignParentEnd="true"  
 android:layout\_alignParentBottom="true"  
 android:layout\_marginEnd="9dp"  
 android:layout\_marginBottom="11dp"  
 android:textAlignment="center"  
 android:textColor="#721334" />  
</RelativeLayout>

Java code:

package com.example.program6;  
  
import androidx.appcompat.app.AppCompatActivity;  
import android.os.Bundle;  
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=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("\n Name:").append(getValue("name",element));  
 stringBuilder.append("\n Latitude:").append(getValue("lat",element));  
 stringBuilder.append("\n Longitude:").append(getValue("long",element));  
 stringBuilder.append("\n Temperature:").append(getValue("temperature",element));  
 stringBuilder.append("\n humidity").append(getValue("humidity",element));  
 stringBuilder.append("\n----------");  
 }  
 }  
 display.setText(stringBuilder.toString());  
 }  
 catch (Exception e){  
 e.printStackTrace();  
 Toast.*makeText*(MainActivity.this,"Error in reading XML FILE",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("\n Name:").append(jsonObject.getString("name"));  
 stringBuilder.append("\n Latidue:").append(jsonObject.getString("lat"));  
 stringBuilder.append("\n Longitude:").append(jsonObject.getString("long"));  
 stringBuilder.append("\n Temperature:").append(jsonObject.getString("temperature"));  
 stringBuilder.append("\n Humidity:").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 JSON file",Toast.*LENGTH\_LONG*).show();  
 }  
 }  
 private String getValue(String tag,Element element){  
 return  
 element.getElementsByTagName(tag).item(0).getChildNodes().item(0).getNodeValue();  
 }  
}