Program-6:

**XML file:**

**Main Activity (activity\_main.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"**>  
  
 <**LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:orientation="vertical"**>  
  
 <**TextView  
 android:id="@+id/textView"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginBottom="20sp"  
 android:gravity="center"  
 android:text="PARSING XML AND JSON DATA"  
 android:textSize="24sp"  
 android:textStyle="bold"** />  
  
 <**Button  
 android:id="@+id/button"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_gravity="center"  
 android:layout\_marginBottom="20sp"  
 android:gravity="center"  
 android:onClick="parseXML"  
 android:text="Parse XML Data"** />  
  
 <**Button  
 android:id="@+id/button2"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_gravity="center"  
 android:onClick="parseJSON"  
 android:text="Parse JSON Data"** />  
 </**LinearLayout**>  
</**androidx.constraintlayout.widget.ConstraintLayout**>

**Kotlin code: Main Activity**

**class** MainActivity : AppCompatActivity() {  
 **override fun** onCreate(savedInstanceState: Bundle?) {  
 **super**.onCreate(savedInstanceState)  
 setContentView(R.layout.*activity\_main*)  
 }  
 **fun** parseXML(v: View?)  
 {  
 **var** i= Intent(*application*,ParsingActivity::**class**.*java*)  
 i.putExtra(**"type"**,**"xml"**)  
 startActivity(i)  
 }  
 **fun** parseJSON(v:View?)  
 {  
 **var** i= Intent(*application*,ParsingActivity::**class**.*java*)  
 i.putExtra(**"type"**,**"json"**)  
 startActivity(i)  
 }  
  
}

**Create an assets folder and store city.xml and city.json files:**

**city.xml:**

*<?***xml version="1.0" encoding="utf-8"***?>*<**city**>  
 <**city\_name**>Mysore</**city\_name**>  
 <**latitude**>12.295</**latitude**>  
 <**longitude**>76.639</**longitude**>  
 <**temperature**>22</**temperature**>  
 <**humidity**>90%</**humidity**>  
</**city**>

city.json:

{  
 **"city\_name"**: **"Mysore"**,  
 **"latitude"**: 12.295,  
 **"longitude"**: 76.639,  
 **"temperature"**: 22,  
 **"humidity"**: **"90%"**}

Parsing Activity 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"  
 android:layout\_marginTop="30sp"  
 tools:context=".ParsingActivity"**>  
  
 <**LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:orientation="vertical"**>  
  
 <**TextView  
 android:id="@+id/textView2"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginBottom="20sp"  
 android:gravity="center"  
 android:text="XML and JSON Activity"  
 android:textSize="24sp"  
 android:textStyle="bold"** />  
  
 <**RelativeLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:orientation="horizontal"**>  
  
 <**TextView  
 android:id="@+id/textView3"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="30sp"  
 android:layout\_marginLeft="30sp"  
 android:text="XML Data"  
 android:textSize="18sp"** />  
  
 <**TextView  
 android:id="@+id/textView4"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="200sp"  
 android:layout\_marginLeft="200sp"  
 android:text="JSON Data"  
 android:textSize="18sp"** />  
  
 <**TextView  
 android:id="@+id/txtXML"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@id/textView3"  
 android:layout\_marginStart="30sp"  
 android:layout\_marginLeft="30sp"  
 android:layout\_marginTop="30sp"  
 android:text="TextView"** />  
  
 <**TextView  
 android:id="@+id/txtJSON"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_below="@id/textView4"  
 android:layout\_alignLeft="@id/textView4"  
 android:layout\_alignParentLeft="false"  
 android:layout\_marginTop="30sp"  
 android:text="TextView"** />  
 </**RelativeLayout**>  
 </**LinearLayout**>  
  
</**androidx.constraintlayout.widget.ConstraintLayout**>

**Parsing Activity Kotlin code:**

**class** ParsingActivity : AppCompatActivity() {  
 **override fun** onCreate(savedInstanceState: Bundle?) {  
 **super**.onCreate(savedInstanceState)  
 setContentView(R.layout.*activity\_parsing*)  
 **var** i=*intent* **if**(i.getStringExtra(**"type"**)==**"xml"**) *//XML Parsing* {  
 **var** istream=*assets*.open(**"city.xml"**)  
 **var** builderFactory=DocumentBuilderFactory.newInstance()  
 **var** dom=builderFactory.newDocumentBuilder()  
 **var** doc=dom.parse(istream) *//Do DOM parsing for XML* **var** city\_name=doc.getElementsByTagName(**"city\_name"**).item(0).*textContent* **var** latitude=doc.getElementsByTagName(**"latitude"**).item(0).*textContent* **var** longitude=doc.getElementsByTagName(**"longitude"**).item(0).*textContent* **var** temperature=doc.getElementsByTagName(**"temperature"**).item(0).*textContent* **var** humidity=doc.getElementsByTagName(**"humidity"**).item(0).*textContent* **var** t=findViewById<View>(R.id.*txtXML*) **as** TextView  
 t.setText(**"City Name: $**city\_name**\nLatitude: $**latitude**\nLongitude:$**longitude**\nTemperature:$**temperature**\nHumidity:$**humidity**"**)  
  
  
 }  
 **else** *//JSON Parsing* {  
 **var** json=*assets*.open(**"city.json"**).*bufferedReader*().*use* **{ it**.*readText*() **}  
 var** jsonobj=JSONObject(json)  
 **var** city\_name=jsonobj.getString(**"city\_name"**)  
 **var** latitude=jsonobj.getString(**"latitude"**)  
 **var** longitude=jsonobj.getString(**"longitude"**)  
 **var** temperature=jsonobj.getString(**"temperature"**)  
 **var** humidity=jsonobj.getString(**"humidity"**)  
 **var** t=findViewById<View>(R.id.*txtJSON*) **as** TextView  
 t.setText(**"City Name: $**city\_name**\nLatitude: $**latitude**\nLongitude:$**longitude**\nTemperature:$**temperature**\nHumidity:$**humidity**"**)  
  
  
 }  
 }  
}