

DWM EXP6 – 1211061

Aim: To extract data from various sources

Input Files:

```
//drug.xml
<?xml version="1.0"?>
<research>
  <drug id="101">
    <Medicine_type>Antidote</Medicine_type>
    <Quantity>3</Quantity>
    <Cost>150</Cost>

  </drug>
  <drug id="201">
    <Medicine_type>Painkiller</Medicine_type>
    <Quantity>1</Quantity>
    <Cost>200</Cost>

  </drug>
</research>
```

```
//doctor.xml
<?xml version="1.0"?>
<research>
  <doctor id="31">
    <D_name>Raj</D_name>
    <Affiliation>Surgeon</Affiliation>
    <D_residence>Mumbai</D_residence>
    <D_gender>Male</D_gender>

  </doctor>
  <doctor id="41">
    <D_name>Riya</D_name>
    <Affiliation>MD</Affiliation>
    <D_residence>Pune</D_residence>
    <D_gender>Female</D_gender>
```

```
</doctor>
</research>

//patient.xml
<?xml version="1.0"?>
<research>
  <patient id="1001">
    <P_gender>Male</P_gender>
    <P_name>Parsh</P_name>
    <P_residence>Mumbai</P_residence>
    <Age>21</Age>
    <Fever_type>Continuous</Fever_type>
```

```
</patient>
<patient id="2001">
  <P_gender>Female</P_gender>
  <P_name>Prisha</P_name>
  <P_residence>Pune</P_residence>
  <Age>20</Age>
  <Fever_type>Lowgrade</Fever_type>

</patient>
</research>
```

```
//temp.xml
<?xml version="1.0"?>
<research>
  <temp id="1001">
    <Temperature>104</Temperature>
    <Measure_time>10:40:20</Measure_time>
    <Time_interval>6</Time_interval>

  </temp>
  <temp id="2001">
    <Temperature>100</Temperature>
    <Measure_time>22:16:05</Measure_time>
    <Time_interval>8</Time_interval>

  </temp>
</research>
```

```
//datetime.xml
<?xml version="1.0"?>
<research>
  <datetime id="1001">
    <Date_id>20-12-2015</Date_id>
    <Time_id>10:08:17</Time_id>

  </datetime>
  <datetime id="2001">
    <Date_id>16-1-2016</Date_id>
    <Time_id>45:21:20</Time_id>

  </datetime>
</research>
```

Code:

```
//ReadXMLFile.java
import javax.xml.parsers.DocumentBuilderFactory;
import javax.xml.parsers.DocumentBuilder;
import org.w3c.dom.Document;
import org.w3c.dom.NodeList;
import org.w3c.dom.Node;
import org.w3c.dom.Element;
import java.io.File;

public class ReadXMLFile {

  public static void main(String argv[])
  {

    extractdrug("C:/Users/Parshva/Desktop/dwm_extract/drug.xml");
    extractdoctor("C:/Users/Parshva/Desktop/dwm_extract/doctor.xml");
    extractpatient("C:/Users/Parshva/Desktop/dwm_extract/patient.xml");
    extracttemperature("C:/Users/Parshva/Desktop/dwm_extract/temperature.xml");
    extractdatetime("C:/Users/Parshva/Desktop/dwm_extract/datetime.xml");
  }

  public static void extractdrug(String str)
  {
```

```

try {

File fXmlFile = new File(str);
DocumentBuilderFactory dbFactory = DocumentBuilderFactory.newInstance();
DocumentBuilder dBuilder = dbFactory.newDocumentBuilder();
Document doc = dBuilder.parse(fXmlFile);

doc.getDocumentElement().normalize();

System.out.println("-----");
System.out.println("Root element : " +
doc.getDocumentElement().getNodeName());

NodeList nList = doc.getElementsByTagName("drug");

System.out.println("-----");

for (int temp = 0; temp < nList.getLength(); temp++) {

    Node nNode = nList.item(temp);

    System.out.println("Current Element : " + nNode.getNodeName());

    if (nNode.getNodeType() == Node.ELEMENT_NODE) {

        Element eElement = (Element) nNode;

        System.out.println("drug id : " + eElement.getAttribute("id"));
        System.out.println("Medicine type : " +
eElement.getElementsByTagName("Medicine_type").item(0).getTextContent());
        System.out.println("Quantity : " +
eElement.getElementsByTagName("Quantity").item(0).getTextContent());
        System.out.println("Cost : " +
eElement.getElementsByTagName("Cost").item(0).getTextContent());
        System.out.println();

    }

}
} catch (Exception e) {
e.printStackTrace();
}

```

```

}

public static void extractdoctor(String str1)
{
    try {

        File fXmlFile = new File(str1);
        DocumentBuilderFactory dbFactory = DocumentBuilderFactory.newInstance();
        DocumentBuilder dBuilder = dbFactory.newDocumentBuilder();
        Document doc = dBuilder.parse(fXmlFile);

        doc.getDocumentElement().normalize();
        System.out.println("-----");
        System.out.println("Root element : " +
        doc.getDocumentElement().getNodeName());

        NodeList nList = doc.getElementsByTagName("doctor");

        System.out.println("-----");

        for (int temp = 0; temp < nList.getLength(); temp++) {

            Node nNode = nList.item(temp);

            System.out.println("Current Element : " + nNode.getNodeName());

            if (nNode.getNodeType() == Node.ELEMENT_NODE) {

                Element eElement = (Element) nNode;

                System.out.println("Doctor id : " + eElement.getAttribute("id"));
                System.out.println("Doctor Name : " +
                eElement.getElementsByTagName("D_name").item(0).getTextContent());
                System.out.println("Affiliation : " +
                eElement.getElementsByTagName("Affiliation").item(0).getTextContent());
                System.out.println("Doctor residence : " +
                eElement.getElementsByTagName("D_residence").item(0).getTextContent());
                System.out.println("Doctor gender : " +
                eElement.getElementsByTagName("D_gender").item(0).getTextContent());
                System.out.println();
            }
        }
    }
}

```

```

    } catch (Exception e) {
    e.printStackTrace();
    }
}

public static void extractpatient(String str2)
{
    try {

        File fXmlFile = new File(str2);
        DocumentBuilderFactory dbFactory = DocumentBuilderFactory.newInstance();
        DocumentBuilder dBuilder = dbFactory.newDocumentBuilder();
        Document doc = dBuilder.parse(fXmlFile);

        doc.getDocumentElement().normalize();
        System.out.println("-----");

        System.out.println("Root element : " +
        doc.getDocumentElement().getNodeName());

        NodeList nList = doc.getElementsByTagName("patient");

        System.out.println("-----");

        for (int temp = 0; temp < nList.getLength(); temp++) {

            Node nNode = nList.item(temp);

            System.out.println("Current Element : " + nNode.getNodeName());

            if (nNode.getNodeType() == Node.ELEMENT_NODE) {

                Element eElement = (Element) nNode;

                System.out.println("Patient id : " + eElement.getAttribute("id"));
                System.out.println("Patient gender : " +
                eElement.getElementsByTagName("P_gender").item(0).getTextContent());
                System.out.println("Patient Name : " +
                eElement.getElementsByTagName("P_name").item(0).getTextContent());
                System.out.println("Patient Residence : " +
                eElement.getElementsByTagName("P_residence").item(0).getTextContent());
                System.out.println("Patient Age " +

```

```

eElement.getElementsByTagName("Age").item(0).getTextContent());
    System.out.println("Fever type : " +
eElement.getElementsByTagName("Fever_type").item(0).getTextContent());
    System.out.println();

    }
}
} catch (Exception e) {
e.printStackTrace();
}
}

public static void extracttemperature(String str3)
{
    try {

        File fXmlFile = new File(str3);
        DocumentBuilderFactory dbFactory = DocumentBuilderFactory.newInstance();
        DocumentBuilder dBuilder = dbFactory.newDocumentBuilder();
        Document doc = dBuilder.parse(fXmlFile);

        doc.getDocumentElement().normalize();
        System.out.println("-----");

        System.out.println("Root element : " +
doc.getDocumentElement().getNodeName());

        NodeList nList = doc.getElementsByTagName("temp");

        System.out.println("-----");

        for (int temp = 0; temp < nList.getLength(); temp++) {

            Node nNode = nList.item(temp);
            System.out.println("Current Element : " + nNode.getNodeName());

            if (nNode.getNodeType() == Node.ELEMENT_NODE) {

                Element eElement = (Element) nNode;
                System.out.println("Temperature id : " + eElement.getAttribute("id"));
                System.out.println("Temperature : " +
eElement.getElementsByTagName("Temperature").item(0).getTextContent());

```

```

        System.out.println("Measure time : " +
eElement.getElementsByTagName("Measure_time").item(0).getTextContent());
        System.out.println("Time interval : " +
eElement.getElementsByTagName("Time_interval").item(0).getTextContent());
        System.out.println();
    }
}
} catch (Exception e) {
e.printStackTrace();
}
}
public static void extractdatetime(String str4)
{
    try {

File fXmlFile = new File(str4);
DocumentBuilderFactory dbFactory = DocumentBuilderFactory.newInstance();
DocumentBuilder dBuilder = dbFactory.newDocumentBuilder();
Document doc = dBuilder.parse(fXmlFile);

doc.getDocumentElement().normalize();
System.out.println("-----");

    System.out.println("Root element : " +
doc.getDocumentElement().getNodeName());

    NodeList nList = doc.getElementsByTagName("datetime");

    System.out.println("-----");

    for (int temp = 0; temp < nList.getLength(); temp++) {

        Node nNode = nList.item(temp);

        System.out.println("Current Element : " + nNode.getNodeName());

        if (nNode.getNodeType() == Node.ELEMENT_NODE) {

            Element eElement = (Element) nNode;

            System.out.println("Date Time id : " + eElement.getAttribute("id"));
            System.out.println("Date id : " +

```



```

eElement.getElementsByTagName("Date_id").item(0).getTextContent());
        System.out.println("Time id : " +
eElement.getElementsByTagName("Time_id").item(0).getTextContent());
        System.out.println();
    }
}
} catch (Exception e) {
    e.printStackTrace();
}

}

}

```

Output:

```

C:\Users\Parshva\Desktop\dwm_extract>javac ReadXMLFile.java
C:\Users\Parshva\Desktop\dwm_extract>java ReadXMLFile

```

```

-----
Root element :research
-----

```

```

Current Element :drug
drug id : 101
Medicine type : Antidote
Quantity : 3
Cost : 150

```

```

Current Element :drug
drug id : 201
Medicine type : Painkiller
Quantity : 1
Cost : 200

```

```

-----
Root element :research
-----

```

```

Current Element :doctor
Doctor id : 31
Doctor Name : Raj
Affiliation : Surgeon
Doctor residence : Mumbai

```

Doctor gender : Male

Current Element :doctor

Doctor id : 41

Doctor Name : Riya

Affiliation : MD

Doctor residence : Pune

Doctor gender : Female

Root element :research

Current Element :patient

Patient id : 1001

Patient gender : Male

Patient Name : Parsh

Patient Residence : Mumbai

Patient Age 21

Fever type : Continuous

Current Element :patient

Patient id : 2001

Patient gender : Female

Patient Name : Prisha

Patient Residence : Pune

Patient Age 20

Fever type : Lowgrade

Root element :research

Current Element :temp

Temperature id : 1001

Temperature : 104

Measure time : 10:40:20

Time interval : 6

Current Element :temp

Temperature id : 2001

Temperature : 100

Measure time : 22:16:05

Time interval : 8

Root element :research

Current Element :datetime

Date Time id : 1001

Date id : 20-12-2015

Time id : 10:08:17

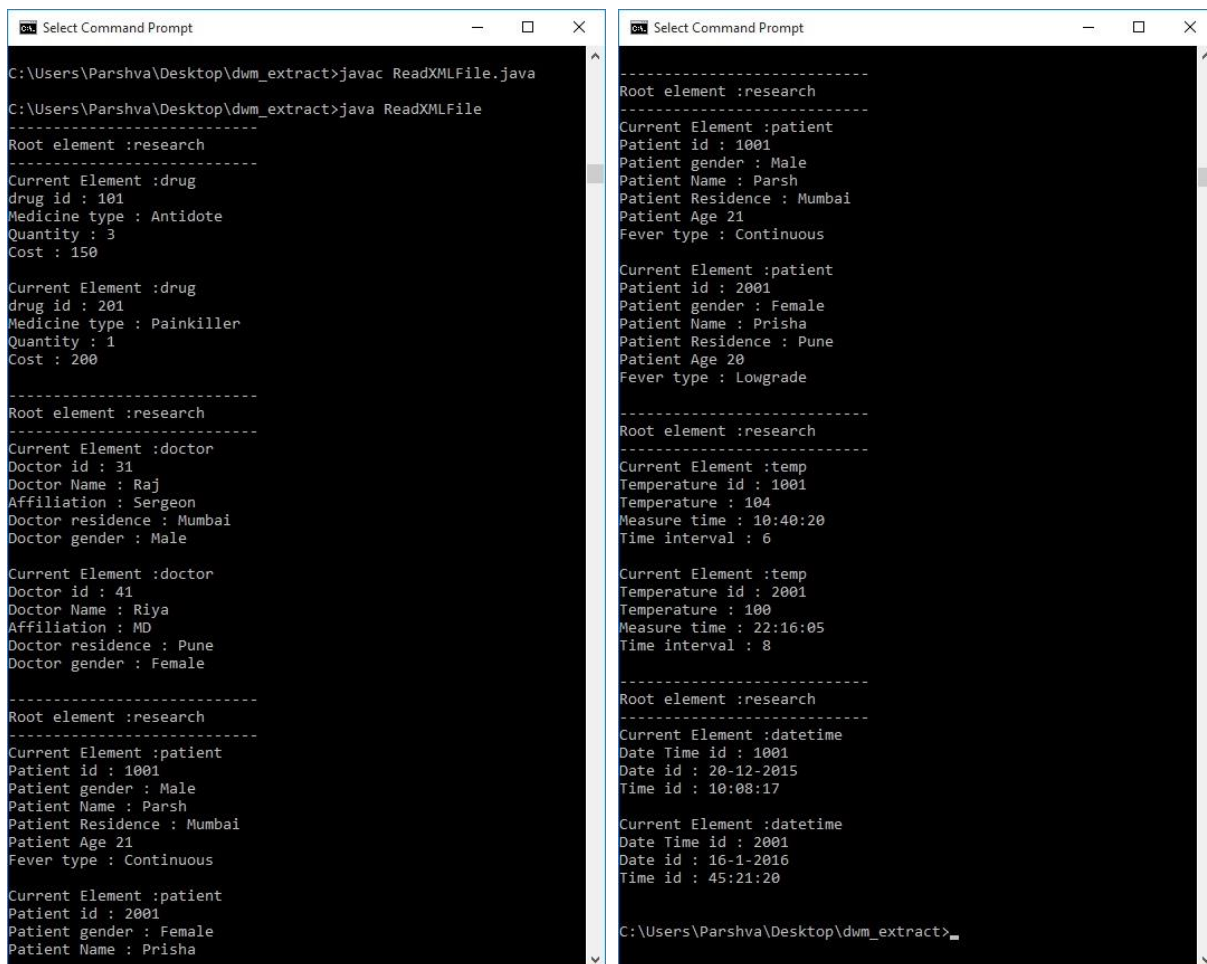
Current Element :datetime

Date Time id : 2001

Date id : 16-1-2016

Time id : 45:21:20

Screenshots:



```
C:\Users\Parshva\Desktop\dwmm_extract>javac ReadXMLFile.java
C:\Users\Parshva\Desktop\dwmm_extract>java ReadXMLFile
-----
Root element :research
-----
Current Element :drug
drug id : 101
Medicine type : Antidote
Quantity : 3
Cost : 150

Current Element :drug
drug id : 201
Medicine type : Painkiller
Quantity : 1
Cost : 200

-----
Root element :research
-----
Current Element :doctor
Doctor id : 31
Doctor Name : Raj
Affiliation : Surgeon
Doctor residence : Mumbai
Doctor gender : Male

Current Element :doctor
Doctor id : 41
Doctor Name : Riya
Affiliation : MD
Doctor residence : Pune
Doctor gender : Female

-----
Root element :research
-----
Current Element :patient
Patient id : 1001
Patient gender : Male
Patient Name : Parsh
Patient Residence : Mumbai
Patient Age 21
Fever type : Continuous

Current Element :patient
Patient id : 2001
Patient gender : Female
Patient Name : Prisha

-----
Root element :research
-----
Current Element :temp
Temperature id : 1001
Temperature : 104
Measure time : 10:40:20
Time interval : 6

Current Element :temp
Temperature id : 2001
Temperature : 100
Measure time : 22:16:05
Time interval : 8

-----
Root element :research
-----
Current Element :datetime
Date Time id : 1001
Date id : 20-12-2015
Time id : 10:08:17

Current Element :datetime
Date Time id : 2001
Date id : 16-1-2016
Time id : 45:21:20

C:\Users\Parshva\Desktop\dwmm_extract>
```