SSN COLLEGE OF ENGINEERING, KALAVAKKAM
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
Internet Programming Lab – CS8661
Programming Assignment 14 – Information retrieval from XML document

---

Create an XML document to contain information about the students namely, reg.no, name, address, email and mobile. Address field consists of street, city and pincode. Write a program in java that takes Reg.No as an input and displays all the details of the student.

CODE:

dom.java

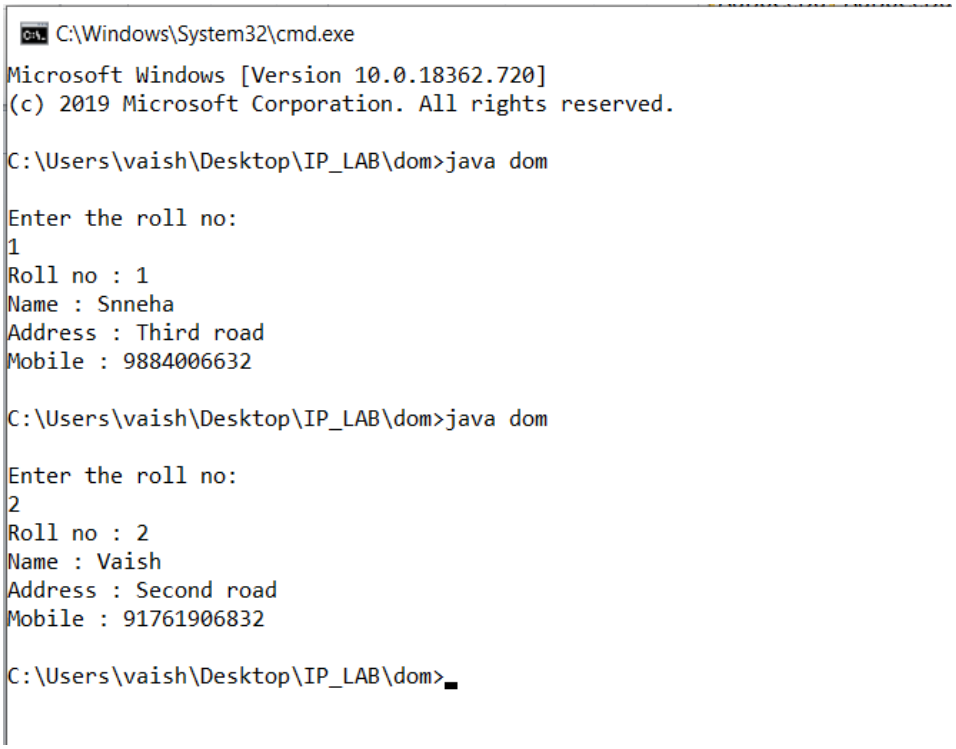
```
import org.w3c.dom.*;
import javax.xml.parsers.*;
import java.util.Scanner;

public class dom{
	public static void main(String[] args) {
		DocumentBuilderFactory dbf=DocumentBuilderFactory.newInstance();
		try{
			DocumentBuilder db=dbf.newDocumentBuilder();
			Document doc=db.parse("input.xml");
			Scanner s=new Scanner(System.in);
			System.out.println("\nEnter the roll no: ");
			String r=s.next();
			//System.out.println(doc.getDocumentElement().getNodeName());
			NodeList l=doc.getElementsByTagName("student");
			for(int i=0;i<l.getLength();i++){
				Node n=l.item(i);
				if(n.getNodeType()==Node.ELEMENT_NODE){
					Element elt=(Element)n;
					if(elt.getAttribute("rno").equals(r)){
						System.out.println("Roll no : " +
elt.getAttribute("rno"));
						System.out.println("Name : " +
elt.getElementsByTagName("name").item(0).getTextContent());
						System.out.println("Address : "+
elt.getElementsByTagName("address").item(0).getTextContent());
					System.out.println("Mobile :
"+elt.getElementsByTagName("mob").item(0).getTextContent());
					}
				}
			}
		}
		catch(Exception e){	System.out.println(e); }
	}
```

}

input.xml

```
<?xml version="1.0" encoding="UTF-8"?>

<class>
	<student rno="1">
		<name>Snneha</name>
		<address>Third road</address>
		<mob>9884006632</mob>
	</student>

	<student rno="2">
		<rollno>2</rollno>
		<name>Vaish</name>
		<address>Second road</address>
		<mob>91761906832</mob>
	</student>

	<student rno="3">
		<name>jack</name>
		<address>first road</address>
		<mob>8764423632</mob>
	</student>

	<student rno="4">
		<name>jill</name>
		<address>fourth road</address>
		<mob>7338766632</mob>
	</student>

	<student rno="5">
		<name>humpty</name>
		<address>fifth road</address>
		<mob>678889632</mob>
	</student>
</class>
```

OUTPUT:



saxParser.java

```
import org.xml.sax.*;
import javax.xml.parsers.*;
import java.util.Scanner;
import org.xml.sax.helpers.DefaultHandler;

public class saxParser {
        public static void main(String args[]){
                SAXParserFactory spf=SAXParserFactory.newInstance();
                try{
                        SAXParser sp=spf.newSAXParser();
                        Scanner s=new Scanner(System.in);
                        System.out.println("\nEnter the roll no: ");
                        String r=s.next();
                        UserHandler handler = new UserHandler(r);
                    sp.parse("input.xml", handler);
                }
                catch(Exception e){System.out.println(e);}
        }
}

class UserHandler extends DefaultHandler {
```

```
boolean fname = false;
boolean fadd = false;
boolean fmob = false;
String r = null;
String rollno=null;

public UserHandler(String r){
        this.r=r;
}

public void startElement(String uri, String localName,String qName,
   Attributes att) throws SAXException {

        if (qName.equals("student"))
                rollno=att.getValue("rno");
        if(r.equals(rollno))
        {

                if (qName.equals("name"))
                        fname = true;

                if (qName.equals("address"))
                        fadd = true;

                if (qName.equals("mob"))
                        fmob = true;
        }
}

public void endElement(String uri, String localName,
        String qName) throws SAXException {
        //System.out.println("End Element :" + qName);
}

public void characters(char ch[], int start, int length) throws SAXException {

        if (fname) {
                System.out.println("Name : " + new String(ch, start, length));
                fname = false;
        }

        if (fadd) {
                System.out.println("Address : " + new String(ch, start, length));
                fadd = false;
        }

        if (fmob) {
                System.out.println("Mobile: " + new String(ch, start, length));
```

```
                    fmob = false;
                }
            }
        }
```

OUTPUT: