

APACHE XERCES STAX PARSER - QUERY XML DOCUMENT

http://www.tutorialspoint.com/xerces/xerces_stax_query_document.htm

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Demo Example

Here is the input xml file we need to parse:

```
<?xml version="1.0"?>
<class>
  <student rollno="393">
    <firstname>Dinkar</firstname>
    <lastname>Kad</lastname>
    <nickname>Dinkar</nickname>
    <marks>85</marks>
  </student>
  <student rollno="493">
    <firstname>Vineet</firstname>
    <lastname>Gupta</lastname>
    <nickname>Vinni</nickname>
    <marks>95</marks>
  </student>
  <student rollno="593">
    <firstname>Jasvir</firstname>
    <lastname>Singh</lastname>
    <nickname>Jazz</nickname>
    <marks>90</marks>
  </student>
</class>
```

StAXParserDemo.java

```
package com.tutorialspoint.xml;

import java.io.FileNotFoundException;
import java.io.FileReader;
import java.util.Iterator;

import javax.xml.stream.XMLStreamReader;
import javax.xml.stream.XMLInputFactory;
import javax.xml.stream.XMLStreamConstants;
import javax.xml.stream.XMLStreamException;
import javax.xml.stream.events.Attribute;
import javax.xml.stream.events.Characters;
import javax.xml.stream.events.EndElement;
import javax.xml.stream.events.StartElement;
import javax.xml.stream.events.XMLEvent;

public class StAXQueryDemo {
    public static void main(String[] args) {
        boolean bFirstName = false;
        boolean bLastName = false;
        boolean bNickName = false;
        boolean bMarks = false;
        boolean isRequestRollNo = false;
        try {
            XMLInputFactory factory = XMLInputFactory.newInstance();
            XMLStreamReader eventReader =
                factory.createXMLStreamReader(
                    new FileReader("input.txt"));

            String requestedRollNo = "393";
            while(eventReader.hasNext()){
                XMLEvent event = eventReader.nextEvent();
                switch(event.getEventType()){
                    case XMLStreamConstants.START_ELEMENT:

```

```

StartElement startElement = event.asStartElement();
String qName = startElement.getName().getLocalPart();
if (qName.equalsIgnoreCase("student")) {
    Iterator<Attribute> attributes = startElement.getAttributes();
    String rollNo = attributes.next().getValue();
    if(rollNo.equalsIgnoreCase(requestedRollNo)){
        System.out.println("Start Element : student");
        System.out.println("Roll No : " + rollNo);
        isRequestRollNo = true;
    }
} else if (qName.equalsIgnoreCase("firstname")) {
    bFirstName = true;
} else if (qName.equalsIgnoreCase("lastname")) {
    bLastName = true;
} else if (qName.equalsIgnoreCase("nickname")) {
    bNickName = true;
}
else if (qName.equalsIgnoreCase("marks")) {
    bMarks = true;
}
break;
case XMLStreamConstants.CHARACTERS:
    Characters characters = event.asCharacters();
    if(bFirstName && isRequestRollNo){
        System.out.println("First Name: "
            + characters.getData());
        bFirstName = false;
    }
    if(bLastName && isRequestRollNo){
        System.out.println("Last Name: "
            + characters.getData());
        bLastName = false;
    }
    if(bNickName && isRequestRollNo){
        System.out.println("Nick Name: "
            + characters.getData());
        bNickName = false;
    }
    if(bMarks && isRequestRollNo){
        System.out.println("Marks: "
            + characters.getData());
        bMarks = false;
    }
    break;
case XMLStreamConstants.END_ELEMENT:
    EndElement endElement = event.asEndElement();
    if(endElement.getName().getLocalPart().equalsIgnoreCase("student") &&
isRequestRollNo){
        System.out.println("End Element : student");
        System.out.println();
        isRequestRollNo = false;
    }
    break;
}
}
} catch (FileNotFoundException e) {
    e.printStackTrace();
} catch (XMLStreamException e) {
    e.printStackTrace();
}
}
}

```

This would produce the following result:

```

Start Element : student
Roll No : 393
First Name: Dinkar
Last Name: Kad

```

Nick Name: Dinkar
Marks: 85
End Element : student