

APACHE XERCES DOM PARSER - PARSE XML DOCUMENT

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

Copyright © tutorialspoint.com

Steps to Using DOM

Following are the steps used while parsing a document using DOM Parser.

- Import XML-related packages.
- Create a DocumentBuilder
- Create a Document from a file or stream
- Extract the root element
- Examine attributes
- Examine sub-elements

Import XML-related packages

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

Create a DocumentBuilder

```
DocumentBuilderFactory factory =  
DocumentBuilderFactory.newInstance();  
DocumentBuilder builder = factory.newDocumentBuilder();
```

Create a Document from a file or stream

```
StringBuilder xmlStringBuilder = new StringBuilder();  
xmlStringBuilder.append("<?xml version='1.0'?> <class> </class>");  
ByteArrayInputStream input = new ByteArrayInputStream(  
    xmlStringBuilder.toString().getBytes("UTF-8"));  
Document doc = builder.parse(input);
```

Extract the root element

```
Element root = document.getDocumentElement();
```

Examine attributes

```
//returns specific attribute  
getAttribute("attributeName");  
//returns a Map (table) of names/values  
getAttributes();
```

Examine sub-elements

```
//returns a list of subelements of specified name  
getElementsByTagName("subelementName");  
//returns a list of all child nodes  
getChildNodes();
```

Demo Example

Here is the input xml file we need to parse:


```

        + eElement
            .getElementsByTagName("nickname")
            .item(0)
            .getTextContent());
    System.out.println("Marks : ");
    + eElement
        .getElementsByTagName("marks")
        .item(0)
        .getTextContent());
    }
}
} catch (Exception e) {
    e.printStackTrace();
}
}
}

```

This would produce the following result:

```

Root element :class
-----

Current Element :student
Student roll no : 393
First Name : Dinkar
Last Name : Kad
Nick Name : Dinkar
Marks : 85

Current Element :student
Student roll no : 493
First Name : Vineet
Last Name : Gupta
Nick Name : Vinni
Marks : 95

Current Element :student
Student roll no : 593
First Name : Jasvir
Last Name : Singh
Nick Name : Jazz
Marks : 90

```