

---

<JSTORM>

---

**Writing Enterprise Applications with Java 2  
Platform, Enterprise Edition - part6**



JSTORM  
<http://www.jstorm.pe.kr>

---

### Document Information

Document title:	Writing Enterprise Applications with Java 2 Platform, Enterprise Edition - part6
Document file name:	Writing_Enterprise_Applications_5_JunoYoon
Revision number:	<1.0>
Issued by:	< > junoyoon@orgio.net
Issue Date:	<2001/04/20>
Status:	final

### Content Information

Audience	
Abstract	DOM XML .
Reference	Writing Enterprise Applications with Java™ Platform, Enterprise Edition By Monica Pawlan ( <a href="http://developer.java.sun.com/developer/onlineTraining/J2EE/Intro/">http://developer.java.sun.com/developer/onlineTraining/J2EE/Intro/</a> )
Benchmark information	

## Table of Contents

<b>Lesson 6 - XML .....</b>	<b>4</b>
.....	4
JavaBean .....	5
XML - API .....	9
.....	10
.....	11



## Lesson 6 - XML

XML (Extensible Markup Language) XML API

XML

가

XML

. XML HTML

가 Web

가 XML

XML

. XML

가

가

XML XML schema

DTD (Document Type

Definitions : XML API

Lesson

JavaBean

가 XML API

XML

XML

가

XML

가

XML

, DTD XSL (Extensible Stylesheet

Language)

가

o XSL XML HTML 가 , title  
XML , HTML H1 X  
SL 가 .

o XML schema DTD XML  
, article  
XML title 가 2  
title 가 가 DTD

XML 가 well-formed XML 가  
XSL DTD  
가 . , DTD article XML title  
, article title 가  
. XML DTD (verification)

XML , DTD 가  
. XML 가 DTD 가 가  
가 가 , 가  
가 Web 가 , XML  
가 가 가

## JavaBean

XML genXML JBonusBean  
가 . XML

```
<? xml version="1.0"? >  
<report>  
  <bonusCalc ssnnum="77777777" bonusAmt="300.0" />  
</report>
```

## XML Prolog

<? xml version="1.0"? > XML (Prolog) . XML  
가 , XML 가 XML XML  
. XML , encode ,  
(Standalone) 가 .

- o encode : XML  
. Unicode <? xml version="1. 0" encoding="UTF-8"? > ,  
<? xml version="1. 0" encoding="ISO-8  
859-1"? >  
o (Standalone) : XML 가  
. XML HTML  
, D  
TD .

### Document Root

<report> , XML .  
XML ,  
XML 가 가 </report>  
가 .  
XML 가 , XML  
report . <root>, <b  
egin> . DTD  
, 가 .

### Child Nodes

<bonusCalc> . 가  
Child , ID (attribute) 가  
(ssnum bonusAmt). DTD bonusCalc 가 ssnum  
bonusAmt 가 가 . DTD

<bonusCalc ssnum="77777777" bonusAmt="300. 0"/>

### XML

. 가  
slash (/) . XML  
. XML well-formed  
. well-formed

```
<bonusCalc ssnum="77777777" bonusAmt="300.0" />
```

**well-formed** :

```
<bonusCalc>
  <ssnum>"77777777"</ssnum>
  <bonusAmt>300.0</bonusAmt>
</bonusCalc>
```

XML HTML

```
<!-- Bonus Report-->
<bonusCalc ssnum="77777777" bonusAmt="300.0" />
```

(Processing Instructions) XML

```
<? target instruction ? >
target instructions
가 .XML .xml
XML
```

```
<? xml version="1.0"? >
```

가

## JavaBean

```
JBonusBean XML
import 가
XML .XML
Web Java Plug-In
JavaBean 가 Signed Applet
XML ElementNode XmlDocument import
XML StringWriter
IOException
```

```
import javax.naming.*;
import javax.rmi.PortableRemoteObject;
import Beans.*;
import java.io.StringWriter;
```

```
import java.io.IOException;
import com.sun.xml.tree.ElementNode;
import com.sun.xml.tree.XmlDocument;

        JbonusBean          가
getBonusAmt          getXML          Session bean
theCalculation          .          getXML
        XML          Session
Bean  getRecord          .

Calc theCalculation

JbonusBean  genXML          strMult  null          getBonusAmt
        .          XmlDocument
        XML          가
        ,  가

private void genXML(){
    Bonus records = null;
    //Create XML document
    XmlDocument doc = new XmlDocument();
    //Create node
    ElementNode root = (ElementNode) doc.createElement("report");
    //Add node to XML document
    doc.appendChild(root);

    try-catch          ID
가          Child          (bonusCalc)
bonusCalc          ID          가          Child

try{
    //Get database record
    records = homebonus.findByPrimaryKey(socsec);
    //Retrieve the social security number from record
    String ssRetrieved = records.getSocSec();
    //Retrieve bonus amount from record
    double bRetrieved = records.getBonus();
    //Convert double to string
    Double bonusObj = new Double(bRetrieved);
    String bString = bonusObj.toString();
    //Create child node
    ElementNode bonusCalc = (ElementNode)
```



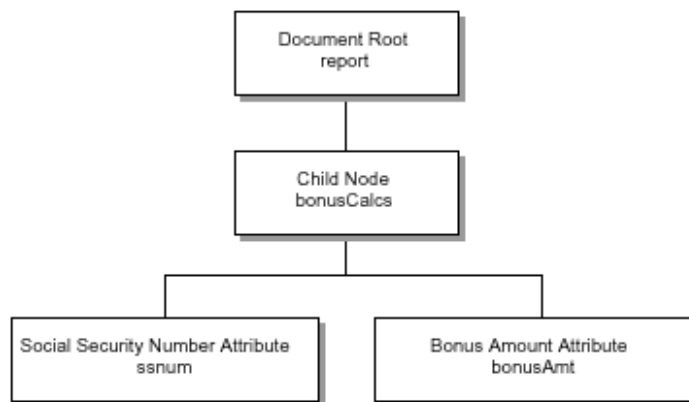
```
doc.createElement("bonusCalc");
//Add attributes to child node
    bonusCalc.setAttribute("ssnum", ssRetrieved);
    bonusCalc.setAttribute("bonusAmt", bString);
//Add child node to root
    root.appendChild(bonusCalc);
} catch (java.rmi.RemoteException e) {
    e.printStackTrace();
}
```

genXML                                  StringWriter  
StringWriter                              StringWriter

```
try{
    StringWriter out = new StringWriter();
    doc.write(out);
    System.out.println(out);
} catch (java.io.FileNotFoundException fe) {
    System.out.println("Cannot write XML");
} catch (IOException ioe) {
    System.out.println("cannot write XML");
}
```

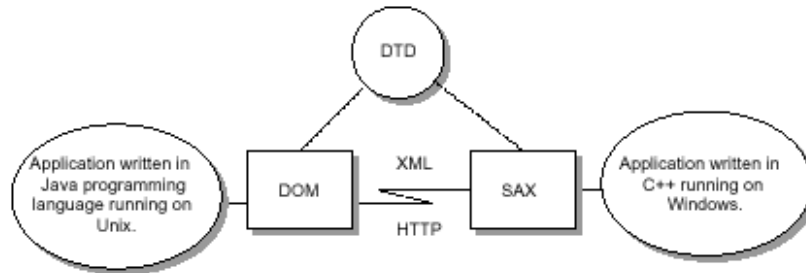
XML                          DOM(Document Object Model)                          .                          1  
DOM                          . genXML                          API  
DOM                          ,                          DOM                          가  
DTD                          DOM                          . XML                          DOM

### 1. Document Object Model (DOM)



## XML - API

J2EE API 가 . XML  
 j2ee.jar . JAR 2 API  
 XML SAX, DOM , J2EE XML API  
 XML 가 .



2.

## SAX DOM

SAX API Element 가 (Event-Driven) API .  
 DOM API 가 . DOM API  
 가  
 DOM XML CPU 가 . SAX API 가  
 : DOM SAX ,

[http://java.sun.com/xml/docs/tutorial/overview/3\\_apis.html](http://java.sun.com/xml/docs/tutorial/overview/3_apis.html)

## J2EE

J2EE XML API DOM , DOM  
 . J2EE XML API com.sun  
 API 가

## JBonusBean

- o Local Applications Window: 2BeansApp
- o [Tool] : [Update and Redeploy Application]

: Lesson BonusApp

Web 8000 . bonus.jsp Web  
JSP http://localhost:8000/JSPRoot/bonu  
s.jsp

- o social security number multiplier
- o Submit . Bonus.jsp  
HTML

XML Web

http://www.xml.com/  
http://java.sun.com/xml/docs/tutorial/index.html XML 가