write a simple DOM program to read the contents of xml file?

```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;
class DomParserDemo
{
      public static void main(String argv[])
      {
            try
            {

                  File xmlFile = new File("student.xml");
                  DocumentBuilderFactory dbf =
DocumentBuilderFactory.newInstance();
                  DocumentBuilder db = dbf.newDocumentBuilder();
                  Document doc = db.parse(xmlFile);
                  doc.getDocumentElement().normalize();
                  System.out.println("Root element :" +
doc.getDocumentElement()

      .getNodeName());
                  NodeList nodeList = doc.getElementsByTagName("student");

      System.out.println("==========================================")
;
                  for (int i = 0; i < nodeList.getLength(); i++)
                  {
                        Node node = nodeList.item(i);
                        System.out.println("\nNode Name :" +
node.getNodeName());
                        if (node.getNodeType() == Node.ELEMENT_NODE)
                        {
                              Element eElement = (Element) node;
                              System.out.println("Rollnum: "+
eElement.getElementsByTagName("num")

      .item(0).getTextContent());
                              System.out.println("Name: "+
eElement.getElementsByTagName("name")

      .item(0).getTextContent());
                              System.out.println("Marks : "+
eElement.getElementsByTagName("marks")

      .item(0).getTextContent());
                        }
                  }
            }
            catch (Exception e)
              {
                      e.printStackTrace();
              }
      }
}
```

```
student.xml

<class>
      <student>
             <num>1201</num>
             <name>HARI</name>
             <marks>88</marks>
      </student>
      <student>
             <num>1211</num>
             <name>RAMU</name>
             <marks>77</marks>
      </student>
</class>
```

Write a Servlet program to read the parameters from database and display
welcome message

Register.html

```
<!DOCTYPE html>
<html>
    <head>
        <title>Login form</title>
    </head>
    <body>
        <form method="post" action="Login">
        Username :<input type="text" name="a" /><br/><br/>
        Password :<input type="password" name="b" /><br/><br/>
        <input type="submit" value="Login" />
        </form>
    </body>
</html>
```

Login.java

```
import javax.servlet.*;
import java.sql.*;
import java.io.*;
public class Login extends GenericServlet {

      private String uid,pd,em;
    public void service(ServletRequest req,ServletResponse res) throws
      ServletException,IOException
      {
             uid=req.getParameter("a");
             pd=req.getParameter("b");
             res.setContentType("text/html");
             PrintWriter out=res.getWriter();
          try {
              Class.forName("oracle.jdbc.driver.OracleDriver");
             Connection
con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","sy
stem","vbit");
              PreparedStatement st = con.prepareStatement("Select
uname,pass from emp where uname=? and pass=?");
             st.setString(1, uid);
                  st.setString(2, pd);
```

```java
                 ResultSet rs = st.executeQuery();
            if (rs.next())
                  {
                out.println("welcome");
              }
              else
                    {
                out.println("Incorrect login credentials");
              }
          }
          catch (ClassNotFoundException | SQLException e) {
              e.printStackTrace();
          }
      }
}
```

web.xml

```xml
<web-app>
    <servlet>
            <servlet-name>Login</servlet-name>
            <servlet-class>Login</servlet-class>
      </servlet>
      <servlet-mapping>
            <servlet-name>Login</servlet-name>
            <url-pattern>/Login</url-pattern>
      </servlet-mapping>

</web-app>
```

Write a Servlet program to read initialization parameters using ServletConfig and
ServletContext object.

 login.html

```html
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Login</title>
</head>
<body>
    <form action="ValidServ" method="post">
            Username: <input type="text" name="txtuser" /><br/>
            Password: <input type="password" name="txtpass" /><br/>
            <input type="submit" value="Submit" />
            <input type="reset" value="clear" />
      </form>
</body>
</html>
```

ValidServ.java

```java
import java.io.IOException;
import java.util.Enumeration;
import javax.servlet.ServletConfig;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
```

```java
import javax.servlet.http.HttpServletResponse;

/**
 * Servlet implementation class ValidServ
 */
public class ValidServ extends HttpServlet {
      private static final long serialVersionUID = 1L;

      ServletConfig cfg;

    /**
     * @see HttpServlet#HttpServlet()
     */
    public ValidServ() {
        super();
        // TODO Auto-generated constructor stub
    }

      /**
       * @see Servlet#init(ServletConfig)
       */
      public void init(ServletConfig config) throws ServletException {
            cfg = config;
      }

      public void doPost(HttpServletRequest request, HttpServletResponse
response)   throws ServletException, IOException {
            String un = request.getParameter("txtuser");
            String pw = request.getParameter("txtpass");
            boolean flag = false;
            Enumeration<String> initparams = cfg.getInitParameterNames();
            while(initparams.hasMoreElements())
            {
                  String name = initparams.nextElement();
                  String pass = cfg.getInitParameter(name);
                  if(un.equals(name) && pw.equals(pass))
                  {
                        flag = true;
                  }
            }
            if(flag)
            {
                  response.getWriter().print("Valid user!");
            }
            else
            {
                  response.getWriter().print("Invalid user!");
            }
      }
}
```

web.xml

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

```xml
    <servlet-name>ValidServ</servlet-name>
    <servlet-class>ValidServ</servlet-class>
    <init-param>
      <param-name>user1</param-name>
      <param-value>pass1</param-value>
    </init-param>
    <init-param>
      <param-name>user2</param-name>
      <param-value>pass2</param-value>
    </init-param>
    <init-param>
      <param-name>user3</param-name>
      <param-value>pass3</param-value>
    </init-param>
    <init-param>
      <param-name>user4</param-name>
      <param-value>pass4</param-value>
    </init-param>
  </servlet>
  <servlet-mapping>
    <servlet-name>ValidServ</servlet-name>
    <url-pattern>/ValidServ</url-pattern>
  </servlet-mapping>
</web-app>
```

Write a JDBC Program to insert values into a student table in the database using servlets

registration.html

```html
        <html>
    <body>
        <h1> REGISTRATION PAGE</h1>
        <form action="Register" method = "GET">

            Enter num:<input type="text" name="a"><br><br>
            Enter name:<input type="text" name="b"><br><br>
             Enter marks:<input type="text" name="c"><br><br>
        <input type="submit" value="SUBMIT">
        </form>
    </body>
</html>
```

Register.java

```java
import javax.servlet.*;
import java.sql.*;
import java.io.*;
public class Register extends GenericServlet
{
    private String snum,sname,smarks;

    public void service(ServletRequest req,ServletResponse res) throws
    ServletException,IOException
    {
        snum=req.getParameter("a");
        sname=req.getParameter("b");
        smarks=req.getParameter("c");
```

```java
            res.setContentType("text/html");
            PrintWriter out=res.getWriter();
        try
        {
            Class.forName("oracle.jdbc.driver.OracleDriver");
            Connection
con=DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe","sy
stem","vbit");
            PreparedStatement st=con.prepareStatement("insert into student
values(?,?,?)");
            st.setString(1,snum);
            st.setString(2,sname);
            st.setString(3,smarks);
            st.executeUpdate();
            out.print("student data inserted successfully");
            con.close();
        }
        catch(SQLException s)
        {
            out.println("not found "+s);
        }
        catch(ClassNotFoundException c)
        {
            out.println("not found "+c);
        }
        }
}
```

web.xml

```xml
<web-app>
    <servlet>
        <servlet-name>Register</servlet-name>
        <servlet-class>Register</servlet-class>
    </servlet>

    <servlet-mapping>
        <servlet-name>Register</servlet-name>
        <url-pattern>/Register</url-pattern>
    </servlet-mapping>

</web-app>
```

Write a JDBC Program to perform various DML Operations on the database
using
Statement using JSP.

hello.html

```html
<!DOCTYPE html>
<html>
    <head>
        <title>Login form</title>
    </head>
    <body>
```

```html
        <h1>STUDENT DATA SEARCH </h1>

          <form method="get" action="Login">
          Roll Num :<input type="text" name="a" /><br/><br/>
          <input type="submit" value="search" />
          </form>
    </body>
</html>
```

Login.java

```java
import javax.servlet.*;
import java.sql.*;
import java.io.*;
public class Login extends GenericServlet {

      private String n;
    public void service(ServletRequest req,ServletResponse res) throws
      ServletException,IOException
      {
            n=req.getParameter("a");
            res.setContentType("text/html");
            PrintWriter out=res.getWriter();
        try
            {
                  Class.forName("oracle.jdbc.driver.OracleDriver");
                  Connection c = DriverManager.getConnection(
                  "jdbc:oracle:thin:@localhost:1521:xe","system","vbit");
                  PreparedStatement st = c.prepareStatement("Select * from
student where num=?");
            st.setString(1, n);
                   ResultSet r = st.executeQuery();
                  while(r.next())
                  {
                        out.println(r.getString(1)+" "+r.getString(2)+"
"+r.getInt(3)+"<br>");

                  }
                  c.close();
            }
            catch(Exception e)
            {
                  System.out.println("Exception:"+e);
            }
      }
}
```

web.xml

```xml
<web-app>
</servlet-mapping>
        <servlet>
              <servlet-name>Login</servlet-name>
              <servlet-class>Login</servlet-class>
        </servlet>

    <servlet-mapping>
        <servlet-name>Login</servlet-name>
        <url-pattern>/Login</url-pattern>
```

```
        </servlet-mapping>
</web-app>



write a simple jsp program?

<%@ page language="java"contentType="text/html"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
      "http://www.w3.org/TR/html4/loose.dtd">
<html>
  <head>
    <title>Insert title here</title>
  </head>
  <body>
    <center>
      <font color="red" size="7">  Hello World!  </font> <br>

       <font color="green" size="5"> The date and time now is: <%= new
java.util.Date() %>
    </center>
  </body>
</html>
```

write jsp application that takes a name as input and on submit it shows a
welcome<name> page where <name> is taken from the request

index.html

```
<form action="welcome.jsp">
<input type="text" name="uname">
<input type="submit" value="go"><br/>
</form>
```

welcome.jsp

```
<%
String name=request.getParameter("uname");
out.print("welcome "+name);
%>
```

A web application that takes name and age from an HTML page. If the age
is less than 18, it should send a page with "hello <name>,and u are not
authorized to visit this site" otherwise it should send "welcome <name>
to this site" message where name should be replaced with the entered name
otherwise it should send welcome<name> to the site message.

Form2.html
```
<form action='home.php' method='post'>
Login<br>
User name: <input type='text' name='name'><br>
age:  <input type='text' name='age'><br>
<input type='submit'value='Login'>
```

home.php

```
<?php
$name = $_POST['name'];
$age = $_POST['age'];
if ($age < 18)
```

```php
      print "Hello " . $name . " you are not authorized to visit this
site.";
else
      print "Welcome " . $name . " to this site."
?>
```

A web application that lists all cookies stored in thebrowser on clicking
"list cookies" button, add cookies if necessary

setcookies.php
```php
<?php
$firstname = 'aaa';
$middlename = 'bbb';
$lastname = 'ccc';
setcookie('first_name',$firstname,time() + 86400);
setcookie('middle_name',$middlename,time() + 86400);
setcookie('last_name',$lastname,time() + 86400);
print "cookies set";
?>
```

Listcookies.php

```php
<?php
if(!empty($_COOKIE))
{
foreach ($_COOKIE as $key=>$val)
   {
     echo $key.' is '.$val."<br>\n";
   }
}
else {
echo 'There are no Cookies, you must set some cookies.';
}
?>
```

A web application takes a name as input and on submit it shows a
hello<name> page where <name> is taken from the request.and it shows a
start time at the right top corner of the page and provides the logout
button on clicking this button it should shoe a logout page with
thankyou<name> message with the duration of Usage.

Login.html

```html
<html>
    <form action="home.php" method="post">
Username<input type="text" name="text1"><br>
<input type="submit" value="SignIn" name="submit">
</form>
</html>
```

Home.php
```php
<?php
    session_start();
   date_default_timezone_set("Asia/Calcutta");

        $_SESSION['luser'] = $_POST['text1'];
        $_SESSION['start'] = time();
      $tm=$_SESSION['start'];
print "<p align='right'>Session started at " . date("h:i:sa",$tm) .
"<br>";
```

```php
print "<form action='logoutpage.php' method='post'>";
print "<input type='submit' value='Logout'></p>";
print "</form>";
print "Hello " . $_SESSION['luser'];
?>
```

Logoutpage.php
```php
<?php
    session_start();
    date_default_timezone_set("Asia/Calcutta");
    print "<p align='right'>Session started at " . date("h:i:sa",time())
. "</p><br>";
    print "Thank you " . $_SESSION['luser'];
    $sessiontime = time() - $_SESSION['start'];
    print "<br> Your session duration: " . $sessiontime . " seconds";
    session_destroy();
?>
```