EX. NO: 13
DATE:

AJAX

AJAX:

AJAX stands for **A**synchronous **Ja**vaScript and **X**ML. AJAX is a new technique for creating better, faster, and more interactive web applications with the help of XML, HTML, CSS, and Java Script.

- Ajax uses XHTML for content, CSS for presentation, along with Document Object Model and JavaScript for dynamic content display.

- Conventional web applications transmit information to and from the sever using synchronous requests. It means you fill out a form, hit submit, and get directed to a new page with new information from the server.

- With AJAX, when you hit submit, JavaScript will make a request to the server, interpret the results, and update the current screen. In the purest sense, the user would never know that anything was even transmitted to the server.

- XML is commonly used as the format for receiving server data, although any format, including plain text, can be used.

- AJAX is a web browser technology independent of web server software.

- A user can continue to use the application while the client program requests information from the server in the background.

- Intuitive and natural user interaction. Clicking is not required, mouse movement is a sufficient event trigger.

- Data-driven as opposed to page-driven.

Rich Internet Application Technology:

AJAX is the most viable Rich Internet Application (RIA) technology so far. It is getting tremendous industry momentum and several tool kit and frameworks are emerging. But at the same time, AJAX has browser incompatibility and it is supported by JavaScript, which is hard to maintain and debug.

AJAX is Based on Open Standards

AJAX is based on the following open standards −

- Browser-based presentation using HTML and Cascading Style Sheets (CSS).
- Data is stored in XML format and fetched from the server.
- Behind-the-scenes data fetches using XMLHttpRequest objects in the browser.
- JavaScript to make everything happen.

AJAX.js:

```javascript
function loadXMLDoc()
{
     var xmlhttp;
     var k=document.myform.uname.value;
     var urls="checkusername.jsp?ver="+k;
     if (window.XMLHttpRequest)
     {
     xmlhttp=new XMLHttpRequest();
     }
     else
     {
     xmlhttp=new ActiveXObject("Microsoft.XMLHTTP");
     }
     xmlhttp.onreadystatechange=function()
     {
     if (xmlhttp.readyState==4)
     {
     document.getElementById("err").innerHTML=xmlhttp.responseText;
     }
     }
     xmlhttp.open("GET",urls,true);
     xmlhttp.send();
}
```

Checkusername.jsp:

```jsp
<%-- <%@ page language="java" contentType="text/html; charset=ISO-
8859-1"
pageEncoding="ISO-8859-1"%> --%>
<%@ page import="java.io.*,java.sql.*" %>
<%@ page contentType="text/html" pageEncoding="UTF-8"%>
<%
String sn=request.getParameter("ver");
Class.forName("com.mysql.jdbc.Driver");
Connection con
=DriverManager.getConnection("jdbc:mysql://localhost:3306/form",
"root", "sudhakar");
Statement st=con.createStatement();
ResultSet rs = st.executeQuery("select * from login where
name='"+sn+"'");
if(rs.next())
{
```

```
out.println("<font color=red>");
out.println("&#10006;");
out.println("</font>");
}else {
out.println("<font color=red>");
out.println("&#10004;");
out.println("</font>");
}
rs.close();
st.close();
con.close();
%>
```

OUTPUT:
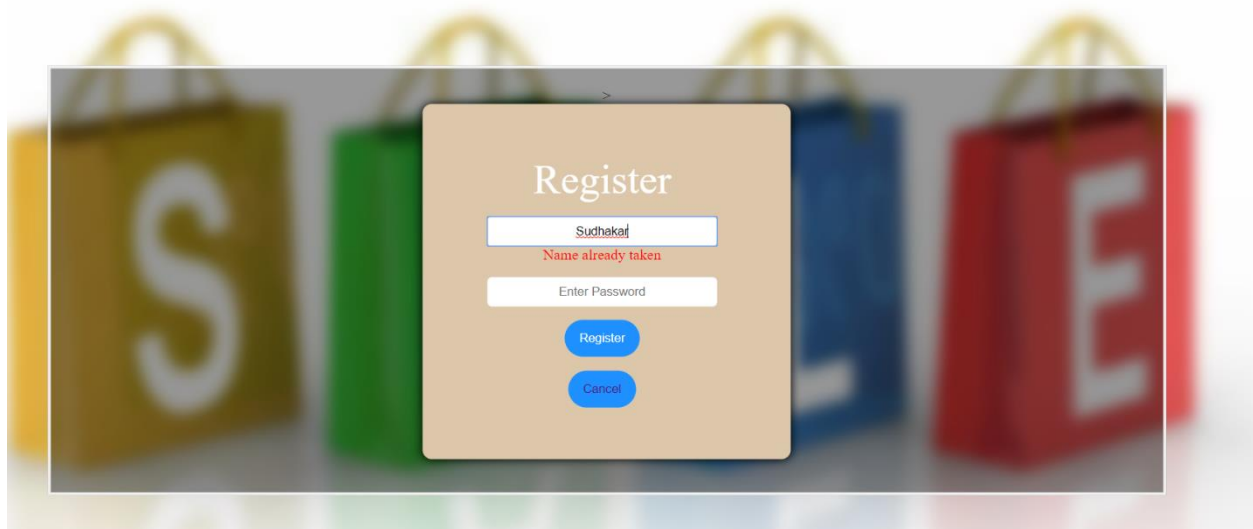
EX. NO: 10
DATE:

XSLT AND XML

XSL:

XSL stands for Extensible Stylesheet Language. CSS was designed for styling HTML pages, and can be used to style XML pages. XSL was designed specifically to style XML pages, and is much more sophisticated than CSS. XSL consists of three languages: XSLT (XSL Transformations) is a language used to transform XML documents into other kinds of documents (most commonly HTML, so they can be displayed). XPath is a language to select parts of an XML document to transform with XSLT. XSL-FO (XSL Formatting Objects) is a replacement for CSS

The XML source document is parsed into an XML source tree. You use XSLT to transform the matched part and put the transformed information into the result tree. The result tree is output as a result document. Parts of the source document that are not matched by a template are typically copied unchanged

Need for XSL

In case of HTML document, tags are predefined such as table, div, and span; and the browser knows how to add style to them and display those using CSS styles. But in case of XML documents, tags are not predefined. In order to understand and style an XML document, World Wide Web Consortium (W3C) developed XSL which can act as XML based Stylesheet Language. An XSL document specifies how a browser should render an XML document.

How XSLT Works

An XSLT stylesheet is used to define the transformation rules to be applied on the target XML document. XSLT stylesheet is written in XML format. XSLT Processor takes the XSLT stylesheet and applies the transformation rules on the target XML document and then it generates a formatted document in the form of XML, HTML, or text format. This formatted document is then utilized by XSLT formatter to generate the actual output which is to be displayed to the end-user.
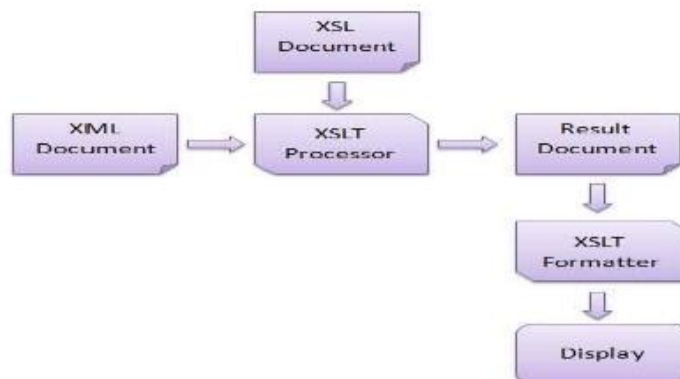
Advantages

Here are the advantages of using XSLT −

- Independent of programming. Transformations are written in a separate xsl file which is again an XML document.

- Output can be altered by simply modifying the transformations in xsl file. No need to change any code. So Web designers can edit the stylesheet and can see the change in the output quickly.

XML CODE:
```
<?xml version="1.0" ?>
<?xml-stylesheet type="text/xsl" href="planes.xsl"?>
<planes_for_sale>
    <ad>
        <model>SkyHawk</model>
        <price>5349500</price>
    </ad>
    <ad>
        <model>Jet</model>
        <price>1949500</price>
    </ad>
</planes_for_sale>
```

XSLT CODE:
```
<?xml version="1.0" encoding="UTF-8"?>
<xsl:stylesheet version="1.0"
xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
<xsl:template match="/">
<html>
<body>
<h2>Planes</h2>
<table>
    <tr>
        <th>Model</th>
        <th>Price</th>
        <th>Class</th>
    </tr>
    <xsl:for-each select="planes_for_sale/ad">
    <tr>
        <td>
        <xsl:value-of select="model" />
        </td>
        <td>
        <xsl:value-of select="price" />
        </td>
        <td>
        <xsl:choose>
        <xsl:when test="price &lt; 2000000">
        Eco
```

```
        </xsl:when>
        <xsl:when test="price &gt; 2000000 and price &lt; 5000000">
        Mid
        </xsl:when>
        <xsl:otherwise>
        Lux
        </xsl:otherwise>
        </xsl:choose>
        </td>

    </tr>
    </xsl:for-each>
</table>
</body>
</html>
</xsl:template>
</xsl:stylesheet>
```
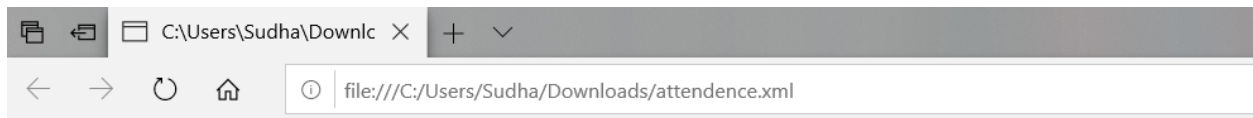
OUTPUT:

file:///C:/Users/Sudha/Downloads/attendence.xml

IT Attendence

Regno	Student	dob	class	year	cgpa
114	Sudhakar	1999	ITB	3	7.5
126	Viswesh	1998	ITB	3	8.9
115	Sudharshan	1999	ITB	3	9.90
123	Veeramani	1990	ITA	3	10.20

EX. NO: 9
DATE:

XML VALIDATION

XML (Extensible Markup Language)

Extensible Markup Language (XML) is a markup language that defines a set of rules for encoding documents in a format which is both human-readable and machine-readable. It is defined by the W3C's XML 1.0 Specification and by several other related specifications, all of which are free open standards.

The design goals of XML emphasize simplicity, generality and usability across the Internet. It is a textual data format with strong support via Unicode for different human languages. Although the design of XML focuses on documents, it is widely used for the representation of arbitrary data structures such as those used in web services.

XML Declaration:

XML documents may begin by declaring some information about themselves, as in the following example:

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

Well-Formed XML Document:

The XML specification defines an XML document as a well-formed text – meaning that it satisfies a list of syntax rules provided in the specification. Some key points in the fairly lengthy list include:

- The document contains only properly encoded legal Unicode characters
- None of the special syntax characters such as < and & appear except when performing their markup-delineation roles
- The begin, end, and empty-element tags that delimit the elements are correctly nested, with none missing and none overlapping
- The element tags are case-sensitive; the beginning and end tags must match exactly.
- Tag names cannot contain any of the characters !"#$%&'()*+,/;<=>?@[\]^`{|}~, nor a space character, and cannot start with -, ., or a numeric digit.
- A single "root" element contains all the other elements.

The definition of an XML document excludes texts that contain violations of well-formedness rules; they are simply not XML. An XML processor that encounters such a violation is required to report such errors and to cease normal processing. This policy, occasionally referred to as "draconian error handling," stands in notable contrast to the behavior of programs that process HTML, which are designed to produce a reasonable result even in the presence of severe markup errors. XML's policy in this area has been criticized as a violation of Postel's law ("Be conservative in what you send; be liberal in what you accept").

The XML specification defines a valid XML document as a well-formed XML document which also conforms to the rules of a Document Type Definition (DTD).

Valid XML Document:

In addition to being well-formed, an XML document may be valid. This means that it contains a reference to a Document Type Definition (DTD) and that its elements and attributes are declared in that DTD and follow the grammatical rules for them that the DTD specifies.

XML processors are classified as validating or non-validating depending on whether or not they check XML documents for validity. A processor that discovers a validity error must be able to report it, but may continue normal processing.
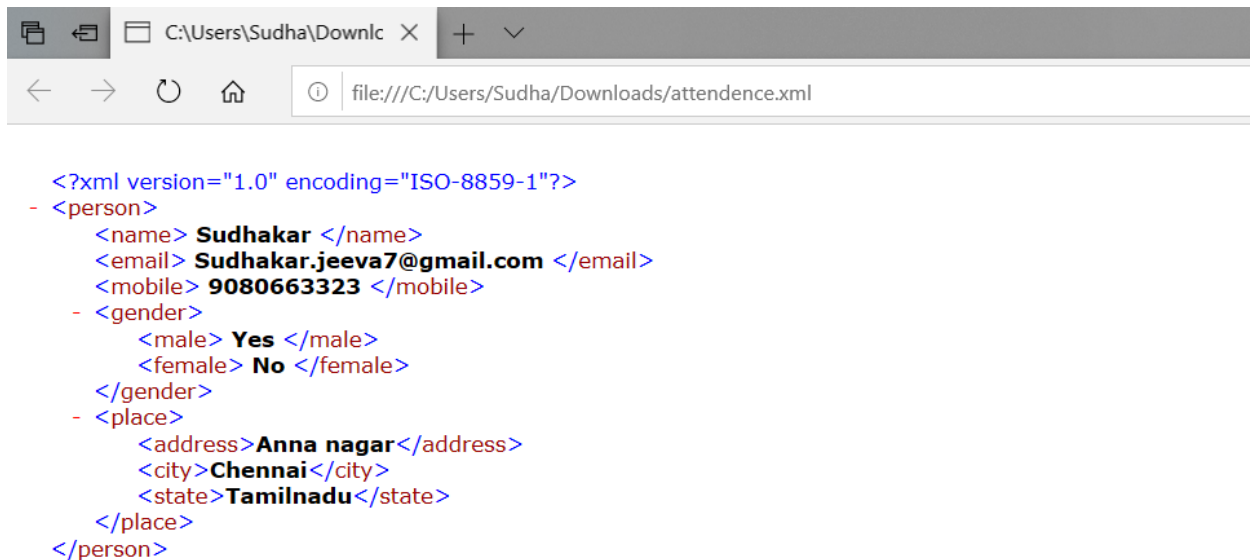
A DTD is an example of a schema or grammar. Since the initial publication of XML 1.0, there has been substantial work in the area of schema languages for XML. Such schema languages typically constrain the set of elements that may be used in a document, which attributes may be applied to them, the order in which they may appear, and the allowable parent/child relationships.

XML CODE:

```xml
<?xml version = "1.0" ?>
<person>
     <name> Sudhakar </name>
    <email> Sudhakar.jeeva7@gmail.com </email>
    <mobile> 9080663323 </mobile>
    <gender>
        <male> Yes </male>
        <female> No </female>
    </gender>
     <place>
          <address>Anna nagar</address>
          <city>Chennai</city>
          <state>Tamilnadu</state>
     </place>
</person>
```

OUTPUT:

```xml
<?xml version="1.0" encoding="ISO-8859-1"?>
- <person>
     <name> Sudhakar </name>
     <email> Sudhakar.jeeva7@gmail.com </email>
     <mobile> 9080663323 </mobile>
   - <gender>
        <male> Yes </male>
        <female> No </female>
     </gender>
   - <place>
        <address>Anna nagar</address>
        <city>Chennai</city>
        <state>Tamilnadu</state>
     </place>
  </person>
```

DTD IN XML

1) Document Type Definition(DTD):

The oldest schema language for XML is the Document Type Definition (DTD), inherited from SGML.

DTDs have the following benefits:

- DTD support is ubiquitous due to its inclusion in the XML 1.0 standard.
- DTDs are terse compared to element-based schema languages and consequently present more information in a single screen.
- DTDs allow the declaration of standard public entity sets for publishing characters.
- DTDs define a document type rather than the types used by a namespace, thus grouping all constraints for a document in a single collection.

DTDs have the following limitations:

- They have no explicit support for newer features of XML, most importantly namespaces.
- They lack expressiveness. XML DTDs are simpler than SGML DTDs and there are certain structures that cannot be expressed with regular grammars. DTDs only support rudimentary datatypes.
- They lack readability. DTD designers typically make heavy use of parameter entities (which behave essentially as textual macros), which make it easier to define complex grammars, but at the expense of clarity.
- They use a syntax based on regular expression syntax, inherited from SGML, to describe the schema. Typical XML APIs such as SAX does not attempt to offer applications a structured representation of the syntax, so it is less accessible to programmers than an element-based syntax may be.

Two peculiar features that distinguish DTDs from other schema types are the syntactic support for embedding a DTD within XML documents and for defining entities, which are arbitrary fragments of text and/or markup that the XML processor inserts in the DTD itself and in the XML document wherever they are referenced as character escapes.

DTD technology is still used in many applications because of its ubiquity.

XML-DTD declarartion:

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

XML CODE:
```
<?xml version="1.0"?>
<!DOCTYPE Register[
    <!ELEMENT register(name,email,mobile,gender,place) >
    <!ELEMENT name  (#PCDATA) >
    <!ELEMENT email (#PCDATA) >
    <!ELEMENT mobile (#PCDATA) >
    <!ELEMENT gender(male,female) >
    <!ELEMENT male (#PCDATA) >
    <!ELEMENT female (#PCDATA) >
    <!ELEMENT place(address+,city+,state+) >
    <!ELEMENT address (#PCDATA) >
    <!ELEMENT city (#PCDATA) >
    <!ELEMENT state (#PCDATA) >
]>
<person>
    <name> Sudhakar </name>
    <email> Sudhakar.jeeva7@gmail.com </email>
    <mobile> 9080663323 </mobile>
    <gender>
        <male> Yes </male>
        <female> No </female>
    </gender>
     <place>
        <address>Anna nagar</address>
        <city>Chennai</city>
        <state>Tamilnadu</state>
    </place>
</person>
```

OUTPUT:

XML Validator Online BETA

XML Validation

○ XPath ○ Schema ● DTD
Charset: UTF-8 (Unicode, worldwide) ▼
Choose XML file to validate: [Choose File] regdtd.dtd
Due to the technical issue, embedded DTD is allowed ONLY.

[Check]

XPath Explorer

[   ] [Run]

Validation Result

 Validation successful!

```
     view plain  print  ?
1.   <?xml version="1.0"?>
2.   <!DOCTYPE Register[
3.       <!ELEMENT register (name,email,mobile,gender,place) >
4.       <!ELEMENT name  (#PCDATA) >
5.       <!ELEMENT email (#PCDATA) >
6.       <!ELEMENT mobile (#PCDATA) >
7.       <!ELEMENT gender (male,female) >
8.       <!ELEMENT male (#PCDATA) >
9.       <!ELEMENT female (#PCDATA) >
10.      <!ELEMENT place (address+,city+,state+) >
11.      <!ELEMENT address (#PCDATA) >
12.      <!ELEMENT city (#PCDATA) >
13.      <!ELEMENT state (#PCDATA) >
14.  ]>
15.  <person>
16.      <name> Sudhakar </name>
17.      <email> Sudhakar.jeeva7@gmail.com </email>
18.      <mobile> 9080663323 </mobile>
19.      <gender>
20.          <male> Yes </male>
21.          <female> No </female>
22.      </gender>
23.      <place>
24.          <address>Anna nagar</address>
25.          <city>Chennai</city>
26.          <state>Tamilnadu</state>
27.      </place>
28.  </person>
```

SCHEMA IN XML

XML SCHEMA:

A newer schema language, described by the W3C as the successor of DTDs, is XML Schema, often referred to by the initialism for XML Schema instances, XSD (XML Schema Definition). XSDs are far more powerful than DTDs in describing XML languages. They use a rich datatyping system and allow for more detailed constraints on an XML document's logical structure. XSDs also use an XML-based format, which makes it possible to use ordinary XML tools to help process them.

xs:schema element that defines a schema:

```
<?xml version="1.0" encoding="ISO-8859-1" ?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
</xs:schema>
```

XML CODE:

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

<person>

      <name> Sudhakar </name>

    <email> Sudhakar.jeeva7@gmail.com </email>

    <mobile> 9080663323 </mobile>

    <gender>

        <male> Yes </male>

        <female> No </female>

    </gender>

     <place>

          <address>Anna nagar</address>

          <city>Chennai</city>

          <state>Tamilnadu</state>

     </place>

</person>
```

XSD CODE:

```
<?xml version="1.0" ?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">

<xs:element name="name" type="xs:string"/>
<xs:element name="email" type="xs:string"/>
<xs:element name="mobile" type="xs:string"/>
<xs:element name="male" type="xs:string"/>
<xs:element name="female" type="xs:string"/>
<xs:element name="address" type="xs:string"/>
<xs:element name="city" type="xs:string"/>
<xs:element name="state" type="xs:string"/>
```

```xml
<xs:element name="gender">
    <xs:complexType>
        <xs:sequence>
            <xs:element ref="male" />
            <xs:element ref="female" />
        </xs:sequence>
    </xs:complexType>
</xs:element>

<xs:element name="place">
    <xs:complexType>
        <xs:sequence>
            <xs:element ref="address" />
            <xs:element ref="city" />
                <xs:element ref="state" />
        </xs:sequence>
    </xs:complexType>
</xs:element>

<xs:element name="person">
    <xs:complexType>
        <xs:sequence>
            <xs:element ref="name" />
            <xs:element ref="email" />
            <xs:element ref="mobile" />
            <xs:element ref="gender" />
                <xs:element ref="place" />
        </xs:sequence>
    </xs:complexType>
</xs:element>

</xs:schema>
```

OUTPUT:

XML

```
<person>
        <name> Sudhakar </name>
        <email> Sudhakar.jeeva7@gmail.com </email>
        <mobile> 9080663323 </mobile>
        <gender>
            <male> Yes </male>
            <female> No </female>
        </gender>
        <place>
                <address>Anna nagar</address>
                <city>Chennai</city>
                <state>Tamilnadu</state>
        </place>
</person>
```

Check XML Well Formed

XSD Schema

```
            <xs:element ref="address" />
            <xs:element ref="city" />
                <xs:element ref="state" />
        </xs:sequence>
    </xs:complexType>
</xs:element>

<xs:element name="person">
    <xs:complexType>
        <xs:sequence>
            <xs:element ref="name" />
            <xs:element ref="email" />
            <xs:element ref="mobile" />
            <xs:element ref="gender" />
                <xs:element ref="place" />
        </xs:sequence>
    </xs:complexType>
</xs:element>

</xs:schema>
```

Check XSD Validity

Validate XML against XSD

Result

The XML is Well Formed and Valid.

EX. NO: 11
DATE:

XML: Document Object Model (DOM)

The XML Document Object Model (DOM) class is an in-memory representation of an XML document. The DOM allows you to programmatically read, manipulate, and modify an XML document. Editing is the primary function of the DOM. It is the common and structured way that XML data is represented in memory, although the actual XML data is stored in a linear fashion when in a file or coming in from another object.

The XML DOM defines a standard way for accessing and manipulating XML documents.

The XML DOM views an XML document as a tree-structure.

All elements can be accessed through the DOM tree. Their content (text and attributes) can be modified or deleted, and new elements can be created. The elements, their text, and their attributes are all known as nodes.

XML INPUT:

```xml
<?xml version="1.0"?>
 <books>
  <book>
     <author>Carson</author>
     <price format="dollar">31.95</price>
     <pubdate>05/01/2001</pubdate>
  </book>
  <pubinfo>
     <publisher>MSPress</publisher>
     <state>WA</state>
  </pubinfo>
 </books>
```

The following illustration shows how memory is structured when this XML data is read into the DOM structure.

XML document structure:
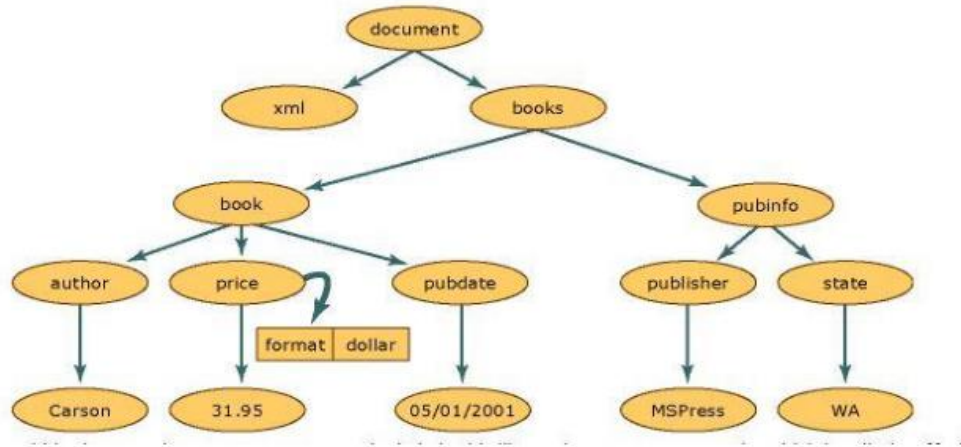
XML CODE:

```xml
<?xml version = "1.0" ?>
<person>
     <name> Sudhakar </name>
    <email> Sudhakar.jeeva7@gmail.com </email>
    <mobile> 9080663323 </mobile>
    <gender>
        <male> Yes </male>
        <female> No </female>
    </gender>
     <place>
            <address>Anna nagar</address>
            <city>Chennai</city>
            <state>Tamilnadu</state>
     </place>
</person>
```

JAVA CODE:

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

```java
import javax.xml.transform.dom.DOMSource;
import javax.xml.transform.stream.StreamResult;
public class DOMParserex
{
    public static void main(String args[])
    {
        try
        {
            File fp = new File("reg1.xml");
            DocumentBuilderFactory          fact          =
DocumentBuilderFactory.newInstance();
            DocumentBuilder            builder            =
fact.newDocumentBuilder();
            Document doc = builder.parse(fp);
            NodeList list = doc.getElementsByTagName("*");
            int count = list.getLength();
            System.out.println("Number of elements: " + count);
            System.out.println("Elemets are:");
            for(int i=0; i<count;i++)
            {
                Element ele=(Element)list.item(i);
                System.out.println(ele.getNodeName());
            }
            System.out.println("Creating    a    new    root
element..");
            Element ne = doc.createElement("root");
            NodeList emp = doc.getElementsByTagName("person");

            emp.item(0).appendChild(ne);
            ne.setAttribute("attribute1","Value           of
attribute1");
            TransformerFactory          tf          =
TransformerFactory.newInstance();
            Transformer at = tf.newTransformer();
            Source src = new DOMSource(doc);
            Result d = new StreamResult(System.out);
            at.transform(src,d);
            NodeList list1 = doc.getElementsByTagName("root");
```

```java
                System.out.println("Root                        element
exits:"+doc.getNodeName());
                if((list1.getLength())>0)
                {
                        for(int i=0; i<list1.getLength();i++)
                        {
                                Element ele=(Element)list.item(i);
                                System.out.println(ele.getNodeName());
                        }
                        System.out.println("Root element exits");
                }
                else
                {
                        System.out.println("Error  element  does  not
exists");
                }
        }
        catch(Exception e)
        {
                System.out.println(e);
        }
    }
}
```

OUTPUT:

```
Command Prompt

C:\Users\Hp\Downloads>javac DOMparse.java

C:\Users\Hp\Downloads>java DOMparse
Number of elements: 11
Elemets are:
person
name
email
mobile
gender
male
female
place
address
city
state
Creating a new root element..
<?xml version="1.0" encoding="UTF-8" standalone="no"?><person>
        <name> Sudhakar J   </name>
    <email> sudhakar.jeeva7@gmail.com </email>
    <mobile> 8220658042 </mobile>
    <gender>
        <male> No </male>
        <female> Yes </female>
    </gender>
        <place>
                <address>MMI nagar</address>
                <city>Tiruvarur</city>
                <state>Tamilnadu</state>
        </place>
<root attribute1="Value of attribute1"/></person>Root element exits:#document
person
Root element exits

C:\Users\Hp\Downloads>
```

EX. NO: 12
DATE:

XML: SIMPLE API FOR XML (SAX)

SAX (Simple API for XML) is an event-driven online algorithm for parsing XML documents, with an API interface developed by the XML-DEV mailing list. SAX provides a mechanism for reading data from an XML document that is an alternative to that provided by the Document Object Model (DOM). Where the DOM operates on the document as a whole, SAX parsers operate on each piece of the XML document sequentially.

BENEFITS:

SAX parsers have some benefits over DOM-style parsers. A SAX parser only needs to report each parsing event as it happens, and normally discards almost all of that information once reported (it does, however, keep some things, for example, a list of all elements that have not been closed yet, in order to catch later errors such as end-tags in the wrong order). Thus, the minimum memory required for a SAX parser is proportional to the maximum depth of the XML file (i.e., of the XML tree) and the maximum data involved in a single XML event (such as the name and attributes of a single start-tag, or the content of a processing instruction, etc.).

This much memory is usually considered negligible. A DOM parser, in contrast, typically builds a tree representation of the entire document in memory, to begin with, thus using memory that increases with the entire document length. This takes considerable time and space for large documents (memory allocation and data-structure construction take time). The compensating advantage, of course, is that once loaded any part of the document can be accessed in any order.

Because of the event-driven nature of SAX, processing documents is generally far faster than DOM-style parsers, so long as the processing can be done in a start-to-end pass. Many tasks, such as indexing, conversion to other formats, very simple formatting, and the like, can be done that way. Other tasks, such as sorting, rearranging sections, getting from a link to its target, looking up information on one element to help process a later one, and the like, require accessing the document structure in complex orders and will be much faster with DOM than with multiple SAX passes.

EXAMPLE:

```
<?xml version="1.0" encoding="UTF-8"?>
<DocumentElement param="value">
<FirstElement>Some Text
</FirstElement>
<?some_pi some_attr="some_value"?>
<SecondElement param2="something">
 Pre-Text <Inline>Inlined text</Inline> Post-text.
</SecondElement>
</DocumentElement>
```

This XML document, when passed through a SAX parser, will generate a sequence of events like the following:

- ❖ XML Element start, named DocumentElement, with an attribute param equal to "value"
- ❖ XML Element start, named FirstElement
- ❖ Some Text" (note: certain white spaces can be changed)
- ❖ XML Element end, named FirstElement
- ❖ XML Text node, with data equal to "Pre-Text"
- ❖ XML Element start, named Inline
- ❖ XML Text node, with data equal to "Inlined text"
- ❖ XML Element end, named Inline
- ❖ XML Text node, with data equal to "Post-text."
- ❖ XML Element end, named SecondElement
- ❖ XML Element end, named DocumentElement

XML CODE:

```
<?xml version = "1.0" ?>
<person>
    <name> Sudhakar </name>
    <email> Sudhakar.jeeva7@gmail.com </email>
    <mobile> 9080663323 </mobile>
    <gender>
        <male> Yes </male>
        <female> No </female>
    </gender>
    <place>
        <address>Anna nagar</address>
        <city>Chennai</city>
        <state>Tamilnadu</state>
    </place>
</person>
```

JAVA CODE:

```
import javax.xml.parsers.*;
import org.xml.sax.*;
import org.xml.sax.helpers.*;
import java.io.*;
public class sax{
    public static void main(String[] args) throws IOException{
```

```java
            sax detail = new sax("reg1.xml");
    }
    public sax(String str){
        try{
            File file = new File(str);
            if (file.exists()){
                SAXParserFactory        parserFact        =
SAXParserFactory.newInstance();
                SAXParser parser = parserFact.newSAXParser();
                System.out.println("XML Data: ");
                DefaultHandler      dHandler      =      new
DefaultHandler(){
                boolean n;
                boolean em;
                boolean mob;
                public void startElement(String uri, String
localName,  String  element_name,  Attributes  attributes)throws
SAXException{

                    if (element_name.equals("name")){
                        n = true;
                    }
                    if (element_name.equals("email")){
                        em = true;
                    }
                    if (element_name.equals("mobile")){
                        mob = true;
                    }

                }

                public void characters(char[] ch, int start,
int len) throws SAXException{
                    String str = new String (ch, start, len);

                    if (n){
                        System.out.println("Name:   "+str);
                        n = false;
                    }
```
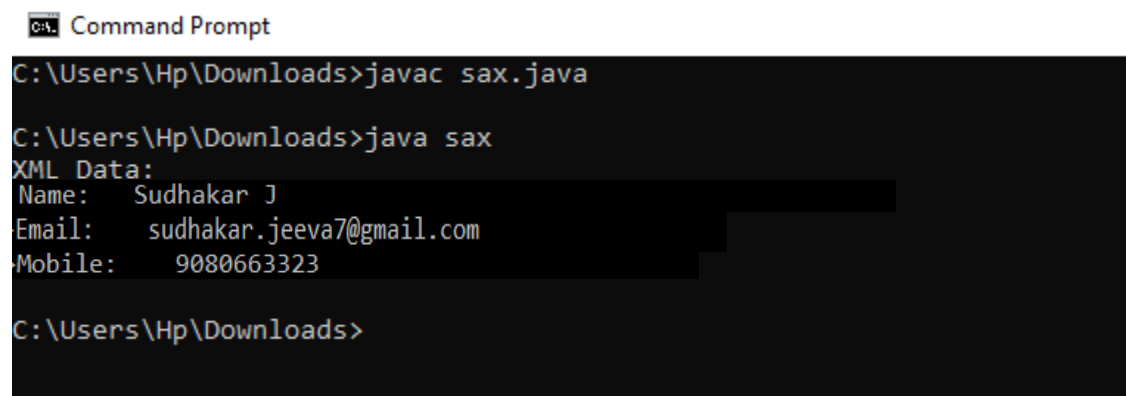
```java
                        if (em){
                                System.out.println("Email: "+str);
                                em = false;
                        }
                        if (mob){
                                System.out.println("Mobile: "+str);
                                mob = false;
                        }

                    }
                };
                parser.parse(str, dHandler);
            }
            else{
                System.out.println("File not found!");
            }
        }
        catch (Exception e){
                System.out.println("XML     File     hasn't     any
elements");
                e.printStackTrace();
        }
    }
}
```

OUTPUT:

Command Prompt

```
C:\Users\Hp\Downloads>javac sax.java

C:\Users\Hp\Downloads>java sax
XML Data:
Name:    Sudhakar J
Email:    sudhakar.jeeva7@gmail.com
Mobile:    9080663323

C:\Users\Hp\Downloads>
```

HTML Code:
Register.html

```html
<html>
<head>
    <script type="text/javascript">
      function loadXMLDoc()
      {
        var xmlhttp;
        var k=document.getElementById("uname").value;
        var urls="checkusername.jsp?ver="+k;
        if (window.XMLHttpRequest)
        {
          xmlhttp=new XMLHttpRequest();
        }
        else
        {
          xmlhttp=new ActiveXObject("Microsoft.XMLHTTP");
        }
        xmlhttp.onreadystatechange=function()
        {
          if (xmlhttp.readyState==4)
          {
            document.getElementById("err").innerHTML=xmlhttp.responseText;
          }
        }
        xmlhttp.open("GET",urls,true);
        xmlhttp.send();
      }
      function loadXMLVal()
      {
        var xmlhttp;
        var l=document.getElementById("pass").value;
        var urls="checkpassword.jsp+pass="+l;
        if (window.XMLHttpRequest)
        {
          xmlhttp=new XMLHttpRequest();
        }
        else
        {
          xmlhttp=new ActiveXObject("Microsoft.XMLHTTP");
        }
        xmlhttp.onreadystatechange=function()
```

```
              {
                 if (xmlhttp.readyState==4)
                 {
                    document.getElementById("pswd").innerHTML=xmlhttp.responseText;
                 }
              }
              xmlhttp.open("GET",urls,true);
              xmlhttp.send();
           }
            $(document).ready(function() {
               $("#MyModal").modal();
            });
      </script>
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>ShoppingCentre</title>
   <style type="text/css">
      @import url('https://fonts.googleapis.com/css?family=Roboto+Condensed&display=swap');
@import url('https://fonts.googleapis.com/css?family=Notable&display=swap');
@import url('https://fonts.googleapis.com/css?family=Montserrat+Alternates&display=swap');
* {box-sizing: border-box;}
      body{
            background-position: center center;
            background-repeat: no-repeat;
            background-attachment: fixed;
             background-size: cover;


         }

   .bg-image {
 /* The image used */
 background-image: url("med.jpg");

 /* Add the blur effect */
 filter: blur(8px);
 -webkit-filter: blur(8px);

 /* Full height */
 height: 100%;

 /* Center and scale the image nicely */
 background-position: center;
 background-repeat: no-repeat;
```

```css
    background-size: cover;
}

/* Position text in the middle of the page/image */
    .bg-text {
  background-color: rgb(0,0,0); /* Fallback color */
  background-color: rgba(0,0,0, 0.4); /* Black w/opacity/see-through */
  border: 3px solid #f1f1f1;
  position: absolute;
  top: 80%;
  left: 50%;
  transform: translate(-50%, -50%);
  z-index: 2;
  width: 80%;
  padding: 20px;
  text-align: center;}

        div.opp{
              padding:50px;
              margin:10px;
              border: 1px solid green;
              font-size:45px;
              background-color:#708090;
              color:white;
              font-family: 'Montserrat Alternates', sans-serif;
              text-align:left;
            }
        div.form-container{
           width:400px;
           height: auto;
           padding: 40px 30px;
           background-color:  #DCC7AA;
           border-radius: 10px;
           box-shadow: 0 0 10px 0 #000;
           margin: auto;
           position: relative;
        }

        .user-img{
           background: url() no-repeat;
           width: 70px;
           height: 70px;
```

```css
        background-size: 100%;
        position: absolute;
        top: -40px;
        left: 110px;
    }

    ul.list{
        list-style-type: none;
        text-align: center;
    }

    ul.list li{
        width: 250px;
        margin-bottom: 15px;
    }

    ul.list li input{
        width: 250px;
        text-align: center;
        padding: 8px 0px;
        border: none;
        background-color: white;
        border-radius: 5px;
    }
    ul.list li input[type="button"]{
        background-color: dodgerblue;
        color: white;
    }

    button{
        border: none;
border-radius: 25px;
outline: none;
padding: 12px 16px;
background-color: dodgerblue;
cursor: pointer;
color: white;
    }
    button :hover {
background-color: #ddd;
}
```

```
cnl-button{
        border: none;
 border-radius: 25px;
 outline: none;
 padding: 12px 16px;
 background-color:#708090;
 cursor: pointer;
 color: white;
     }
   </style>
</head>
<body onload="document.registration.uname.focus();">
     <div class="opp">
          <header><img src="img/logo.png" alt="logo"  width="70px" height="70px">
           ShoppingCentre.in</header>
           </div>
   <div class="bg-image"></div>
   <div class="bg-text">
   <form action="Register" method="post" name="registration" <!--
onSubmit="return formValidation();"-->>
   <div class="form-container">
     <ul class="list">
        <li style="color: white;font-size:45px">Register</li>
        <li><input class="form-
control" id="uname" type="text" placeholder="Enter Username" name="uname" required autocomplete=
"off" onkeyup="loadXMLDoc()">
          <span id="err"></span></li>
        <li><input type="password" placeholder="Enter Password" name="psw" required></li>
        <!--<li><input type="password" placeholder="ReEnter Password" name="rpsw" required></li>
        <li><input type="text" placeholder="Enter Name" name="nam" required></li>
        <li><input type="text" placeholder="Enter City" name="cit" required></li>
        <li><input type="text" placeholder="Enter Email" name="ema" required></li>
        <li><input type="text" placeholder="Enter Phone Number" name="num" required></li>-->
        <li><button type="submit">Register</button></li>
        <li><button type="button" class="cnl-button"><a href="page1.jsp" style="text-
decoration: none">Cancel</a></button></li>
     </ul>
   </div>
</form>
</div>
<script type="text/javascript">
function formValidation()
```

```
{
    var uid = document.registration.uname;
    var passid = document.registration.psw;
    var uname = document.registration.nam;
    var uadd = document.registration.cit;
//var ucountry = document.registration.country;
//var uzip = document.registration.zip;
    var uemail = document.registration.email;
//var umsex = document.registration.msex;
//var ufsex = document.registration.fsex;
    if(userid_validation(uid,5,12))
    {
        if(passid_validation(passid,7,12))
        {
            if(allLetter(uname))
            {
                if(alphanumeric(uadd))
                {
                    if(ValidateEmail(uemail))
                    {
                    }
                }
            }
        }
    }
    return false;
}

function userid_validation(uid,mx,my)
{
    var uid_len = uid.value.length;
    if (uid_len == 0 || uid_len >= my || uid_len < mx)
    {
        alert("User Id should not be empty / length be between "+mx+" to "+my);
        uid.focus();
        return false;
    }
    return true;
}

function passid_validation(passid,mx,my)
{
```

```javascript
   var passid_len = passid.value.length;
   if (passid_len == 0 ||passid_len >= my || passid_len < mx)
   {
      alert("Password should not be empty / length be between "+mx+" to "+my);
      passid.focus();
      return false;
   }
   return true;
}

function allLetter(uname)
{
   var letters = /^[A-Za-z]+$/;
   if(uname.value.match(letters))
   {
      return true;
   }
   else
   {
      alert('Username must have alphabet characters only');
      uname.focus();
      return false;
   }
}

function alphanumeric(uadd)
{
   var letters = /^[0-9a-zA-Z]+$/;
   if(uadd.value.match(letters))
   {
      return true;
   }
   else
   {
      alert('User address must have alphanumeric characters only');
      uadd.focus();
      return false;
   }
}

function ValidateEmail(uemail)
{
```

```javascript
        var mailformat = /^\w+([\.-]?\w+)*@\w+([\.-]?\w+)*(\.\w{2,3})+$/;
        if(uemail.value.match(mailformat))
        {
            return true;
        }
        else
        {
            alert("You have entered an invalid email address!");
            uemail.focus();
            return false;
        }
}
```

```html
</script>
</body>
</html>
```

Login.html:
```html
<html>
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>ShoppingCentre</title>

    <script type="text/javascript">
        function loadXMLDoc()
        {
            var xmlhttp;
            var k=document.getElementById("uname").value;
            var urls="checkusername.jsp?ver="+k;
            if (window.XMLHttpRequest)
            {
                xmlhttp=new XMLHttpRequest();
            }
            else
            {
                xmlhttp=new ActiveXObject("Microsoft.XMLHTTP");
            }
            xmlhttp.onreadystatechange=function()
            {
                if (xmlhttp.readyState==4)
                {
```

```javascript
        document.getElementById("err").innerHTML=xmlhttp.responseText;
      }
    }
    xmlhttp.open("GET",urls,true);
    xmlhttp.send();
  }
  function loadXMLVal()
  {
    var xmlhttp;
    var l=document.getElementById("pass").value;
    var urls="checkpassword.jsp+pass="+l;
    if (window.XMLHttpRequest)
    {
      xmlhttp=new XMLHttpRequest();
    }
    else
    {
      xmlhttp=new ActiveXObject("Microsoft.XMLHTTP");
    }
    xmlhttp.onreadystatechange=function()
    {
      if (xmlhttp.readyState==4)
      {
        document.getElementById("psw").innerHTML=xmlhttp.responseText;
      }
    }
    xmlhttp.open("GET",urls,true);
    xmlhttp.send();
  }
  $(document).ready(function() {
    $("#MyModal").modal();
  });
</script>
<style type="text/css">
  @import url('https://fonts.googleapis.com/css?family=Roboto+Condensed&display=swap');
@import url('https://fonts.googleapis.com/css?family=Notable&display=swap');
@import url('https://fonts.googleapis.com/css?family=Montserrat+Alternates&display=swap');
* {box-sizing: border-box;}
  body{
      background-position: center center;
      background-repeat: no-repeat;
      background-attachment: fixed;
```

```css
        background-size: cover;
    }

   .bg-image {
  /* The image used */
  background-image: url("med1.jpg");

  /* Add the blur effect */
  filter: blur(8px);
  -webkit-filter: blur(8px);

  /* Full height */
  height: 100%;

  /* Center and scale the image nicely */
  background-position: center;
  background-repeat: no-repeat;
  background-size: cover;
}

/* Position text in the middle of the page/image */
   .bg-text {
  background-color: rgb(0,0,0); /* Fallback color */
  background-color: rgba(0,0,0, 0.4); /* Black w/opacity/see-through */
  border: 3px solid #f1f1f1;
  position: absolute;
  top: 65%;
  left: 50%;
  transform: translate(-50%, -50%);
  z-index: 2;
  width: 80%;
  padding: 20px;
  text-align: center;}

      div.opp{
          padding:50px;
          margin:10px;
          border: 1px solid green;
          font-size:45px;
          background-color:#708090;
          color:white;
          font-family: 'Montserrat Alternates', sans-serif;
```

```
            text-align:left;
        }
div.form-container{
    width:400px;
    height: auto;
    padding: 40px 30px;
    background-color: #DCC7AA;
    border-radius: 10px;
    box-shadow: 0 0 10px 0 #000;
    margin: auto;
    position: relative;
}

.user-img{
    background: url() no-repeat;
    width: 70px;
    height: 70px;
    background-size: 100%;
    position: absolute;
    top: -40px;
    left: 110px;
}

ul.list{
    list-style-type: none;
    text-align: center;
}

ul.list li{
    width: 250px;
    margin-bottom: 15px;
}

ul.list li input{
    width: 250px;
    text-align: center;
    padding: 8px 0px;
    border: none;
    background-color: white;
    border-radius: 5px;
}
ul.list li input[type="button"]{
```

```
            background-color: dodgerblue;
            color: white;
        }


        button{
            border: none;
  border-radius: 25px;
  outline: none;
  padding: 12px 16px;
  background-color: dodgerblue;
  cursor: pointer;
  color: white;
        }
        button :hover {
  background-color: #ddd;
}

cnl-button{
          border: none;
  border-radius: 25px;
  outline: none;
  padding: 12px 16px;
  background-color: #708090;
  cursor: pointer;
  color: white;
        }
    </style>
</head>
<body>
    <div class="opp">
        <header><img src="img/logo.png" alt="logo"  width="70px" height="70px">
         ShoppingCentre.in</header>
         </div>
   <div class="bg-image"></div>
   <div class="bg-text">
   <form action="Login" method="post">
   <div class="form-container">
     <ul class="list">
        <li style="color: white;font-size:45px">Login</li>
        <li><input type="text" placeholder="Enter Username" name="uname" required></li>
        <li><input type="password" placeholder="Enter Password" name="psw" required></li>
        <li><input type="submit" value="LOGIN"/></li>
```

```
        <li><button type="button" class="cnl-button"><a href="page1.jsp" style="text-
decoration: none">Cancel</a></button></li>



      </ul>
    </div>
</form>
</div>
</body>
</html>
```

Page1.html:
```
<!DOCTYPE html>
<html>
<head>
<meta name="viewport" content="width=device-width, initial-scale=1">
<title >Shopping Centre</title>
<link rel="stylesheet" href="css/page1.css">
</head>
<body>
<div class="opp">
<header><img src="img/logo.png" alt="logo"  width="70px" height="70px">
  ShoppingCentre.in</header>
</div>
<div class="navbar">
  <div class="dropdown">
    <button class="dropbtn">
     <img src="img/menu2.png" width="20px" height="20px">
    </button>
    <div class="dropdown-content">
     <a href="#shoes"> Shoes</a>
     <a href="#watch">  Watches</a>
     <a href="#">  Men's Fashion</a>
     <a href="#">  Wonem's Fashion</a>
     <a href="#"> Kid's Fashion</a>
     <a href="#"> Gym Essentials</a>
     <a href="#"> Luggage</a>
     <a href="login.html"><img src="img/login.jpg" width="30px" height="30px"> Login</a>
    </div>
  </div>
  <a href="#home"> Offers</a>
  <a href="#Shoes"> Shoes</a>
```

```html
<a href="#watch"> Watches</a>
<a href="#Electonics"> Electronics</a>
<button>
            <div class="dropdown">
                <i class="fas fa-user dropdown-toggle" id="iconic" data-toggle="dropdown"></i>
                <span class="caret"></span>
                    <b>Hi,</b> <span style="color: white; font-weight: 700;
                    text-transform: uppercase;"><%
                    String p = (String) request.getAttribute("user");
                    out.print(p);%></span></h4></a>
                    </li>

                    <li>
                        <a href="Logout"><i class="fas fa-sign-out-alt"></i>Log Out</a>
                    </li>
                </ul>
            </div>
            </button>
<button><a href="register.html">Register</a></button>
<button><a href="login.html">Login</a></button>
</div>
<br>
<table id="t01" style="align-items: center;">
<tr rowspan="2">
<td colspan="2">
<div class="slideshow-container">

<div class="mySlides fade">

 <input type="image" id="imgg" src="img/offer2.jpg" style="width:1000px; height:350px">

</div>

</div>

<br>
<div style="text-align:center">
 <a href="javascript:changimg('img/offer2.jpg')"><span class="dot"></span></a>
 <a href="javascript:changimg('img/offer1.jpg')"><span class="dot"></span> </a>
 <a href="javascript:changimg('img/offer3.jpg')"><span class="dot"></span> </a>
 <a href="javascript:changimg('img/offer4.jpg')"><span class="dot"></span> </a>
</div>
```

```html
<br>
</td><!--
<td colspan="2">
<form action="#action">
<div class="cop">
<h2 style="color: rgb(220,20,60);"><i>SUBSCRIBE FOR MORE UPDATES</i></h4>
<p style="color: grey;font-size: 15px;">Our e-
mail updates will keep you informed on our company, new products, stories from the millions of people
we help live healthier longer lives.</p>
<p id="subscribe-
email"><input type="email" name="email" required="required" class="required" value="" placeholder="
abc@xyz.com" /></p>
<p id="subscribe-
submit"><input type="submit" value="Subscribe" name="jetpack_subscriptions_widget"/></p>
</div>
</form>
</td>
</tr>
</table>
<br>
<br>-->
<!------Shoes------->

<table id="t02">
  <tr>
    <th>Shoes</th>
  </tr><tr>
    <td><a href="javascript:cart('img/shoe/shoe1.jpg','1258','Nike Shoe1')"><img src="img/shoe/shoe1.jpg
" width="200px" height="200px" ></a></td>
    <td><a href="javascript:cart('img/shoe/shoe2.jpg','1257','Nike Shoe2')"><img src="img/shoe/shoe2.jpg
" width="200px" height="200px"></a></td>
    <td><a href="javascript:cart('img/shoe/shoe3.jpg','1350','Adidas Shoe1')"><img src="img/shoe/shoe3.j
pg" width="200px" height="200px"></a></td>
    <td><a href="javascript:cart('img/shoe/shoe4.png','3750','Adidas Shoe2')"><img src="img/shoe/shoe4.
jpg" width="200px" height="200px"></a></td>
    <td><a href="javascript:cart('img/shoe/shoe5.jpg','1450','Casual')"><img src="img/shoe/shoe5.jpg" wi
dth="200px" height="200px"></a></td>
    <td><a href="javascript:cart('img/shoe/shoe6.jpg','5500','Leather')"><img src="img/shoe/shoe6.jpg" wi
dth="200px" height="200px"></a></td>
  </tr>
  <tr style="background-color: #eee">
    <td><b>Nike Shoe1 </b></td>
```

```
    <td><b>Nike Shoe2</b></td>
    <td><b>Adidas Shoe1 </b></td>
    <td><b>Adidas Shoe2</b></td>
    <td><b>Casual</b></td>
    <td><b>Leather</b></td>
  </tr>
  <tr style="background-color: #eee">
    <td><b>&#x20b9; 1258 </b>(10% OFF)</td>
    <td><b>&#x20b9; 1257 </b>(10% OFF)</td>
    <td><b>&#x20b9; 1350 </b>(10% OFF)</td>
    <td><b>&#x20b9; 3750 </b>(20% OFF)</td>
    <td><b>&#x20b9; 1450 </b></td>
    <td><b>&#x20b9; 5500 </b>(15% OFF)</td>
  </tr>
  <tr>
    <td><button id="b04"><a href="javascript:cart('Nike Shoe1','1258')"><img src="img/addc3.png" width="100%" height="100%" ></button></a></td>
    <td><button id="b04"><a href="javascript:cart('Nike Shoe2','1257')"><img src="img/addc3.png" width="100%" height="100%"></button></a></td>
    <td><button id="b04"><a href="javascript:cart('Adidas Shoe1','1350')"><img src="img/addc3.png" width="100%" height="100%"></button></a></td>
    <td><button id="b04"><a href="javascript:cart('Adidas Shoe2','3750')"><img src="img/addc3.png" width="100%" height="100%"></button></a></td>
    <td><button id="b04"><a href="javascript:cart('Casual','1450')"><img src="img/addc3.png" width="100%" height="100%"></button></a></td>
    <td><button id="b04"><a href="javascript:cart('Leather','5500')"><img src="img/addc3.png" width="100%" height="100%"></button></a></td>
  </tr>
</table>

<!------Watch------->
<div id="baby">
<table id="t02">
  <tr>
    <th>Watch</th>
  </tr><tr>
    <td><a href="javascript:cart('img/watches/watch1.jpg','649','Titan')"><img src="img/watches/watch1.jpg" width="200px" height="200px"></a></td>
    <td><a href="javascript:cart('img/watches/watch2.png','918','Fossil')"><img src="img/watches/watch2.jpg" width="200px" height="200px"></a></td>
    <td><a href="javascript:cart('img/watches/watch3.jpg','267','Timex')"><img src="img/watches/watch3.jpg" width="200px" height="200px"></a></td>
```

```html
   <td><a href="javascript:cart('img/watches/watch4.jpg','1888','TitanS')"><img src="img/watches/watch4.jpg" width="200px" height="200px"></a></td>
   <td><a href="javascript:cart('img/watches/watch5.jpg','999','Casio')"><img src="img/watches/watch5.jpg" width="200px" height="200px"></a></td>
   <td><a href="javascript:cart('img/watches/watch6.jpg','3999','Armani')"><img src="img/watches/watch6.jpg" width="200px" height="200px"></a></td>
  </tr>
  <tr style="background-color: #eee">
   <td><b>Titan</b></td>
   <td><b>Fossil</b></td>
   <td><b>Timex</b></td>
   <td><b>TitanS</b></td>
   <td><b>Casio</b></td>
   <td><b>Armani</b></td>
  </tr>
  <tr style="background-color: #eee">
   <td><b>&#x20b9; 649 </b>(12% OFF)</td>
   <td><b>&#x20b9; 918 </b>(10% OFF)</td>
   <td><b>&#x20b9; 267 </b>(12% OFF)</td>
   <td><b>&#x20b9; 1888 </b>(25% OFF)</td>
   <td><b>&#x20b9; 999 </b>(13% OFF)</td>
   <td><b>&#x20b9; 3999 </b></td>
  </tr>
  <tr>
   <td><button id="b01"><a href="javascript:cart('Titan','649')"><img src="img/addc3.png" width="100%" height="100%"></button></a></td>
   <td><button id="b02"><a href="javascript:cart('Fossil','918')"><img src="img/addc3.png" width="100%" height="100%"></button></a></td>
   <td><button id="b03"><a href="javascript:cart('Timex','267')"><img src="img/addc3.png" width="100%" height="100%"></button></a></td>
   <td><button id="b04"><a href="javascript:cart('TitanS','1888')"><img src="img/addc3.png" width="100%" height="100%"></button></a></td>
   <td><button id="b05"><a href="javascript:cart('Casio','999')"><img src="img/addc3.png" width="100%" height="100%"></button></a></td>
   <td><button id="b06"><a href="javascript:cart('Armani','3999')"><img src="img/addc3.png" width="100%" height="100%"></button></a></td>
  </tr>
</table>
</div>
<form type="hidden" action="Addtocart" name="orderform" id="orderfrm">
<input type="text" value="" name="order">
<input type="text" value="" name="ordercost">
```

```html
</form>
<div class="company-details" >
    <div class="row">
      <div id ="col1">
         <img src="img/loc.png" width="30px" height="30px">


         <span>
           SSN College of Engineering,OMR Road
           <br />Kalavakkam,Chennai
         </span>
      </div>
          <br>
      <div id ="col2">
         <img src="img/phone.png" width="30px" height="30px">


         <span>
           Phone:9080663323
         </span>
      </div>
            <br>
      <div id ="col3">
         <img src="img/email.png" width="30px" height="30px">
         <span>sudhakar.jeeva7@gmail.com</span>
      </div>
    </div>
  </div>

<script src="js/page1.js" type="text/javascript"></script>
<script type="text/javascript" src="js/slideshow.js"></script>
<script type="text/javascript" src="js/newwin.js"></script>
<script src="https://code.jquery.com/jquery-2.2.4.min.js" integrity="sha256-
BbhdlvQf/xTY9gja0Dq3HiwQF8LaCRTXxZKRutelT44=" crossorigin="anonymous"></script>
<script type="text/javascript" src="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/js/bootstrap.min.js"
></script>
</form>
<form type="hidden" action="Addtocart" name="orderform" id="orderfrm" method="POST">
<input type="text" value="" name="order" style="display: none">
<input type="text" value="" name="ordercost" style="display: none">
</form>
<script type="text/javascript">
function cart(detail,price){
var str1 = "Confirm to Add the item '"+detail+"'' of "+"Rs. "+price+" into the cart ? ";
```
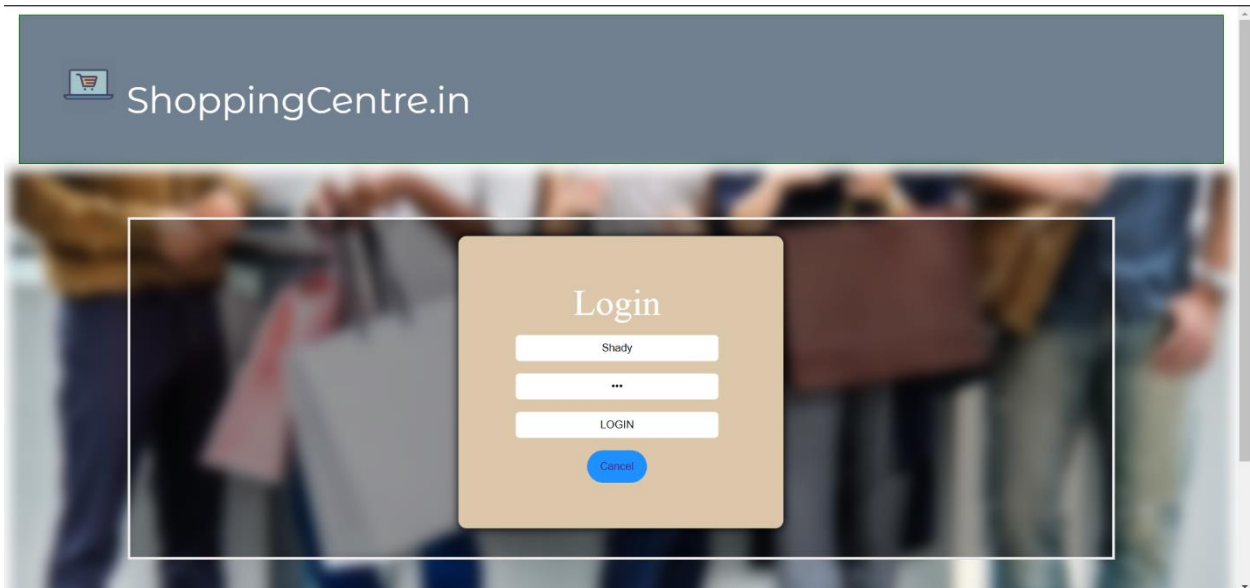
```
var h = confirm(/*"Confirm to Add the item '+detail+" of "+"Rs. +price+ into the cart ? "*/str1);
if(h == true){
document.orderform.order.value=detail;
document.orderform.ordercost.value=price;
document.getElementById("orderfrm").submit();
}
}
</script>
</body>
</html>
```

OUTPUT:
Page1.html

Login.html:

Register.html:

XHTML Webpage Code:

```html
<!DOCTYPE html>
<html>
<head>
<meta name="viewport" content="width=device-width, initial-scale=1">
<title >Shopping Centre</title>
<link rel="stylesheet" href="css/page1.css">
</head>
<body>
<div class="opp">
<header><img src="img/logo.png" alt="logo"  width="70px" height="70px">
 ShoppingCentre.in</header>
</div>
<div class="navbar">
 <div class="dropdown">
  <button class="dropbtn">
   <img src="img/menu2.png" width="20px" height="20px">
  </button>
  <div class="dropdown-content">
   <a href="#shoes"> Shoes</a>
   <a href="#watch">  Watches</a>
   <a href="#">  Men's Fashion</a>
   <a href="#">  Wonem's Fashion</a>
   <a href="#"> Kid's Fashion</a>
   <a href="#"> Gym Essentials</a>
   <a href="#"> Luggage</a>
   <a href="login.html"><img src="img/login.jpg" width="30px" height="30px"> Login</a>
  </div>
 </div>
 <a href="#home"> Offers</a>
 <a href="#Shoes"> Shoes</a>
 <a href="#watch"> Watches</a>
 <a href="#Electonics"> Electronics</a>
 <button>
            <div class="dropdown">
               <i class="fas fa-user dropdown-toggle" id="iconic" data-toggle="dropdown"></i>
               <span class="caret"></span>
                  <b>Hi,</b> <span style="color: white; font-weight: 700;
                  text-transform: uppercase;"><%
                  String p = (String) request.getAttribute("user");
                  out.print(p);%></span></h4></a>
                  </li>
```

```
            <li>
                <a href="Logout"><i class="fas fa-sign-out-alt"></i>Log Out</a>
            </li>
          </ul>
        </div>
      </button>
  <button><a href="register.html">Register</a></button>
  <button><a href="login.html">Login</a></button>
</div>
<br>
<table id="t01" style="align-items: center;">
<tr rowspan="2">
<td colspan="2">
<div class="slideshow-container">

<div class="mySlides fade">

  <input type="image" id="imgg" src="img/offer2.jpg" style="width:1000px; height:350px">

</div>

</div>

<br>
<div style="text-align:center">
  <a href="javascript:changimg('img/offer2.jpg')"><span class="dot"></span></a>
  <a href="javascript:changimg('img/offer1.jpg')"><span class="dot"></span> </a>
  <a href="javascript:changimg('img/offer3.jpg')"><span class="dot"></span> </a>
  <a href="javascript:changimg('img/offer4.jpg')"><span class="dot"></span> </a>
</div>
<br>
</td><!--
<td colspan="2">
<form action="#action">
<div class="cop">
<h2 style="color: rgb(220,20,60);"><i>SUBSCRIBE FOR MORE UPDATES</i></h4>
<p style="color: grey;font-size: 15px;">Our e-
mail updates will keep you informed on our company, new products, stories from the millions of people
we help live healthier longer lives.</p>
```

```html
<p id="subscribe-
email"><input type="email" name="email" required="required" class="required" value="" placeholder="
abc@xyz.com" /></p>
<p id="subscribe-
submit"><input type="submit" value="Subscribe" name="jetpack_subscriptions_widget"/></p>
</div>
</form>
</td>
</tr>
</table>
<br>
<br>-->
<!------Shoes------->

<table id="t02">
  <tr>
   <th>Shoes</th>
  </tr><tr>
   <td><a href="javascript:cart('img/shoe/shoe1.jpg','1258','Nike Shoe1')"><img src="img/shoe/shoe1.jpg
" width="200px" height="200px" ></a></td>
   <td><a href="javascript:cart('img/shoe/shoe2.jpg','1257','Nike Shoe2')"><img src="img/shoe/shoe2.jpg
" width="200px" height="200px"></a></td>
   <td><a href="javascript:cart('img/shoe/shoe3.jpg','1350','Adidas Shoe1')"><img src="img/shoe/shoe3.j
pg" width="200px" height="200px"></a></td>
   <td><a href="javascript:cart('img/shoe/shoe4.png','3750','Adidas Shoe2')"><img src="img/shoe/shoe4.
jpg" width="200px" height="200px"></a></td>
   <td><a href="javascript:cart('img/shoe/shoe5.jpg','1450','Casual')"><img src="img/shoe/shoe5.jpg" wi
dth="200px" height="200px"></a></td>
   <td><a href="javascript:cart('img/shoe/shoe6.jpg','5500','Leather')"><img src="img/shoe/shoe6.jpg" wi
dth="200px" height="200px"></a></td>
  </tr>
  <tr style="background-color: #eee">
   <td><b>Nike Shoe1 </b></td>
   <td><b>Nike Shoe2</b></td>
   <td><b>Adidas Shoe1 </b></td>
   <td><b>Adidas Shoe2</b></td>
   <td><b>Casual</b></td>
   <td><b>Leather</b></td>
  </tr>
  <tr style="background-color: #eee">
   <td><b>&#x20b9; 1258 </b>(10% OFF)</td>
   <td><b>&#x20b9; 1257 </b>(10% OFF)</td>
```

```html
    <td><b>&#x20b9; 1350 </b>(10% OFF)</td>
    <td><b>&#x20b9; 3750 </b>(20% OFF)</td>
    <td><b>&#x20b9; 1450 </b></td>
    <td><b>&#x20b9; 5500 </b>(15% OFF)</td>
  </tr>
  <tr>
    <td><button id="b04"><a href="javascript:cart('Nike Shoe1','1258')"><img src="img/addc3.png" width="100%" height="100%"  ></button></a></td>
    <td><button id="b04"><a href="javascript:cart('Nike Shoe2','1257')"><img src="img/addc3.png" width="100%" height="100%"></button></a></td>
    <td><button id="b04"><a href="javascript:cart('Adidas Shoe1','1350')"><img src="img/addc3.png" width="100%" height="100%"></button></a></td>
    <td><button id="b04"><a href="javascript:cart('Adidas Shoe2','3750')"><img src="img/addc3.png" width="100%" height="100%"></button></a></td>
    <td><button id="b04"><a href="javascript:cart('Casual','1450')"><img src="img/addc3.png" width="100%" height="100%"></button></a></td>
    <td><button id="b04"><a href="javascript:cart('Leather','5500')"><img src="img/addc3.png" width="100%" height="100%"></button></a></td>
  </tr>
</table>

<!------Watch------->
<div id="baby">
<table id="t02">
  <tr>
    <th>Watch</th>
  </tr><tr>
    <td><a href="javascript:cart('img/watches/watch1.jpg','649','Titan')"><img src="img/watches/watch1.jpg" width="200px" height="200px"></a></td>
    <td><a href="javascript:cart('img/watches/watch2.png','918','Fossil')"><img src="img/watches/watch2.jpg" width="200px" height="200px"></a></td>
    <td><a href="javascript:cart('img/watches/watch3.jpg','267','Timex')"><img src="img/watches/watch3.jpg" width="200px" height="200px"></a></td>
    <td><a href="javascript:cart('img/watches/watch4.jpg','1888','TitanS')"><img src="img/watches/watch4.jpg" width="200px" height="200px"></a></td>
    <td><a href="javascript:cart('img/watches/watch5.jpg','999','Casio')"><img src="img/watches/watch5.jpg" width="200px" height="200px"></a></td>
    <td><a href="javascript:cart('img/watches/watch6.jpg','3999','Armani')"><img src="img/watches/watch6.jpg" width="200px" height="200px"></a></td>
  </tr>
  <tr style="background-color: #eee">
    <td><b>Titan</b></td>
```

```
  <td><b>Fossil</b></td>
  <td><b>Timex</b></td>
  <td><b>TitanS</b></td>
  <td><b>Casio</b></td>
  <td><b>Armani</b></td>
 </tr>
 <tr style="background-color: #eee">
  <td><b>&#x20b9; 649 </b>(12% OFF)</td>
  <td><b>&#x20b9; 918 </b>(10% OFF)</td>
  <td><b>&#x20b9; 267 </b>(12% OFF)</td>
  <td><b>&#x20b9; 1888 </b>(25% OFF)</td>
  <td><b>&#x20b9; 999 </b>(13% OFF)</td>
  <td><b>&#x20b9; 3999 </b></td>
 </tr>
 <tr>
  <td><button id="b01"><a href="javascript:cart('Titan','649')"><img src="img/addc3.png" width="100
%" height="100%"></button></a></td>
  <td><button id="b02"><a href="javascript:cart('Fossil','918')"><img src="img/addc3.png" width="100
%" height="100%"></button></a></td>
  <td><button id="b03"><a href="javascript:cart('Timex','267')"><img src="img/addc3.png" width="10
0%" height="100%"></button></a></td>
  <td><button id="b04"><a href="javascript:cart('TitanS','1888')"><img src="img/addc3.png" width="10
0%" height="100%"></button></a></td>
  <td><button id="b05"><a href="javascript:cart('Casio','999')"><img src="img/addc3.png" width="100
%" height="100%"></button></a></td>
  <td><button id="b06"><a href="javascript:cart('Armani','3999')"><img src="img/addc3.png" width="
100%" height="100%"></button></a></td>
 </tr>
</table>
</div>
<form type="hidden" action="Addtocart" name="orderform" id="orderfrm">
<input type="text" value="" name="order">
<input type="text" value="" name="ordercost">
</form>
<div class="company-details" >
    <div class="row">
      <div id ="col1">
        <img src="img/loc.png" width="30px" height="30px">

        <span>
          SSN College of Engineering,OMR Road
          <br />Kalavakkam,Chennai
```

```
          </span>
        </div>
            <br>
        <div id ="col2">
          <img src="img/phone.png" width="30px" height="30px">

          <span>
            Phone:9080663323
          </span>
        </div>
              <br>
        <div id ="col3">
          <img src="img/email.png" width="30px" height="30px">
          <span>sudhakar.jeeva7@gmail.com</span>
        </div>
      </div>
    </div>

<script src="js/page1.js" type="text/javascript"></script>
<script type="text/javascript" src="js/slideshow.js"></script>
<script type="text/javascript" src="js/newwin.js"></script>
<script src="https://code.jquery.com/jquery-2.2.4.min.js" integrity="sha256-
BbhdlvQf/xTY9gja0Dq3HiwQF8LaCRTXxZKRutelT44=" crossorigin="anonymous"></script>
<script type="text/javascript" src="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/js/bootstrap.min.js"
></script>
</form>
<form type="hidden" action="Addtocart" name="orderform" id="orderfrm" method="POST">
<input type="text" value="" name="order" style="display: none">
<input type="text" value="" name="ordercost" style="display: none">
</form>
<script type="text/javascript">
function cart(detail,price){
var str1 = "Confirm to Add the item '"+detail+"" of "+"Rs. "+price+" into the cart ? ";
var h = confirm(/*"Confirm to Add the item '+detail+" of "+"Rs. +price+ into the cart ? "*/str1);
if(h == true){
document.orderform.order.value=detail;
document.orderform.ordercost.value=price;
document.getElementById("orderfrm").submit();
}}
</script>
</body>
</html>
```

OUTPUT:

Page1.html

Cascading StyleSheets Code:

Page1.css

```css
@import url('https://fonts.googleapis.com/css?family=Roboto+Condensed&display=swap');
@import url('https://fonts.googleapis.com/css?family=Notable&display=swap');
@import url('https://fonts.googleapis.com/css?family=Montserrat+Alternates&display=swap');
* {box-sizing: border-box;}

body{
  background-position: center center;
  background-repeat: no-repeat;
  background-attachment: fixed;
  background-size: cover;
}
.mySlides {display: none;}
img {vertical-align: middle;}

/* Slideshow container */
.slideshow-container {
  max-width: 1000px;
  position: relative;
  margin: auto;
  z-index:-1000;
}

/* Caption text */
.text {
  color: #f2f2f2;
  font-size: 15px;
  padding: 8px 12px;
  position: absolute;
  bottom: 8px;
  width: 100%;
  text-align: center;
}

/* Number text (1/3 etc) */
.numbertext {
  color: #f2f2f2;
  font-size: 12px;
  padding: 8px 12px;
  position: absolute;
  top: 0;
```

```css
}

/* The dots/bullets/indicators */
.dot {
  height: 15px;
  width: 15px;
  margin: 0 2px;
  background-color: #bbb;
  border-radius: 50%;
  display: inline-block;
  transition: background-color 0.6s ease;
}

.active {
  background-color: #717171;
}

/* Fading animation */
.fade {
  -webkit-animation-name: fade;
  -webkit-animation-duration: 1.5s;
  animation-name: fade;
  animation-duration: 1.5s;
}

@-webkit-keyframes fade {
  from {opacity: .4}
  to {opacity: 1}
}

@keyframes fade {
  from {opacity: .4}
  to {opacity: 1}
}

/* On smaller screens, decrease text size */
@media only screen and (max-width: 300px) {
  .text {font-size: 11px}
}

div.opp{
  padding:50px;
```

```css
  margin:10px;
  border: 1px solid green;
  font-size:45px;
  background-color:#708090;
  color:white;
  font-family: 'Montserrat Alternates', sans-serif;
  text-align:left;
}
div.foot{
   background-color:#708090;
  color:white;
  padding:50px;
  margin:10px;
font-size:25px
}

div.cop{
  float:right;
  padding:20px;
  margin:15px;
  border:1px double #708090;
  border-radius:5px;
  width:100%;
  height: 325px;
}

.navbar {
  overflow: hidden;
  background-color: #008080 ;
  font-family: 'Roboto Condensed', sans-serif;
}

#subscribe-email input {
    color: #b4b4be;
    border: 1px solid #b4b4be;
    padding: 5px;
    border-radius: 3px;
}
#subscribe-submit input[type="submit"] {
    border: 1px solid rgb(250,128,114);
    background: rgb(250,128,114);
    color: white;
```

```css
  padding: 5px 15px;
  font-size: 14px;
  border-radius: 3px;
  font-weight: bold;
}

.navbar a {
 float: left;
 font-size: 16px;
 color: white;
 text-align: center;
 padding: 14px 16px;
 text-decoration: none;
}

.dropdown {
 float: left;
 overflow: hidden;
}

.dropdown .dropbtn {
 font-size: 16px;
 border: none;
 outline: none;
 color: white;
 padding: 14px 16px;
 background-color: inherit;
 font-family: inherit;
 margin: 0;
}

.navbar a:hover, .dropdown:hover .dropbtn {
 background-color: rgb(255,127,80);
}

.dropdown-content {
 display: none;
 position: absolute;
 background-color: rgb(240,128,128);
 min-width: 160px;
 box-shadow: 0px 8px 16px 0px rgba(0,0,0,0.2);
 z-index: 1;
```

```css
}

.dropdown-content a {
  float: none;
  color: white;
  padding: 12px 16px;
  text-decoration: none;
  display: block;
  text-align: left;
}

.dropdown-content a:hover {
  background-color: lightpink;
}

.dropdown:hover .dropdown-content {
  display: block;
}

div.weltext{
  color:tomato;
  font-size:25px;
  padding:25px;
  margin:25px;
  text-align:center;
  float:left;
}
input[type=text], input[type=password] {
  width: 100%;
  padding: 12px 20px;
  margin: 8px 0;
  display: inline-block;
  border: 1px solid #ccc;
  box-sizing: border-box;
}

/* Set a style for all buttons */
button {
  background-color: rgb(250,128,114);
  color: white;
  padding: 1px 1px;
  margin: 8px;
```

```css
  border: 1px solid red;
  border-radius:5px;
  font-family: 'Roboto Condensed', sans-serif;
  cursor: pointer;
  width: auto;
  max-height: 50%;
  float:right;
}

button:hover {
  opacity: 0.8;
}

/* Extra styles for the cancel button */
.cancelbtn {
  width: auto;
  padding: 10px 18px;
  background-color: #f44336;
}
.container {
  padding: 100px;
  background-color: rgb(255,127,80);
}

span.psw {
  float: right;
  padding-top: 16px;
}

/* The Modal (background) */
.modal {
  display: none; /* Hidden by default */
  position: fixed; /* Stay in place */
  z-index: 100; /* Sit on top */
  left: 0;
  top: 0;
  width: 100%; /* Full width */
  height: 100%; /* Full height */
  overflow: auto; /* Enable scroll if needed */
  background-color: rgb(0,0,0); /* Fallback color */
  background-color: rgba(0,0,0,0.4); /* Black w/ opacity */
  padding-top: 60px;
```

```css
}

/* Modal Content/Box */
.modal-content {
  background-color: rgb(255,127,80);
  margin: 5% auto 15% auto; /* 5% from the top, 15% from the bottom and centered */
  border: 1px solid #888;
  width: 30%;
  height: 500px; /* Could be more or less, depending on screen size */
}

/* The Close Button (x) */
.close {
  position: absolute;
  right: 25px;
  top: 0;
  color: #000;
  font-size: 35px;
  font-weight: bold;
}

.close:hover,
.close:focus {
  color: red;
  cursor: pointer;
}

/* Add Zoom Animation */
.animate {
  -webkit-animation: animatezoom 0.6s;
  animation: animatezoom 0.6s
}

@-webkit-keyframes animatezoom {
  from {-webkit-transform: scale(0)}
  to {-webkit-transform: scale(1)}
}

@keyframes animatezoom {
  from {transform: scale(0)}
  to {transform: scale(1)}
}
```

```css
/* Change styles for span and cancel button on extra small screens */
@media screen and (max-width: 300px) {
  span.psw {
    display: block;
    float: none;
  }
  .cancelbtn {
    width: 100%;
  }
}

table#t01{
  border: 20px solid rgba(black,0.8);border-collapse: separate;text-align: center;width: 100%;border-spacing:1rem 5px;
}
table#t01 tr{
  border-spacing: 1rem 5px;
}
table#t01 td{
  padding: 10px;
}

.container6 {
  position: relative;
  width: 50%;
}
.container6 .image {
  display: block;
  width: 456px;
  height: 200px;
}

.container6 .overlay6 {
  position: absolute;
  top: 0;
  bottom: 0;
  left: 0;
  right: 0;
  height: 100%;
  width: 456px;
  opacity: 0.9;
```

```css
  transition: .5s ease;
  background-color: rgb(219,112,147);
}

.container6:hover .overlay6 {
  opacity: 0.2;
}

.container6 .overlay6 .text {
  color: white;
  font-size: 20px;
  position: absolute;
  top: 50%;
  left: 50%;
  -webkit-transform: translate(-50%, -50%);
  -ms-transform: translate(-50%, -50%);
  transform: translate(-50%, -50%);
  text-align: center;
}
table#t02{
  border-collapse: separate;
  border-spacing: 18px;
  font-family: 'Roboto Condensed', sans-serif;
}

table#t02 th{
  padding: 10px;
  color: dodgerblue;
  text-decoration-line: underline;
  text-decoration-style: solid;
  text-decoration-color: red;
  text-align: left;
  background-color: white;
  font-size: 30px;
}
table#t02 td{
  padding: 15px;
  text-align: center;
}

button#b04{
  background-color: white;
```

```css
    border: none;
    font-family: 'Roboto Condensed', sans-serif;
    width: 100%;
}

table#t02{
    border-collapse: separate;
    border-spacing: 10px;}

.company-details{
    overflow: hidden;
    padding: 3em 0em;
    background: #008080 ;
    text-align: center;
    margin-top: 5em;
    height: 100px;
}

#footer #col1
#footer #col2,
#footer #col3{
    width: 320px;
    padding: 0px 40px 0px 40px;
}

#footer #icon{
    display: block;
    margin-bottom: 1em;
    font-size: 3em;
}

/*** Adding Styles to Copyright Div ***/
.copyright
{
    overflow: hidden;
    padding: 3em 0em;
    border-top: 20px solid rgba(255, 255, 255, 0.08);
    text-align: center;
    background: rgb(220,20,60);
}

.copyright p
```

```css
{
  letter-spacing: 1px;
  font-size: 0.90em;
  color: rgba(255, 255, 255, 0.6);
}

.copyright a
{
  text-decoration: none;
  color: rgba(255, 255, 255, 0.8);
}

/* Styling Social Icons */
ul.contact{
  margin: 0;
  padding: 2em 0em 0em 0em;
  list-style: none;
}

ul.contact li{
  display: inline-block;
  padding: 0em 0.10em;
  font-size: 1em;
}

ul.contact li a{
  color: #FFF;
  display: inline-block;
  background: #4C93B9;
  width: 40px;
  height: 40px;
  line-height: 40px;
  text-align: center;
}
```

Javascript code:
Page1.js

```
var modal = document.getElementById('id02');
window.onclick = function(event) {
   if (event.target == modal) {
      modal.style.display = "none";
   }
}
// Get the modal
var modal = document.getElementById('id01');

// When the user clicks anywhere outside of the modal, close it
window.onclick = function(event) {
   if (event.target == modal) {
      modal.style.display = "none";
   }
}

$(document).ready(function() {
   $('#insert').click(function(){
      var image_name = $('#image').val();
      var extension = $('#image').val().split('.').pop().toLowerCase();
      if(jQuery.inArray(extension,['gif','png','jpg','jpeg'])==-1){
         alert('Invalid Image Format');
         $('#image').val('');
         return false;
      }
   });
});
```

Slideshow.js

```
var slideIndex = 0;
showSlides();

function showSlides() {
  var i;
  var slides = document.getElementsByClassName("mySlides");
  var dots = document.getElementsByClassName("dot");
  for (i = 0; i < slides.length; i++) {
   slides[i].style.display = "none";
  }
  slideIndex++;
```

```
  if (slideIndex > slides.length) {slideIndex = 1}
  for (i = 0; i < dots.length; i++) {
    dots[i].className = dots[i].className.replace(" active", "");
  }
  slides[slideIndex-1].style.display = "block";
  dots[slideIndex-1].className += " active";
  setTimeout(showSlides, 10000); // Change image every 2 seconds
}
```

Validation.js
```
function regvalid(){
    var un = document.getElementById('uname');
    var pass = document.getElementById('psw');
    var pass1 = document.getElementById('psw1');
    var nam = document.getElementById('name');
    var addr = document.getElementById('addr');
    var emai = document.getElementById('em');
    var num = document.getElementById('numb');

    if (pass!=pass1){
        alert("ENTERED PASSWORDS DOESN'T MATCH");
    }
    else{
        if(num.length != 10){
            alert("Enter a valid number");
        }
        else{
            return 1;
        }
    }
}
```

Newwin.js
```
function cart(pic,price,detail){
var newWindow = window.open('incc.html', 'formUntukUpdate', 'width=1000,height=700');
newWindow.onload = function(){
    price = "Rs." + price;
   // newWindow.document.getElementById('').value = h;
    newWindow.document.getElementById('labid').innerText = detail;
    newWindow.document.getElementById('priceid').innerText = price;
    newWindow.document.getElementById('picid').src=pic;
};}
```

```javascript
function cart(detail,price){
    var str1 = "Confirm to Add the item '"+detail+"" of "+"Rs. "+price+" into the cart ? ";
    var h = confirm(/*"Confirm to Add the item '+detail+" of "+"Rs. +price+ into the cart ? "*/str1);
    if(h == true){
        document.orderform.order.value=detail;
        document.orderform.ordercost.value=price;
        document.getElementById("orderfrm").submit();
    }
}

function cart1(x,y){
    //var a = document.getElementById('labid').value;
    //var b = document.getElementById('priceid').value;
    var str1 = "Confirm to Add the item '"+x+"" of "+"Rs. "+y+" into the cart ? ";
    var h = confirm(/*"Confirm to Add the item '+detail+" of "+"Rs. +price+ into the cart ? "*/str1);
    if(h == true){
        alert("SuccesFully Added");
    }
}

function changimg(pic){
    document.getElementById('imgg').src=pic;
}

function openanim(){
    document.getElementById('card').style.display="none";
    document.getElementById('anim').style.display="block";
}
function opencard(){
    document.getElementById('card').style.display="block";
    document.getElementById('anim').style.display="none";
}
function showall(){
    document.getElementById('card').style.display="block";
    document.getElementById('anim').style.display="block";
}
```

Cart.js

```javascript
function cart(detail,price){
    var str1 = "Confirm to Add the item '"+detail+"" of "+"Rs. "+price+" into the cart ? ";
    var h = confirm(/*"Confirm to Add the item '+detail+" of "+"Rs. +price+ into the cart ? "*/str1);
    if(h == true){
    document.orderform.order.value=detail;
    document.orderform.ordercost.value=price;
    document.getElementById("orderfrm").submit();
    }
    }
    Attachments area
```

EX. NO: 8
DATE:

MVC APPLICATION USING JSP, BEAN AND DATABASE

One of the most common Design Patterns is Model-View-Controller (MVC). MVC stands for Model, View and Controller. MVC separates an application into three components - Model, View and Controller.

Model: Model represents the shape of the data and business logic. It maintains the data of the application. Model objects retrieve and store model state in a database.

<p align="center"><u>Model is a data and business logic.</u></p>

View: View is a user interface. View display data using the model to the user and also enables them to modify the data.

<p align="center"><u>The view is a User Interface.</u></p>

Controller: Controller handles the user request. Typically, the user interacts with View, which in-turn raises appropriate URL request, this request will be handled by a controller. The controller renders the appropriate view with the model data as a response.

<p align="center"><u>A controller is a request handler.</u></p>

MVC ARCHITECTURE:
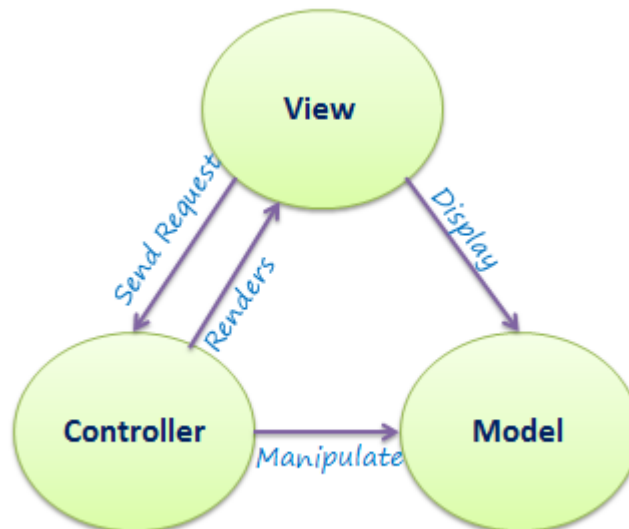
Advantages of MVC:

One advantage is the *separation of concerns*

Computation is not intermixed with I/O

Consequently, code is cleaner and easier to understand

Another advantage is flexibility

The GUI (if one is used) can be completely revamped without touching the model in any way

Another big advantage is reusability

The same model used for a servlet can equally well be used for an application or an applet (or by another process)

CODES FOR JSP BEAN:

welcome.jsp:

```jsp
<%@ page language="java" contentType="text/html" pageEncoding="UTF-8"%>

<%@ page import=" java.io.*,javax.servlet.*,javax.servlet.http.*" %>

<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">

<html lang="en" dir="ltr">

  <head>

    <meta charset="utf-8">

    <title></title>

  </head>

  <body>

<%

    response.setContentType("text/html");

    String uid = (String)session.getAttribute("uname");

            if (uid == null)

            {

    %>

        <script type="text/javascript">
```

```
        window.onload=function(){

          alert("Please Login!");

         }

        </script>

                    <jsp:include page="index.jsp"/>

      <%

            }

            else

            {

                %>

        <jsp:useBean id="catinfo" class="bean.validatebean">
</jsp:useBean>

        <jsp:setProperty property="*" name="catinfo"/>

        <jsp:getProperty property="catname" name="catinfo"/>

        <jsp:forward page="adopt_form.jsp">

          <jsp:param name="cat" value="<%= catinfo.getCatname() %>" />

        </jsp:forward>

        hello,<%= catinfo.getCatname() %>

                <% } %>

    </body>

</html>
```

ValidateBean.java:

```
package bean;

public class validatebean

{

  String catname;

  public validatebean( ) {    }

  public void setCatname(String catname)

  {
```

```
        this.catname = catname;

    }

    public String getCatname( )

    {

        return catname;

    }

}
```

OUTPUT:

Adopt with Confidence

Congratulations on your first step towards adding a new family member!!!

CAT NAME: *LILLIBET*

First Name

Enter your first name here

EX. NO: 7
DATE:

JAVA SERVLETS

Servlets are the Java programs that run on the Java-enabled web server or application server. They are used to handle the request obtained from the webserver, process the request, produce the response, then send response back to the webserver.

Properties of Servlets :
- Servlets work on the server-side.
- Servlets are capable of handling complex request obtained from the webserver.

Execution of Servlets :

Execution of Servlets involves the six basic steps:
1. The clients send the request to the webserver.
2. The web server receives the request.
3. The web server passes the request to the corresponding servlet.
4. The servlet processes the request and generates a response in the form of output.
5. The servlet sends the response back to the web server.
6. The web server sends the response back to the client and the client browser displays it on the screen.webserver

Servlet Architecture:
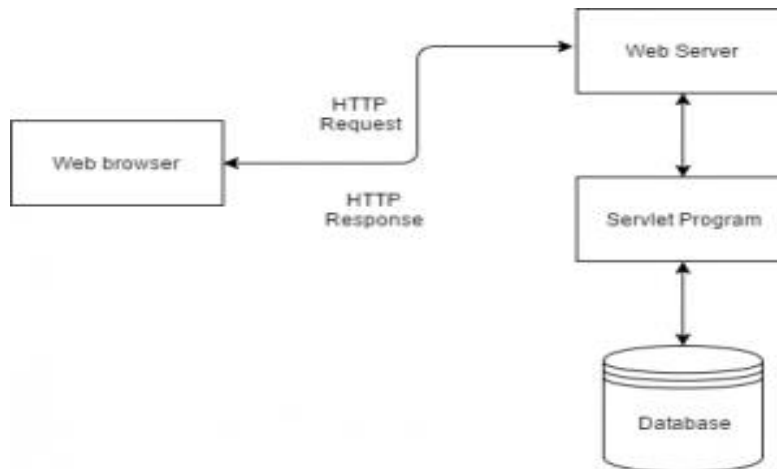
Servlet container:

Servlet container, also known as Servlet engine is an integrated set of objects that provide run time environment for Java Servlet components.
In simple words, it is a system that manages Java Servlet components on top of the Web server to handle the Web client requests.

Services provided by the Servlet container :

- Network Services: Loads a Servlet class. The loading may be from a local file system, a remote file system or other network services. The Servlet container provides the network services over which the request and response are sent.
- Decode and Encode MIME based messages: Provides the service of decoding and encoding MIME-based messages.
- Manage Servlet container: MaMIME-based ages the lifecycle of a Servlet.
- Resource management: Manages the static and dynamic resource, such as HTML files, Servlets and JSP pages.
- Security Service: Handles authorization and authentication of resource access.
- Session Management: Maintains a session by appending a session ID to the URL path.

Java JDBC:

JDBC stands for Java Database Connectivity. JDBC is a Java API to connect and execute the query with the database. It is a part of JavaSE (Java Standard Edition). JDBC API uses JDBC drivers to connect with the database.

Basic steps to use a database in Java:

1.Establish a connection

2.Create JDBC Statements

3.Execute SQL Statements

4.GET ResultSet

5.Close connections

CODE:

LOGIN_CHECK.JAVA:

```java
import java.sql.*;

import javax.servlet.*;

import javax.servlet.http.*;

import java.io.*;


public class Login extends HttpServlet{

    public void doPost(HttpServletRequest request, HttpServletResponse
 response)throws ServletException, IOException{

        response.setContentType("text/html");

        PrintWriter out=response.getWriter();
```

```java
        try{

              Class.forName("com.mysql.jdbc.Driver");

              Connection con = DriverManager.getConnection("jdbc:mysql:/
/localhost:3306/form","root","sudhakar");


              String uname = request.getParameter("uname");

              String psw = request.getParameter("psw");

              HttpSession session=request.getSession(true);


              PreparedStatement stmt = con.prepareStatement("select unam
e,pass from login where uname = ? and pass = ?");

              stmt.setString(1,uname);

              stmt.setString(2,psw);

              ResultSet rs = stmt.executeQuery();


              String j = request.getParameter("uname");

              request.setAttribute("user", j);

                 if(rs.next()){

                      RequestDispatcher rd = request.getRequestDispatche
r("page1.jsp");

                      rd.forward(request,response);

                      return;

                 }

                 else{

                      out.print("No user found");}


        }

        catch(Exception e){out.print(e);}
```

```
    }

}
```

REGISTER.JAVA:

```java
import java.sql.*;

import javax.servlet.*;

import javax.servlet.http.*;

import java.io.*;


public class Register extends HttpServlet{

    protected void service(HttpServletRequest request, HttpServletResp
onse   response) throws ServletException, IOException {

        doPost(request, response);

    }



    public void doPost(HttpServletRequest request, HttpServletResponse
 response)throws ServletException, IOException{

        response.setContentType("text/html");

            PrintWriter out=response.getWriter();

        try{

            Class.forName("com.mysql.jdbc.Driver");

            Connection con = DriverManager.getConnection("jdbc:mysql:/
/localhost:3306/form","root","sudhakar");



            String uname = request.getParameter("uname");

            String psw = request.getParameter("psw");


                    PreparedStatement pst = con.prepareStatement("inse
rt into login values(?,?)");
```

```java
                pst.setString(1,uname);

                pst.setString(2,psw);

                pst.executeUpdate();

                out.print("Successs");


        }catch(Exception e){

            out.print(e);

        }

    }

}

}
```

ADDTOCART.JAVA

```java
import java.sql.*;

import javax.servlet.*;

import javax.servlet.http.*;

import java.io.*;


public class Addtocart extends HttpServlet{

    protected void service(HttpServletRequest request, HttpServletResp
onse   response) throws ServletException, IOException {

        doPost(request, response);

    }


    public void doPost(HttpServletRequest request, HttpServletResponse
 response)throws ServletException, IOException{

        response.setContentType("text/html");
```

```java
            PrintWriter out=response.getWriter();

        try{

            Class.forName("com.mysql.jdbc.Driver");

            Connection con = DriverManager.getConnection("jdbc:mysql:/
/localhost:3306/form","root","sudhakar");

            HttpSession session=request.getSession(false);

            if(session==null){

                out.print("<script>");

                out.print("alert('Please Login First');");

                out.print("</script>");

                RequestDispatcher rd = request.getRequestDispatcher("l
ogin.html");

                rd.forward(request,response);

            }
            else{

                String uname=(String)session.getAttribute("name");

                String order = request.getParameter("order");

                String ordercost = request.getParameter("ordercost");

                    session.setAttribute("order",order);

                    session.setAttribute("ordercost",ordercost);

                PreparedStatement stmt = con.prepareStatement("insert
into orders values (?,?,?)");

                stmt.setString(1,uname);

                stmt.setString(2,order);

                stmt.setString(3,ordercost);

                stmt.execute();

                RequestDispatcher rd = request.getRequestDispatcher("i
nput.jsp");
```

```java
                rd.forward(request,response);

                return;

        }

        out.close();

        }catch(Exception e)

        {

                out.print(e);

        }

}}
```

LOGOUT.JAVA

```java
import java.io.*;

import javax.servlet.*;

import javax.servlet.http.*;

public class Logout extends HttpServlet {

        protected void doGet(HttpServletRequest request, HttpServletRe
sponse response)

                                throws ServletException, IOException {

            response.setContentType("text/html");

            PrintWriter out=response.getWriter();


            request.getRequestDispatcher("page1.jsp").forward(request,
 response);


            HttpSession session=request.getSession();

            session.invalidate();


            out.print("You are successfully logged out!");
```
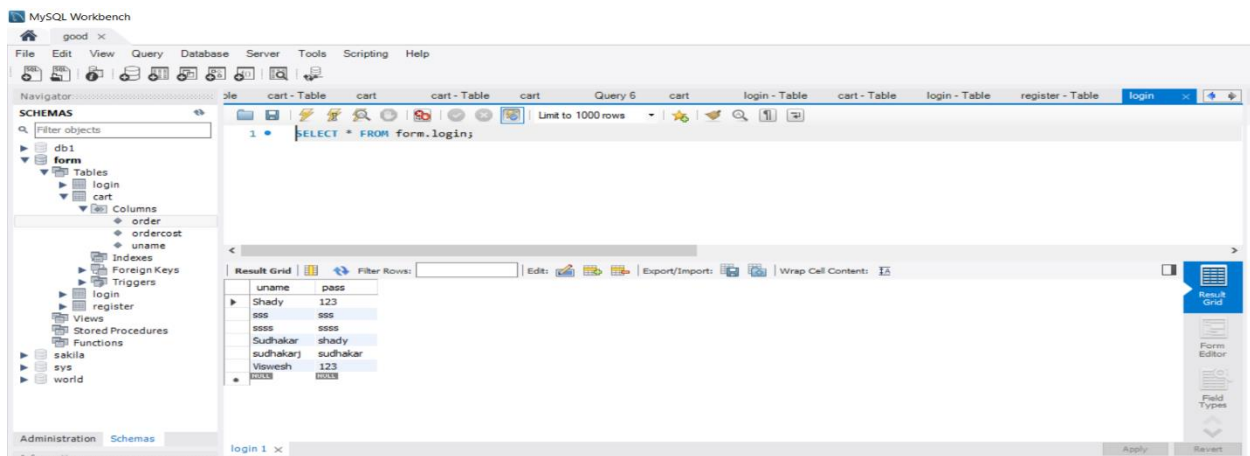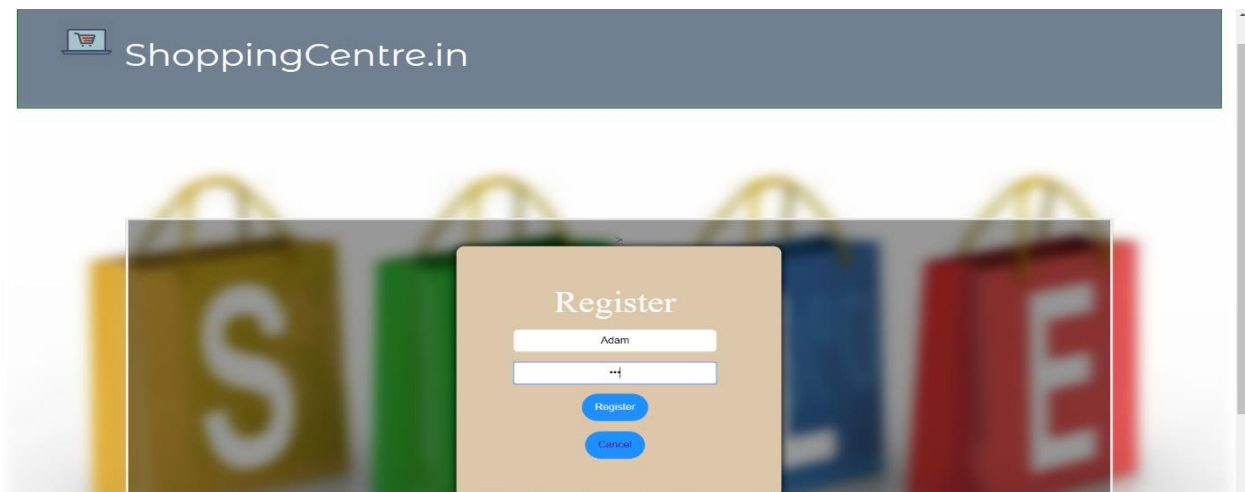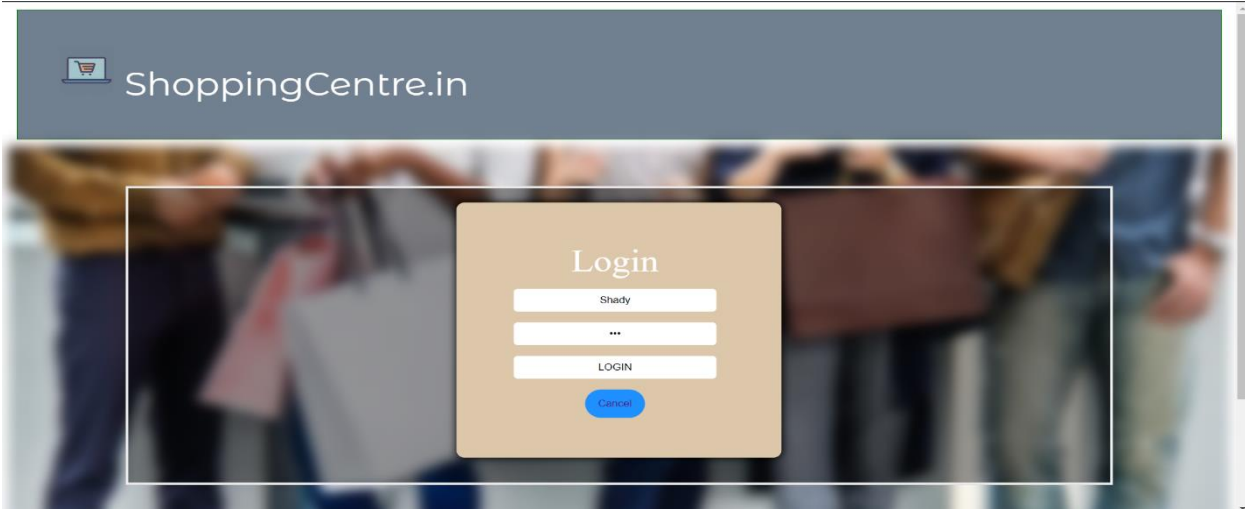
```
out.close();

}   }
```

OUTPUT:

EX. NO: 14

DATE:

WEB SERVICES

Web Services is an application component that:

> • Communicates via open protocols (HTTP, SMTP, etc.)
>
> • Processes XML messages framed using SOAP
>
> • Describes its messages using XML Schema
>
> • Provides an endpoint description using WSDL
>
> • Can be discovered using UDDI

Components of Web Services:

The basic web services platform is XML + HTTP. All the standard web services work using the following components –

- SOAP (Simple Object Access Protocol)
- UDDI (Universal Description, Discovery and Integration)
- WSDL (Web Services Description Language)

Working of Web Service:

A web service enables communication among various applications by using open standards such as HTML, XML, WSDL, and SOAP. A web service takes the help of –

- XML to tag the data
- SOAP to transfer a message
- WSDL to describe the availability of service.

Web Services Model:
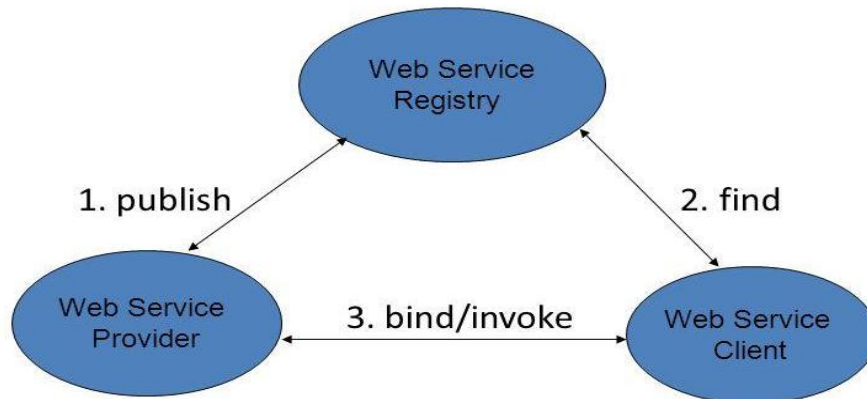
PROGRAM CODE:

WEBSERV.JAVA:

```
/*
 * To change this license header, choose License Headers in Project
Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
package ws;
import javax.jws.WebService;
import javax.jws.WebMethod;
import javax.jws.WebParam;
/**
 *
 * @author billionaireboys2017
 */
@WebService(serviceName = "webserv")
public class webserv {
    /**
```

```java
 * Web service operation

 */

@WebMethod(operationName = "addition")

public int addition(@WebParam(name = "a") int a, @WebParam(name = "b") int b) {

    //TODO write your implementation code here:

    return a+b;

}

}
```

ADDITION.JSP:

```jsp
<%--

    Document   : ADDI

    Created on : Oct 11, 2019, 11:38:42 AM

    Author     : billionaireboys2017

--%>


<%@page contentType="text/html" pageEncoding="UTF-8"%>

<!DOCTYPE html>

<html>

    <head>

        <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">

        <title>JSP Page</title>

    </head>

    <body>

        <h1>Hello World!</h1>

        <form action="act.jsp" method="post">
```

```
            <input type="number" name="x"/>

            <input type="number" name="y"/>

            <input type="submit" value="submit"/>

        </form>

    </body>

</html>
```

ACT.JSP:

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>

<!DOCTYPE html>

<html>

    <head>

        <meta http-equiv="Content-Type" content="text/html;
charset=UTF-8">

        <title>JSP Page</title>

    </head>

    <body>

        <h1>Hello World!</h1>


        <%-- start web service invocation --%><hr/>

        <%

        String ad1=request.getParameter("x");

        String ad2=request.getParameter("y");

        int aa = Integer.parseInt(ad1);

        int bb = Integer.parseInt(ad1);

    try {

      ws.Webserv_Service service = new ws.Webserv_Service();

      ws.Webserv port = service.getWebservPort();
```

```
     // TODO initialize WS operation arguments here

     int a = aa;

     int b = bb;

     // TODO process result here

     int result = port.addition(a, b);

     out.println("Result = "+result);

} catch (Exception ex) {

     // TODO handle custom exceptions here

}

%>

<%-- end web service invocation --%><hr/>

</body>

</html>
```
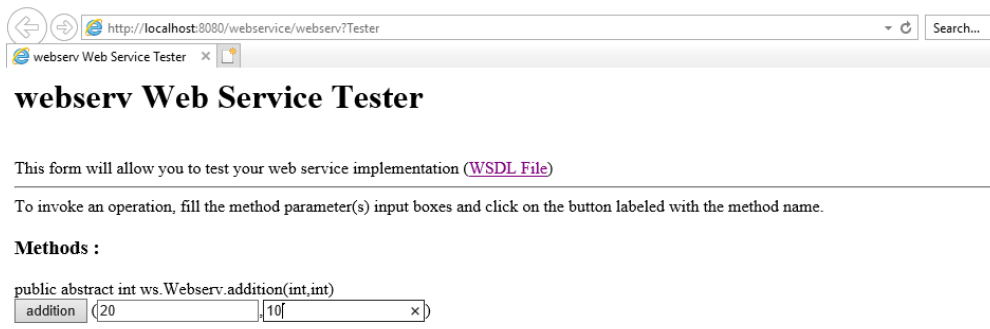
OUPTUT:

addition Method invocation

Method parameter(s)

Type	Value
int	20
int	10

Method returned

int : "**30**"

SOAP Request

```
<?xml version="1.0" encoding="UTF-8"?><S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/" xmlns:SOAP-ENV="http://schemas.xmlsoap.org/s
    <SOAP-ENV:Header/>
    <S:Body>
        <ns2:addition xmlns:ns2="http://ws/">
            <a>20</a>
            <b>10</b>
        </ns2:addition>
    </S:Body>
</S:Envelope>
```

SOAP Response

```
<?xml version="1.0" encoding="UTF-8"?><S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/" xmlns:SOAP-ENV="http://schemas.xmlsoap.org/s
    <SOAP-ENV:Header/>
    <S:Body>
```

Do you want AutoComplete to remember web form entries?   Learn about AutoComplete   Yes   No   ×

```
API/2.2.12 JAXB-RI/2.2.12-b141219.1637 JAXB-API/2.2.13-b141020.1521 svn-revision#unknown. -->
<!-- Generated by JAX-WS RI (http://jax-ws.java.net). RI's version is Metro/2.3.2-b608 (trunk-7979; 2015-01-21T12:50:19+0000) JAXWS-RI/2.2.11-b150120.1832 JAXWS-
API/2.2.12 JAXB-RI/2.2.12-b141219.1637 JAXB-API/2.2.13-b141020.1521 svn-revision#unknown. -->
- <definitions name="webserv" targetNamespace="http://ws/" xmlns="http://schemas.xmlsoap.org/wsdl/" xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:tns="http://ws/" xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" xmlns:wsam="http://www.w3.org/2007/05/addressing/metadata"
  xmlns:wsp1_2="http://schemas.xmlsoap.org/ws/2004/09/policy" xmlns:wsp="http://www.w3.org/ns/ws-policy" xmlns:wsu="http://docs.oasis-
  open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
    - <types>
      - <xsd:schema>
          <xsd:import schemaLocation="http://localhost:8080/webservice/webserv?xsd=1" namespace="http://ws/"/>
        </xsd:schema>
    </types>
    - <message name="addition">
        <part name="parameters" element="tns:addition"/>
    </message>
    - <message name="additionResponse">
        <part name="parameters" element="tns:additionResponse"/>
    </message>
    - <portType name="webserv">
      - <operation name="addition">
          <input message="tns:addition" wsam:Action="http://ws/webserv/additionRequest"/>
          <output message="tns:additionResponse" wsam:Action="http://ws/webserv/additionResponse"/>
        </operation>
    </portType>
    - <binding name="webservPortBinding" type="tns:webserv">
        <soap:binding style="document" transport="http://schemas.xmlsoap.org/soap/http"/>
      - <operation name="addition">
          <soap:operation soapAction=""/>
        - <input>
            <soap:body use="literal"/>
          </input>
        - <output>
            <soap:body use="literal"/>
          </output>
        </operation>
    </binding>
    - <service name="webserv">
      - <port name="webservPort" binding="tns:webservPortBinding">
          <soap:address location="http://localhost:8080/webservice/webserv"/>
        </port>
    </service>
</definitions>
```
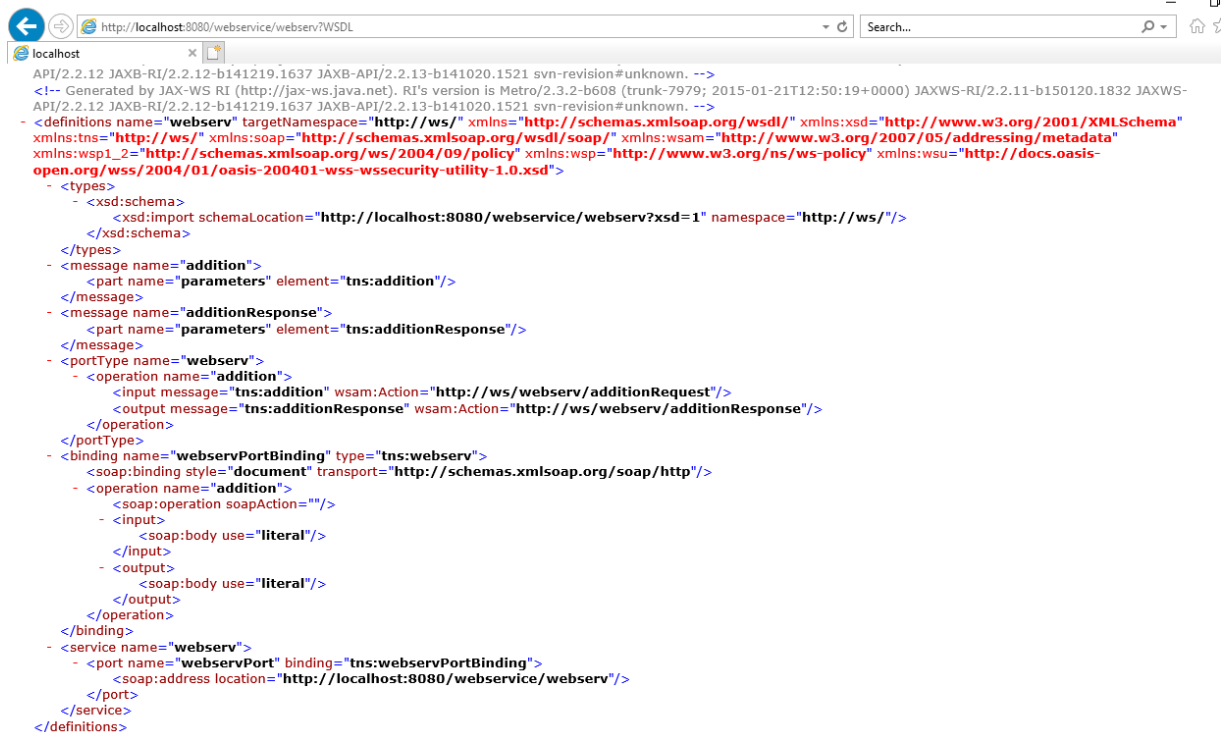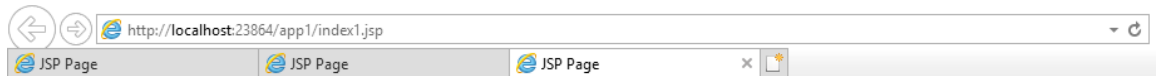
Hello World!

| 20 | 10 | × | submit |

>

Hello World!

Result = 30