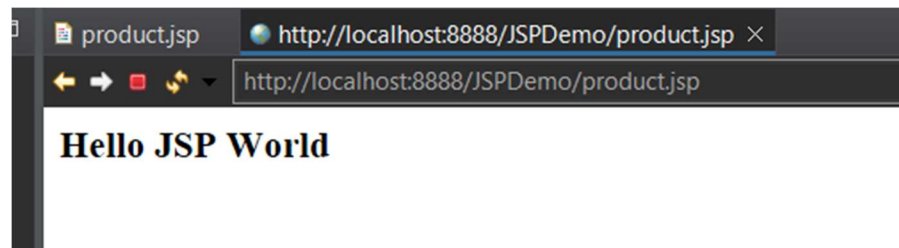# 1. Write a program to configure JSP with Eclipse and Creating a Simple JSP Page.

Product.jsp

```jsp
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>

<h3>Hello JSP World</h3>
```

OUTPUT

2. Write a program to demonstrate the function of JSP Implicit Objects.

Implicit-object-demo.jsp

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

<%

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

    if (office != null)
        out.println("value of Office obtained :" + office + " <br>");
    else
        out.println("No value of Office found <br>");
%>
```

Product.jsp

```jsp
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"%>

<h3>Hello JSP World</h3>
```
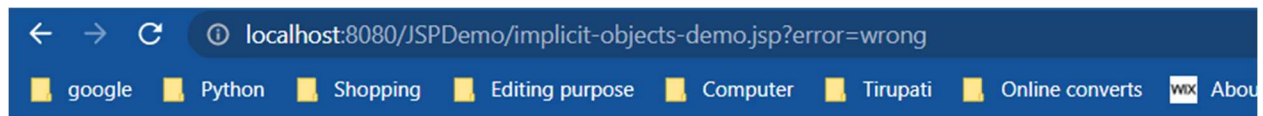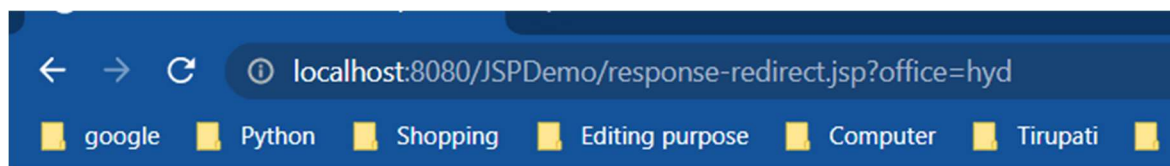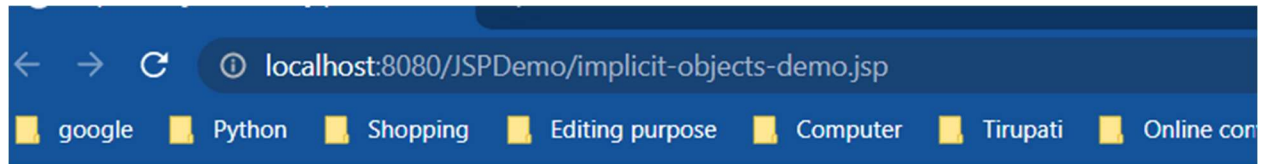
Error.jsp

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

<h2>Oops! Something went wrong. Contact our customer care executive. </h2>
```

OUTPUTS

The Server is running on port 8080
Servlet Name is jsp
Server Info:Apache Tomcat/9.0.75
The name of the page is org.apache.jsp.implicit_002dobjects_002ddemo_jsp@54bb8e3e
userId attribute from pageContext: John Doe

value of Office obtained :hyd

Oops! Something went wrong. Contact our customer care executive.

3.Write a program to demonstrate the use of JSP Directives.

Index.jsp

```jsp
<%@ page language="java" contentType="text/html; charset=UTF-8"
    import="java.util.Date" pageEncoding="UTF-8"%>

<%@ taglib prefix="c" uri="http://java.sun.com/jsp/jstl/core"%>
<%@ taglib prefix="fmt" uri="http://java.sun.com/jsp/jstl/fmt"%>

<title>JSP Directives Demo</title>

<br>
Content from index.jsp
<h4>Import (java.util.Date) directive demo</h4>
Hello, today is
<%=new Date()%>

<h4>Include file directive demo</h4>
<%@ include file="file1.jsp"%>
<br>
Content from index.jsp

<h4>1. Taglib directive demo (core taglib)</h4>
<br>

<c:set var="counter" value="10"></c:set>
COUNTER =
<c:out value="${counter}"></c:out>
<h4>2. Taglib directive demo (fmt taglib)</h4>
<br>

Currency =
<fmt:formatNumber value="145" type="currency" />

<p>
    <c:set var="now" value="<%=new java.util.Date()%>" />
    Current date and time is
    <fmt:formatDate pattern="yyyy-MM-dd" value="${now}" />
</p>
```
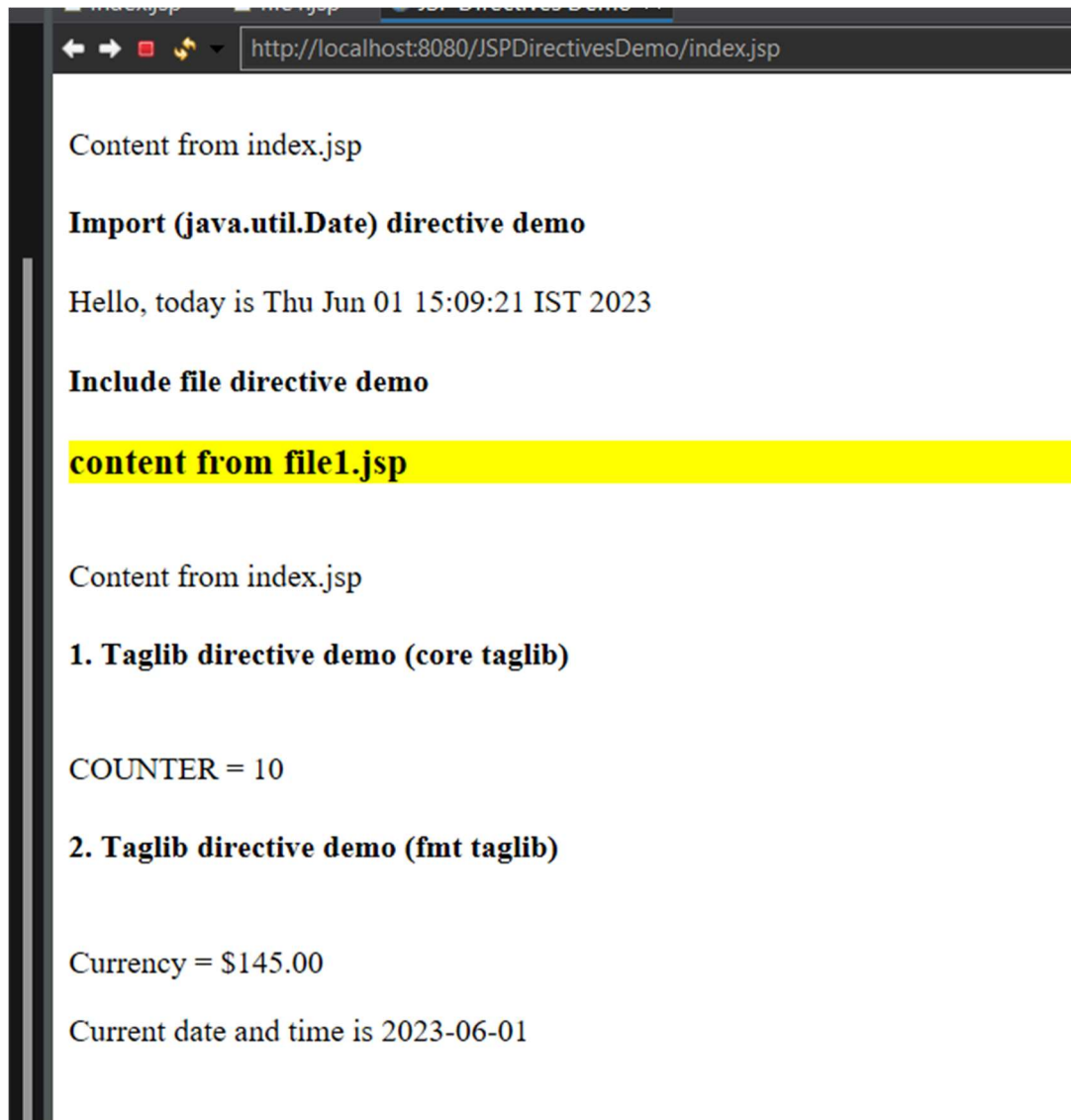
file1.jsp

```jsp
<%@ page language="java" contentType="text/html; charset=UTF-8"
import="java.util.Date"
    pageEncoding="UTF-8"%>

    <h3 style="background:yellow" >content from file1.jsp

    </h3>
```

OUTPUT

Content from index.jsp

Import (java.util.Date) directive demo

Hello, today is Thu Jun 01 15:09:21 IST 2023

Include file directive demo

content from file1.jsp

Content from index.jsp

1. Taglib directive demo (core taglib)

COUNTER = 10

2. Taglib directive demo (fmt taglib)

Currency = $145.00

Current date and time is 2023-06-01

4.Write a program to demonstrate the use of JSP action tags.

Index.jsp

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

<title>Action tags Demo</title>

<br><br>Main Main

<jsp:include page="file1.jsp"></jsp:include>

<br><br>Main Main
```

File1.jsp

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

<h1>CONTENT of file1.jsp  <%= "Hello".toUpperCase() %></h1></h1>
```

Forward-demo.jsp

```jsp
<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
Main Main (this won't appear in the browser because of the below forward
statement)

<jsp:forward page="file2.jsp"></jsp:forward>

Main Main (this won't appear in the browser because of the above forward
statement)
```

File2.jsp

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

<h1>CONTENT of file2.jsp</h1>
```

OUTPUT

index.jsp   file1.jsp   forward-demo.jsp   file2.jsp   Action tags Demo

http://localhost:8080/JSPActionTagsDemo/index.jsp

Main Main

CONTENT of file1.jsp HELLO

Main Main

---

index.jsp   file1.jsp   forward-demo.jsp   file2.jsp   Action tags Demo

http://localhost:8080/JSPActionTagsDemo/forward-demo.jsp

CONTENT of file2.jsp

5. Write a program to demonstrate session handling in JSP.

Index.jsp

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

<%
  if (request.getParameter("error") != null)
        out.println("<b>Your session has expired or is invalid.</b><br>");
%>

<form action="login.jsp" method="post">
    Name <input name="name" id="name" maxlength=40><br>
    Password <input type="password" name="pwd" id="pwd" maxlength="10"><br>
    <button>Submit</button>

</form>
```

Login.jsp

```jsp
<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
<%
        String name = request.getParameter("name");
        String pwd = request.getParameter("pwd");

        if (name == null || name.equals("") || pwd == null || pwd.equals(""))
{
                response.sendRedirect("index.jsp?error=1");
        } else {

                session.setAttribute("name", name);
                response.sendRedirect("dashboard.jsp");

        }
%>
```

Dashboard.jsp

```jsp
<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
<%
    if (session.getAttribute("name") == null) {
        response.sendRedirect("index.jsp?error=1");
    }
%>



<b>Hello <%=session.getAttribute("name")%></b>
<br>


<a href="logout.jsp">Click here to logout</a>
```
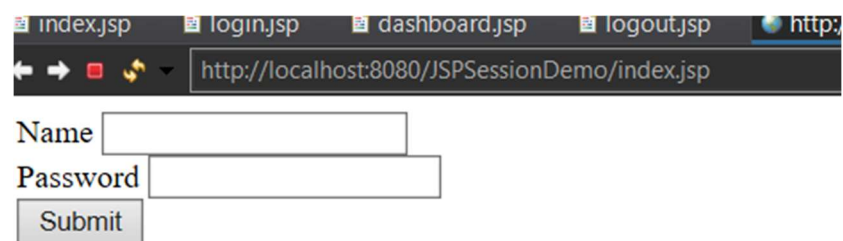
Logout.jsp

```jsp
<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
<%
        session.invalidate();
%>


<b>Your session has terminated.</b><br>

<a href="index.jsp">Login again</a>
```

OUTPUT

Your session has expired or is invalid.

Name [   ]

Password [   ]

Submit

Hello akash

Click here to logout

Your session has terminated.

Login again