SAVEETHA SCHOOL OF ENGINEERING
SIMATS, CHENNAI

Engineer to Excel

Course Code /Title: CSA4399 – Internet Programming
Programme : Computer Science and Engineering

ASSIGNMENT 3 QUESTIONS

SET -5

S.No	Questions	Marks	CO	BTL
1	Implementing a feature in a web application that tracks the number of accesses by a client within a single session. You need to use Java Servlets to manage and monitor session data. The application should count how many times the client accesses the application during their session and retrieve information about the session, such as the session ID, creation time, and last accessed time.	20	CO4	3
2	Write a scenario where you had to use JSTL to solve a complex problem and how you went about it. Also, elaborate the function library in JSTL and how to create custom functions.	20	CO4	2
3	A page of stock market quotes uses script to refresh the page every five minutes in order to ensure the latest statistics remain available. 20 seconds before the five minute period expires, a confirm dialog appears asking if the user needs more time before the page refreshes. This allows the user to be aware of the impending refresh and to avoid it if desired.	20	CO5	3
4	You are developing an e-commerce application that needs to integrate with an external payment gateway service. This service is described using a WSDL file. How would you use the WSDL file to integrate the payment gateway service into your e-commerce application? Describe the steps involved in generating the client code, invoking the service, and handling any potential errors	20	CO6	3

Integer VisitCount = (Integer) session.get

```
</thread>
 <tbody>
   <C: for Each var="Order" items="${orders}
     <c:choose>
     <c: when test="${ param.status == 'All'
        ||order.status == param.status}":
    <tr>
      <td>${order.id}</td>
      <td>${order.date}</td>
      <td>${order.status}</td>
      <td>${order.amount}</td>
 </tr>
 </c:when>
 </c:choose>
 </c:for choose>
 <c:for Each>
</tbody>
 </table>
</body>
</html>
```

Output:-

Ordered List

Order ID	Date	Status	Amount
1002 1003	2024-09-08 2024-09-09	Pending Pending	150.00 300.00

JSP Code using JSTL

```
<%@ taglib url = "http: // java.sun.com / jsp/jstl /
                  core" prefix = "c" %>
<%@ taglib url = "http: // java.sun.com/jsp/jstl/
                  functions" prefix = "fn" %>
<html>
<head>
    <title> order Management </title>
</head>
<body>
    <h2>order List </h2>
    <form method = "GET" action = "order.jsp">
      <label for = "status"> Filter by status : </labl>
      <select name = "status" id = "status">
       <option value = "All"> All </option>
      <option value = "Delivered"> Delivered
                        </option>
      <option value = "Pending"> pending
                        </option>
  </select>
  <input type = "submit" value = "Filter">
</form>
<table border = "1">
  <thead>
    <tr>
     <th> Order ID </th>
     <th> Date </th>
     <th> status </th>
     <th> Amount </th>
</tr>
```

```
          Attribute ("Visit Count");
    if (visit Count = = null) {
          visit Count = 0;
    }
    Visit Count ++;
  Session.set Attribute ("visit Count", Visit couns)
  out.pointln ("<html><body>");
  out.pointln ("<h1> Session Tracking Example </>
  out.pointln ("<p> Session ID: "+ Session Id +"</p>");
 Out.pointln ("<P>Session Created; "+ new Date (Creation Time)+"</P>");
 Out.pointln ("<P> Last Accessed; "+ new Date (last Accessed Time)+"</P>");
Out.pointln ("<P> No.of accesses in this Session : Visit Count+ "</P>")
Out.pointln ("</body></html>");
 }
}
```

Output:-

```
Session Tracking Example
Session ID: 12345ABCDE
Session Created: Mon Sep 09 12:00:00 IST 2024
Last Accessed: Mon Sep 09 12:01:05 IST 2024
No. of accesses in this Session: 1
```

(2) Write a Scenario where you had to use JSTL to solve a Complex problem and how you went about it. Also, elaborate the function library in JSTL and how to Create Custom functions.

Assignment-3

① Implementing a feature in a web application that tracks the number of accesses by a client within a single session using Java and monitor session data.

Servlet Code:-

```
import java.io.IOException;
import java.io.PrintWriter;
import java.util.Date;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServlet Request;
import javax.servlet.http.HttpServlet Response;
import javax.servlet.http.HttpSession;
@WebServlet ("/sessionTracker")
public class Session Tracker extends HttpServlet {
    protected void doGet (HttpServlet Request request,
             HttpServlet Response response) throws
               Servlet Exception. Io Exception {
     response.setContentType ("text/html");
     PrintWriter out = response.getWriter();
   HttpSession session = request.get ~~writer~~ Session(true);
  String SessionId = session.getId();
  long CreationTime = session.get(reationTime();
  long lastAccessedTime = session.getLast.
                  AccessedTime();
Integer VisitCount = (Integer) session.get
```

Java Script Code snippet:-

```
<!DOCTYPE html>
 <html lang="en">
 <head>
   <meta charset="UTF-8">
   <title>Stock Market Quotas </title>
  <script>
    function refreshpage(){
       location.reload();
    }
   Set TimeOut(() => {
    Const ConfirmRefresh= Confirm("The page will refresh
                                  in 20 seconds");
    if (!ConfirmRefresh){
      refresh Page();
   }else{
      alert("page refresh Canceled.");
   }
  },280000);
 </script>
<body>
   <h1> Stock Market Quotas </h1>
</body>
</html>
```

Assignment-4

why JDBC is Essential in Building Database. Driven Applications

JDBC is essential because it provides a standard API for Java applications to interface with databases.

Achieving JDBC Connection Pooling using JDBC Data Source and JNDI in Apache Tomcat.

Configure DataSource:

```
<Resource name="jdbc/MyDB"
          auth="Container"
          type="javax.sql.DataSource"
        maxTotal="20"
        max Idle="10"
        max waitMillis="10000"
        Username="dbuser"
        Password="dbpassword"
    driver className="com.mysql.cj.jdbc.Driver"
  Url="jdbc:mysql://localhost:3306/my database"/>
```

Lookup DataSource in Java Code using JND

```
import javax.naming.Context;
import javax.naming.InitialContext;
import javax.sql.DataSource;
import java.sql.connection;
Public class Database Util{
   Public static Connection getConnection()
                 throws Exception{
```