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Class : 6CE

Division : E

Subject : Java Experiment 4

# Q – Design a Social Media Dashboard in using Servlet and JSP.

### 1. Servlet Page store response from JSP page.

### 2. Add necessary field in JSP page for design the Social media page.

### 3. Display which post will upload in JSP page in Servlet page.

### 4. Develop and Build SocialServlet.java and Social.jsp

### 5. Perform necessary CRUD operation in Servlet page.

### 6. When post will publish that it must show the time of particular post from JSP page.

## Code :

### Post.java

package myClass;

import java.sql.Timestamp;

import java.text.SimpleDateFormat;

import java.util.Date;

public class Post {

private String title;

private String body;

private Timestamp post\_time;

public Post() {

}

public Post(String title, String body, Timestamp post\_time) {

this.title = title;

this.body = body;

this.post\_time = post\_time;

}

public String getFormattedMsgTime() {

if (post\_time != null) {

SimpleDateFormat dateFormat = new SimpleDateFormat("HH:mm | dd/MM/yyyy");

return dateFormat.format(new Date(post\_time.getTime()));

} else {

return null;

}

}

public void setTitle(String title) {

this.title = title;

}

public void setBody(String body) {

this.body = body;

}

public void setTime(Timestamp post\_time) {

this.post\_time = post\_time;

}

public String getTitle() {

return this.title;

}

public String getBody() {

return this.body;

}

public Timestamp getTime() {

return this.post\_time;

}

}

# Social.jsx :

<%@page import="java.security.Timestamp"%>

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

<%@ page import="myClass.Post" %>

<%@ page import="java.util.List" %>

<!DOCTYPE html>

<html>

<head>

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

<title>Mohil Mokaria</title>

<!-- BOOTSTRAP CDNs -->

<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/css/bootstrap.min.css" rel="stylesheet" integrity="sha384-T3c6CoIi6uLrA9TneNEoa7RxnatzjcDSCmG1MXxSR1GAsXEV/Dwwykc2MPK8M2HN" crossorigin="anonymous">

<!-- LOCAL CSS LINK -->

<link rel="stylesheet" href="./post\_style.css" />

</head>

<body>

<div class="container">

<div class="row align-items-center">

<div class="col-md-10 col-sm-8 mx-auto">

<div class="card shadow align-items-center">

<div class="card-body d-flex flex-column col-md-9 col-sm-6 mb-4 mt-4">

<form action="SocialServlet" method="post">

<div class="mb-4">

<h2>New Post</h2>

</div>

<div class="form-outline mb-4">

<label for="title" class="form-label">Title</label>

<input type="text" id="title" name="title" class="form-control" required/>

</div>

<div class="form-outline mb-4">

<label class="form-label" for="body">Body</label>

<textarea id="body" name="body" class="form-control" required></textarea>

</div>

<center><button type="submit" class="btn btn-outline-primary btn-block mb-2 sendbtn">Post</button></center>

</form>

</div>

</div>

</div>

</div>

</div>

<hr class="border border-primary border-2">

<section>

<div class="row align-items-center mt-4 mb-4">

<div class="col-md-9 col-sm-8 mx-auto">

<div class="card-body d-flex flex-column">

<%

List<Post> posts = (List<Post>) request.getAttribute("postList");

if (posts != null && !posts.isEmpty()) {

for (Post post : posts) {

%>

<div class="card mb-2">

<div class="card-header">

<%= post.getTitle()%>

</div>

<div class="card-body">

<blockquote class="blockquote mb-0">

<p><%= post.getBody()%></p>

<footer class="blockquote-footer text-muted"><small><%= post.getFormattedMsgTime()%></small></footer>

</blockquote>

</div>

</div>

<%

}

} else {

%>

<div class="card messages\_card">

<div class="card-body">

<div class="row">

<h5 class="card-title col">No Posts Yet</h5>

</div>

<p class="card-text">Try Posting Some Stuff!</p>

</div>

</div>

<%

}

%>

</div>

</div>

</div>

</section>

</body>

</html>

### SocialServlet.java

import jakarta.servlet.RequestDispatcher;

import jakarta.servlet.ServletException;

import jakarta.servlet.annotation.WebServlet;

import jakarta.servlet.http.HttpServlet;

import jakarta.servlet.http.HttpServletRequest;

import jakarta.servlet.http.HttpServletResponse;

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.PreparedStatement;

import java.sql.ResultSet;

import java.sql.SQLException;

import java.sql.Timestamp;

import java.util.ArrayList;

import java.util.List;

import java.util.logging.Level;

import java.util.logging.Logger;

import myClass.Post;

@WebServlet("/SocialServlet")

public class SocialServlet extends HttpServlet {

@Override

protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

final String jdbcUri = getServletContext().getInitParameter("jdbcUri");

final String dbUri = getServletContext().getInitParameter("dbUri");

final String dbId = getServletContext().getInitParameter("dbId");

final String dbPass = getServletContext().getInitParameter("dbPass");

response.setContentType("text/html");

PrintWriter pw = response.getWriter();

List<Post> postList = new ArrayList<>();

try {

Class.forName(jdbcUri);

try (Connection connection = DriverManager.getConnection(dbUri, dbId, dbPass)) {

String sql = "SELECT title, body, post\_time FROM posttbl ORDER BY post\_time DESC";

try (PreparedStatement statement = connection.prepareStatement(sql)) {

try (ResultSet resultSet = statement.executeQuery()) {

while (resultSet.next()) {

Post p = new Post();

p.setTitle(resultSet.getString("title"));

p.setBody(resultSet.getString("body"));

p.setTime(resultSet.getTimestamp("post\_time"));

postList.add(p);

}

}

}

request.setAttribute("postList", postList);

RequestDispatcher rd = request.getRequestDispatcher("Social.jsp");

rd.include(request, response);

}

} catch (ClassNotFoundException | SQLException ex) {

Logger.getLogger(ChatServlet.class.getName()).log(Level.SEVERE, null, ex);

pw.println(ex.getMessage());

}

}

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

final String jdbcUri = getServletContext().getInitParameter("jdbcUri");

final String dbUri = getServletContext().getInitParameter("dbUri");

final String dbId = getServletContext().getInitParameter("dbId");

final String dbPass = getServletContext().getInitParameter("dbPass");

response.setContentType("text/html");

PrintWriter pw = response.getWriter();

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

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

Timestamp postedAt = new Timestamp(System.currentTimeMillis());

try {

Class.forName(jdbcUri);

try (Connection con = DriverManager.getConnection(dbUri, dbId, dbPass)) {

PreparedStatement ps = con.prepareStatement("INSERT INTO posttbl(TITLE, BODY, POST\_TIME) values(?,?,?)");

ps.setString(1, title);

ps.setString(2, body);

ps.setTimestamp(3, postedAt);

int i = ps.executeUpdate();

response.sendRedirect("SocialServlet");

}

} catch (SQLException | ClassNotFoundException ex) {

Logger.getLogger(ChatServlet.class.getName()).log(Level.SEVERE, null, ex);

pw.println(ex.getMessage());

}

}

}

### web.xml

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

<web-app version="6.0" xmlns="https://jakarta.ee/xml/ns/jakartaee" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="https://jakarta.ee/xml/ns/jakartaee https://jakarta.ee/xml/ns/jakartaee/web-app\_6\_0.xsd">

<context-param>

<param-name>jdbcUri</param-name>

<param-value>com.mysql.cj.jdbc.Driver</param-value>

</context-param>

<context-param>

<param-name>dbUri</param-name>

<param-value>jdbc:mysql://localhost:3306/mysql</param-value>

</context-param>

<context-param>

<param-name>dbId</param-name>

<param-value>root</param-value>

</context-param>

<context-param>

<param-name>dbPass</param-name>

<param-value/>

</context-param>

<servlet>

<servlet-name>SocialServlet</servlet-name>

<servlet-class>SocialServlet</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>SocialServlet</servlet-name>

<url-pattern>/SocialServlet</url-pattern>

</servlet-mapping>

<welcome-file-list>

<welcome-file>SocialServlet</welcome-file>

</welcome-file-list>

</web-app>

## Screenshots:

## 

