Enr_no:23SOECE11090

Experiment 4 – Social Media Dashboard using Servlet & JSP

Subject: CE931

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Definition

This project is a simple **Social Media Dashboard** built using **Servlet and JSP** where:

- JSP is used for UI (input, design, post form)
- Servlet handles logic (store data, CRUD operations)
- Posts are displayed dynamically
- Time of post publishing is shown

Features Covered

1. JSP sends data to Servlet
2. Servlet stores response
3. Servlet sends data back to JSP
4. Post upload & display
5. CRUD operations (Create, Read, Update, Delete)
6. Post time display

File 1: Social.jsp

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

<!DOCTYPE html>
```

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```
<html>
<head>
<title>Social Media Dashboard</title>

<style> body  font-family:Arial;
background:#f2f2f2;
}
.box  width:600px; margin:auto;
background:#fff; padding:20px;
borderradius:10px; } textarea
width:100%; height:80px;
padding:8px; } button
padding:8p x 15px; background
:#007bff; color:white
;
border:non
e;
borderradius
:5px;
cursor:poin
ter;
}
.post  background:#eee;
        padding:10px;
```

```
            margintop:10px;
            borderradius:6px;
}
</style>

</head>

<body>

<div class="box">
            <h2>Social Media Dashboard</h2>

            <!-- CREATE POST -->
            <form action="SocialServlet" method="post">
                                    <input type="hidden" name="action" value="create">
                                       <textarea name="content" placeholder="What's on your mind?"
required></textarea><br><br>
                        <button type="submit">Post</button>
            </form>

            <hr>
            <h3>Posts</h3>

            <!-- READ POSTS -->
            ${posts}
```

```
</div>

</body>
</html>
```

File 2: SocialServlet.java

```
package RAM_23SOECE11606;

import java.io.IOException; import
java.text.SimpleDateFormat; import java.util.*; import
jakarta.servlet.*;

import jakarta.servlet.annotation.WebServlet; import
jakarta.servlet.http.*;

@WebServlet "/SocialServlet" public class SocialServlet extends HttpServlet  private
static final long serialVersionUID = 1L;

        // In-memory storage (DB simulation) static List<Post> postList = new
        ArrayList<>();

                                protected void doGet HttpServletRequest request, HttpServletResponse
response
```

```
                                    throws ServletException, IOException {
                displayPosts(request, response);
        }

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

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

        // CREATE if
        ("create".equals(action)) {
                String content = request.getParameter("content");
                String time = new SimpleDateFormat("dd-MM-yyyy HH:mm:ss").format(new Date());
                postList.add(new Post(content, time));
        }

        // UPDATE if ("update".equals(action)) { int index =
        Integer.parseInt(request.getParameter("id")); String newContent = request.getParameter("content");

                                    if (index >= 0 && index < postList.size()) {
                                    Post p = postList.get(index);
                                    p.content = newContent; // update content
                }
        }
```

```
                // DELETE if ("delete".equals(action)) { int index =
                Integer.parseInt(request.getParameter("id")); if (index >= 0 && index < postList.size()) {
                postList.remove(index);
                        }}

                displayPosts(request, response);
        }

        // READ (Display posts)
        private void displayPosts(HttpServletRequest request, HttpServletResponse
response)
                        throws ServletException, IOException {

                StringBuilder sb = new StringBuilder();

                for (int i = 0; i < postList.size(); i++) {
                        Post p = postList.get(i);

                        sb.append("<div class='post'>");

                        // UPDATE FORM sb.append("<form method='post' action='SocialServlet'>"); sb.append("<input
                        type='hidden' name='action' value='update'>"); sb.append("<input type='hidden' name='id'
                        value='" + i + "'>");

                        sb.append("<textarea name='content'
style='width:100%;height:60px;'>"+p.content+"</textarea><br>");
```

```
                sb.append("<small>Posted at: " + p.time + "</small><br><br>"); sb.append("<button
                type='submit'>Update</button>"); sb.append("</form>");

                // DELETE FORM sb.append("<form method='post' action='SocialServlet'
style='margin-top:5px;'>");
                sb.append("<input type='hidden' name='action' value='delete'>"); sb.append("<input
                type='hidden' name='id' value='" + i + "'>"); sb.append("<button
                style='background:red;'>Delete</button>"); sb.append("</form>");

                sb.append("</div>");
            }

            request.setAttribute("posts", sb.toString()); RequestDispatcher rd =
            request.getRequestDispatcher("Social.jsp"); rd.forward(request, response);
        }
}
```

File 3: `Post.java`

```
package RAM_23SOECE11606;

public class Post { public String content;
        public String time;

        public Post(String content, String time) { this.content =
```

```
content; this.time = time;
```

OUTPUT: