



Ahsanullah University of Science and Technology
Department of Computer Science and Engineering

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Course No. : CSE 4226
Course Title : Network Programming Lab

Assignment No 03
Developing a Dynamic Web Application Using Servlet

Section : B2

Date of Submission : 1 August 2018

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CSE 4226 Network Programming Lab
Report of Assignment 03
Name of the application : ‘HelloDhakaDotCom’
Lab Group : B2
Date of Submission: 1 August 2018

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Implementation Summary

Table 1: Implementation Summary

Requirements	Status
1. Number of webpages	11
2. User registration and Log In	Implemented
3. Handling HTML form Data	Implemented
4. Storing and Manipulating Data using JDBC	Implemented
5. Form Validation	Implemented
6. Use of HttpSession	Implemented
7. Use of RequestDispatcher (forward and include)	Implemented

Implementation Challenges

There have several challenges while implementing the application

- In the application, the admin registers new admins by inserting their information into database. Now, information about an admin should maintain a pattern. Their passwords should be of valid pattern. This can be of quite a challenge to implement. But, through programming, it can be ensured that at the time of storing new data, patterns are followed strictly.
- HTML form data should be handled properly as forms can be of different methods and may be different input types. They have to be managed properly.
- Database is very important for managing data. Connecting to database can sometimes be of challenge.
- Form validation is important as malicious data can be harmful for application. Thus at the time of insertion, validation is necessary.

Site Diagram

The site diagram shown in figure 1. The links and hierarchy among different web pages are shown in it.

Limitation and Future Scope of Improvements

- The application is a directory website but it does not have a wide range of information. So in future, information range can be expanded.

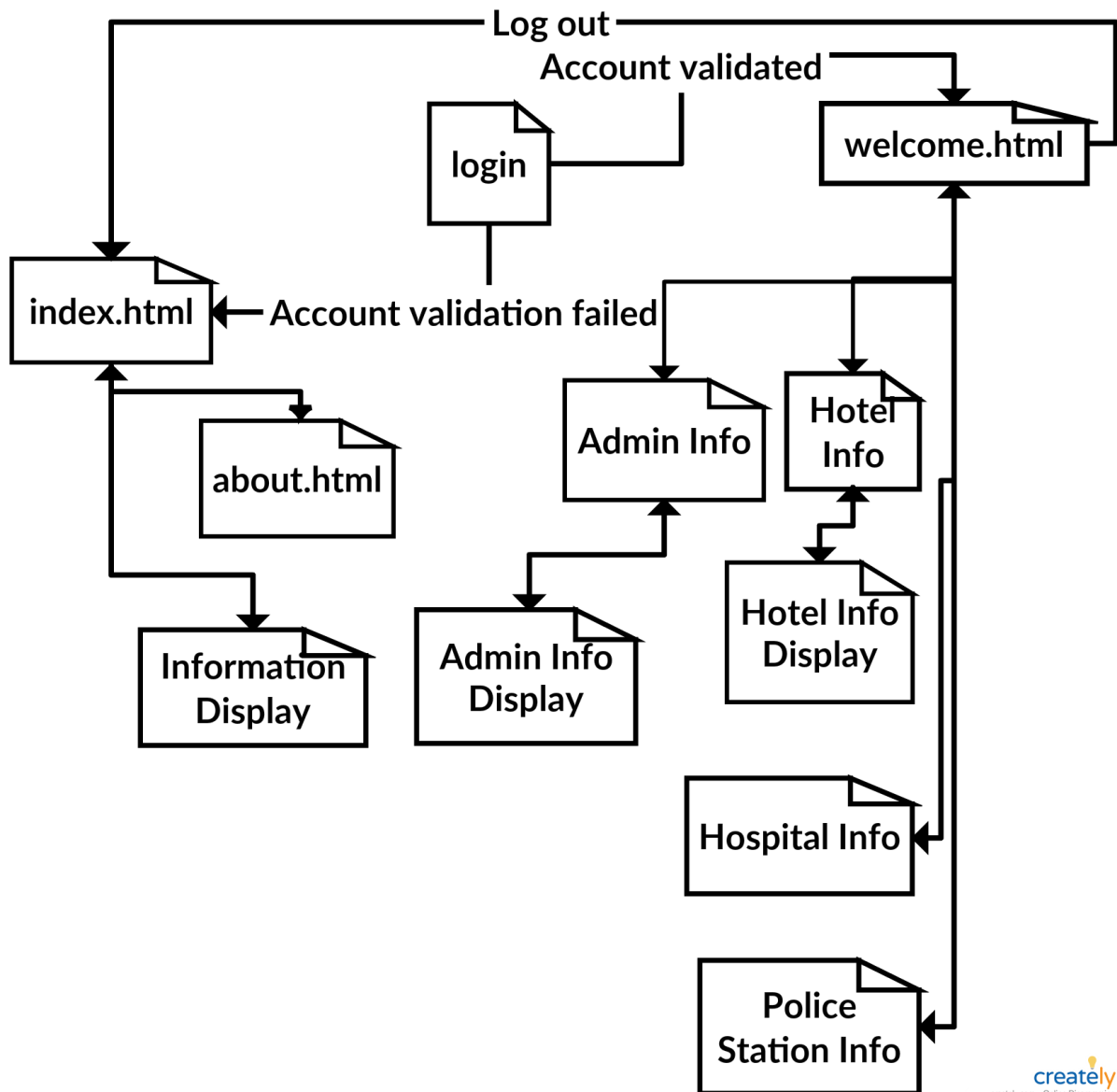


Figure 1: Site Diagram

- Currently, all data is only one database. In future, distributed database can be implemented.
- Presently, any user can check out the information and admin can only manage the system. In future, there can be options for user registration and feedback between admin and general users may be implemented.

Discussions

Usage of servlet for web application is a great approach. Security and validation can be handled properly through it. Also, database for practical application is a must. Through implementing this, a good insight is built for web applications.

Reference

- Jim Kurose and Keith Ross, Computer Networking: A Top Down Approach Featuring the Internet, 6th edition, Addison-Wesley, March 2012.

- Rajkumar buyya, Object Oriented Programming with Java: Essentials and Applications.
- <http://www.ntu.edu.sg/home/ehchua/programming/java/jaservlets.html>

Appendix

MyDB.java

```
1
2 import java.sql.Connection;
3 import java.sql.DriverManager;
4 import java.sql.SQLException;
5
6
7 public class MyDB {
8
9     Connection conn ;
10
11     public Connection getCon() throws SQLException
12     {
13         conn = DriverManager.getConnection("jdbc:derby://localhost:1527/HelloDhakaDotCom
14         ", "Ansary", "104");
15         System.out.println("Connection has been connection");
16         return conn;
17     }
18 }
```

login.java

```
1
2
3 import java.io.IOException;
4 import java.io.PrintWriter;
5 import java.sql.Connection;
6 import java.sql.ResultSet;
7 import java.sql.SQLException;
8 import java.sql.Statement;
9 import java.util.logging.Level;
10 import java.util.logging.Logger;
11 import javax.servlet.ServletException;
12 import javax.servlet.http.HttpServlet;
13 import javax.servlet.http.HttpServletRequest;
14 import javax.servlet.http.HttpServletResponse;
15 import javax.servlet.http.HttpSession;
16
17
18 public class login extends HttpServlet {
19
20
21     protected void processRequest(HttpServletRequest request, HttpServletResponse
22     response)
23         throws ServletException, IOException, SQLException {
24         response.setContentType("text/html; charset=UTF-8");
25         try (PrintWriter out = response.getWriter()) {
26             String username = request.getParameter("username");
27             String password = request.getParameter("password");
28
29             HttpSession session = request.getSession();
30             session.setAttribute("username", username);
31
32             MyDB db = new MyDB();
33             Connection conn = db.getCon();
34
35             String str1 = "", str2 = "";
36
37             Statement stmt1 = conn.createStatement();
38             ResultSet rs = stmt1.executeQuery("Select * from UU where NN=" + username +
39             """);
40             while (rs.next()) {
41                 str1 = rs.getString(1);
42                 str2 = rs.getString(2);
43             }
44 }
```

```

45         if ((username.length() !=0) && (password.length() != 0)) {
46             if (username.equalsIgnoreCase(str1) && password.equalsIgnoreCase(str2))
47             {
48                 response.sendRedirect("welcome.html");
49             } else {
50                 out.println("Incorrect user name or password");
51                 response.setHeader("Refresh", "3; URL=http://localhost:41157/HelloDhakaDotCom/index.html");
52             }
53         } else {
54             out.println("Empty username or password");
55             response.setHeader("Refresh", "3; URL=http://localhost:41157/HelloDhakaDotCom/index.html");
56         }
57     }
58 }
59
60
61 }
62 }
63
64
65 @Override
66 protected void doGet(HttpServletRequest request, HttpServletResponse response)
67     throws ServletException, IOException {
68     try {
69         processRequest(request, response);
70     } catch (SQLException ex) {
71         Logger.getLogger(login.class.getName()).log(Level.SEVERE, null, ex);
72     }
73 }
74
75
76 @Override
77 protected void doPost(HttpServletRequest request, HttpServletResponse response)
78     throws ServletException, IOException {
79     try {
80         processRequest(request, response);
81     } catch (SQLException ex) {
82         Logger.getLogger(login.class.getName()).log(Level.SEVERE, null, ex);
83     }
84 }
85
86
87 @Override
88 public String getServletInfo() {
89     return "Short description";
90 }
91
92 }

```

InformationDisplay.java

```

1
2 import java.io.IOException;
3 import java.io.PrintWriter;
4 import java.sql.Connection;
5 import java.sql.ResultSet;
6 import java.sql.ResultSetMetaData;
7 import java.sql.SQLException;
8 import java.sql.Statement;
9 import java.util.logging.Level;
10 import java.util.logging.Logger;
11 import javax.servlet.ServletException;
12 import javax.servlet.http.HttpServlet;
13 import javax.servlet.http.HttpServletRequest;
14 import javax.servlet.http.HttpServletResponse;
15
16
17 public class InformationDisplay extends HttpServlet {
18
19

```

```

20     protected void processRequest(HttpServletRequest request, HttpServletResponse
response)
21         throws ServletException, IOException, SQLException {
22         response.setContentType("text/html; charset=UTF-8");
23         PrintWriter out = response.getWriter();
24
25         String infoCat = request.getParameter("r1");
26
27         MyDB db = new MyDB();
28         Connection conn = db.getCon();
29
30
31
32         String str1 = "", str2 = "", str3 = "", str4 = "";
33         Statement stmt1 = conn.createStatement();
34         ResultSet rs = null;
35
36         String st0 = null;
37
38         if (infoCat.equalsIgnoreCase("policestations")) {
39             st0 = "Police Station";
40             rs = stmt1.executeQuery("Select * from PST");
41
42         } else if (infoCat.equalsIgnoreCase("hospital")) {
43             st0 = "Hospital";
44             rs = stmt1.executeQuery("Select * from UHO");
45         }
46         else if (infoCat.equalsIgnoreCase("hotel"))
47         {
48             st0 = "Hotel";
49             rs = stmt1.executeQuery("Select * from UH");
50         }
51
52
53         out.print("<center>");
54
55         out.println("<h2> Information Display </h2>");
56         out.print("<table width = 80% border = 1>");
57
58         out.print("<tr>");
59         out.print("<td>");
60         out.print(st0);
61         out.print("</td>");
62
63         out.print("<td>");
64         out.print("Address");
65         out.print("</td>");
66         out.print("</tr>");
67
68         while (rs.next()) {
69             out.print("<tr>");
70             out.print("<td>");
71             str1 = rs.getString(1);
72             out.print(str1);
73             out.print("</td>");
74
75             out.print("<td>");
76             str2 = rs.getString(2);
77             out.print(str2);
78             out.print("</td>");
79             out.print("</tr>");
80         }
81         out.print("</table> <br> <br>");
82
83         out.println("<form action='http://localhost:41157/HelloDhakaDotCom/index.html'/>
");
84         out.println("<input type='submit' value='Back' style='bottom' /> </form>");
85         out.print("</center>");
86
87     }
88
89
90

```

```

91     @Override
92     protected void doGet(HttpServletRequest request, HttpServletResponse response)
93         throws ServletException, IOException {
94         try {
95             processRequest(request, response);
96         } catch (SQLException ex) {
97             Logger.getLogger(InformationDisplay.class.getName()).log(Level.SEVERE, null,
98                 ex);
99         }
100     }
101
102     @Override
103     protected void doPost(HttpServletRequest request, HttpServletResponse response)
104         throws ServletException, IOException {
105         try {
106             processRequest(request, response);
107         } catch (SQLException ex) {
108             Logger.getLogger(InformationDisplay.class.getName()).log(Level.SEVERE, null,
109                 ex);
110         }
111     }
112
113     @Override
114     public String getServletInfo() {
115         return "Short description";
116     }
117
118 }

```

AdminInfo.java

```

1  import java.io.IOException;
2  import java.io.PrintWriter;
3  import java.sql.Connection;
4  import java.sql.ResultSet;
5  import java.sql.ResultSetMetaData;
6  import java.sql.SQLException;
7  import java.sql.Statement;
8  import java.util.logging.Level;
9  import java.util.logging.Logger;
10 import javax.servlet.RequestDispatcher;
11 import javax.servlet.ServletException;
12 import javax.servlet.http.HttpServlet;
13 import javax.servlet.http.HttpServletRequest;
14 import javax.servlet.http.HttpServletResponse;
15
16
17 public class AdminInfo extends HttpServlet {
18
19
20     protected void processRequest(HttpServletRequest request, HttpServletResponse
21     response) throws ServletException, IOException, SQLException
22     {
23         response.setContentType("text/html; charset=UTF-8");
24         PrintWriter out = response.getWriter();
25
26         String str1 = null, str2 = null, str3 = null, str4 = null;
27         MyDB db = new MyDB();
28         Connection conn = db.getCon();
29         Statement stmt = conn.createStatement();
30         Statement stmt1 = conn.createStatement();
31
32         String op = request.getParameter("rd");
33
34         String st1 = request.getParameter("h0");
35         String st2 = request.getParameter("a0");
36
37         System.out.println(st1 + " " + st2);
38
39         if (op.equalsIgnoreCase("i0")) {

```



```

40         stmt.execute("insert into UU (NN,PS) values ('" + st1 + "','"+ st2 + "','");");
41
42     } else if (op.equalsIgnoreCase("d0")) {
43         stmt.execute("DELETE FROM UU WHERE NN='" + st1 + "' AND PS = '" + st2 + "'");
44     };
45 }
46
47 RequestDispatcher rd=request.getRequestDispatcher("AdminInfoDisplay");
48 rd.forward(request, response);
49
50 }
51
52
53 @Override
54 protected void doGet(HttpServletRequest request, HttpServletResponse response)
55     throws ServletException, IOException {
56     try {
57         processRequest(request, response);
58     } catch (SQLException ex) {
59         Logger.getLogger(AdminInfo.class.getName()).log(Level.SEVERE, null, ex);
60     }
61 }
62
63
64 @Override
65 protected void doPost(HttpServletRequest request, HttpServletResponse response)
66     throws ServletException, IOException {
67     try {
68         processRequest(request, response);
69     } catch (SQLException ex) {
70         Logger.getLogger(AdminInfo.class.getName()).log(Level.SEVERE, null, ex);
71     }
72 }
73
74
75 @Override
76 public String getServletInfo() {
77     return "Short description";
78 }
79
80 }

```

AdminInfoDisplay.java

```

1
2 import java.io.IOException;
3 import java.io.PrintWriter;
4 import static java.lang.System.out;
5 import java.sql.Connection;
6 import java.sql.ResultSet;
7 import java.sql.ResultSetMetaData;
8 import java.sql.SQLException;
9 import java.sql.Statement;
10 import java.util.logging.Level;
11 import java.util.logging.Logger;
12 import javax.servlet.ServletException;
13 import javax.servlet.http.HttpServlet;
14 import javax.servlet.http.HttpServletRequest;
15 import javax.servlet.http.HttpServletResponse;
16 import javax.servlet.http.HttpSession;
17
18
19 public class AdminInfoDisplay extends HttpServlet {
20
21     protected void processRequest(HttpServletRequest request, HttpServletResponse
22     response)
23         throws ServletException, IOException, SQLException {
24         response.setContentType("text/html; charset=UTF-8");
25         try (PrintWriter out = response.getWriter()) {
26
27             HttpSession session = request.getSession();
28             String user = (String)session.getAttribute("username");

```

```

28
29     MyDB db = new MyDB();
30     Connection conn = db.getCon();
31     Statement stmt = conn.createStatement();
32     Statement stmt1 = conn.createStatement();
33     String str1 = null, str2 = null, str3 = null, str4 = null;
34
35     ResultSet rs = stmt1.executeQuery("Select * from UU");
36     ResultSetMetaData rsmd = rs.getMetaData();
37     out.print("<center>");
38
39
40     out.println("<h2>Hello " + user + "</h2>");
41
42
43     out.println("<h2> Information Display </h2>");
44     out.print("<table width = 80% border = 1>");
45
46     out.print("<tr>");
47     out.print("<td>");
48     out.print("Admin");
49     out.print("</td>");
50
51     out.print("<td>");
52     out.print("Password");
53     out.print("</td>");
54
55     out.print("</tr>");
56
57     while (rs.next()) {
58         out.print("<tr>");
59         out.print("<td>");
60         str1 = rs.getString(1);
61         out.print(str1);
62         out.print("</td>");
63
64         out.print("<td>");
65         str2 = rs.getString(2);
66         out.print(str2);
67         out.print("</td>");
68
69         out.print("</tr>");
70     }
71     out.print("</table> <br> <br>");
72
73     out.println("<form action='http://localhost:41157/HelloDhakaDotCom/welcome.html  

74     '/>");
75     out.println("<input type='submit' value='Back' style='bottom' /> </form>");
76     out.print("</center>");
77
78     }
79
80     @Override
81     protected void doPost(HttpServletRequest request, HttpServletResponse response)
82         throws ServletException, IOException {
83         try {
84             processRequest(request, response);
85         } catch (SQLException ex) {
86             Logger.getLogger(AdminInfoDisplay.class.getName()).log(Level.SEVERE, null,
87             ex);
88         }
89
90
91     @Override
92     public String getServletInfo() {
93         return "Short description";
94     }
95
96 }

```

HospitalInfo.java

```
1
2
3 import java.io.IOException;
4 import java.io.PrintWriter;
5 import java.sql.Connection;
6 import java.sql.ResultSet;
7 import java.sql.ResultSetMetaData;
8 import java.sql.SQLException;
9 import java.sql.Statement;
10 import java.util.logging.Level;
11 import java.util.logging.Logger;
12 import javax.servlet.ServletException;
13 import javax.servlet.http.HttpServlet;
14 import javax.servlet.http.HttpServletRequest;
15 import javax.servlet.http.HttpServletResponse;
16 import javax.servlet.http.HttpSession;
17
18
19 public class HospitalInfo extends HttpServlet {
20
21
22     protected void processRequest(HttpServletRequest request, HttpServletResponse
23     response)throws ServletException, IOException, SQLException
24     {
25         response.setContentType("text/html;charset=UTF-8");
26         PrintWriter out = response.getWriter();
27         String str1 = null, str2 = null, str3 = null, str4 = null;
28         MyDB db = new MyDB();
29         Connection conn = db.getCon();
30         Statement stmt = conn.createStatement();
31         Statement stmt1 = conn.createStatement();
32
33         HttpSession session = request.getSession();
34         String user = (String)session.getAttribute("username");
35
36         String op = request.getParameter("rd");
37
38         String st1 = request.getParameter("h2");
39         String st2 = request.getParameter("a2");
40
41         if (op.equalsIgnoreCase("i2")) {
42             stmt.execute("insert into UHO (NN,PS) values ('" + st1 + "','" + st2 + "')");
43
44         } else if (op.equalsIgnoreCase("d2")) {
45             stmt.execute("DELETE FROM UHO WHERE NN='" + st1 + "' AND PS = '" + st2 + "'");
46         }
47
48         ResultSet rs = stmt1.executeQuery("Select * from UHO");
49         ResultSetMetaData rsmd = rs.getMetaData();
50         out.print("<center>");
51
52         out.println("<h2>Hello " + user + "</h2>");
53
54         out.println("<h2> Information Display </h2>");
55         out.print("<table width = 80% border = 1>");
56
57         out.print("<tr>");
58         out.print("<td>");
59         out.print("Hospital");
60         out.print("</td>");
61
62         out.print("<td>");
63         out.print("Address");
64         out.print("</td>");
65
66         out.print("</tr>");
67
68         while (rs.next()) {
```

```

69         out.print("<tr>");
70         out.print("<td>");
71         str1 = rs.getString(1);
72         out.print(str1);
73         out.print("</td>");
74
75         out.print("<td>");
76         str2 = rs.getString(2);
77         out.print(str2);
78         out.print("</td>");
79
80         out.print("</tr>");
81     }
82     out.print("</table> <br> <br>");
83
84     out.println("<form action='http://localhost:41157/HelloDhakaDotCom/welcome.html  

85 '>");
86     out.println("<input type='submit' value='Back' style='bottom' /> </form>");
87     out.print("</center>");
88 }
89
90 @Override
91 protected void doGet(HttpServletRequest request, HttpServletResponse response)
92     throws ServletException, IOException {
93     try {
94         processRequest(request, response);
95     } catch (SQLException ex) {
96         Logger.getLogger(HospitalInfo.class.getName()).log(Level.SEVERE, null, ex);
97     }
98 }
99
100
101 @Override
102 protected void doPost(HttpServletRequest request, HttpServletResponse response)
103     throws ServletException, IOException {
104     try {
105         processRequest(request, response);
106     } catch (SQLException ex) {
107         Logger.getLogger(HospitalInfo.class.getName()).log(Level.SEVERE, null, ex);
108     }
109 }
110
111
112 @Override
113 public String getServletInfo() {
114     return "Short description";
115 }
116
117 }

```

HotelInfo.java

```

1
2 import java.io.IOException;
3 import java.io.PrintWriter;
4 import java.sql.Connection;
5 import java.sql.ResultSet;
6 import java.sql.ResultSetMetaData;
7 import java.sql.SQLException;
8 import java.sql.Statement;
9 import java.util.logging.Level;
10 import java.util.logging.Logger;
11 import javax.servlet.RequestDispatcher;
12 import javax.servlet.ServletException;
13 import javax.servlet.http.HttpServlet;
14 import javax.servlet.http.HttpServletRequest;
15 import javax.servlet.http.HttpServletResponse;
16
17
18 public class HotelInfo extends HttpServlet {
19
20

```

```

21     protected void processRequest(HttpServletRequest request, HttpServletResponse
response)
22         throws ServletException, IOException, SQLException {
23         response.setContentType("text/html; charset=UTF-8");
24
25         PrintWriter out = response.getWriter();
26
27         MyDB db = new MyDB();
28         Connection conn = db.getCon();
29         Statement stmt = conn.createStatement();
30         Statement stmt1 = conn.createStatement();
31
32         String op = request.getParameter("rd1");
33
34         String st1 = request.getParameter("h1");
35         String st2 = request.getParameter("a1");
36
37         if (op.equalsIgnoreCase("i1")) {
38
39             stmt.execute("insert into UH (NN,PS) values ('" + st1 + "','"+ st2 + "')");
40
41         } else if (op.equalsIgnoreCase("d1")) {
42             stmt.execute("DELETE FROM UH WHERE NN='" + st1 + "' AND PS = '" + st2 + "'");
43         }
44
45         RequestDispatcher rd=request.getRequestDispatcher("HotelInfoDisplay");
46         rd.include(request, response);
47
48     }
49
50
51     @Override
52     protected void doGet(HttpServletRequest request, HttpServletResponse response)
53         throws ServletException, IOException {
54         try {
55             processRequest(request, response);
56         } catch (SQLException ex) {
57             Logger.getLogger(HotelInfo.class.getName()).log(Level.SEVERE, null, ex);
58         }
59     }
60
61
62     @Override
63     protected void doPost(HttpServletRequest request, HttpServletResponse response)
64         throws ServletException, IOException {
65         try {
66             processRequest(request, response);
67         } catch (SQLException ex) {
68             Logger.getLogger(HotelInfo.class.getName()).log(Level.SEVERE, null, ex);
69         }
70     }
71
72
73     @Override
74     public String getServletInfo() {
75         return "Short description";
76     }
77
78 }

```

HotelInfoDisplay.java

```

1
2
3
4 import java.io.IOException;
5 import java.io.PrintWriter;
6 import java.sql.Connection;
7 import java.sql.ResultSet;
8 import java.sql.ResultSetMetaData;
9 import java.sql.SQLException;
10 import java.sql.Statement;

```

```

11 import java.util.logging.Level;
12 import java.util.logging.Logger;
13 import javax.servlet.ServletException;
14 import javax.servlet.http.HttpServlet;
15 import javax.servlet.http.HttpServletRequest;
16 import javax.servlet.http.HttpServletResponse;
17 import javax.servlet.http.HttpSession;
18
19
20 public class HotelInfoDisplay extends HttpServlet {
21
22     protected void processRequest(HttpServletRequest request, HttpServletResponse
        response)
23         throws ServletException, IOException, SQLException {
24         response.setContentType("text/html; charset=UTF-8");
25         try (PrintWriter out = response.getWriter()) {
26
27             HttpSession session = request.getSession();
28             String user = (String)session.getAttribute("username");
29
30             MyDB db = new MyDB();
31             Connection conn = db.getCon();
32             Statement stmt = conn.createStatement();
33             Statement stmt1 = conn.createStatement();
34             String str1 = null, str2 = null, str3 = null, str4 = null;
35
36             ResultSet rs = stmt1.executeQuery("Select * from UH");
37             ResultSetMetaData rsmd = rs.getMetaData();
38             out.print("<center>");
39
40
41             out.println("<h2>Hello " + user + "</h2>");
42
43
44             out.println("<h2> Information Display </h2>");
45             out.print("<table width = 80% border = 1>");
46
47             out.print("<tr>");
48             out.print("<td>");
49             out.print("Hotel");
50             out.print("</td>");
51
52             out.print("<td>");
53             out.print("Address");
54             out.print("</td>");
55
56             out.print("</tr>");
57
58             while (rs.next()) {
59                 out.print("<tr>");
60                 out.print("<td>");
61                 str1 = rs.getString(1);
62                 out.print(str1);
63                 out.print("</td>");
64
65                 out.print("<td>");
66                 str2 = rs.getString(2);
67                 out.print(str2);
68                 out.print("</td>");
69
70                 out.print("</tr>");
71             }
72             out.print("</table> <br> <br>");
73
74             out.println("<form action='http://localhost:41157/HelloDhakaDotCom/welcome.html
        '/>");
75             out.println("<input type='submit' value='Back' style='bottom' /> </form>");
76             out.print("</center>");
77
78         }
79     }
80
81

```

```

82
83
84     @Override
85     protected void doGet(HttpServletRequest request, HttpServletResponse response)
86         throws ServletException, IOException {
87         try {
88             processRequest(request, response);
89         } catch (SQLException ex) {
90             Logger.getLogger(HotelInfoDisplay.class.getName()).log(Level.SEVERE, null, ex
91         );
92     }
93
94
95     @Override
96     protected void doPost(HttpServletRequest request, HttpServletResponse response)
97         throws ServletException, IOException {
98         try {
99             processRequest(request, response);
100     } catch (SQLException ex) {
101         Logger.getLogger(HotelInfoDisplay.class.getName()).log(Level.SEVERE, null, ex
102     );
103     }
104
105
106     @Override
107     public String getServletInfo() {
108         return "Short description";
109     }
110
111 }

```

PoliceStationInfo.java

```

1
2 import java.io.IOException;
3 import java.io.PrintWriter;
4 import java.sql.Connection;
5 import java.sql.ResultSet;
6 import java.sql.ResultSetMetaData;
7 import java.sql.SQLException;
8 import java.sql.Statement;
9 import java.util.logging.Level;
10 import java.util.logging.Logger;
11 import javax.servlet.ServletException;
12 import javax.servlet.http.HttpServlet;
13 import javax.servlet.http.HttpServletRequest;
14 import javax.servlet.http.HttpServletResponse;
15 import javax.servlet.http.HttpSession;
16
17
18 public class PoliceStationInfo extends HttpServlet {
19
20
21     protected void processRequest(HttpServletRequest request, HttpServletResponse
22     response) throws ServletException, IOException, SQLException
23     {
24         response.setContentType("text/html; charset=UTF-8");
25         PrintWriter out = response.getWriter();
26         String str1 = null, str2 = null, str3 = null, str4 = null;
27         MyDB db = new MyDB();
28         Connection conn = db.getCon();
29         Statement stmt = conn.createStatement();
30         Statement stmt1 = conn.createStatement();
31
32         HttpSession session = request.getSession();
33         String user = (String)session.getAttribute("username");
34
35         String op = request.getParameter("rd3");
36
37         String st1 = request.getParameter("h3");
38         String st2 = request.getParameter("a3");

```

```

38
39         if (op.equalsIgnoreCase("i3")) {
40
41             stmt.execute("insert into PST (NN,PS) values ('" + st1 + "','"+ st2 + "','")")
42
43             ;
44
45         } else if (op.equalsIgnoreCase("d3")) {
46             stmt.execute("DELETE FROM PST WHERE NN='" + st1 + "' AND PS = '" + st2 + "'")
47         };
48     }
49
50     ResultSet rs = stmt1.executeQuery("Select * from PST");
51     ResultSetMetaData rsmd = rs.getMetaData();
52     out.print("<center>");
53
54     out.println("<h2>Hello " + user + "</h2>");
55
56     out.println("<h2> Information Display </h2>");
57     out.print("<table width = 80% border = 1>");
58
59     out.print("<tr>");
60     out.print("<td>");
61     out.print("Police Station");
62     out.print("</td>");
63
64     out.print("<td>");
65     out.print("Address");
66     out.print("</td>");
67
68     out.print("</tr>");
69
70     while (rs.next()) {
71         out.print("<tr>");
72         out.print("<td>");
73         str1 = rs.getString(1);
74         out.print(str1);
75         out.print("</td>");
76
77         out.print("<td>");
78         str2 = rs.getString(2);
79         out.print(str2);
80         out.print("</td>");
81
82         out.print("</tr>");
83     }
84     out.print("</table> <br> <br>");
85
86     out.println("<form action='http://localhost:41157/HelloDhakaDotCom/welcome.html' />");
87     out.println("<input type='submit' value='Back' style='bottom' /> </form>");
88     out.print("</center>");
89 }
90
91 @Override
92 protected void doGet(HttpServletRequest request, HttpServletResponse response)
93     throws ServletException, IOException {
94     try {
95         processRequest(request, response);
96     } catch (SQLException ex) {
97         Logger.getLogger(PoliceStationInfo.class.getName()).log(Level.SEVERE, null,
98             ex);
99     }
100 }
101
102 @Override
103 protected void doPost(HttpServletRequest request, HttpServletResponse response)
104     throws ServletException, IOException {
105     try {
106         processRequest(request, response);
107     } catch (SQLException ex) {
108         Logger.getLogger(PoliceStationInfo.class.getName()).log(Level.SEVERE, null,

```



```

107         ex);
108     }
109 }
110
111 @Override
112 public String getServletInfo() {
113     return "Short description";
114 }
115
116 }

```

index.html

```

1  <html>
2  <head>
3      <script>
4          history.forward();
5      </script>
6      <title>Log in</title>
7      <meta charset="UTF-8">
8      <meta name="viewport" content="width=device-width, initial-scale=1.0">
9      <style>
10         td{
11             padding: 10px;
12         }
13
14         div{
15             width: 50%;
16             border: 1px solid black;
17             border-radius: 5px;
18             background-color: lightyellow;
19             margin: 20px;
20         }
21     </style>
22
23
24
25
26 </head>
27
28 <body>
29 <center><h1> HelloDhakaDotCom</h1></center>
30
31
32
33 <center>
34     <div>
35         <center><h2> Select information category</h2></center>
36         <form action="InformationDisplay" method="POST">
37             <fieldset>
38                 <legend>
39                     Tick and click submit
40                 </legend>
41
42                 <input type="radio" name="r1" value="hospital" checked /> Hospital
43                 <input type="radio" name="r1" value="hotel" /> Hotel
44                 <input type="radio" name="r1" value="policestations" /> Police
45
46                 stations
47
48                 <br><br>
49
50                 <input type="submit" value="submit" />
51             </fieldset>
52
53         </form>
54     </div>
55 </center>
56
57 <center>
58     <div>
59         <center><h2> Admin Log In</h2></center>

```

```

59         <form action="login" method ="POST">
60             <table>
61                 <tr>
62                     <td>User name</td>
63                     <td><input type ="text" name="username" placeholder="username"
required=""/>

```

welcome.html

```

1
2 <html>
3     <head>
4         <script>
5             history.forward();
6         </script>
7         <title>Welcome</title>
8         <meta charset="UTF-8">
9         <meta name="viewport" content="width=device-width, initial-scale=1.0">
10        <style>
11            td{
12                padding: 10px;
13            }
14
15            div{
16                width: 50%;
17                border: 1px solid black;
18                border-radius: 5px;
19                background-color: lightyellow;
20                margin: 20px;
21            }
22        </style>
23    </head>

```

```

24 <body>
25 <center>
26 <h1>
27     Welcome
28 </h1>
29
30 <div>
31     <form action =" AdminInfo" method="POST">
32         <fieldset>
33             <legend>
34                 <strong>Admin Information</strong>
35             </legend>
36             <input type="radio" name="rd0" value="v0" checked/> View
37             <input type="radio" name="rd0" value="i0" /> Insert
38             <input type="radio" name="rd0" value="d0" /> Delete
39             <h4><i>Fill up to insert or modify </i></h4>
40             <table>
41                 <tr>
42                     <td>Admin</td>
43                     <td><input type ="text" name="h0" placeholder="Username"></td>
44                 </tr>
45                 <tr>
46                     <td>Password</td>
47                     <td><input type ="text" name="a0" placeholder="Password" pattern
= "(?=.*\d)(?=.*[a-z])(?=.*[A-Z]).{8,}" title="Must contain at least one number and
one uppercase and lowercase letter, and at least 8 or more characters"></td>
48                 </tr>
49                 <tr>
50                     <td colspan="2" style="text-align: center"> <input type="submit"
value=" Enter" ></td>
51                 </tr>
52             </table>
53         </fieldset>
54     </form>
55 </div>
56
57 <div>
58     <form action =" HotelInfo" method="POST">
59         <fieldset>
60             <legend>
61                 <strong>Hotel Information</strong>
62             </legend>
63             <input type="radio" name="rd1" value="v1" checked/> View
64             <input type="radio" name="rd1" value="i1" /> Insert
65             <input type="radio" name="rd1" value="d1" /> Delete
66             <h4><i>Fill up to insert or modify </i></h4>
67             <table>
68                 <tr>
69                     <td>Hotel Name</td>
70                     <td><input type ="text" name="h1" placeholder=" Hotel Name"></td>
71                 </tr>
72                 <tr>
73                     <td>Address</td>
74                     <td><input type ="text" name="a1" placeholder=" Address"></td>
75                 </tr>
76                 <tr>
77                     <td colspan="2" style="text-align: center"> <input type="submit"
value=" Enter" ></td>
78                 </tr>
79             </table>
80         </fieldset>
81     </form>
82 </div>
83
84 <div>
85     <form action =" HospitalInfo" method="GET">
86         <fieldset>
87             <legend>
88                 <strong>Hospital Information</strong>
89             </legend>
90             <input type="radio" name="rd2" value="v2" checked/> View
91             <input type="radio" name="rd2" value="i2" /> Insert
92             <input type="radio" name="rd2" value="d2" /> Delete

```

```

93         <h4><i>Fill up to insert or modify </i></h4>
94         <table>
95         <tr>
96             <td>Hospital Name</td>
97             <td><input type = "text" name = "h2" placeholder = " Hospital Name" >
td>
98         </tr>
99         <tr>
100             <td>Address</td>
101             <td><input type = "text" name = "a2" placeholder = " Address" >
102             </td>
103             </tr>
104             <tr>
105                 <td colspan = "2" style = "text-align: center"> <input type = "submit"
value = " Enter" > </td>
106                 </tr>
107             </table>
108         </fieldset>
109     </form>
110 </div>
111     <div>
112         <form action = " PoliceStationInfo" method = "GET">
113             <fieldset>
114                 <legend>
115                     <strong>Police Station Information</strong>
116                 </legend>
117                 <input type = "radio" name = "rd3" value = "v3" checked /> View
118                 <input type = "radio" name = "rd3" value = "i3" /> Insert
119                 <input type = "radio" name = "rd3" value = "d3" /> Delete
120                 <h4><i>Fill up to insert or modify </i></h4>
121                 <table>
122                 <tr>
123                     <td>Police Station</td>
124                     <td><input type = "text" name = "h3" placeholder = " Station name" >
td>
125                 </tr>
126                 <tr>
127                     <td>Address</td>
128                     <td><input type = "text" name = "a3" placeholder = " Address" >
129                     </td>
130                     </tr>
131                     <tr>
132                         <td colspan = "2" style = "text-align: center"> <input type = "submit"
value = " Enter" > </td>
133                         </tr>
134                     </table>
135                 </fieldset>
136             </form>
137 </div>
138     <div>
139         <br>
140         <br>
141         <form action = 'http://localhost:41157/HelloDhakaDotCom/index.html' />
142         <input type = 'submit' value = 'Log out' style = 'bottom' />
143     </form>
144 </div>
145
146 </center>
147 </body>
148 </html>

```

about.html

```

1
2 <html>
3     <head>
4         <script>
5             history.forward();
6         </script>
7         <title>TODO supply a title</title>
8         <meta charset = "UTF-8">
9         <meta name = "viewport" content = " width=device-width, initial-scale=1.0">
10

```

```

11     <style>
12         td{
13             padding: 10px;
14         }
15
16         div{
17             width: 50%;
18             border: 1px solid black;
19             border-radius: 5px;
20             background-color: lightgray;
21             margin: 20px;
22         }
23     </style>
24 </head>
25 <body>
26
27     <center>
28     <div>
29         <center>
30             <h1>
31                 HelloDhakaDotCom
32             </h1>
33         </center>
34
35         <center>
36             <h4>
37                 <i>(Assignment 03)</i>
38             </h4>
39         </center>
40
41         <h3>CSE 4226</h3>
42         <h3>Network Programming Lab</h3>
43
44
45         <table>
46             <tr>
47                 <td>Course Teachers</td>
48                 <td><strong>Ms. Raqeebir Rab, Assistant Professor , Dept. of CSE,
49 AUST. </strong></td>
50             </tr>
51             <tr>
52                 <td></td>
53                 <td><strong>Mr. Sujan Sarker , Assistant Professor , Dept. of CSE,
54 AUST.</strong></td>
55             </tr>
56         </table>
57
58         <br>
59         <br>
60
61         <h4> Submitted by <br>
62             Md Siam Ansary <br>
63             ID : 14.02.04.104 </h4>
64
65     </div>
66
67     <div>
68         <br>
69         <br>
70         <form action='http://localhost:41157/HelloDhakaDotCom/index.html' />
71             <input type='submit' value='Back' style='bottom' />
72         </form>
73         <br>
74         <br>
75     </div>
76 </center>
77
78 </body>
79 </html>

```

web.xml

```

1
2 <?xml version="1.0" encoding="UTF-8"?>
3 <web-app version="3.1" xmlns="http://xmlns.jcp.org/xml/ns/javaee" xmlns
: xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation=
" http://xmlns.jcp.org/xml/ns/javaee http://xmlns.jcp.org/xml/ns/
javaee/web-app_3_1.xsd">
4   <servlet>
5     <servlet-name>InformationDisplay</servlet-name>
6     <servlet-class>InformationDisplay</servlet-class>
7   </servlet>
8   <servlet>
9     <servlet-name>login</servlet-name>
10    <servlet-class>login</servlet-class>
11  </servlet>
12  <servlet>
13    <servlet-name>HotelInfo</servlet-name>
14    <servlet-class>HotelInfo</servlet-class>
15  </servlet>
16  <servlet>
17    <servlet-name>HospitalInfo</servlet-name>
18    <servlet-class>HospitalInfo</servlet-class>
19  </servlet>
20  <servlet>
21    <servlet-name>PoliceStationInfo</servlet-name>
22    <servlet-class>PoliceStationInfo</servlet-class>
23  </servlet>
24  <servlet>
25    <servlet-name>AdminInfo</servlet-name>
26    <servlet-class>AdminInfo</servlet-class>
27  </servlet>
28
29  <servlet>
30    <servlet-name>AdminInfoDisplay</servlet-name>
31    <servlet-class>AdminInfoDisplay</servlet-class>
32  </servlet>
33  <servlet>
34    <servlet-name>HotelInfoDisplay</servlet-name>
35    <servlet-class>HotelInfoDisplay</servlet-class>
36  </servlet>
37  <servlet-mapping>
38    <servlet-name>InformationDisplay</servlet-name>
39    <url-pattern>/InformationDisplay</url-pattern>
40  </servlet-mapping>
41  <servlet-mapping>
42    <servlet-name>login</servlet-name>
43    <url-pattern>/login</url-pattern>
44  </servlet-mapping>
45  <servlet-mapping>
46    <servlet-name>HotelInfo</servlet-name>
47    <url-pattern>/HotelInfo</url-pattern>
48  </servlet-mapping>
49  <servlet-mapping>
50    <servlet-name>HospitalInfo</servlet-name>
51    <url-pattern>/HospitalInfo</url-pattern>
52  </servlet-mapping>
53  <servlet-mapping>
54    <servlet-name>PoliceStationInfo</servlet-name>
55    <url-pattern>/PoliceStationInfo</url-pattern>

```

```
56     </servlet-mapping>
57     <servlet-mapping>
58         <servlet-name>AdminInfo</servlet-name>
59         <url-pattern>/AdminInfo</url-pattern>
60     </servlet-mapping>
61
62     <servlet-mapping>
63         <servlet-name>AdminInfoDisplay</servlet-name>
64         <url-pattern>/AdminInfoDisplay</url-pattern>
65     </servlet-mapping>
66     <servlet-mapping>
67         <servlet-name>HotelInfoDisplay</servlet-name>
68         <url-pattern>/HotelInfoDisplay</url-pattern>
69     </servlet-mapping>
70     <session-config>
71         <session-timeout>
72             30
73         </session-timeout>
74     </session-config>
75 </web-app>
```