```
1 <%--
     Created by IntelliJ IDEA.
 3 User: mhm85
 4 Date: 11/18/2019
 5 Time: 2:22 PM
 6 To change this template use File | Settings |
   File Templates.
 7 --%>
 8 <%@ page contentType="text/html;charset=UTF-8"
   language="java" %>
 9 <html>
10 <head>
11
       <title>Index</title>
12 </head>
13 <body>
14 <form action="doSomething" method="post">
       <input type="hidden" value="page1">
15
       <label>Name:</label><input type="text" name="</pre>
16
   userName" required><br>
       <label>Email:</label><input type="text" name="</pre>
17
   userEmail" required><br>
       <input type="submit" value="Send">
18
19 </form>
20 </body>
21 </html>
22
```

```
1 <%--
     Created by IntelliJ IDEA.
  User: mhm85
 4 Date: 11/18/2019
 5 Time: 2:48 PM
 6 To change this template use File | Settings |
   File Templates.
 7 --%>
 8 <%@ page contentType="text/html;charset=UTF-8"</pre>
   language="java" %>
 9 <html>
10 <head>
11
       <title>Page2</title>
12 </head>
13 <body>
14 <%
15
       String userName = request.getParameter("
   userName");
16
       String userEmail = request.getParameter("
   userEmail");
17
18
       out.println(userName);
19
       out.println(userEmail);
20 %>
21 </body>
22 </html>
23
```

```
1 <?xml version="1.0" encoding="UTF-8"?>
 2 <web-app xmlns="http://xmlns.jcp.org/xml/ns/javaee"</pre>
            xmlns:xsi="http://www.w3.org/2001/
 3
   XMLSchema-instance"
 4
            xsi:schemaLocation="http://xmlns.jcp.org/
   xml/ns/javaee http://xmlns.jcp.org/xml/ns/javaee/
   web-app 4 0.xsd"
            version="4.0">
 5
 6
 7
       <servlet>
           <servlet-name>MyServlet</servlet-name>
 8
           <servlet-class>MyServlet</servlet-class>
 9
       </servlet>
10
       <servlet-mapping>
11
12
           <servlet-name>MyServlet</servlet-name>
13
           <url-pattern>/doSomething</url-pattern>
       </servlet-mapping>
14
15
16
       <filter>
           <filter-name>MyFilter1</filter-name>
17
           <filter-class>MyFilter1</filter-class>
18
       </filter>
19
20
       <filter-mapping>
21
           <filter-name>MyFilter1</filter-name>
22
           <url-pattern>/doSomething</url-pattern>
       </filter-mapping>
23
24
25
       <filter>
26
           <filter-name>MyFilter2</filter-name>
27
           <filter-class>MyFilter2</filter-class>
       </filter>
28
       <filter-mapping>
29
           <filter-name>MyFilter2</filter-name>
30
```

File - web.xml

| 31 | <pre><url-pattern>/doSomething</url-pattern></pre> |
|----|--|
| 32 | |
| 33 | |
| | |
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```
1 import java.io.Serializable;
 2
 3 public class User implements Serializable {
 4
 5
       private String userName;
       private String userEmail;
 6
 7
       public User() {
 8
           userName = "";
 9
           userEmail = "";
10
11
       }
12
13
       public User(String userName, String userEmail)
14
           this.userName = userName;
15
           this.userEmail = userEmail;
16
       }
17
       public String getUserName() {
18
19
           return userName;
2.0
       }
21
22
       public void setUserName(String userName) {
23
           this.userName = userName;
24
       }
25
26
       public String getUserEmail() {
27
           return userEmail;
2.8
       }
29
30
       public void setUserEmail(String userEmail) {
           this.userEmail = userEmail;
31
32
       }
```

```
33
       // Must override equals method to use contains
34
   method of ArrayList of User objects.
35
       @Override
36
       public boolean equals(Object obj) {
37
           User myUser = (User) obj;
38
           if (userName.equals(myUser.getUserName())
   && userEmail.equals(myUser.getUserEmail())) {
               return true;
39
40
           }
41
           else {
42
               return false;
43
           }
44
       }
45 }
46
```

```
1 import javax.servlet.*;
 2 import javax.servlet.annotation.WebFilter;
 3 import javax.servlet.http.HttpServletResponse;
 4 import java.io.IOException;
5
 6 @WebFilter(filterName = "MyFilter1")
7 public class MyFilter1 implements Filter {
       public void destroy() {
 8
 9
10
       public void doFilter (ServletRequest req,
11
   ServletResponse resp, FilterChain chain) throws
   ServletException, IOException {
12
13
           // Get value entered in textboxes.
14
           String userName = req.getParameter("
   userName");
15
           String userEmail = req.getParameter("
   userEmail");
16
17
           // Check if user entered a value in
   textboxes.
18
           if (userName.trim().length() != 0 &&
   userEmail.trim().length() != 0) {
19
               // Go to next action in chain.
20
               chain.doFilter(req, resp);
2.1
22
           else {
23
               // Convert ServletResponse to
   HttpServletResponse
24
               HttpServletResponse httpResp = (
   HttpServletResponse) resp;
25
```

File - MyFilter1.java

```
// Redirect user to homepage.
26
                httpResp.sendRedirect("/index.jsp");
27
28
            }
29
30
       }
31
       public void init(FilterConfig config) throws
32
   ServletException {
33
34
       }
35
36 }
37
```

```
1 import javax.servlet.*;
 2 import javax.servlet.annotation.WebFilter;
 3 import javax.servlet.http.HttpServletResponse;
4 import java.io.IOException;
5 import java.util.ArrayList;
 6
7 @WebFilter(filterName = "MyFilter2")
  public class MyFilter2 implements Filter {
 9
       public void destroy() {
10
11
12
       public void doFilter (ServletRequest req,
   ServletResponse resp, FilterChain chain) throws
   ServletException, IOException {
13
14
           // ArrayList of dummy users.
           ArrayList<User> users = new ArrayList<>();
15
16
           users.add(new User("Anna", "anna@yahoo.com"
   ));
           users.add(new User("John", "john@yahoo.com"
17
   ));
18
19
           // Get values entered in textboxes.
           String userName = req.getParameter("
20
   userName");
           String userEmail = req.getParameter("
21
   userEmail");
22
2.3
           // Create User object
24
           User user = new User(userName, userEmail);
25
26
           // Checks if User object exists in list
27
           if (users.contains(user)) {
```

File - MyFilter2.java

```
// Do next action.
28
29
                chain.doFilter(req, resp);
30
31
           else {
32
                // Convert ServletResponse to
   HttpServletResponse
33
                HttpServletResponse httpResp = (
   HttpServletResponse) resp;
34
35
                // Redirect user to homepage.
36
                httpResp.sendRedirect("/index.jsp");
37
            }
38
39
40
       }
41
42
       public void init(FilterConfig config) throws
   ServletException {
43
44
       }
45
46
47
```

```
1 import javax.servlet.ServletException;
 2 import javax.servlet.annotation.WebServlet;
 3 import javax.servlet.http.HttpServlet;
 4 import javax.servlet.http.HttpServletRequest;
 5 import javax.servlet.http.HttpServletResponse;
 6 import java.io.IOException;
 7
  @WebServlet(name = "MyServlet")
 8
9 public class MyServlet extends HttpServlet {
10
       protected void doPost(HttpServletRequest
   request, HttpServletResponse response) throws
   ServletException, IOException {
11
           String url = "/page2.jsp";
12
           getServletContext().getRequestDispatcher(
  url).forward(request, response);
13
14
15
       protected void doGet(HttpServletRequest request
   , HttpServletResponse response) throws
   ServletException, IOException {
16
           doPost(request, response);
17
18
19
```