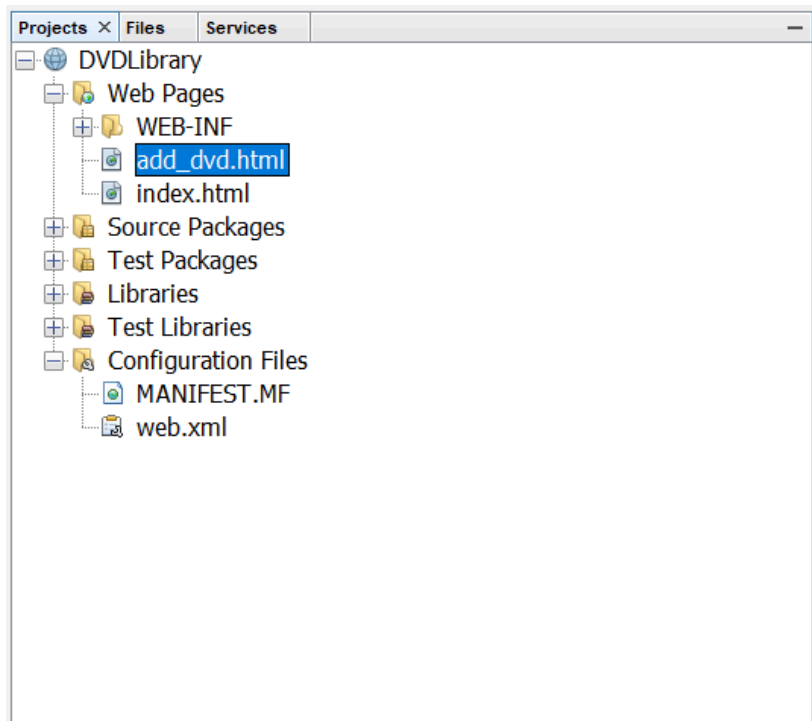# LAB 5 WEEK 4 - CSC584

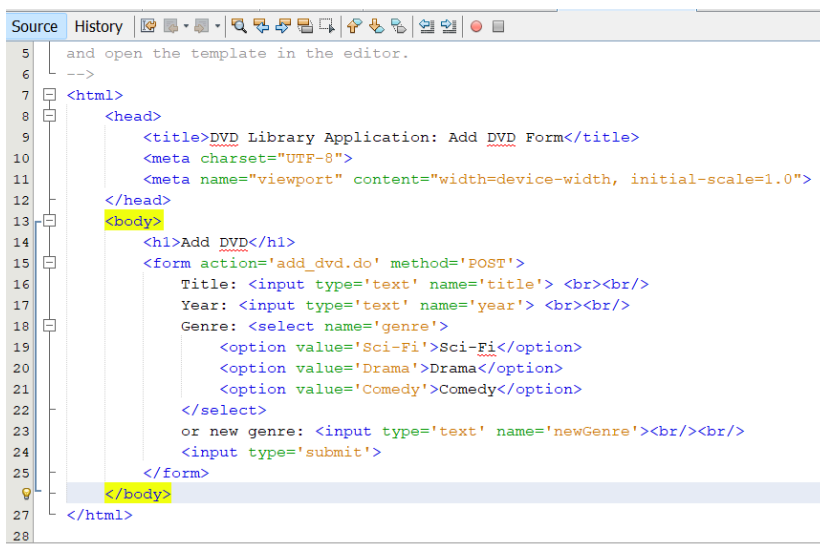### 1. Developing the AddDVD form

TASK 1: Develop the HTML Form

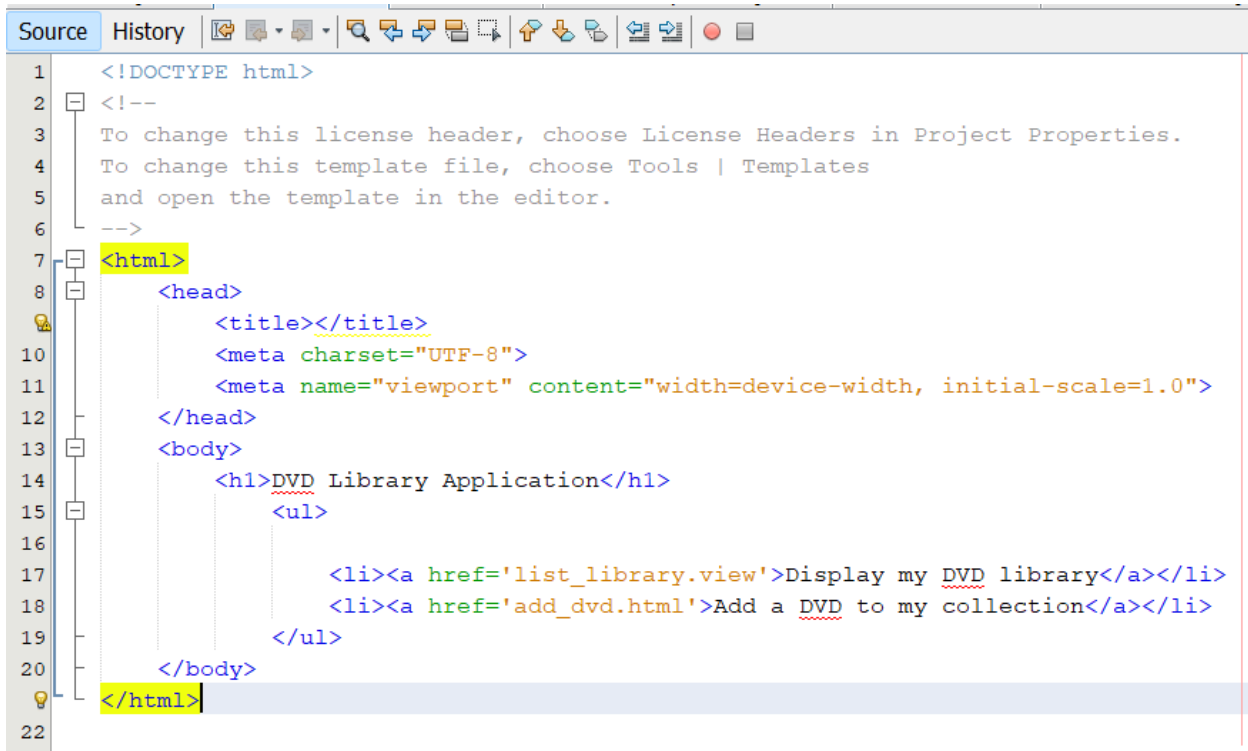a)

b) + c)

TASK 2: Modify the Home Page

```html
1    <!DOCTYPE html>
2    <!--
3    To change this license header, choose License Headers in Project Properties.
4    To change this template file, choose Tools | Templates
5    and open the template in the editor.
6    -->
7    <html>
8        <head>
         <title></title>
10           <meta charset="UTF-8">
11           <meta name="viewport" content="width=device-width, initial-scale=1.0">
12       </head>
13       <body>
14           <h1>DVD Library Application</h1>
15           <ul>
16
17                   <li><a href='list_library.view'>Display my DVD library</a></li>
18                   <li><a href='add_dvd.html'>Add a DVD to my collection</a></li>
19           </ul>
20       </body>
    </html>
22
```

Task 3: Deploy the web application

```
html > head > title >                                                                                          ×
Variables   Output ×                                                                                            −
  Java DB Database Process  ×  GlassFish Server (1)  ×  DVDLibrary (run-deploy) ×
      ant -f C:\\Users\\nasru\\OneDrive\\Documents\\NetBeansProjects\\DVDLibrary -Dnb.internal.action.name=redeploy -Ddirectory.deployment.supported=true -DforceRedeploy=true -Dnb.wait.for.cach
      init:
      deps-module-jar:
      deps-ear-jar:
      deps-jar:
      library-inclusion-in-archive:
      library-inclusion-in-manifest:
      compile:
      compile-jsps:
      In-place deployment at C:\Users\nasru\OneDrive\Documents\NetBeansProjects\DVDLibrary\build\web
      run-deploy:
      BUILD SUCCESSFUL (total time: 0 seconds)
```

Task 4: Test the AddDVD Form

Add DVD

Title: Boboiboy The Movie

Year: 2015

Genre: Sci-Fi ▾ or new genre: Animation

Submit

---

localhost:8080/DVDLibrary/add_dvd.do

Gmail   YouTube   Maps   COURSE UiTM   Free PDF, Video, Im...   Java Tutorial   Other favorites

HTTP Status 404 - Not Found

type Status report

message Not Found

description The requested resource is not available.

GlassFish Server Open Source Edition 5.0.1
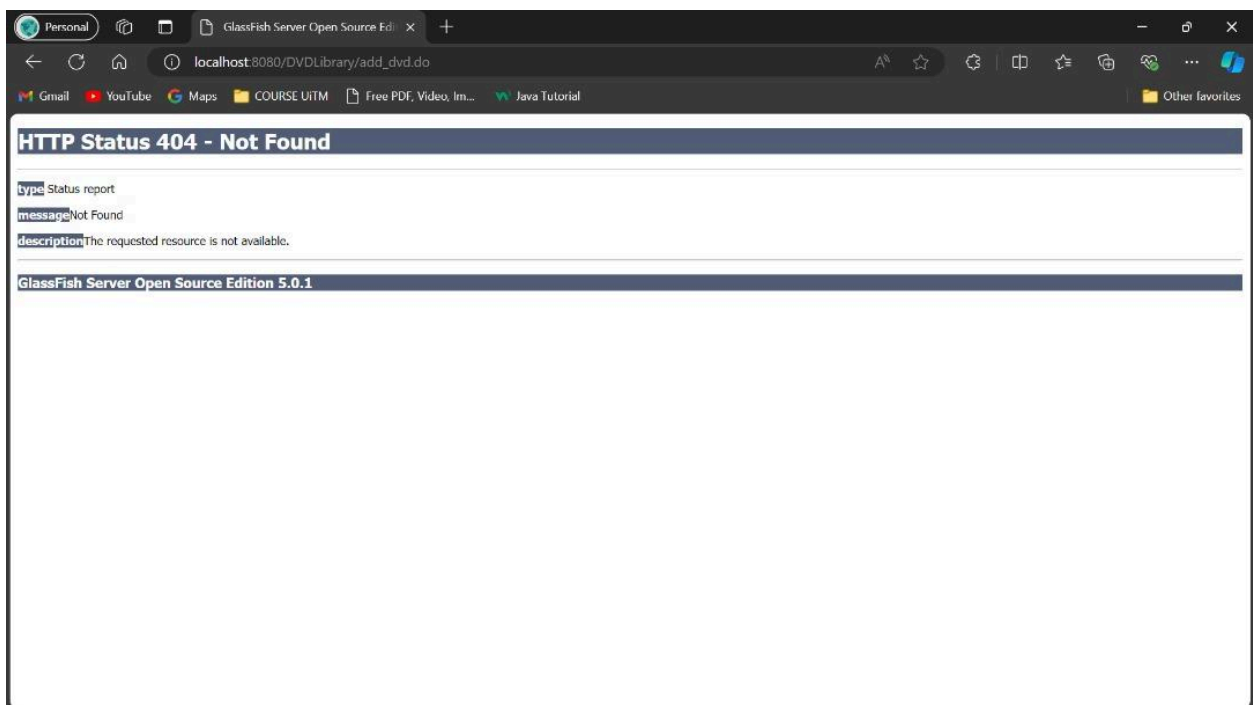
2. Developing a controller servlet

Task 1: Develop the controller Servlet

a)

b) + c)

```java
72          @Override
            protected void doPost(HttpServletRequest request, HttpServletResponse response)
74              throws ServletException, IOException {
75          //processRequest(request, response);
76
77          try{
78
79              //Retrieve form parameters
80              String title = request.getParameter( name: "title");
81              String year = request.getParameter( name: "year");
82              //Did the user type in a genre?
83              String genre = request.getParameter( name: "newGenre");
84              //if not, use the drop-down list value
85              if((genre == null) || (genre.trim().length() == 0)){
86                  genre = request.getParameter( name: "genre");
87              }
88
89              //Business logic
90              DVDItem item = new DVDItem(title, year, genre);
91
                PrintWriter out = response.getWriter();
93              out.println("SUCCESS: added DVD titled '" + item.getTitle() + "'");
94              out.close();
95
96              //Handle any unexpected exceptions
97          }catch(RuntimeException e){
                PrintWriter out = response.getWriter();
99              out.println("ERROR: " + e.getMessage());
100             out.close();
101         }
102     }
```

Task 2: Deploy the Web Application & TASK 3: Test the AddDVDServlet

```
SUCCESS: added DVD titled 'Boboiboy The Movie'
```

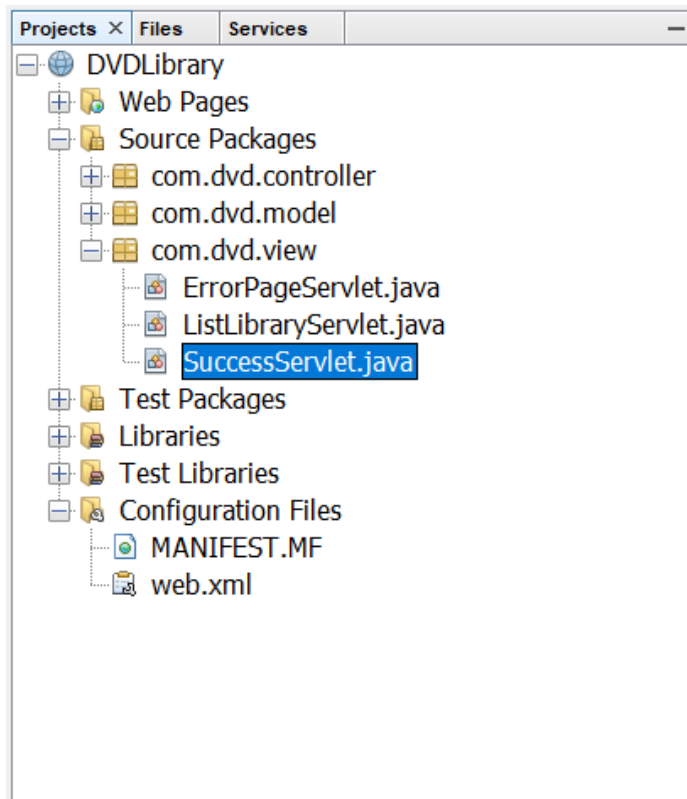### 3. Developing the success view servlet

Task 1: Modify the Add DVD Controller Servlet

```java
//Business logic
DVDItem item = new DVDItem(title,year,genre);


//Store the item on the request-scope
request.setAttribute("dvdItem", item);


//Dispatch to success view
RequestDispatcher view = request.getRequestDispatcher("/success.view");
view.forward(request, response);
```
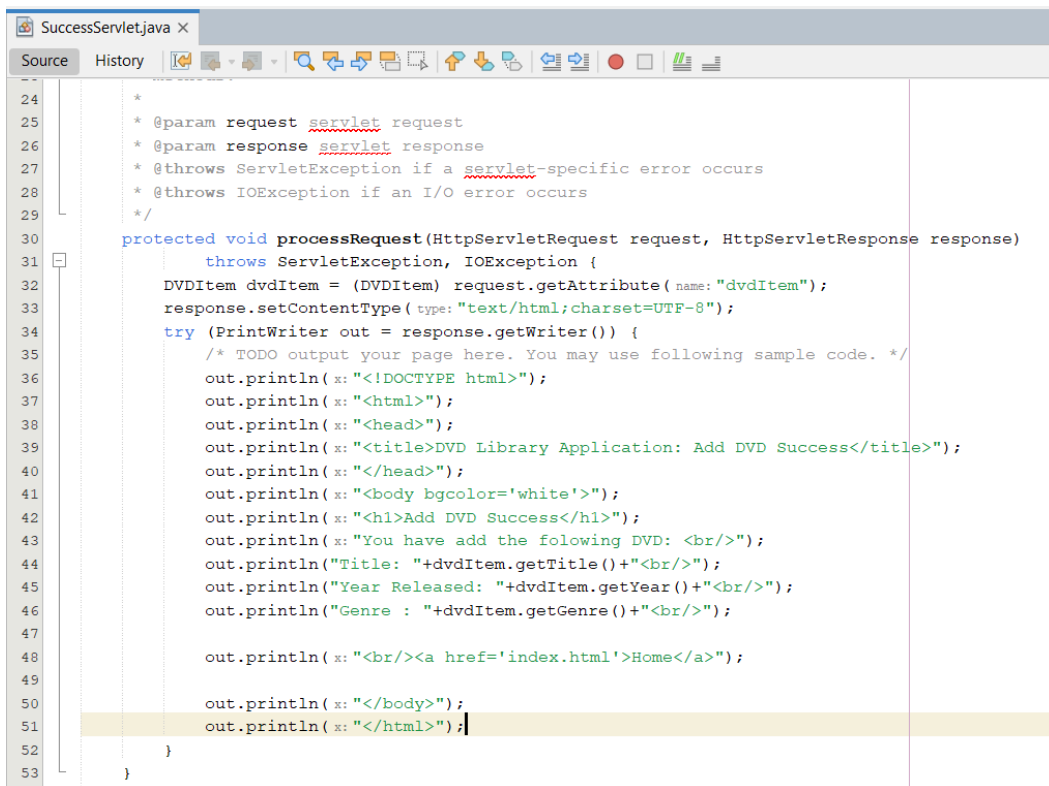
Task 2: Develop the success View Servlet

b) + c) + d)


```java
24         *
25         * @param request servlet request
26         * @param response servlet response
27         * @throws ServletException if a servlet-specific error occurs
28         * @throws IOException if an I/O error occurs
29         */
30        protected void processRequest(HttpServletRequest request, HttpServletResponse response)
31                throws ServletException, IOException {
32            DVDItem dvdItem = (DVDItem) request.getAttribute( name: "dvdItem");
33            response.setContentType( type: "text/html;charset=UTF-8");
34            try (PrintWriter out = response.getWriter()) {
35                /* TODO output your page here. You may use following sample code. */
36                out.println( x: "<!DOCTYPE html>");
37                out.println( x: "<html>");
38                out.println( x: "<head>");
39                out.println( x: "<title>DVD Library Application: Add DVD Success</title>");
40                out.println( x: "</head>");
41                out.println( x: "<body bgcolor='white'>");
42                out.println( x: "<h1>Add DVD Success</h1>");
43                out.println( x: "You have add the folowing DVD: <br/>");
44                out.println("Title: "+dvdItem.getTitle()+"<br/>");
45                out.println("Year Released: "+dvdItem.getYear()+"<br/>");
46                out.println("Genre : "+dvdItem.getGenre()+"<br/>");
47
48                out.println( x: "<br/><a href='index.html'>Home</a>");
49
50                out.println( x: "</body>");
51                out.println( x: "</html>");
52            }
53        }
```

Task 3: Deploy the Web Application

Add DVD Success

You have add the following DVD:
Title: Boboiboy The Movie
Year Released: 2015
Genre: Animation

Home

4. Developing the Error View Servlet

Task 1: Modify the Add DVD Controller Servlet
a) + b) + c) + d)

```java
@Override
protected void doPost(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
    //processRequest(request, response);
    List errorMsgs = new LinkedList();

    try{
        //Retrieve form parameters
        String title = request.getParameter("title");
        String year = request.getParameter("year");
        //Did the user type in a genre?
        String genre = request.getParameter("newGenre");
        // if not, use the drop-down list value
        if( (genre == null) || (genre.trim().length()) == 0 ) {
            genre = request.getParameter("genre");
        }

        //Form verification
        if( title == null || title.trim().length() == 0){
            errorMsgs.add("Please enter the DVD title. ");
        }
        if( year == null || year.trim().length() == 0){
            errorMsgs.add("Please enter the year of released for the DVD. ");
        } else if( !year.trim().matches("\\d\\d\\d\\d")){
            errorMsgs.add("Please enter a valid year.");
        }

        if( ! errorMsgs.isEmpty() ){
            request.setAttribute("errorMsgs", errorMsgs);
            RequestDispatcher view = request.getRequestDispatcher ("/error.view");
            view.forward(request, response);
            return;
        }
```
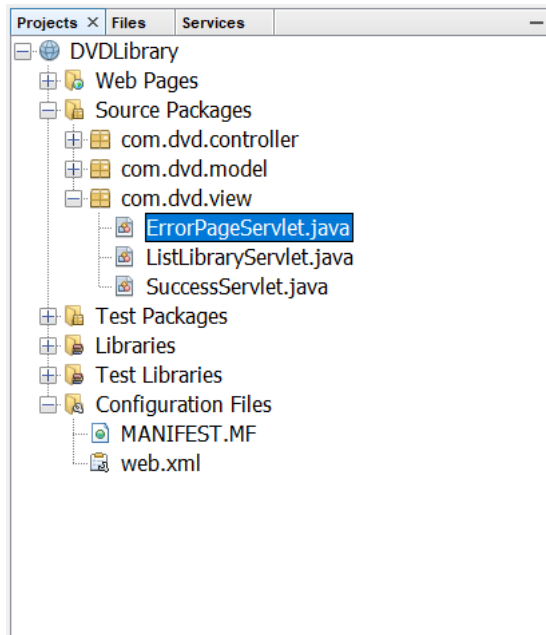
e)

```java
        //Handle any unexpected exceptions
    } catch (RuntimeException e) {
        errorMsgs.add("An unexpected error: "+ e.getMessage());
        request.setAttribute("errorMsgs", errorMsgs);
        RequestDispatcher view = request.getRequestDispatcher("/error.view");
        view.forward(request, response);

    }
}
```

Task 2: Create the Error View Servlet
a)

Task 3: Configure the Error View Servlet

```xml
<servlet>
    <servlet-name>ListLibraryServlet</servlet-name>
    <servlet-class>com.dvd.view.ListLibraryServlet</servlet-class>
</servlet>
<servlet>
    <servlet-name>ErrorPageServlet</servlet-name>
    <servlet-class>com.dvd.view.ErrorPageServlet</servlet-class>
</servlet>
<servlet-mapping>
    <servlet-name>ListLibraryServlet</servlet-name>
    <url-pattern>/list_library.view</url-pattern>
</servlet-mapping>
<servlet-mapping>
    <servlet-name>ErrorPageServlet</servlet-name>
    <url-pattern>/error.view</url-pattern>
</servlet-mapping>
<session-config>
```

Task 4: Deploy the Web Application

Add DVD

Title: Boboiboy The Movie

Year: 20.12.2015

Genre: Sci-Fi ⌄ or new genre: Animation

Submit

Error report

Please correct the following errors:

- Please enter a valid year.

Back up and try again