PRJ301 - Workshop 1 – JSP Model 1

Deadline: Slot 11 (25/02/2025)

Note:

- CSS frameworks are optional (nice-to-have features).
- Nevertheless, the elements' id or class attributes should be strictly respected (must-have features).
- Form validation with vanilla HTML5 is a must-have feature. But any form validation by JavaScript is very welcomed.

Requirements:

Your project must be named `<StudentCode>_ws1`. E.g. `CE123456_ws1`

We are building a Java web application that provides some basic features for an online movie rental store. The application has the following features:

1. Create a database named `db_<StudentCode>_ws1`. E.g. `db_CE123456_ws1`.
2. In your database, create a table named "`users`" that has a structure as below:

id	int, PK
username	varchar(100), unique key
password	varchar(100)
role	int

3. Insert into the "`users`" table a row with these values:

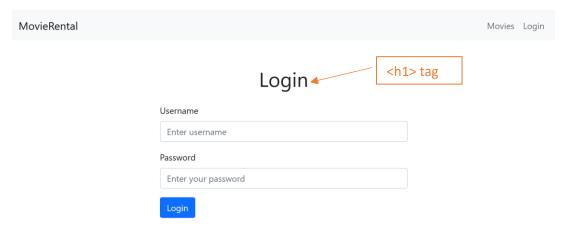| id	username	password	role
1	admin	e10adc3949ba59abbe56e057f20f883e	1
2	guest	900150983cd24fb0d6963f7d28e17f72	2

4. Create another table named "`movies`" that has a structure as below:

id	int, PK
title	nvarchar(255)
director	nvarchar(255)
release_year	int
rating	decimal(3,1)
Is_rented	bit

5. Insert into the "`movies`" table 04 rows with these values:

id	title	director	release_year	rating	is_rented
1	Inception	Christopher Nolan	2010	8.8	0
2	The Godfather	Francis Ford Coppola	1972	9.2	0
3	Pulp Fiction	Quentin Tarantino	1994	8.9	1
4	The Shawshank Redemption	Frank Darabont	1994	9.3	0

6. Create a page "**login.jsp**" that contains a login form:

MovieRental   Movies   Login

Login   ← <h1> tag

Username

Enter username

Password

Enter your password

Login

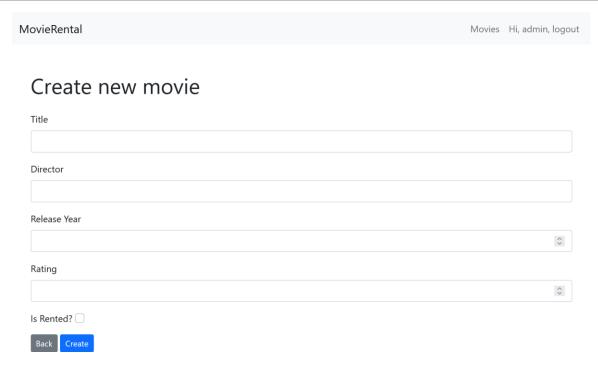| Element	Html tag	Attribute	Note
Page title	h1		value="Login"
Username input	input	#u_id	name="username"
Password input	input	#u_pwd	name="password"
Login button	input/button	#submit	

7. When the user enters "**admin**" as username and "**123456**" as password and clicks on the "***Login***" button, they will be redirected to "***movies.jsp***".

MovieRental   Movies   Hi, admin, logout

Movies list   ← <h1> tag

Create

ID	Title	Director	Release Year	Rating	Rent?	Actions
1	Inception	Christopher Nolan	2010	8.8	☐	Edit Delete
2	The Godfather	Francis Ford Coppola	1972	9.2	☐	Edit Delete
3	Pulp Fiction	Quentin Tarantino	1994	8.9	☑	Edit Delete
4	The Shawshank Redemption	Frank Darabont	1994	9.3	☐	Edit Delete

Element	Html tag	Attribute	Note
Page title	h1		value = Movies list
Create button	a	.btn .btn-success	
Edit buttons	a	.btn .btn-primary	
Delete buttons	a	.btn .btn-danger	

8. When the user clicks on the "***Create***" button, they will be redirected to "***create-movie.jsp***".

MovieRental   Movies   Hi, admin, logout

Create new movie

Title

Director

Release Year

Rating

Is Rented? ☐

Back Create

Element	Html tag	Attribute	Note
Page title	h1		value = "Create new movie"
Title input	input	#title	
Director input	input	#director	
Release year input	input	#release_year	
Rating input	input	#rating	
Is rented checkbox	input	#is_rented	
Back button	a/button	#back	Go back to "movies.jsp"
Create button	input/button	#submit	

    a. The user must type in all the information in order to create a new movie. Your form should be able to validate the user's input:

        i. The textboxes should not be left **empty**.

      ii. The **rating** and **release year** textboxes should accept only **number** values.

    iii. The **rating** textboxes should accept only values from 0.0 to 10.

    iv. The **release year** textboxes should accept only values from 1900 to 2024.

    b. When the movie is successfully created, redirect the user to "**movies.jsp**".

9. In the movies list page, when the user clicks on the "*Edit*" button, they will be routed to "*edit-movie.jsp*". This feature must check for a valid id parameter.

MovieRental   Movies   Hi, admin, logout

Edit movie

Title

Pulp Fiction

Director

Quentin Tarantino

Release Year

1994

Rating

8.9

Is Rented? ☑

Back Edit

Element	Html tag	Attribute	Note
Page title	h1		value = "Edit movie"
Title input	input	#title	
Director input	input	#director	
Release year input	input	#release_year	
Rating input	input	#rating	
Is rented checkbox	input	#is_rented	
Back button	a/button	#back	Go back to "movies.jsp"
Edit button	input/button	#submit	

    a. The user must type in all the information in order to edit a movie. Your form should be able to validate the user's input:

        i. The textboxes should not be left **empty**.

        ii. The **rating** and **release year** textboxes should accept only **number** values.

        iii. The **rating** textboxes should accept only values from 0.0 to 10.

        iv. The **release year** textboxes should accept only values from 1900 to 2024.

    b. When the movie is successfully updated, redirect the user to "movies.jsp".

10. In the movies list page, when the user clicks on the "***Delete***" button, they will be routed to "***delete-movie.jsp***" for delete confirmation. After clicking on the Delete button, the user is redirected to "**movies.jsp**" page and the movie which the corresponding id is deleted from the DB. This feature must check for a valid id parameter.

MovieRental   Movies   Hi, admin, logout

Delete movie

Are you sure to delete movie **The Shawshank Redemption** with id **4**?

Back Delete

Element	Html tag	Attribute	Note
Page title	h1		value = "Delete movie"
Movie name text	b	.m_title	
Movie id text	b	.m_id	
Back button	a/button	#back	Go back to "movies.jsp"
Delete button	input/button	#submit	

11. URL patterns:

Feature	URL
Login	http://localhost:8080/<MSSV>_ws1/login.jsp
Logout	http://localhost:8080/<MSSV>_ws1/logout.jsp
List of movies	http://localhost:8080/<MSSV>_ws1/movies.jsp
Add new movie	http://localhost:8080/<MSSV>_ws1/create-movie.jsp
Edit a movie	http://localhost:8080/<MSSV>_ws1/edit-movie.jsp?id={id}
Delete a movie	http://localhost:8080/<MSSV>_ws1/delete-movie.jsp?id={id}

In which:

- id is a parameter containing the movie ID passed to other pages.
- {id} is value of parameter **id**.

12. Authentication
- When the user opens the logout page, our application must invalidate the session then redirect the user back to the login page.
- When the user hasn't logged in, if they access to the movies.jsp/create-movie.jsp/edit-movie.jsp/delete-movie.jsp, redirect them back to the login page in order to limit the access.

--- THE END ---