

Practical Exam

Subject	PRJ301	Total marks	10
Duration	90 minutes	Department	CF-HCM

Read the instructions below carefully before start coding.

Students are ONLY allowed to use:

- It is mandatory to turn off all existing projects in Netbeans. If the supervisor detects that there is a project other than the project being worked on, it is considered a violation.
- Only allow opening applications related to PE exam: PE tool, Netbeans, window explorer, zip tools, browser. Note that if students open tools other than those allowed, they will get 0 points, whether opening the tool accidentally or intentionally.
- MUST use MVC2 model with MainController.
- Students are provided with a PE project. And it is mandatory to use the provided project to complete your PE.
- You are provided with a getConnection() method in the DBUtil.java file that is used to connect to the database. You must use this method and are not allowed to change the content in this file.

If at least one of the above requirements is not followed, the exam will get **ZERO**.

Resource: You are supported the materials. They include:

1. The project “**PE_PRJ301**”: you **must use** this project to take your practical exam.
2. The file “**Regulations_for_Participating_in_the_PE_PRJ301_Examination.docx**” is PE policies.

Problem: You are participating in a software project, building product management and sales software for **ABC Fashion** company, your tasks in the project is to build some features

- **Login – Logout** for company members when working on the software.....[**4.0đ**]
- **Search according to user requirements** based on product name.....[**3.0đ**]
- **Update information** for found data[**3.0đ**]

Database: To complete your tasks, the database – FashionManagement, is provided with relevant tables with the design as described below.

1. User table: **tblUsers**

Field Name	Type	Constrain	Description
userID	varchar(50)	Primary key, not null	ID used for system login
fullName	nvarchar(500)	Not null	Member's full name
roleID	char(2)	Not null, Default ' MB '	User roles in the system: AD – Administrator; MB – Member
password	varchar(50)	Not null	Password used for login

2. Fashion table: **tblFashion**

Field Name	Type	Constrain	Validation	Description
id	char(5)	Primary Key, not null,	format: F-XXX – The product code consists of 5 characters, the first character is the letter F and the last 3 digits are numbers, describing the conventional order in production.	
name	nvarchar(50)	Not null	Product name	
description	nvarchar(500)	Not null	Interpretation information	
price	float	Not null	Price of the product in numeric format	
size	nvarchar(50)	Not null	Size, specifications	
status	bit	Default 0	With two values: 1 - In business; 0 - Temporarily suspended	

Requirements:

Create a Java web application, which can be used to manage the Fashion. The application have the following functions:

1. **Login – Logout**.....[4.0đ]
 - 1.1. Login
 - 1.1.1. On **login.jsp** page, user enters userID and password to login system, These fields cannot be left blank and must use the appropriate input type. 0.5đ
 - 1.1.2. if the **userID** or the **password** is incorrect, the error message will be display like this “**Invalid user or password**” 0.5đ
 - 1.1.3. if the **userID** with the **password** is correct, then grant the access permission, Set up a session and retain the essential account information required for the upcoming features then go to **welcome.jsp** page 1.0đ
 - 1.2. Welcome
 - 1.2.1. After successful login, the user is redirected to welcome.jsp, where a welcome message is displayed in the format: '**Welcome [fullName] !**'. This message must also be shown on all functional pages accessed after login 0.5đ
 - 1.2.2. The links allow the user to choose to go to the **search.jsp** page or log out of the system. 0.5đ
 - 1.3. Logout
 - 1.3.1. Clear user session and associated post-login data 0.5đ
 - 1.3.2. Redirect the user back to the **login.jsp** page in a non-logged-in state 0.5đ
2. **Search**[3.0đ]
 - 2.1. Redirect to the login page if the user is unauthenticated and accesses this page via direct URL entry in the browser 0.5đ
 - 2.2. If no data is entered into the TextBox used for search criteria and the '**Search**' button is clicked, no results will be displayed on the results page..... 0.5đ
 - 2.3. If search criteria are entered and the '**Search**' button is clicked, only the matching records will be displayed in the search results table 0.5đ
 - 2.4. An '**Update**' button should be included in each row of the search results table to

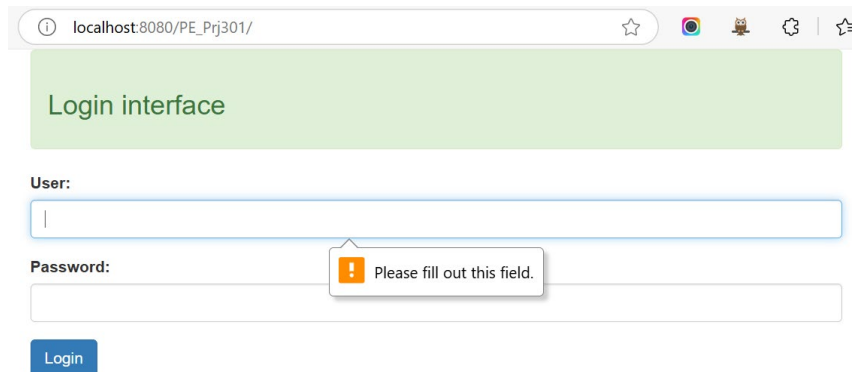
- enable users to select and modify the data of the corresponding product. 0.5d
- 2.5. If no matching data is found, the message
"No data matching the search criteria found !" will be shown.. 0.5d
- 2.6. The value entered in the condition TextBox is retained after the search results are
displayed 0.5d
3. **Update** [3.0d]
- 3.1. Redirect to the login page if the user is unauthenticated and accesses this page via
direct URL entry in the browser 0.5d
- 3.2. When the user clicks the 'Update' button in the search results, the **Update.jsp** page
should display the current information of the selected product..... 0.75d
- 3.3. The system must validate the updated data and return appropriate error messages if
the input violates any constraints defined in the corresponding database table
schema. 0.75d
- 3.4. If the updated data is valid, the system shall save it to the database. Upon successful
completion, the data grid shall be refreshed with all records retrieved from the
database. 1.0d

Note: Full marks may not be awarded if students apply inefficient algorithms or use inappropriate components in their code.

The End

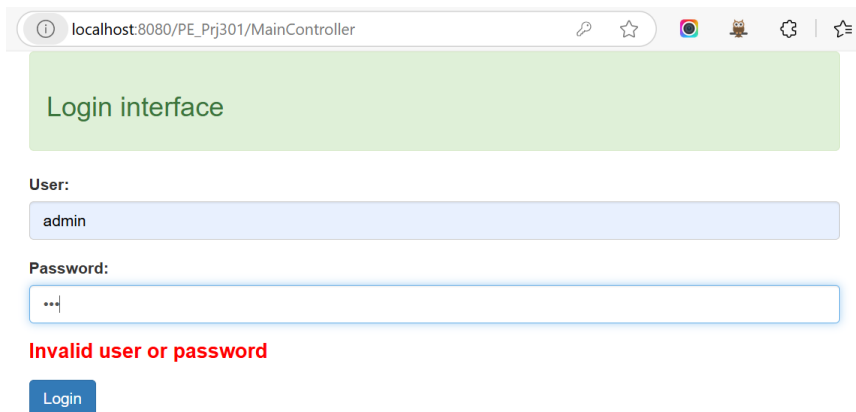
Sample Screenshots for the *Required Functions* in the Exam

1.1.1 These fields cannot be left blank




A browser window showing the login interface at localhost:8080/PE_Prj301/. The page has a green header with the text "Login interface". Below it, there are two input fields: "User:" and "Password:". The "User:" field is empty. The "Password:" field is also empty, and a tooltip message "Please fill out this field." is displayed over it. A blue "Login" button is at the bottom.

1.1.2 The userID or the password is incorrect



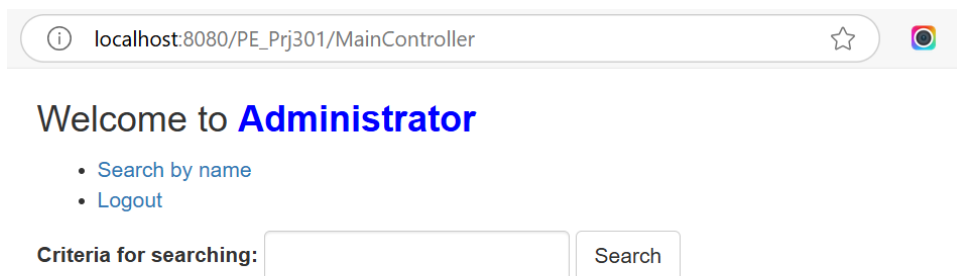
A browser window showing the login interface at localhost:8080/PE_Prj301/MainController. The page has a green header with the text "Login interface". Below it, there are two input fields: "User:" and "Password:". The "User:" field contains the text "admin". The "Password:" field contains three dots "...". Below the fields, a red error message "Invalid user or password" is displayed. A blue "Login" button is at the bottom.

1.2.1 Login success and welcome page



A browser window showing the welcome page at localhost:8080/PE_Prj301/welcome.jsp. The page has a white background. At the top, there is a blue header with the text "Welcome to Administrator". Below the header, there are two links: "Search by name" and "Logout".

2.2 Search page with empty search criteria field



A browser window showing the search page at localhost:8080/PE_Prj301/MainController. The page has a white background. At the top, there is a blue header with the text "Welcome to Administrator". Below the header, there are two links: "Search by name" and "Logout". At the bottom, there is a search form with the label "Criteria for searching:" followed by an empty input field and a "Search" button.

2.3. Search page with the result

localhost:8080/PE_Prj301/MainController

Welcome to **Administrator**

- [Search by name](#)
- [Logout](#)

Criteria for searching:

ID	Name	Description	Price	Size	Status	Tool
F-002	Men's shirt	VIET TIEN long-sleeve men's shirt	115.0	M	true	<input type="button" value="Update"/>
F-005	Women's shirt	AN PHUOC Ladies' White Long-Sleeve Shirt	155.0	S	false	<input type="button" value="Update"/>
F-006	Men's jeans	Men's jeans - LEVIS	327.0	L	true	<input type="button" value="Update"/>
F-007	Women's trousers	An Phuoc Ladies' Plain Dark Blue Trousers	235.0	M	true	<input type="button" value="Update"/>
F-008	Men's blazer	Men's suit jacket	753.0	L	false	<input type="button" value="Update"/>

2.5 Search page with no matching data

localhost:8080/PE_Prj301/MainController

Welcome to **Administrator**

- [Search by name](#)
- [Logout](#)

Criteria for searching:

No data matching the search criteria found !

3.2 Update page - with the selected product

localhost:8080/PE_Prj301/MainController?action=update&id=F-007

Welcome to **Administrator**

- [Search by name](#)
- [Logout](#)

Horizontal form

Email:

Product name:

Description:

Price:

Size:

☒ Status