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| --- | --- | --- | --- |
| **Subject** | PRJ301 | **Duration** | 90 MINUTES |
| **Semester** |  | **Department** | CF-HCM |

**PRACTICAL EXAM**

**Read the instructions below carefully before start coding.**

Students are ONLY allowed to use:

* Materials on his/her computer (including JDK 1.8, NetBeans, Window explorer, zip tools, Browser, PEA, SQLServer, Webserver Tomcat ).
* Using the account( username=sa, password=12345) to connect to the SQLServer

Follow the steps below to complete PE:

1. Create a folder to save given projects, e.g. PRJ301\_StudentID (1). Down load given materials to (1).
2. Write code according to the requirements in the exam.
3. DO NOT delete or create java file with the same name as given files.
4. DO NOT EDIT the file DBUtils.java. This file is used to connect to the database
5. Using MVC2 model with MainController
6. Students are provided with a PE project. And it is mandatory to use the provided project to complete your PE.

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 java web project named “PE\_PRJ301”. It contains some files (.java,.html,…).

* Some classes in the package “pe.prj301.shopping” are used to create basic objects, access the database
* The class DBUtils.java is used to make a connection to the database
* Some classes in the package “pe. prj301.controllers” to handle request , then forward the results to one of a number of different JSP pages

1. The file “database.sql” is used to create a database

**Database**: You must run codes in the given file “database.sql” to create the database [PE\_PRJ301] and use it in the practical exam.

tblProducts table

|  |  |  |
| --- | --- | --- |
| **Field name** | **datatype** | **Note** |
| productID | char(5) | Primary Key |
| productName | varchar(50) | Not null |
| description | varchar(500) | Not null |
| price | Float | Not null |
| status | Bit | Not null |

**Requirements**:

Create a the application, which can be used for shopping. The application have the following functions:

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Function** | **Description** | **Mark** |
| 1 | Display products | * Create a “Search” button On shopping.jsp page. * Click “Search” button to get all products has status is active. * Display with productID, productName, description, price. ../../../../../Screen%20Shot%202023-03-08%20at%203.14.32%2 |  |
| 2 | Add product to cart | * After display the active products on shopping.jsp page, * Add a new column with an "Add" button for each row * Click the "Add" button to add this product to the cart. * The default quantity for each product addition is 1. * Displays the result of after finish according to the syntax: productName-quantity-price:   ../../../../../Screen%20Shot%202023-03-08%20at%203.16.03%2 |  |
| 3 | View cart | * On shopping.jsp page, create a "View cart" button that forwards to viewCart.jsp   ../../../../../Screen%20Shot%202023-03-08%20at%203.18.12%2   * Click on View Cart button to display information about the products in the cart. * Display as a table, with the following information: No, productID, productName, description, price, quantity, total( quantity\*price) * Need show the link to back the shopping page * Need show the total money of this cart../../../../../Screen%20Shot%202023-03-08%20at%203.20.12%2 |  |
| 4 | Update Remove item in cart | * On viewCart.jsp page * Add a new column with a "remove" button for each row. * User can edit the quantity of the item that they want to update.   ../../../../../Screen%20Shot%202023-03-08%20at%202.36.59%2   * Click the "Remove" button to remove this product from the cart. * Update and display the product list in the cart:   ../../../../../Screen%20Shot%202023-03-08%20at%202.38.31%2 |  |

The End