Method Design

# 1. Class Product

Variables

|  |  |  |
| --- | --- | --- |
| No. | Name | Type |
| 1. | id | String |
| 2. | name | String |
| 3. | description | String |
| 4. | price | Double |

# 2. Class Customer

Variables

|  |  |  |
| --- | --- | --- |
| No. | Name | Type |
| 1. | id | String |
| 2. | username | String |
| 3. | password | String |
| 4. | Firstname | String |
| 5. | lastName | String |
| 6. | address | String |
| 7. | telNumber | String |
| 8. | email | String |

# 3. Class Cart

Variables

|  |  |  |
| --- | --- | --- |
| No. | Name | Type |
| 1. | id | String |
| 2. | product | <list>Product |
| 3. | customer | Customer |

# 4. Class History

Variables

|  |  |  |
| --- | --- | --- |
| No. | Name | Type |
| 1. | id | String |
| 2. | cart | Cart |
| 3. | customer | Customer |
| 4. | date | String |

# 5. Class ProductServiceImpl

Variables

|  |  |  |
| --- | --- | --- |
| No. | Name | Type |
| 1. | productDAO | ProductDAO |

Methods

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Name | Description | Return |
| 1. | getProduct() | This method will get all product information from database. | Product |
| 2. | getProductByName(name) | This method will get the product information by name from database. | Product |
| 3. | addNewProduct | This method will add the new product into the database. | Product |

# 6. Class CustomerServiceImpl

Variables

|  |  |  |
| --- | --- | --- |
| No. | Name | Type |
| 1. | customerDAO | CustomerDAO |

Methods

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Name | Description | Return |
| 1. | getUserById(username) | This method will get the user’s data from the database by username via CustomerDAO. | Customer |
| 2. | addUser() | This method will add the new user into the database. | Void |
| 3. | editInfo | This method will update customer’s information in the database. | Customer |
| 4. | validateUser | This method will validate the user. | Boolean |

# 7. Class CartServiceImpl

Variables

|  |  |  |
| --- | --- | --- |
| No. | Name | Type |
| 1. | cartDAO | CartDAO |

Methods

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Name | Description | Return |
| 1. | selectProduct(product) | This method will add the product that customer want into the cart. | Cart |

# 8. Class HistoryServiceImpl

Variables

|  |  |  |
| --- | --- | --- |
| No. | Name | Type |
| 1. | historyDAO | HistoryDAO |

Methods

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Name | Description | Return |
| 1. | getHistory() | This method will get the history of the customer. | History |
| 2. | checkout() | This method will show the product that customer purchase and add the shopping’s history to the database. | History |
| 3. | getAllHistory | This method will get all shopping’s history. | History |

# 9. Class DatabaseServiceImpl

Variables

|  |  |  |
| --- | --- | --- |
| No. | Name | Type |
| 1. | customerDAO | CustomerDAO |

Methods

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Name | Description | Return |
| 1. | isCustomer() | This method will check the user in the database that it exist or not. | Boolean |

# 10. Class ProductDAO

Variables

|  |  |  |
| --- | --- | --- |
| No. | Name | Type |
| 1. | sessionFactory | SessionFactory |

Methods

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Name | Description | Return |
| 1. | getProduct() | This method will get all product information from database. | Product |
| 2. | getProductByName(name) | This method will get the product information by name from database. | Product |
| 3. | addNewProduct | This method will add the new product into the database. | Product |

# 11. Class CustomerDAO

Variables

|  |  |  |
| --- | --- | --- |
| No. | Name | Type |
| 1. | sessionFactory | SessionFactory |

Methods

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Name | Description | Return |
| 1. | getUserById(username) | This method will get the user’s data from the database by username. | Customer |
| 2. | addUser() | This method will add the new user into the database. | Void |
| 3. | editInfo | This method will update customer’s information in the database. | Customer |
| 4. | validateUser | This method will validate the user. | Boolean |

# 12. Class CartDAO

Variables

|  |  |  |
| --- | --- | --- |
| No. | Name | Type |
| 1. | sessionFactory | SessionFactory |

Methods

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Name | Description | Return |
| 1. | selectProduct(product) | This method will add the product that customer want into the cart. | Cart |

# 13. Class HistoryDAO

Variables

|  |  |  |
| --- | --- | --- |
| No. | Name | Type |
| 1. | sessionFactory | SessionFactory |

Methods

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Name | Description | Return |
| 1. | getHistory() | This method will get the history of the customer. | History |
| 2. | checkout() | This method will show the product that customer purchase and add the shopping’s history to the database. | History |
| 3. | getAllHistory | This method will get all shopping’s history. | History |

# 14. Class ProductController

Variables

|  |  |  |
| --- | --- | --- |
| No. | Name | Type |
| 1. | productService | ProductService |

Methods

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Name | Description | Return |
| 1. | listProduct() | This method will show all product information from database.. | String |
| 2. | addNewProduct | This method will add the new product into the database. | String |

# 15. Class LoginLogoutController

Variables

|  |  |  |
| --- | --- | --- |
| No. | Name | Type |
| 1. | customerServiceImpl | CustomerServiceImpl |

Methods

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Name | Description | Return |
| 1. | login | This method will validate the username and password in the database. If log in is successful, system will display home page. | String |
| 2. | logout | This method is logout from the website. | String |

# 16. Class RegisterController

Variables

|  |  |  |
| --- | --- | --- |
| No. | Name | Type |
| 1. | customerServiceImpl | CustomerServiceImpl |

Methods

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Name | Description | Return |
| 1. | callRegisterpage() | This method will display the register page. | String |
| 2. | addUser() | This method will add the new user into the database. | String |
| 3. | validateUser() | This method will validate the user. | String |

# 17. Class HistoryController

Variables

|  |  |  |
| --- | --- | --- |
| No. | Name | Type |
| 1. | historyServiceImpl | HistoryServiceImpl |

Methods

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Name | Description | Return |
| 1. | getHistory() | This method will show the history of the customer. | String |
| 2. | checkout() | This method will show the product that customer purchase and add the shopping’s history to the database. | String |
| 3. | getAllHistory | This method will show all shopping’s history. | String |

# 18. Class CartController

Variables

|  |  |  |
| --- | --- | --- |
| No. | Name | Type |
| 1. | cartService | CartService |

Methods

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Name | Description | Return |
| 1. | selectProduct(product) | This method will add the product that customer select into the cart. | Cart |
| 2. | removeProduct(product) | This method will remove the product that customer want into the cart. | Cart |

# 19. Class SearchController

Variables

|  |  |  |
| --- | --- | --- |
| No. | Name | Type |
| 1. | productService | ProductService |

Methods

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Name | Description | Return |
| 1. | getProductByName(name) | This method will show the product information by name from database. | String |