

**PROJECT REPORT**

# Clothing Shop

|  |  |
| --- | --- |
| **Semester:** | Programming Fundamentals |
| **Class:** | PF1121 |
| **Group:** | Group Name |
| **Instructor** | Nguyen Xuan Sinh |
| **Team members:** | Cu Duy Toan  Mai Thi Hong Minh |

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# Project introduction

This system will provide some basic features including:

There are 2 main features include create order, confirm payment or cancel order which include additional features such as show list clothes, view clothes details, show clothes list by category, show order.

1. Proposed System

* Create a program to Cashier create order
* Create a program to Cashier confirm payment or cancel order

1. The scope of the project to be applied

* Make for actor is Cashier

1. System Name

* Order management system

1. Deployment Environment

* Windows

1. Development Tools

* Visual Studio Code
* Draw.io Diagram
* MySQL Workbench 8.0 CE

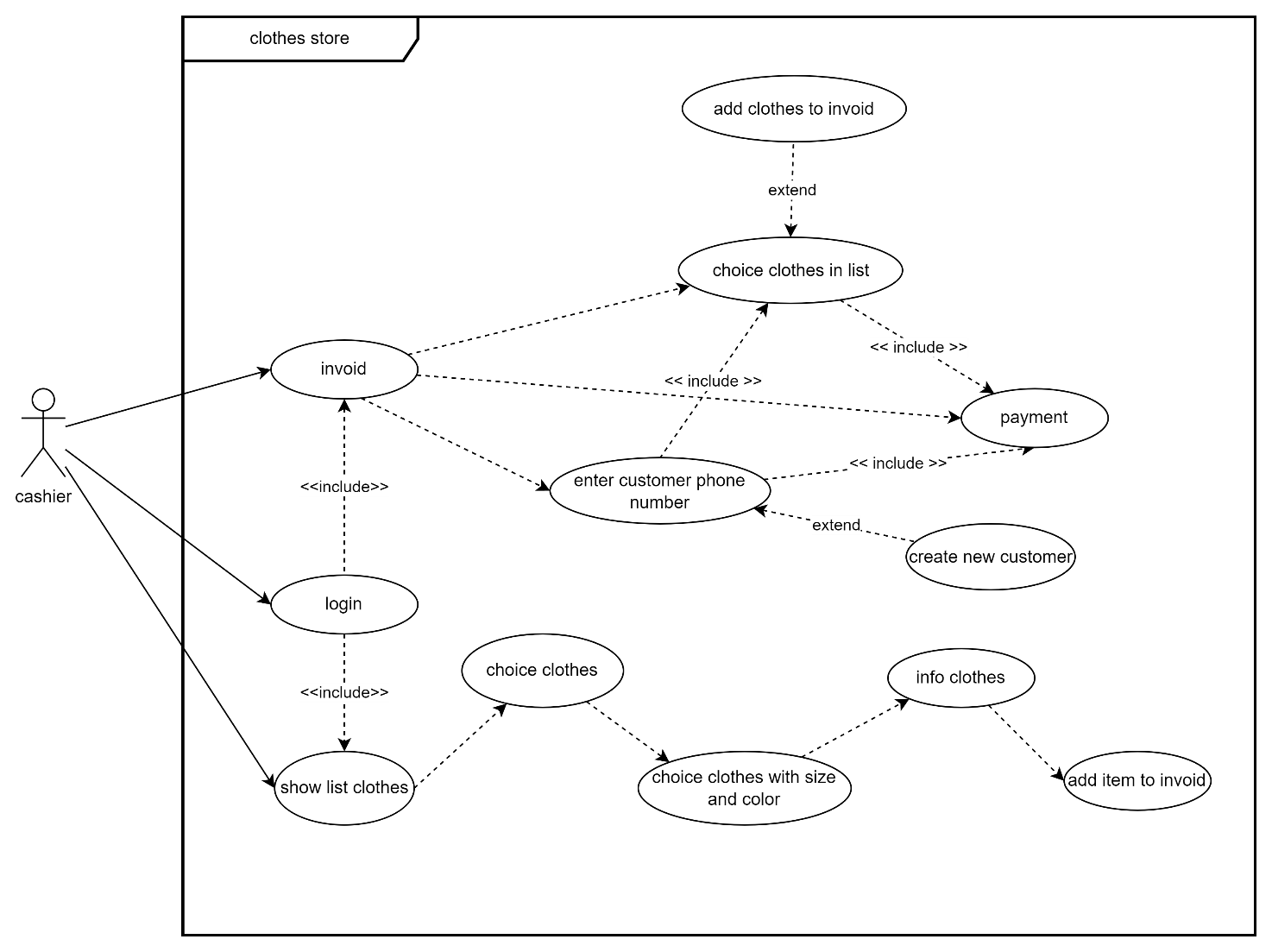
1. Customer Requirements

* Cashier login
* Show list clothes
* Create order
* Confirm order or cancel order

# Analyze System Requirements

This system was created to help clothes shop manage orders more easily. It can help the cashier to have more information about the clothes sold in the shop, that information can include price, size, color, material so that the cashier can give more specific advice to the buyer according to the needs of each person. The main function of this system for the cashier is that it helps create order according to the buyer’s request, allows them to view the information of unpaid orders and confirm successful payment if enough money has been received from the buyer, cancel the order when the buyer change their mind.

1. Use Case
   1. Use case



1.2 . Login description

|  |  |
| --- | --- |
| Use Case Name | Login |
| Use Case ID | UC\_001 |
| Description | Used to access program |
| Actor | Cashier |
| Organizational Benefits | This feature was created to determine if a user is a shop cashier |
| Triggers | Login will be automatically activated as soon as we start the program |
| Preconditions | Must enter the correct username and password, the database must be connected, accounts must be made available |
| Postconditions | Success: Cashier have logged into the system, the main menu of the program must be displayed  Fail: Cashier haven’t logged into the system |
| Main Course | 1. Input username and password  2. Verify login  3. Show main menu |
| Alternate Courses | AC 1: User enters wrong username, password  1. Display message error  2. Re-enter request  AC 2: Username and password exists  1. Show main menu |
| Exceptions | EX 1: Input Username/ Password  1. Display “Username or password incorrect, please re-enter” and ask to re-enter until correct  2. Request to re-enter username and password  EX 2: Disconnect to database  1. Step 1: Display “Error! Can’t connect to database”  2. Request to recheck internet connection |

1.3. View clothes details description

|  |  |
| --- | --- |
| Use Case Name | View clothes details |
| Use Case ID | UC\_002 |
| Description | Used to view clothes details |
| Actor | Cashier |
| Organizational Benefits | You can view all clothes infomation |
| Triggers | Login to the program by the cashier’s account and you can use this feature |
| Preconditions | Must have at least one item previously created |
| Postconditions | Success: Show all item information  Fail: Not have item information in database |
| Main Course | 1. Choose item you want to view item information  2. Show item information |
| Alternate Courses | AC: Not have item information in database  1. Display message “Not have information”  2. Requires pressing Tab key to go back |
| Exceptions | EX: Disconnect to database  1. Request to recheck internet connection  2. Request program restart |

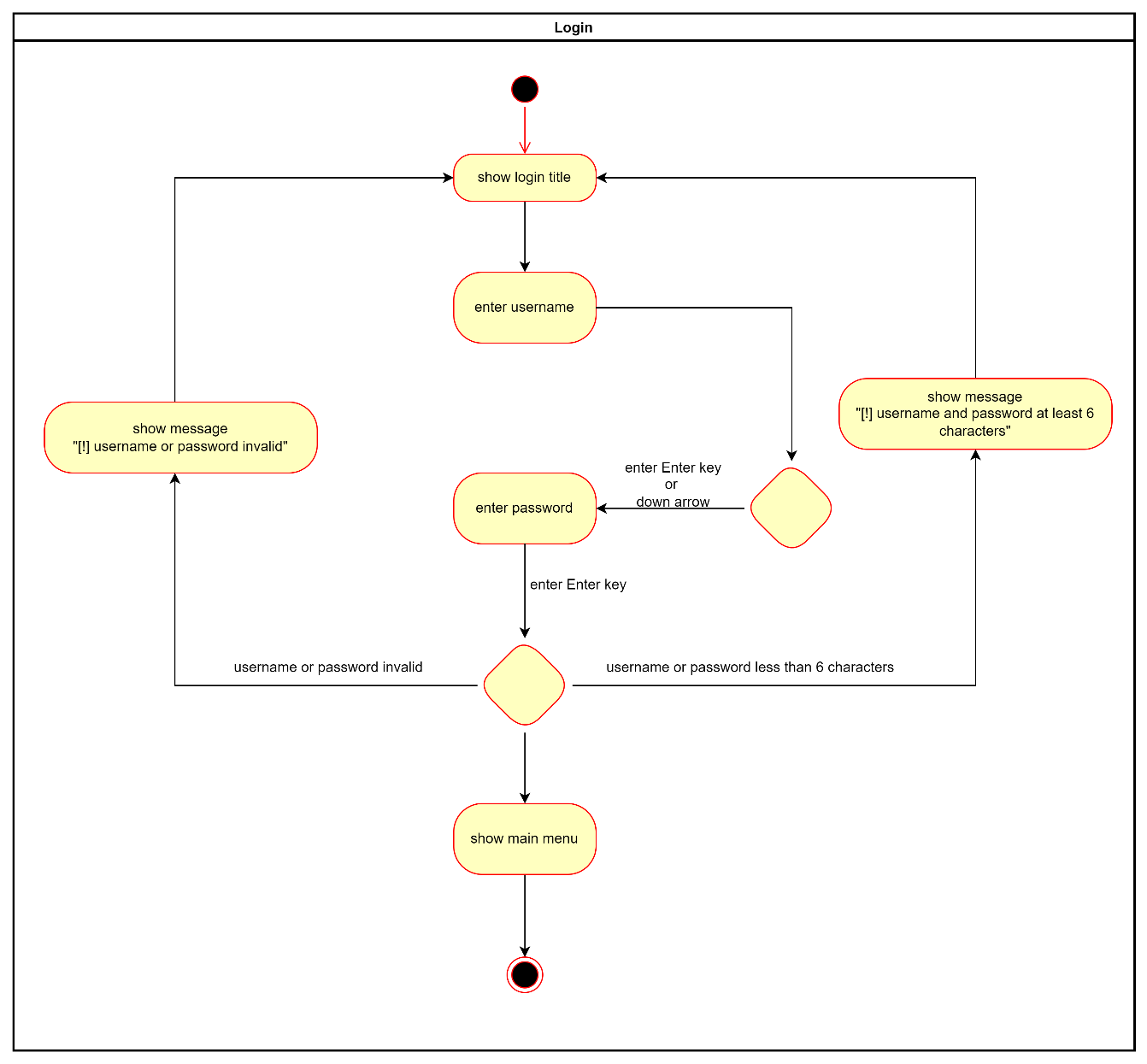
1.4. Create order description

|  |  |
| --- | --- |
| Use Case Name | Create order |
| Use Case ID | UC\_003 |
| Description | Used to create order |
| Actor | Cashier |
| Organizational Benefits | You can create one or more orders according to customer’s request |
| Triggers | Login to the program by the cashier’s account and you can use this feature |
| Preconditions | Must have at least one item previously created |
| Postconditions | Success: Create order complete  Fail: Create order not complete |
| Main Course | 1. Input customer information  2. Choose item and input quantity you want to add to order  3. Create order complete |
| Alternate Courses | AC: User input phone number by letters  1. Display message “Only input number”  2. Re-enter request |
| Exceptions | EX: Disconnect to database  1. Request to recheck internet connection  2. Request program restart |

1.5. Payment description

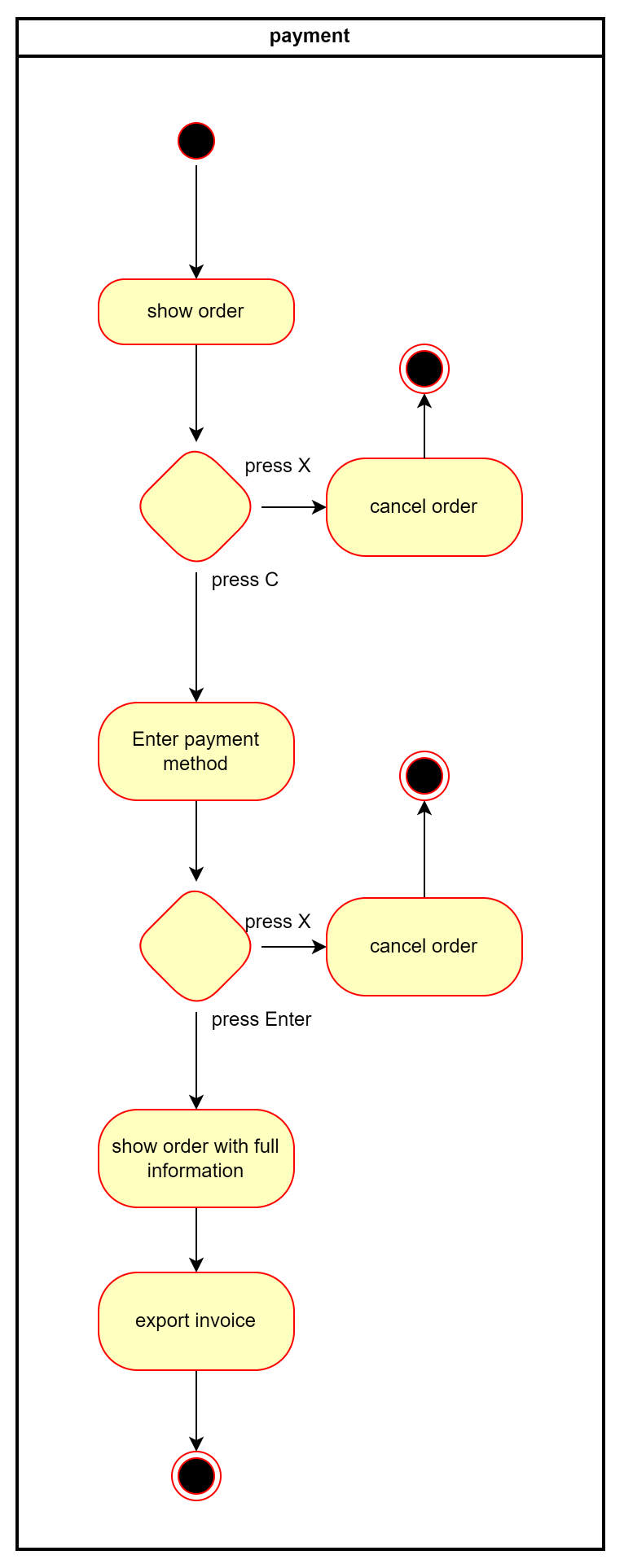
|  |  |
| --- | --- |
| Use Case Name | Payment |
| Use Case ID | UC\_004 |
| Description | Used to confirm payment or cancel payment |
| Actor | Cashier |
| Organizational Benefits | Allow cashier to confirm paid orders or cancel orders |
| Triggers | Login to the program by the cashier’s account and you can use this feature |
| Preconditions | Must have at least one order unpaid |
| Postconditions | Success: Confirm payment, cancel order complete or payment pause  Fail: Confirm payment or cancel order not complete |
| Main Course | 1. Press “Show order”  2. Choose to payment, cancel order or exit |
| Alternate Courses | AC 1: Confirm payment  1. Press “C” to confirm payment  2. Export invoice  AC 2: Cancel order  1. Press “X” to cancel order  2. Display msg “Cancel order complete!”  AC 3: Back  1. Press Tab to go back  2. Payment pause |
| Exceptions | EX: Disconnect to database  1. Request to recheck internet connection  2. Request program restart |

1. Activity Diagram:

2.1. Login

2.2. Create order

2.3. Payment



# Design Details

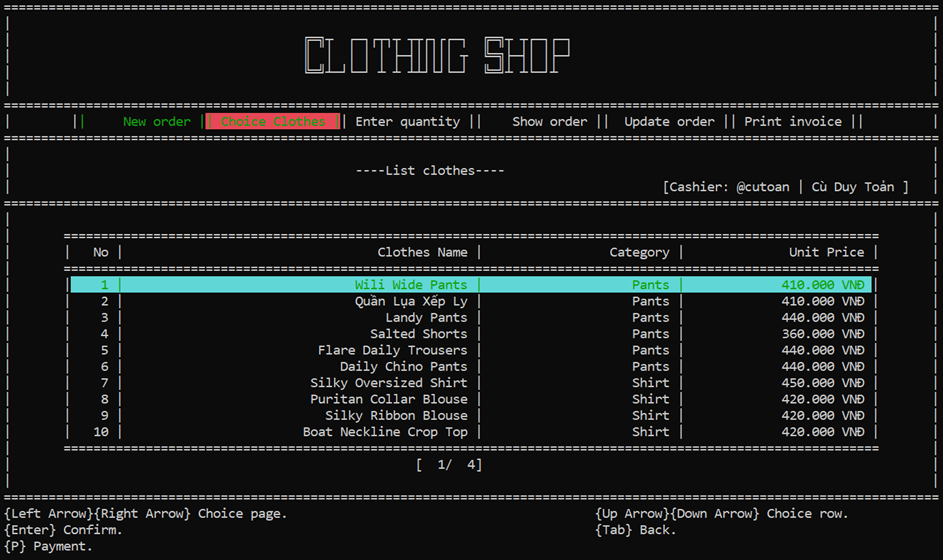
1. UI Design

1.1. Login

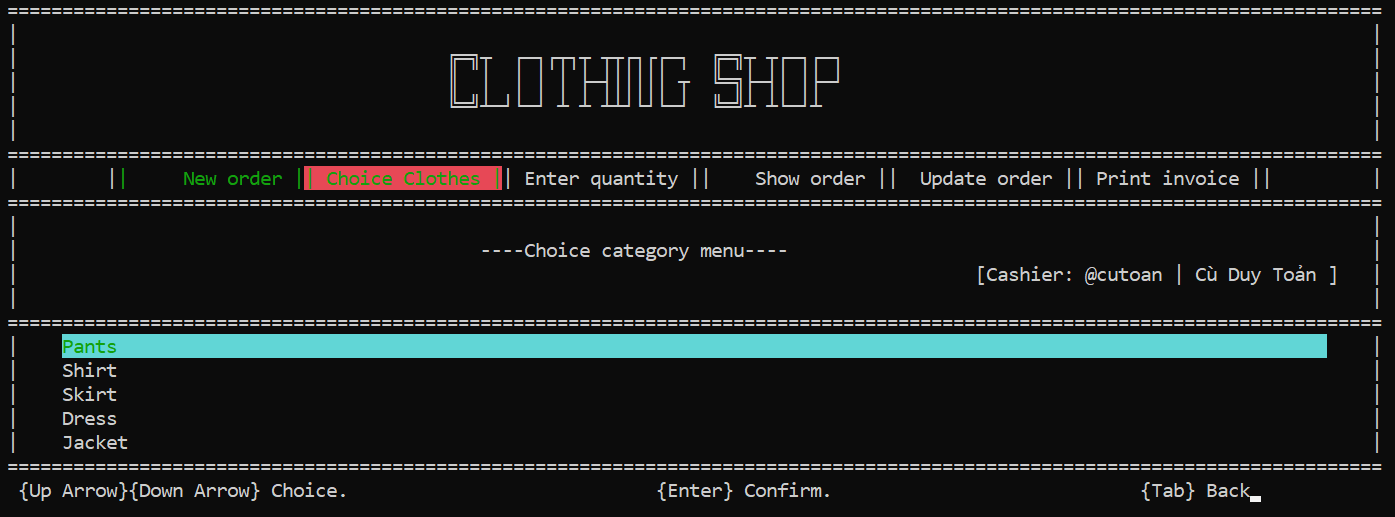
1.2. Main menu



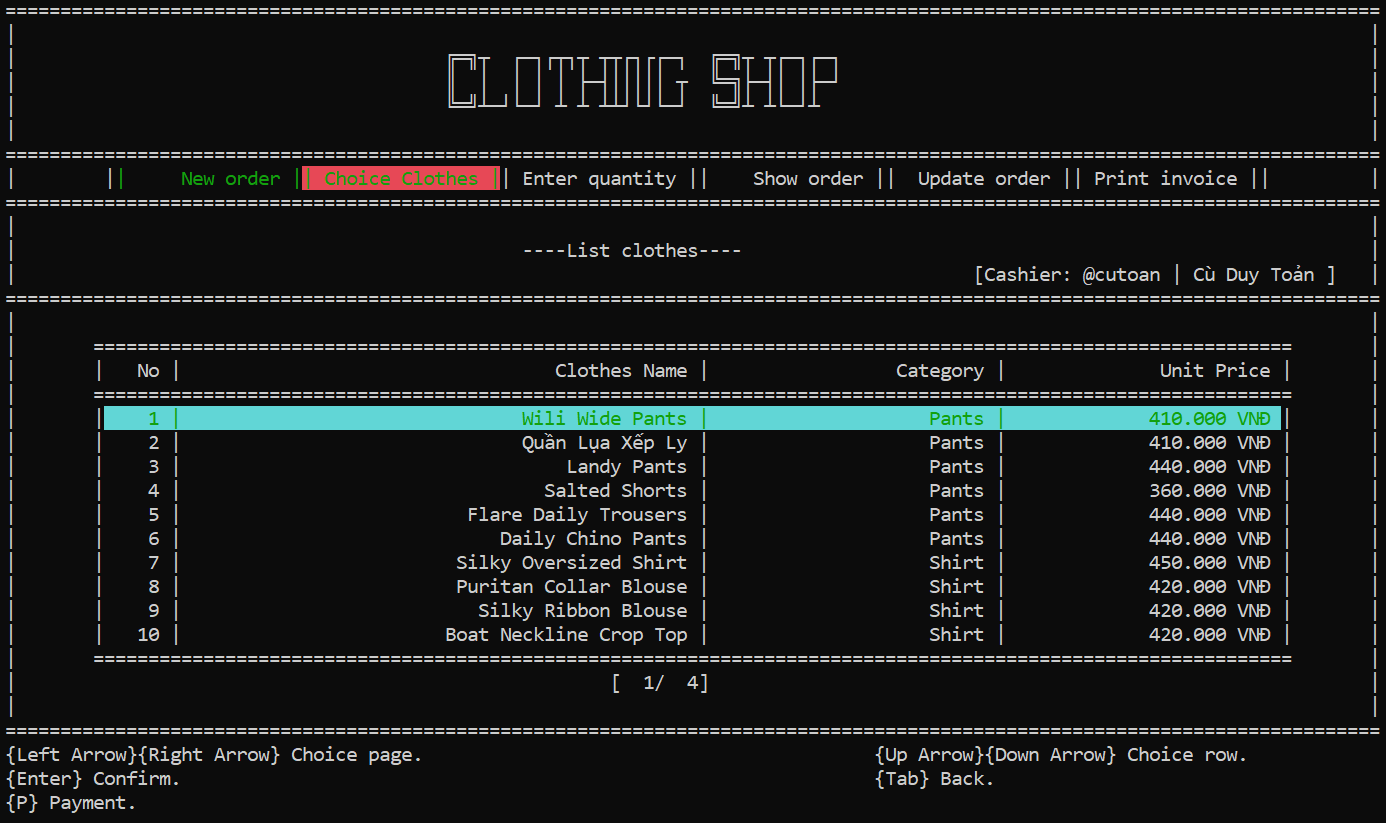
1.3. Show all list item



1.4. Show list item by category



1.5. Create order







1.6. Payment

A screenshot of a computer

Description automatically generated

A screen shot of a computer

Description automatically generated



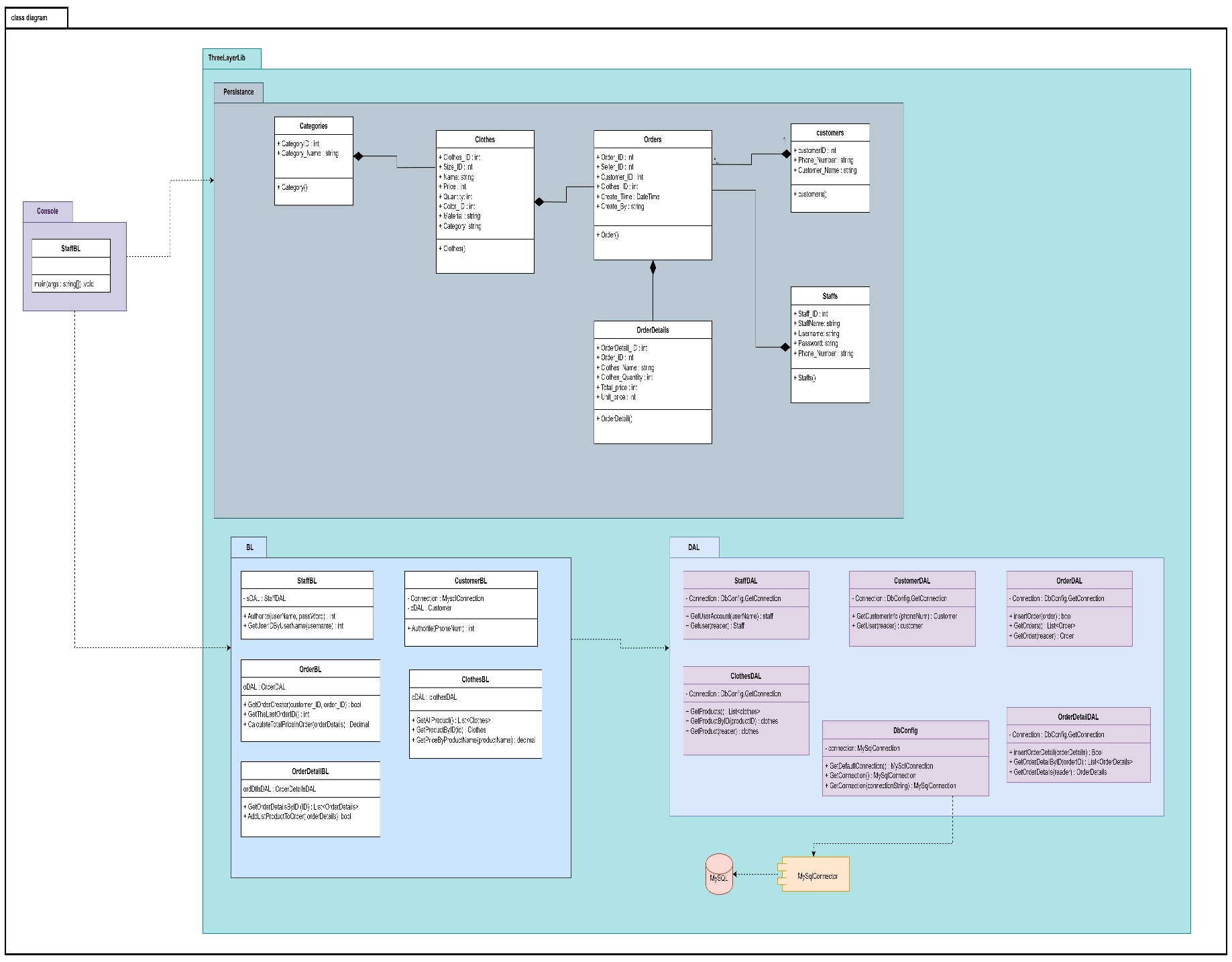




A screen shot of a computer screen

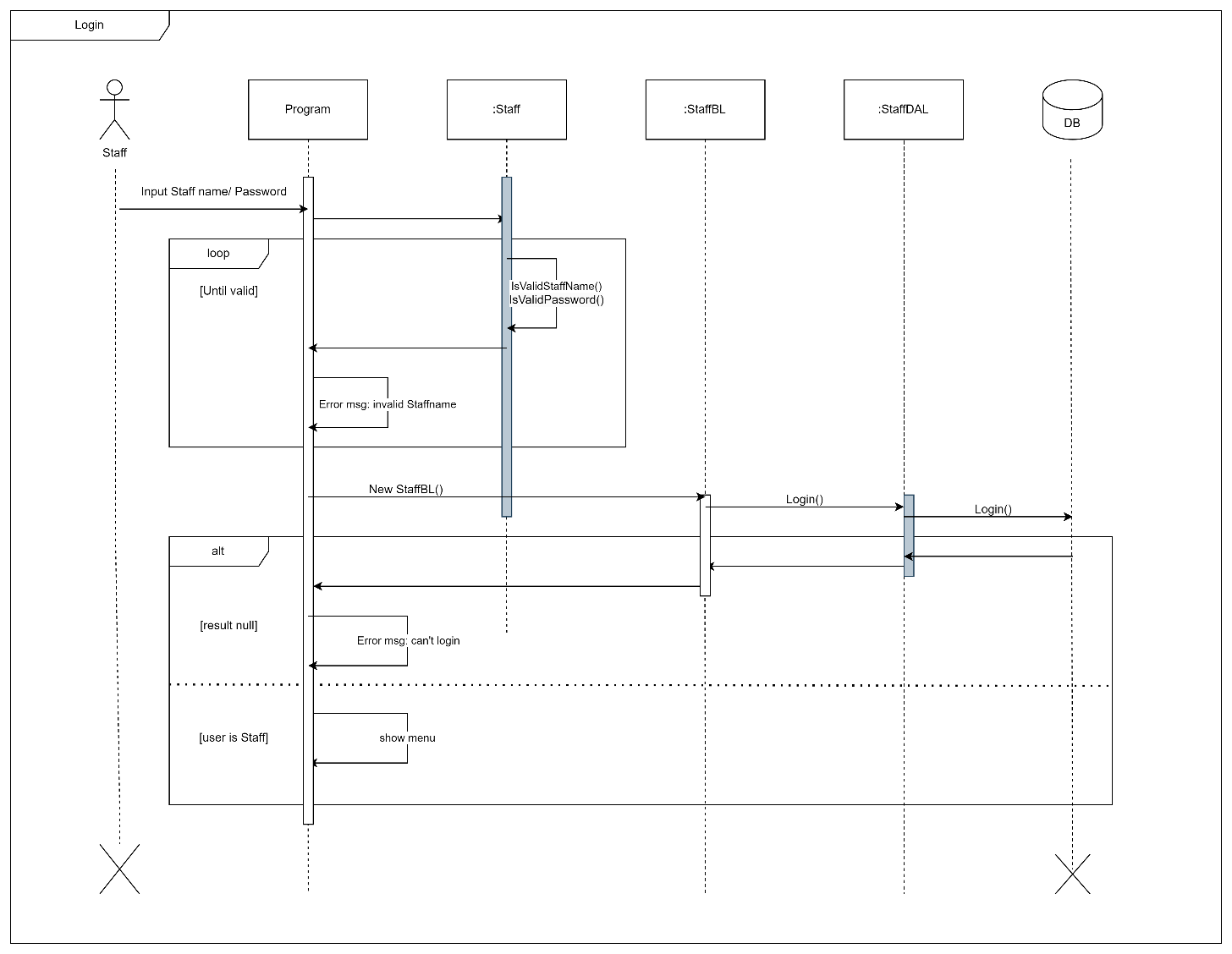
Description automatically generated

1. Code Design (Class Diagram)



1. Sequence Diagram

3.1. Login



3.2. Create order

3.3. Payment

1. Database Design
   1. Entity Relationship Diagram

A black and white image of a spiral

Description automatically generated

* 1. Database Design Details

A black background with a black square

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|  |  |  |  |
| --- | --- | --- | --- |
| Staffs | | | |
| Column Name | Data Type | Constraints | Description |
| Staff\_ID | int | PRIMARY KEY, AUTOINCREMENT |  |
| Username | varchar(50) | NOT NULL |  |
| Password | varchar(50) | NOT NULL |  |
| Staff\_name | varchar(50) | NOT NULL | Staff’s name |

|  |  |  |  |
| --- | --- | --- | --- |
| Customers | | | |
| Column Name | Data Type | Constraints | Description |
| Customer\_ID | int | PRIMARY KEY, AUTOINCREMENT |  |
| Name | varchar(50) | NOT NULL | Customer’s name |
| Address | varchar(100) |  | Customer’s address |
| Phone number | varchar(10) | NOT NULL, UNIQUE | Customer’s phone number |

|  |  |  |  |
| --- | --- | --- | --- |
| Categories | | | |
| Column Name | Data Type | Constraints | Description |
| Categories\_ID | int | PRIMARY KEY, AUTOINCREMENT |  |
| Categories\_name | varchar(50) | NOT NULL | Clothes’ category |

|  |  |  |  |
| --- | --- | --- | --- |
| Orders | | | |
| Column Name | Data Type | Constraints | Description |
| Order\_ID | int | PRIMARY KEY, AUTOINCREMENT |  |
| Staff\_ID | int | NOT NULL |  |
| Customer\_ID | int | NOT NULL |  |
| Create\_at | datetime | NOT NULL, DEFAULT CURRENT DATE | Order creation date |
| Create\_by | Varchar(50) | NOT NULL | Staff’s name |
| Total\_price | decimal | NOT NULL | Invoice’s unit price |
| Status | int | NOT NULL | 1: Unpaid  2: Paid  3: Cancel |

|  |  |  |  |
| --- | --- | --- | --- |
| Orders\_details | | | |
| Column Name | Data Type | Constraints | Description |
| Order\_ID | int | PRIMARY KEY, FOREIGN KEY |  |
| Clothes\_ID | int | PRIMARY KEY, FOREIGN KEY |  |
| Total\_price | decimal | NOT NULL | Clothes’s unit price |
| Quantity | int | NOT NULL | Clothes’s quantity |

|  |  |  |  |
| --- | --- | --- | --- |
| Size color | | | |
| Column Name | Data Type | Constraints | Description |
| Size\_color\_ID | int | PRIMARY KEY, AUTOINCREMENT |  |
| Clothes\_ID | int | FOREIGN KEY |  |
| Size\_ID | int | FOREIGN KEY |  |
| Color\_ID | int | FOREIGN KEY |  |
| Quantity | int | NOT NULL |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Color | | | |
| Column Name | Data Type | Constraints | Description |
| Color\_ID | int | PRIMARY KEY, AUTOINCREMENT |  |
| Color\_name | Varchar(50) | NOT NULL |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Sizes | | | |
| Column Name | Data Type | Constraints | Description |
| Size\_ID | int | PRIMARY KEY, AUTOINCREMENT |  |
| Size\_name | Varchar(50) | NOT NULL |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Clothes | | | |
| Column Name | Data Type | Constraints | Description |
| Clothes\_ID | int | PRIMARY KEY, AUTOINCREMENT |  |
| Clothes\_name | Varchar(50) | NOT NULL | Clothes’s name |
| Unit\_price | decimal | NOT NULL, DEFAULT 0 | Clothes’s price |
| Material | varchar(50) | NOT NULL | Clothes’s material |
| Category\_ID | int | FOREIGN KEY | Clothes’s category |
| User\_manual | Varchar(50) |  |  |
| Quantity | int | NOT NULL, DEFAULT 0 | Clothes’s quantity |

# Test

1. Login test

1.1. Login test 1

|  |  |
| --- | --- |
| Test Case Number | 001 |
| Test Case Name | LoginTest() |
| Test Case Description | This test case checks username and password correct or not |
| Preconditions | Username and password must exists in database |
| Test Case Input | Username : cutoan  Password : toan2004 |
| Test Case Expected Output | Main Menu |
| Test Case Steps | New Staff  New StaffDAL  Call Login method  Compare output with expected output |
| Default Value Preverving |  |

1.2. Login test 2

|  |  |
| --- | --- |
| Test Case Number | 002 |
| Test Case Name | LoginTest () |
| Test Case Description | This test case checks username and password correct or not |
| Preconditions | Username and password not necessarily exists in database |
| Test Case Input | Username : 18tamtrinhvtc  Password : 1234567890 |
| Test Case Expected Output | Display msg “[!]{username} or {password} incorrect.” |
| Test Case Steps | New Staff  New StaffDAL  Call Login method  Compare output with expected output |
| Default Value Preverving |  |

1.3. Login test 3

|  |  |
| --- | --- |
| Test Case Number | 003 |
| Test Case Name | LoginTest () |
| Test Case Description | This test case checks if entering too many characters affects the predefined texture of the app. |
| Preconditions | Username and password not necessarily exists in database |
| Test Case Input | Username : 18tamtrinhvtca0123456789  Password : vtcastudent0123456789 |
| Test Case Expected Output | User name : [vtca0123456789]  Password : [\*\*\*\*\*\*\*\*\*\*\*\*\*] |
| Test Case Steps | New Staff  New StaffDAL  Call Login method  Compare output with expected output |
| Default Value Preverving |  |

1.4. Login test 4

|  |  |
| --- | --- |
| Test Case Number | 004 |
| Test Case Name | LoginTest () |
| Test Case Description | The test case check if in case username or password input less than 6 characters is accepted |
| Preconditions | username or pass word must be numbers or letters and less than 6 character |
| Test Case Input | Username : abcde  Password : 123 |
| Test Case Expected Output | Display msg: “[!] username and password at least 6 characters.” |
| Test Case Steps | New Staff  New StaffDAL  Call Login method  Compare output with expected output |
| Default Value Preverving |  |

1.5. Login test 5

|  |  |
| --- | --- |
| Test Case Number | 005 |
| Test Case Name | LoginTest () |
| Test Case Description | The test case checks if special characters like !@#$... are accepted |
| Preconditions | username and pass word not necessarily exists in database |
| Test Case Input | Username : !@#$%^&\*()-=  Password : {}[]{;’\/.,\_+ |
| Test Case Expected Output | Username : [!@#$%^&\*()-=]  Password: [\*\*\*\*\*\*\*\*\*\*\*\*\*] |
| Test Case Steps | New Staff  New StaffDAL  Call Login method  Compare output with expected output |
| Default Value Preverving |  |

2. Create order test

2.1. Create order test 1

|  |  |
| --- | --- |
| Test Case Number | 001 |
| Test Case Name | CreateOrderTest1() |
| Test Case Description | The test case checks what happens when too many clothes are entered in the database |
| Preconditions | Logged in |
| Test Case Input | Quantity : 999 |
| Test Case Expected Output | Show msg “[!] The order quantity exceeds the quantity of the clothes.” |
| Test Case Steps | Choose item and input quantity, |
| Default Value Preverving |  |

2.2. Create order test 2

|  |  |
| --- | --- |
| Test Case Number | 001 |
| Test Case Name | CreateOrderTest1() |
| Test Case Description | test case check what happens when too many products are imported |
| Preconditions | Logged in |
| Test Case Input | Quantity : 9999999 |
| Test Case Expected Output | Show msg “  [!] The order quantity exceeds the quantity of the clothes.  [!] Max value!” |
| Test Case Steps | Choose item and input quantity |
| Default Value Preverving |  |

2.3. Create order test 3

|  |  |
| --- | --- |
| Test Case Number | 003 |
| Test Case Name | CreateOrderTest3() |
| Test Case Description | Create an order with at least one item and input customer’s phone number by letters |
| Preconditions | Logged in |
| Test Case Input | “2”  “h” |
| Test Case Expected Output | Display msg “Only enter number” |
| Test Case Steps | Choose item and input quantity “2”, choose Show order and press “C” to confirm order  Input customer’s phone number by letters |
| Default Value Preverving |  |

2.4. Create order test 4

|  |  |
| --- | --- |
| Test Case Number | 004 |
| Test Case Name | CreateOrderTest4() |
| Test Case Description | Create an order with an order quantity in excess of those in stock |
| Preconditions | Logged in |
| Test Case Input | “200” |
| Test Case Expected Output | Display msg “The order quantity exceeds the quantity of the clothes” |
| Test Case Steps | Choose item and input quantity “200” |
| Default Value Preverving |  |

# Task Assign (to each team member)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Group Name | Project Name | | | | | |
| No | Task name | Description | Start Date | End Date | Member | Self assessment |
| 1 |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |

# Installation Instructions

1. Deployment Diagram

A diagram of a server

Description automatically generated

1. Installation steps
   * Database Install
   * Server install
   * Application install

# Appendix

Terms and abbreviations <if available>

<listing terms and abbreviations here>

References <if available >

<List of references here>

Some other issues <if available >

<Results, limitations, experiences, techniques, and other considerations when implementing a project>

# Document format

**Report corver:**

*The cover is printed in blue.*

*With the format as the first page of this document.*

**Paper Size:**

*The report is presented on A4 size paper (210 mm x 297 mm)*

**Top header**

*Left: Logo của VTC Academy*

*Right: Project Name*

*Font: Helvetica Neue (Light) or Arial*

*Font size: 12pt*

**Bottom header**

*Left: Class\_Name –Project\_Name*

*Right: Page\_Number*

*Font: Helvetica Neue (Light) or Arial*

*Font size: 12pt*

**Report Content:**

*Font: Helvetica Neue (Light) or Arial*

*Font size: 12pt*

*Minimum 20 pages*

**Page margin (for A4 size paper)**

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*Bottom: 20 - 25 mm;*

*Left: 30 - 35 mm;*

*Right: 15 - 20 mm;*