# System Specification

**MyMirror LTD**



**Core Functionality:**  A system for selling smart mirrors.

**Team Members:**

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**System Overview:**

This system will sell smart mirrors to the general public. The public can visit the web page based on the web front end to browse and filter our current collection (stock). They will have an option of placing selected mirror into a shopping cart and creating an order. Upon creation they will be prompted to either log in or create an account, specifying personal details along with security and payment data. Shopping cart will allow for a review and modification of the order. The front end will also allow logged in customers to create a support ticket to contact the staff with possible issues or feedback.

In addition to front-end customers, there are back-end employees. After the customer is registered, the back-end employees will be able to view and record the information and maintain it. At the same time, after the customer creates an order, it will be added to the order list for processing in the back end. The back end will allow for a range of admin functions, such as managing of customer data, employee data, inventory, and running reports on data stored in the system, such as orders, support tickets and feedback.

# Individual Specification

**MyMirror LTD**

**Allocated Component:** Stock management system

**Developer:** Donghang Du

**Overview:**

A stock management system allows stock manager to add, edit, delete, view, find, filter and validate the stock.

Generally, the stock administrator can first use the view and list function of the stock management system to view all the current stock company have (various mirrors). After checking, if there is a situation that company needs to buy new mirrors, then an administrator can use the add function to add new mirrors into the stock and add the type, description, date and so on for those mirrors. if the stock administrator thinks some parts of a mirror in the stock need to be changed (type, selectivity, or description...), he can use the editing function to edit and change those relevant parts. When the inventory administrator finds that the company no longer needs a particular mirror, he can use the delete function to delete the whole part of that mirror, including its related description, type, date, price... etc.

Furthermore, the stock administrator can use the find and filter function to search or filter stock according to some requirements (such as type, color, add date, price)

More importantly, the inventory administrator can also use the stock management system to change the stock availability. When the goods are not available, the customers on the website will not be able to add them to the shopping cart

# Individual Table Schema

tblStock： Allow Null or not

StockNo Int Primary Key No

StockDescription Text（Varchar（50）） Yes

Quantity Int No

DateAdded Date（Datetime） Yes

Price Decimal（Char（5）） No

Available Boolean（TINYINT (1) ） No

Team ERD

1

tblStaff

manages

tblDepartment

1

1

manages

handles

1

0.. \*

1.. \*

in

has

tblStock

tblOrderLine

1.. \*

0.. \*

1.. \*

\*

tblOrder

tblFeedback

0.. \*

1.. \*

\*

1

1.. \*

gives

places

tblStock

aces

1

tblCustomer

1

# Team Class Diagram

|  |
| --- |
| ClsStaff |
| +name：string  +id：int |
| editStock（）：void |

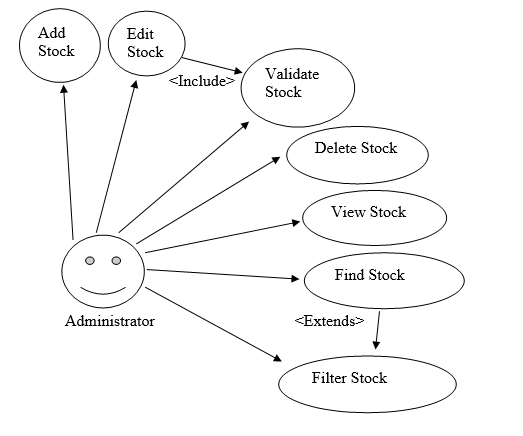
|  |
| --- |
| clsStock |
| - StockNo: Int32  - StockDescription : String  - Quantity ： Int  - DateAdded：Datetime  - Price：Int  - Available：Boolean |
| +Validate（）：void  +Find (int): Boolean |

|  |
| --- |
| ClsCustomer |
| - CustomerID: int  - Password : String  - E-mail： String  - DateRegsitered：Date  - Age：Int  - IsGuest：boolean |
| +set…  +get…… |

|  |
| --- |
| ClsstockCollection |
| -StockList：List<clsStock>  -ThisStock:clsStock  -Count：int |
| +Add (): Int  + Delete (): void  +Filter (): void  +Edit(): void |

|  |
| --- |
| ClsOrder |
| +OrderNumber：int  +Ordertime：Datetime  …….. |
| Set…  get… |

# Individual Use Case Diagram



[Use case description](http://www.cse.dmu.ac.uk/~mjdean/notes/modules/projects/IMAT2207/1920/content/20%20eLecture%20Generic%20System%20Documentation/Use%20case%20descripton%20pro%20forma.doc)

|  |  |
| --- | --- |
| Use Case Name (Short two- or three-word name) | ADD Stock |
| Use Case Description (Short description) | The administrator adds stock into the system |
| Use Case Author(s) (Who wrote this) | Donghang Du |
| Actor(s) (Who does this) | Administrator |
| Primary pathway (What is the normal “happy path” for this use case?) | Administrator press the “Add” button to create an entry for the new-incoming mirror and add that to the database |
| Alternate pathways (What other paths are there that are not the “happy path”?) | Administrator press the “Add” button to create an entry for the new-incoming mirror and add that to the database |
| Exception pathways (What could possibly go wrong?) | The input content does not meet the requirements, such as negative price, or excessive quantity (such as 100 million)  Displayed the error message, asking a re-input to the administrator, and giving a prompt, such as how many words or what type should be input |

|  |  |
| --- | --- |
| Use Case Name (Short two- or three-word name) | Edit Stock |
| Use Case Description (Short description) | The administrator edits the information of the stock in the system |
| Use Case Author(s) (Who wrote this) | Donghang Du |
| Actor(s) (Who does this) | Administrator |
| Primary pathway (What is the normal “happy path” for this use case?) | Administrator press the “Edit” button to change the entry for existing mirror. |
| Alternate pathways (What other paths are there that are not the “happy path”?) | Administrator press the “Edit” button to change the entry for existing mirror. |
| Exception pathways (What could possibly go wrong?) | Press the Edit button when no entry is selected  the system will prompt the administrator with an error message and ask the administrator to select an entry to modify |

|  |  |
| --- | --- |
| Use Case Name (Short two- or three-word name) | Validate Stock |
| Use Case Description (Short description) | The administrator validates the validity of the stock in the system |
| Use Case Author(s) (Who wrote this) | Donghang Du |
| Actor(s) (Who does this) | Administrator |
| Primary pathway (What is the normal “happy path” for this use case?) | Administrator press the “OK” button to test the validity for the entry of stock |
| Alternate pathways (What other paths are there that are not the “happy path”?) | Administrator press the “OK” button to test the validity for the entry of stock |
| Exception pathways (What could possibly go wrong?) | Try to valid input that does not conform to the specification(for example, a number that is overflows or a negative number), the system will prompt the administrator with an error message and ask the administrator to enter again in the correct form |

|  |  |
| --- | --- |
| Use Case Name (Short two- or three-word name) | Delete Stock |
| Use Case Description (Short description) | The administrator deletes stock from the system |
| Use Case Author(s) (Who wrote this) | Donghang Du |
| Actor(s) (Who does this) | Administrator |
| Primary pathway (What is the normal “happy path” for this use case?) | Administrator press the “Delete” button to delete the whole entry for existing mirror. |
| Alternate pathways (What other paths are there that are not the “happy path”?) | Administrator press the “Delete” button to delete the whole entry for existing mirror. |
| Exception pathways (What could possibly go wrong?) | Press the Delete button when no entry is selected  the system will prompt the administrator with an error message and ask the administrator to select an entry to delete |

|  |  |
| --- | --- |
| Use Case Name (Short two- or three-word name) | View Stock |
| Use Case Description (Short description) | The administrator views the stock of the system |
| Use Case Author(s) (Who wrote this) | Donghang Du |
| Actor(s) (Who does this) | Administrator |
| Primary pathway (What is the normal “happy path” for this use case?) | Administrator enters the system  The view of all current stock is displayed to the Administrator at system start |
| Alternate pathways (What other paths are there that are not the “happy path”?) | Administrator enters the system  The view of all current stock is displayed to the Administrator at system start |
| Exception pathways (What could possibly go wrong?) | Database connection fails  Error displayed to the Administrator advising of connection problem |

|  |  |
| --- | --- |
| Use Case Name (Short two- or three-word name) | Find Stock |
| Use Case Description (Short description) | The administrator finds the stock of the system |
| Use Case Author(s) (Who wrote this) | Donghang Du |
| Actor(s) (Who does this) | Administrator |
| Primary pathway (What is the normal “happy path” for this use case?) | Administrator press the “Find” button and enter the specific requirements such as the stock ID or price to search the stock that fit the requirement |
| Alternate pathways (What other paths are there that are not the “happy path”?) | Administrator press the “Find” button and enter the specific requirements such as the stock ID or price to search the stock that fit the requirement |
| Exception pathways (What could possibly go wrong?) | The entry does not exist in the database.  The administrator needs to input query data into the database before using find method to query |

|  |  |
| --- | --- |
| Use Case Name (Short two- or three-word name) | Filter Stock |
| Use Case Description (Short description) | The administrator Filter the stock of the system according to the specific needs |
| Use Case Author(s) (Who wrote this) | Donghang Du |
| Actor(s) (Who does this) | Administrator |
| Primary pathway (What is the normal “happy path” for this use case?) | Administrator press the “Filter” button and enter the specific requirements to filter the stock according to that requirement |
| Alternate pathways (What other paths are there that are not the “happy path”?) | Administrator press the “Filter” button and enter the specific requirements to filter the stock according to that requirement |
| Exception pathways (What could possibly go wrong?) | When the inventory in the database does not meet any search criteria  The system will display a blank. The administrator needs to add the qualified stock into the database first, and then operate the filter method |