

VIETNAM GENERAL CONFEDERATION OF LABOR
TON DUC THANG UNIVERSITY FACULTY OF INFORMATION
TECHNOLOGY



SOFTWARE ENGINEERING PROJECT

**FINAL REPORT
SUPPLEMENT FACT SELLING**

The Instructor: MR PHẠM THÁI KỲ TRUNG

The Executor: VÕ THÀNH DANH – 520H0525

Class : 20H50205

Course : 24

HO CHI MINH CITY, 2022

**VIETNAM GENERAL CONFEDERATION OF LABOR
TON DUC THANG UNIVERSITY FACULTY OF
INFORMATION TECHNOLOGY**



SOFTWARE ENGINEERING PROJECT

FINAL REPORT



Danh Co.,Ltd

The Instructor: **MR PHẠM THÁI KỲ TRUNG**

The Executor: **VÕ THÀNH DANH**

Class : **20H50205**

Course : **24**

HO CHI MINH CITY, NĂM 2022

THANK YOU

After learning the Software Engineering Course, I have learned a lot about patterns which helps me improve my code on development and maintenance. I feel really grateful for many bits of help from my teacher that instructed me so enthusiastically. And thanks to those supports, I was able to make this report.

REPORT COMPLETED AT TON DUC THANG UNIVERSITY

I commit that this is my own project and is guided by Mr Pham Thai Ky Trung. The content and results contained are research – centric and have not been published in any form before. The data in the tables for analysis, comments and evaluation are collected by the main author from different sources, which are clearly stated in the reference section.

In addition, the project also uses a number of comments, assessments as well as data of other authors, other agencies and organizations, all with citations and source annotations.

If I find any fraud, I will take full responsibility for the content of my project. Ton Duc Thang University is not related to copyright and license caused by me during the implementation process (if any).

Ho Chi Minh city, date month year

Author

Võ Thành Danh

TEACHER'S CONFIRMATION AND ASSESSMENT SECTION**Section confirmed by guiding teacher**

Ho Chi Minh city, date month year
(signature and write full name)

Section confirmed by granding teacher

Ho Chi Minh city, date month year
(signature and write full name)

SUMMARY

The final report has used the knowledge learned in the first semester and depends on theory to solve the requirements of the test.

TABLE OF CONTENTS

THANK YOU	i
TEACHER'S CONFIRMATION AND ASSESSMENT SECTION	i
SUMMARY	i
TABLE OF CONTENTS	1
LIST OF TABLE, PICTURES, GRAPHS	1
PART 1 – INTRODUCTION	1
1.1 Purpose and Scope	3
1.2 Product Overview	3
1.2.1 Scenario for account to create Goods Received note	3
1.2.2 Scenario for account to print delivery slips	3
1.2.3 Scenario for account to create Report	4
PART 2 – PROJECT MANAGEMENT PLAN	5
2.1 Project organization	5
2.1 Lifecycle Model Used	5
PART 3 – REQUIREMENT SPECIFICATIONS	8
3.1 Stakeholders for the system	8
3.2 Use case model	9
3.2.1 Graphic use case model	9
3.2.2 Textual Description for each use case	10
3.3 Functional requirements	14
3.4 Non-functional requirements	15
PART 4 – ARCHITECTURAL	16
4.1 Architectural styles used	16
4.2 Architectural model	16
4.3 Technology, software, and hardware used	17
4.4 Rationale for your architectural style and model	17
PART 5 – DESIGN	19

5.1 Database design	19
5.2 Static model – class diagrams	23
5.3 Dynamic model – sequence diagrams	24
PART 6 – TEST PLAN	16
6.1 Windows Form	26
6.2 MVC Web	35
6.3 Regulations of the Faculty of Information Technology	39

LIST OF PICTURES

Hình 3.1: Stakeholder diagram	8
Hình 3.2: Use case diagram for Accountant	9
Hình 3.3: Use case diagram for Agents	9
Hình 4.1: MVC Model	16
Hình 5.1: Create database	21
Hình 5.2: Database Diagram	21
Hình 5.3: Static model	22
Hình 2.1: V Software Model	7
Hình 3.1: Stakeholder diagram	8
Hình 3.2: Use case diagram for Accountant	9
Hình 3.3: Use case diagram for Agents	9
Hình 4.1: MVC Model	16
Hình 5.1: Create database	21
Hình 5.2: Database Diagram	21
Hình 5.3: Static model	22
Hình 5.4: Sequence Diagram – Create Goods Received	23
Hình 5.5: Sequence Diagram – Create Goods Delivery	23
Hình 5.6: Report	24
Hình 6.10: Login interface	36

Hình 6.11: Products	36
Hình 6.12: Order	37
Hình 6.13: History Order	38
Hình 6.14: Admin Account	38

LIST OF TABLE

PART 1 – INTRODUCTION

1.1 Purpose and Scope

This project displays the general architectural layout for the entire software operation of a business that sells goods to agents. It incorporates a wide range of disparate architectural features to show consumers specific facets of the built-in platform functionality and technological features.

1.2 Product Overview

1.2.1 Scenario for manager to create Imported Products report:

- When the business receives more goods, the manager must connect to a software program to compile the Imported Products report.
- When a corporation imports and sells products, the manager may delete, add, or edit the quantity.
- The results of this action to print receipts will include receipt code, receipt name, manager name, products, date, price, quantity, and other information about the goods that were received..

1.2.2 Scenario for manager to print delivery slips

- When the company buy or sell for customers, agents, the manager need to connect to win-form in order to print delivery slips.
- The status of transferred orders such as being transferred, product quantity, delivery status, and payment status will all be updated in their account by the manager.
- The result of the printing Delivery Goods report with complete information, including delivery code, products, date, price, quantity, and payment method,....

1.2.3 Scenario for manager to view incoming/ outgoing stock report and revenue report monthly

- The manager uses software to view the report and export the revenue report when they wish to verify the stock report and the revenue for the month..
- The consequence of this action is a list of incoming and outgoing products for the selected month and a monthly revenue for selling products.

PART 2 – PROJECT MANAGEMENT PLAN

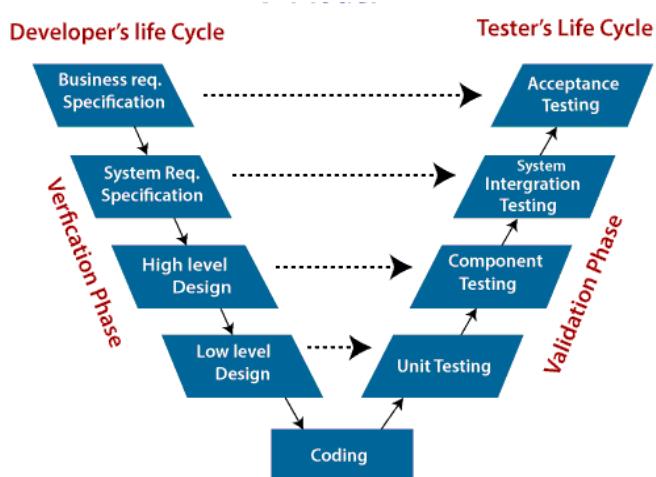
2.1 Project organization

A company that provides goods to agents requires software with the following features:

- When a business imports products, accountants can create Goods Received report (a warehouse receipt will include many items)
 - The agents would be able to view products, place an order and select a payment method they wanted (Cash, E-Wallet such as Momo, ZaloPay...)
 - The manager will have the ability to create a product delivery note, change the status of orders as they are transferred, and update the payment status of agents.
 - The monthly revenue report and incoming/outgoing stock report will be available to the manager to view.

2.2 Lifecycle Model Used

I made the decision to employ the waterfall model's extension, *the V-Shaped Model*. After the implementation and coding phase, the process steps move upwards rather than linearly downwards, forming the familiar V shape.



Picture 2.1 V Software Model

Advantages:

- Easy to understand and convenient to use
- Proactive defect tracking – that is defects are found at an early stage.
- Prior to coding, testing activities including planning and developing tests take place. This saves a lot of time. Therefore higher chance of success than the waterfall model.
- Works effectively for small projects with clearly defined criteria.
- Prevents the faults from spiraling downward.

Disadvantage:

- The least flexible and most unyielding.
- Not a good choice for a complex project.
- Software is created during the implementation phase; hence, no early software prototypes are created.
- The test documentation and requirement documents must be updated if there are any modifications midstream.

Attention when to use the V-model:

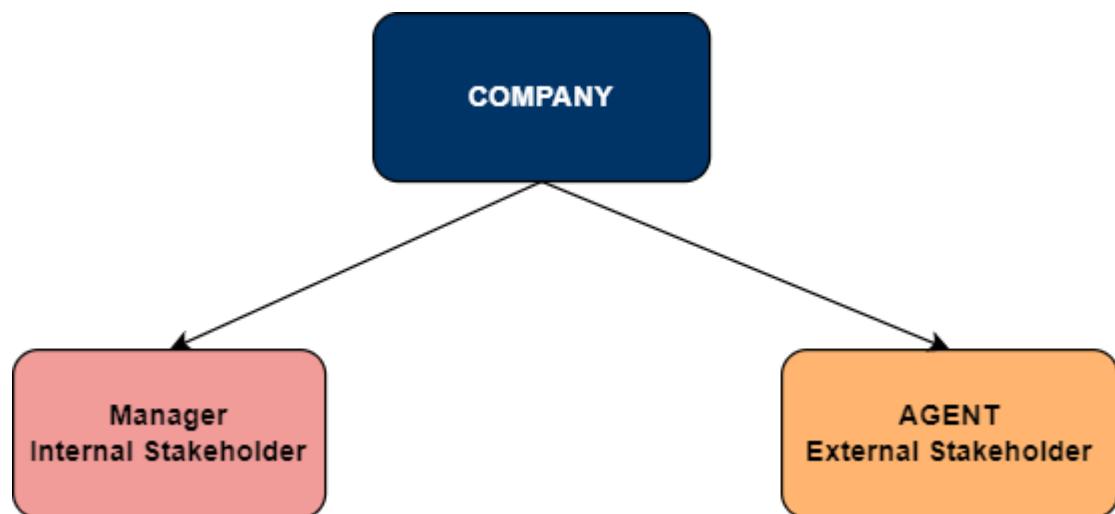
- The V-shaped model should be used for small to medium sized projects where requirements are clearly defined and fixed.
- The V-Shaped model should be chosen when ample technical resources are available with needed technical expertise.

PART 3 – REQUIREMENT SPECIFICATIONS

3.1 Stakeholders for the system

On this assignment, I identified that the system has three stakeholders. The first one is a manager known as an internal stakeholder in the company and the second are agents who are referred to as an external stakeholder.

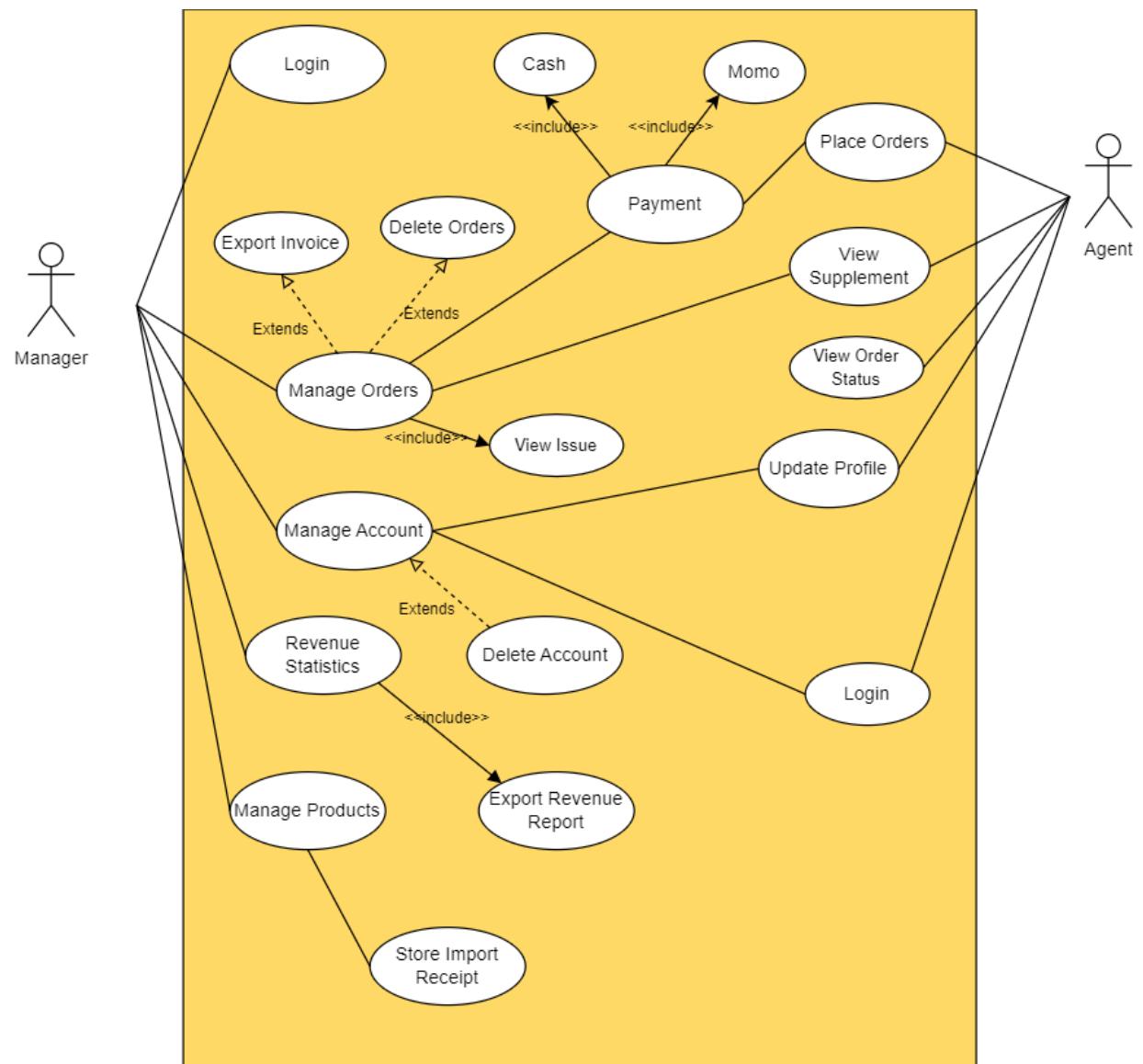
- Manager: who has an important role that can create Imported Products report, create Goods Delivery slips, statistic incoming/ outgoing stock and revenue report monthly on Windows Form
- MVC Web agents who can place orders for goods and select a mode of payment on MVC Web.



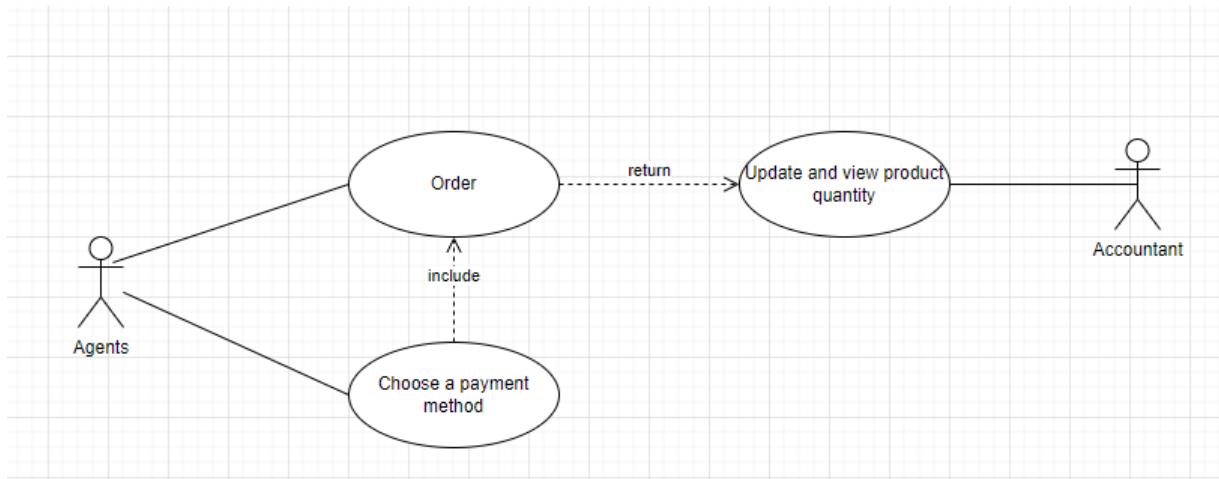
Picture 3.1 Stakeholder diagram

3.2 Use case model

3.2.1 Graphic use case model



Picture 3.2 Use Case Diagram



Picture 3.3 Use case diagram for Agents

+ **Actor Agent:** Login / Register, View Supplement Goods, Search, Place Orders, Payment, View Order Status, Update Profile, Feedback.

+ **Actor Manager:** Login, Manage Orders, Manage Products, Manage Accounts, Revenue Statistics, Import Products, Store Import Receipt, View Feedback.

3.2.2 Textual Description for each Use Case

Use case create Goods Delivery

+ **Actor Agent:** Login, View Supplement Goods, Place Orders, Payment, View Order Status, Update Profile

Use Case Name	Login
Description	Allow agents to log into the system to access and perform functions related to their role.
Triggering Event	Agent needs to access to homepage of website
Actor	Agent
Pre – condition(s)	Agent clicks to “Sign in”

Post – condition(s)	<ul style="list-style-type: none"> - Agent's account with email and password must be valid - The relevant homepage login is displayed by the website. 	
Flow Of Activities	Actor	System
	<ol style="list-style-type: none"> 1. Agents fill their email which has registered and password then clicks to "Sign In" 	System displays the notify "Login Successfully"
Exception Condition(s)		If incorrect information is entered and the login is unsuccessful, the website can alert the agent.

Use Case Name	Search
Description	Allow agent to find supplements they needed which was sorted by ascending or descending price
Triggering Event	Agent wants to find goods in website
Actor	Agent

Pre – condition(s)	- All uploaded or updated product must be in the website	
Post – condition(s)	The database returns the results for agents	
Flow Of Activities	Actor	System
	Agent click to “Search” then enter the keyword	System will check the keyword is valid or not
Exception Condition(s)	None	

Use Case Name	Required Product	
Description	Allow agents to view and choose the supplement goods in the store online	
Triggering Event	Agent wants to place an order with the huge amount of goods	
Actor	Customer	
Pre – condition(s)	<ul style="list-style-type: none"> - Agent must login successfully - The website shows the relevant homepage to choose products 	
Post – condition(s)	None	
Flow Of Activities	Actor	System
	1. Agent place orders with many products	System return the notice “Add to order successfully”

Exception Condition(s)	None
-------------------------------	------

Use Case Name	Payment	
Description	Allow agent to purchase their products	
Triggering Event	- Agents want to buy products	
Actor	Agent	
Pre – condition(s)	<ul style="list-style-type: none"> - Agent login successfully - Agent accepts all the rule of our website 	
Post – condition(s)	The system displays the relevant homepage Payment	
	Actor	System
Flow Of Activities	1. Agent choose a payment method “Payment in Cash”	System returns the notice “Please check your information carefully before you buy” then returns “Place Order Successfully”
	2. Customer choose a payment method “Pay in MOMO”	System checks Agent’s Momo account is valid or not
Exception Condition(s)	<ul style="list-style-type: none"> - If the data is unvalid, the message “Your Information is not valid. Please try again” is appeared 	

	- This data of payment will be saved into database
--	--

+ **Actor Manager:**

ID:	createProductsDelivery
Title:	create Products Delivery
Description:	<ul style="list-style-type: none"> - When a Company wants to delivery more goods, an the manager will connect with a software in order to create a Product Delivery. - This action contains Print Receipt/ Remove product - The result of this action is that the software will return a Delivery Product Receipt which has full information such as codeDelivery, quantity, products' details, price,....
Primary Actor:	Manager
Preconditions:	List of products such as productName, productID, price, quantity must be available before
Postconditions:	Incoming products' details will be update in database in order for Manager to view stock report
Main Success Scenario:	<p>Manager clicks on item Import of menu. Choose an order to view its detail products</p> <ul style="list-style-type: none"> - Click on Delivery/ Print receipt
Extensions:	If the manager doesn't add any product, he/ she will receive an error message box requiring fill out.
Frequency of Use:	Frequently

Status:	[Development status]
Owner:	
Priority:	[Priority of this use case]

Use case create Goods Received

ID:	Create Received Products
Title:	Create Imported Product Note
Description:	<ul style="list-style-type: none"> - When a Company wants to receive more goods, an manager will connect with a software in order to create a Received Products Note. - This action contains Remove product/ Update product quantity - The result of this action is that the software will return a Receive Goods which has full information such as Code Received, product, price, quantity, date,....
Primary Actor:	Manager
Preconditions:	List of products must be available before
Postconditions:	Incoming products' details will be added in database in order for Manager to view stock report

Main Success Scenario:	<p>Manager clicks on item Import of menu</p> <p>Fill information in the form</p> <p>Enter product product quantity</p> <ul style="list-style-type: none"> - Click on Add to add recently chosen product
Extensions:	If the manager doesn't add any product, he/ she cannot click on the Receive Button to Create Products Received Note.
Frequency of Use:	Frequently
Status:	[Development status]
Owner:	
Priority:	[Priority of this use case]

Use case View Storage

ID:	Storage
Title:	Storage
Description:	<ul style="list-style-type: none"> - When a Company want to know status of storage - This action contains see information and choose month to see monthly report. - The result of this action is that the software will return a monthly report.
Primary Actor:	Manager
Preconditions:	List of products must be available before

Postconditions:	The full information of revenue for the product when remove or add and quantity product which will be presented on the screen
Main Success Scenario:	Accountant clicks on item Storage of menu See information of Storage. If you want to see the monthly report, choose month and press Report button.
Extensions:	If the manager doesn't choose a month, he/ she will receive an error message box requiring fill out.
Frequency of Use:	Not frequently, just few times every month
Status:	[Development status]
Owner:	
Priority:	[Priority of this use case]

Use case View Report

ID:	Report
Title:	Report

Description:	<ul style="list-style-type: none"> - When a Company wants to see incoming/outgoing stock reports and revenue reports monthly. - This action contains information about import/export and revenue monthly. - The result of this action is that the software will return a Revenue Report which has full information such as Code Received, product, price, quantity, date,....
Primary Actor:	Manager
Preconditions:	List of products must be available before
Postconditions:	
Main Success Scenario:	<p>Manager choose Month on comboBox and press Report button.</p> <p>See information about this month's report.</p>
Extensions:	If the manager doesn't choose month, he/ she will receive an error message box require choose month.
Frequency of Use:	Frequently
Status:	[Development status]
Owner:	
Priority:	[Priority of this use case]

3.3 Functional requirements

Windows Form	Web
--------------	-----

<ul style="list-style-type: none"> - ComboBox of product names contains product name - On create Products Received must have fill information - Must have a list to display the date of Products Received product details, Products Delivery, Order, Product,... - - Must have a final price for both Received and Delivery - The Report must contain a comboBox to choose a Month. - Have functional total when Received or Delivery products and update database 	<ul style="list-style-type: none"> - The list of products are full - Must have a textBox for agent can fill or choose quantity products - Must have chosen payment methods such as Momo, cash. - Only the admin account has the right to view the orders of all agents.
--	---

3.4 Non – functional requirements

<i>Windows Form</i>	<i>Web</i>
<ul style="list-style-type: none"> • Usability: To enable managers to control the system, all interfaces include viewing all orders and order processes, creating slips for importing or delivering orders, export revenue monthly report,...To utilize the system, The manager can properly and effectively control all processes thanks to the user-friendly interface. • Security: Only authorized company managers can access company secure pages on the system. • Performance and Response Time: The system in windows form must 	<ul style="list-style-type: none"> • Usability: To enable customers (agents) to interact with the system, all interfaces include many types of products and easy to use different payments on websites. To utilize the system, agents can view all the products such as description, illustration images,.. before they place an order. • Security: Only users with the correct password and username can log in to view user pages.

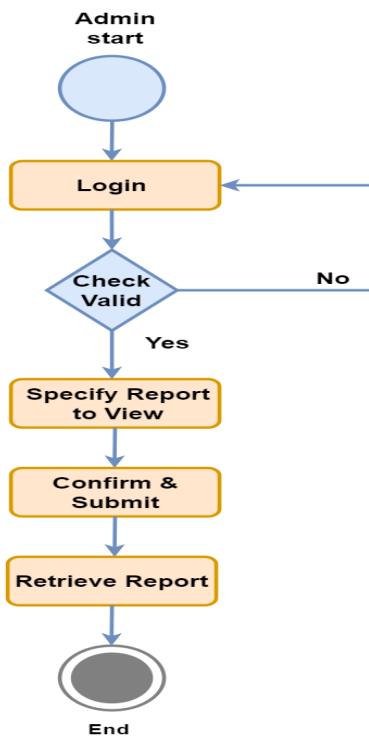
<p>execute agent orders quickly and efficiently, and it must be able to deliver feedback or responses to users. Moreover, all data of products stock will be updated async rally to support for shopping of agents.</p> <ul style="list-style-type: none"> Handling errors: Report must not be presented immediately after the manager executes. 	<ul style="list-style-type: none"> Performance and Response Time: No more than five minutes should pass between time payments. Handling errors: As far as possible, errors should be prevented, and suitable error messages should be given to help the user through the recovery process. One cannot overstate the value of validating user input.
--	---

3.5 Activity and Sequence Diagrams:

3.5.1 Activity Diagrams:

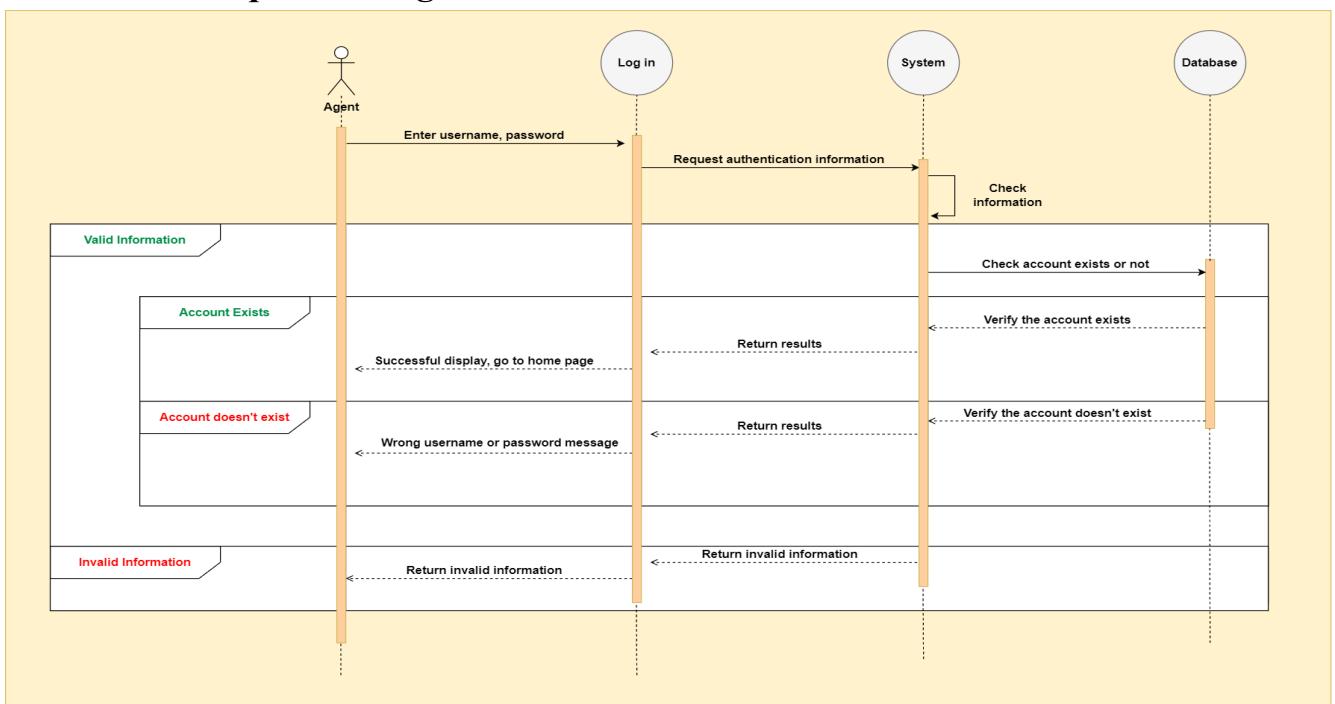


Picture 3.4: Customer Feedback

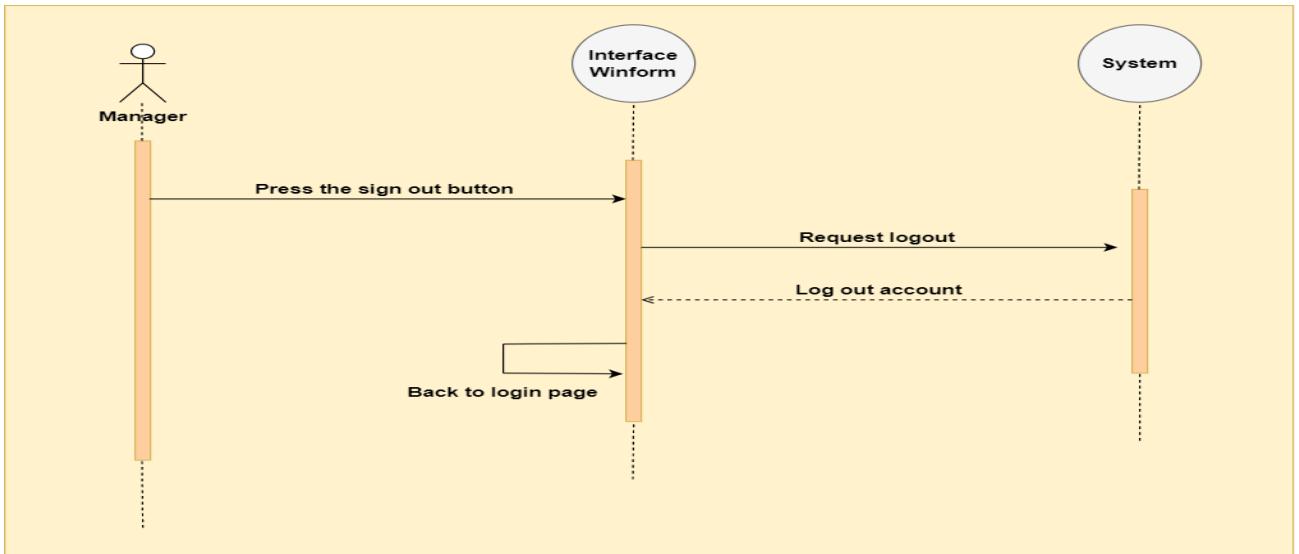


Picture 3.5: View Report

3.5.2 Sequence Diagrams:



Picture 3.6: Login Sequence Diagram



Picture 3.7: Logout Sequence Diagram

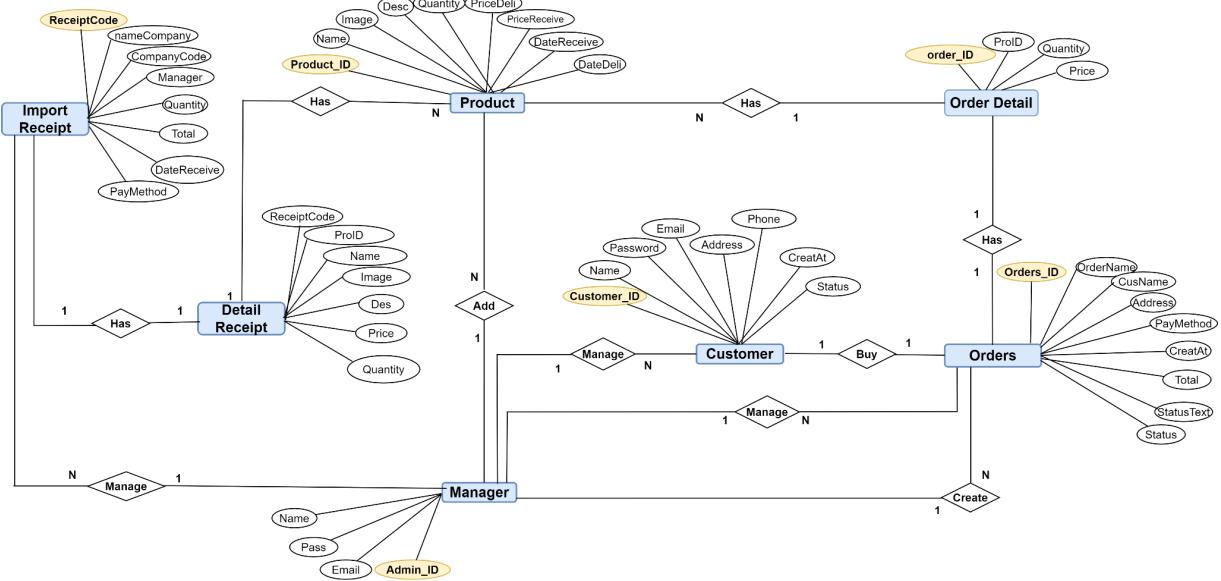
3.6 Entity Relationship Diagram, Relational Data Model:

3.6.1 Entity Relationship Diagram:

This Entity Relationship Diagram has 7 entity

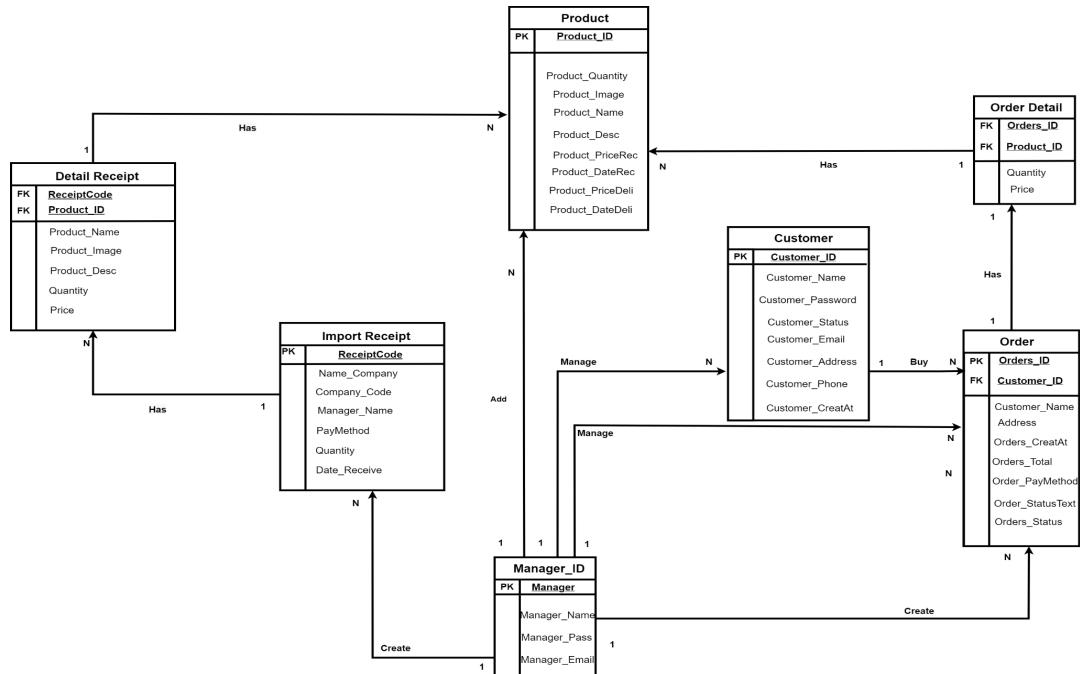
- Product has 9 attributes: Product ID, Name, Image, Description, Quantity, Price Delivery, Price Receive, Date Receive, Date Delivery.
- Agent has 8 attributes: User ID, Email, Password, Full Name, Address, Phone, CreateAt, Status.
- Manager has 4 attributes: Manager ID, Name, Pass, Email.
- Order has 8 attributes: ID, Name, Customer Name, Address, Pay Method, Total Pay, CreateAt, Status Text, Status.
- Order Detail has 4 attributes: Order ID, Product ID, Quantity, Total Price.
- Import Receipt has 9 attributes: Receipt ID, Code, Name of Supplier Company, Code Supplier Company, Manager Name, Quantity of Products, Date, Pay Method, Total Price.

- Import Detail Receipt has 5 attributes: Receipt Code, Product ID, Product Name, Quantity, Price.



Picture 3.9: ERD Diagram

3.6.2 Entity Relationship Diagram Physical:



Picture 4.0: ERD Physical Diagram

PART 4—ARCHITECTURAL

4.1 Architectural styles used

- The architectural style used a variety of powerful extensible (extensible model) product software.
- This software architecture model is very easy to use. Whether building small, simple software or large, complex software.
- Engineers can consider using templates.
- Architectural style is made up of event processing components that receive and process events asynchronously.

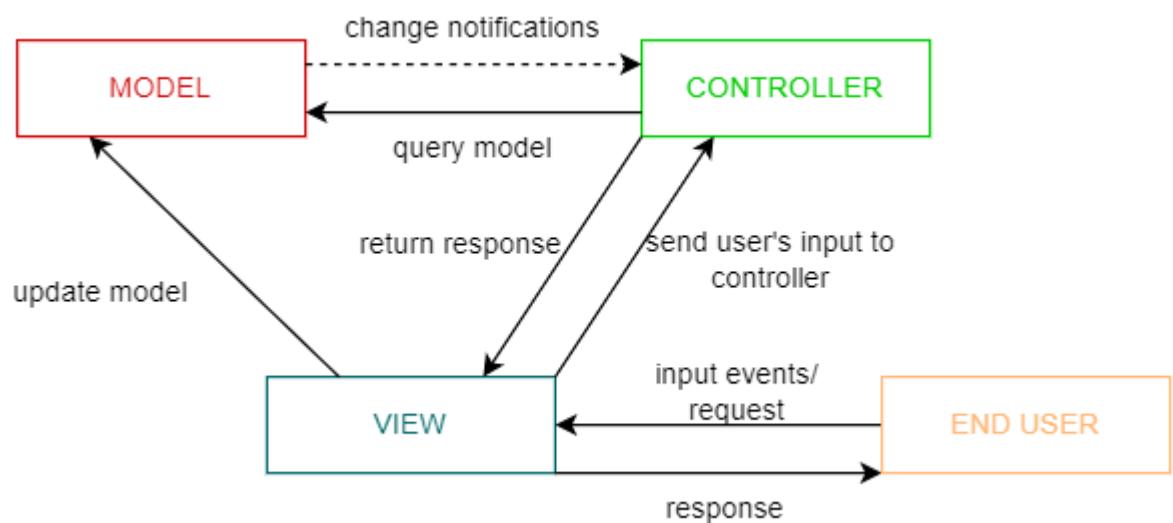
4.2 Architectural model

- Using MVC model (Model – View – Controller) to design web have functional for Agents to place orders
 - Divide the interactive application into 3 parts, including:
 - + **Model** – Data and related logic are stored in the model's component parts. contains class functions for handling operations like data sleuthing, addition, editing, and deletion. For instance, Controller Object pulls customer data out of a database. Change the data, then either utilize it to display data or send it back to the database. Data and related logic are stored in the model's component parts. contains class functions for handling operations like data sleuthing, addition, editing, and deletion. For instance, Controller Object pulls customer data out of a database. Change the data, then either utilize it to display data or send it back to the database.
 - + **View** – display information to the user (Can define multiple views) A component of an application that represents the data presentation. Using information received from the model's data. Views include interface elements

including menus, buttons, input frames, and graphics. It is in charge of data display and user interaction with the system.

+ Controller – handle input from the user

User requests are received and processed, consisting of classes and methods that handle numerous logical operations that aid in locating the appropriate data and information due to model layer services that use the view layer to supply and present data to the user.



Picture 4.1 MVC model

- This model makes it easier to distinguish between the layers that offer internal information and the information that users are presented with and accept. Code can be written more effectively since it isolates component dependencies.

4.3 Technology, software, and hardware used

- Software uses: Microsoft Visual Studio, Microsoft SQL Server Management Studio, draw.io,

4.4 Rationale for your architectural style and model

- A collection of small, loosely linked services that collaborate to accomplish a single objective make up an application using the architectural pattern known as *Microservices*. Since they operate separately, they can be modified, removed, or added without affecting other apps.
- There are many advantages to using a microservices architecture, including simpler deployment and testing, increased productivity, flexibility, and scalability. They do have certain drawbacks, though, as independent microservices need a seamless method of communication to operate as a bigger application.
- Real-time communication between microservices is made possible by event-driven microservices, allowing data to be consumed in the form of events before it is even necessary.
- We concentrate mostly on the state of the live data when we are in the data center.
- Event producers create and send event notifications using event-driven architecture. There may be one or more event information receivers, and event information receivers will activate handling logic.
- Example: Web example has just received a new order, maybe Manager's application is waiting and listening for that notification, then triggering their own internal system to publish their own information about the event to their users

PART 5 – DESIGN

5.1 Database design

```
tableTestingUser...6MJOU2\ADMIN (59)  ▶ X  tableTestingTemp...MJ0U2\ADMIN (58)  tableTestingProdu...MJ0U2\ADMIN (57)  tableTestingOrder..MJ0U2\ADMIN (56)

/*===== Object: Table [dbo].[TestingUser]  Script Date: 12/7/2022 1:42:23 AM =====*/
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO

CREATE TABLE [dbo].[TestingUser]
[Id] [int] IDENTITY NOT NULL,
[Email] [nvarchar](max) NOT NULL,
[Password] [nvarchar](50) NOT NULL,
[Username] [nvarchar](50) NOT NULL,
[Address] [nvarchar](250) NULL,
[Phone] [nvarchar](13) NULL,
[CreatedAt] [datetime] DEFAULT GETDATE(),
[Status] [int] NULL DEFAULT 0,
PRIMARY KEY([Id])
) ON [PRIMARY] TEXTIMAGE_ON [PRIMARY]
GO

USE [WebDB]
GO

DROP TABLE [dbo].[TestingUser]
USE [WebDB]
GO

INSERT INTO [dbo].[TestingUser]
([Email]
,[password]
,[fullname]
,[address]
,[phone]
)
VALUES
('user1@gmail.com'
,'userlab'
,'Le Quoc Hung'
,'123 Pham Ngu Lao'
,'0914234662'
)
GO

INSERT INTO [dbo].[TestingUser]
([Email]
,[password]
,[fullname]
)
VALUES
('user1@gmail.com'
,'userlab'
,'Le Quoc Hung'
,'123 Pham Ngu Lao'
,'0914234662'
)
GO
```

```
tableTestingUser...6MJOU2\ADMIN (59)  ▶ X  tableTestingTemp...MJ0U2\ADMIN (58)  tableTestingProdu...MJ0U2\ADMIN (57)  tableTestingOrder..MJ0U2\ADMIN (56)

[status] [int] NULL DEFAULT 0,
PRIMARY KEY([Id])
) ON [PRIMARY] TEXTIMAGE_ON [PRIMARY]
GO

USE [WebDB]
GO

DROP TABLE [dbo].[TestingUser]
USE [WebDB]
GO

INSERT INTO [dbo].[TestingUser]
([Email]
,[password]
,[fullname]
,[address]
,[phone]
)
VALUES
('user1@gmail.com'
,'userlab'
,'Le Quoc Hung'
,'123 Pham Ngu Lao'
,'0914234662'
)
GO

INSERT INTO [dbo].[TestingUser]
([Email]
,[password]
,[fullname]
,[address]
,[phone]
,[status]
)
VALUES
('admin1@gmail.com'
,'adminlab'
,'Jonathan'
,'Street 15, Ward 7, District 10.'
,'0912311037'
,1
)
GO
```

61 %

Connected. (1/1)

DESKTOP-76MJOU2 (15.0 RTM) | DESKTOP-76MJOU2\ADMIN ... | WebDB | 00:00:00 | 0 rows

tableTestingUser...6MJ0U2\ADMIN (59) tableTestingTemp...MJ0U2\ADMIN (58) tableTestingProdu...MJ0U2\ADMIN (57) tableTestingOrder...MJ0U2\ADMIN (56)

```

USE [WebDB]
GO

/* Object: Table [dbo].[TestingTempOrder] Script Date: 12/9/2022 11:21:22 AM *****/
SET ANSI_NULLS ON
GO

SET QUOTED_IDENTIFIER ON
GO

CREATE TABLE [dbo].[TestingTempOrder](
    [tempID] [int] IDENTITY NOT NULL,
    [cusID] [int] NULL,
    [proID] [int] NULL,
    [quantity] [int] NULL,
    PRIMARY KEY([tempID]),

) ON [PRIMARY]
GO

/* DROP */
DROP TABLE TestingTempOrder;

/* FOREIGN KEY, PRIMARY KEY */
/* NOT ADDED */
ALTER TABLE [TestingTempOrder]
ADD CONSTRAINT FK_TempOrder_User
FOREIGN KEY ([cusID]) REFERENCES TestingUser(id);

```

90 % 90 %

Connected. (1/1) DESKTOP-76MJ0U2 (15.0 RTM) DESKTOP-76MJ0U2\ADMIN ... WebDB 00:00:00 0 rows

tableTestingUser...6MJ0U2\ADMIN (59) tableTestingTemp...MJ0U2\ADMIN (58) tableTestingProdu...MJ0U2\ADMIN (57) tableTestingOrder...MJ0U2\ADMIN (56)

```

/* Object: Table [dbo].[TestingProduct] Script Date: 12/6/2022 8:47:21 PM *****/
SET ANSI_NULLS ON
GO

SET QUOTED_IDENTIFIER ON
GO

CREATE TABLE [dbo].[TestingProduct](
    [proID] [int] IDENTITY,
    [proName] [nvarchar](50) NOT NULL,
    [proImg] [nvarchar](250) NULL,
    [proDesc] [nvarchar](max) NULL,
    [quantity] [int] NOT NULL,
    [priceDeli] [float] NOT NULL,
    [priceReceived] [float] NOT NULL,
    [dateReceive] [datetime] DEFAULT GETDATE(),
    [dateDeli] [datetime] NULL,
    PRIMARY KEY ([proID]),

) ON [PRIMARY] TEXTIMAGE_ON [PRIMARY]
GO

/* DROP */
DROP TABLE [TestingProduct];

/* FOREIGN KEY, PRIMARY KEY */
ALTER TABLE Orders
ADD CONSTRAINT FK_ProductOrder
FOREIGN KEY (proID) REFERENCES TestingProduct(proID);

/* INSERT */
USE [WebDB]
GO

```

90 % 90 %

Connected. (1/1) DESKTOP-76MJ0U2 (15.0 RTM) DESKTOP-76MJ0U2\ADMIN ... WebDB 00:00:00 0 rows

```

tableTestingUser...6MJ0U2\ADMIN (59)          tableTestingTemp...MJ0U2\ADMIN (58)          tableTestingProdu...MJ0U2\ADMIN (57)  ×  tableTestingOrder..MJ0U2\ADMIN (56)


INSERT INTO [dbo].[TestingProduct]
([productName]
,[prodImg]
,[prodDesc]
,[quantity]
,[priceOeli]
,[priceReceived]
)
VALUES
('Adrenal Stimulator'
,'https://cdn.shopify.com/s/files/1/0773/5985/products/AdrenalStimulator_Adrenal_NCFM_large.jpg?v=1589984748'
,'Adrenal Stabilizer is a comprehensive blend of standardized extracts of the highest-quality adaptogenic herbs plus three B vitamins.'
,10000
,300.000
,200.000
)
GO
INSERT INTO [dbo].[TestingProduct]
([productName]
,[prodImg]
,[prodDesc]
,[quantity]
,[priceOeli]
,[priceReceived]
)
VALUES
('ICAPS Vision Health'
,'https://cdn1.bigcommerce.com/s-fe8s4ui/images/stencil/1920w/products/39245/103834/epibioe01_43282_1606847546.jpg?c=2'
,'Provides a wide spectrum of important ingredients shown to support healthy eyes and vision.* With 10 mg of lutein and 2 mg of zeaxanthin, shown to help promote eye health.'
,10000
,17.000
,15.000
)
GO
USE [WebDB]
GO

INSERT INTO [dbo].[TestingProduct]
([productName]
,[prodImg]
,[prodDesc]
,[quantity]
,[priceOeli]
,[priceReceived]
)
VALUES
('NOW Foods, EcoGreen Multi'
,'https://cloudinary-images-iherb.com/image/upload/f_auto,g_auto:eco/images/now/now03788/1/32.jpg'
,'iHerb strives to ensure the accuracy of its product images and information; some manufacturing changes to packaging and/or ingredients may be pending update on our site.'
,10000
,26.28
,24.18
)
GO
INSERT INTO [dbo].[TestingProduct]
([productName]
,[prodImg]
,[prodDesc]
,[quantity]
,[priceOeli]
,[priceReceived]
)
VALUES
('California Nutrition, Men's Multi Vitamin Gummies'
,'https://cloudinary-images-iherb.com/image/upload/f_auto,g_auto:eco/images/cgn/cgn01198/v/51.jpg'
,'California Gold Nutrition Men's Multivitamin Gummies provides a convenient way to add essential nutrients into your diet, which can help support a healthy lifestyle.*'
,10000
,9.14
,7.16
)
GO
INSERT INTO [dbo].[TestingProduct]
([productName]
,[prodImg]
,[prodDesc]
,[quantity]
,[priceOeli]
,[priceReceived]
)
VALUES
('Super Nutrition, SimplyOne, Men Multivitamin'
,'https://cloudinary-images-iherb.com/image/upload/f_auto,g_auto:eco/images/spn/spn08215/v/113.jpg'
,'Super Nutrition SimplyOne Men's Multivitamin + Supporting Herbs makes it easy to cover the nutritional basics with one tablet a day.'
,10000
,14.69
,10.77
)


```

61 %

% Connected. (1/1)

DESKTOP-76MJ0U2 (15.0 RTM) | DESKTOP-76MJ0U2\ADMIN ... | WebDB | 00:00:00 | 0 rows

```

tableTestingUser...6MJOU2\ADMIN (59)          tableTestingTemp...MJOU2\ADMIN (58)          tableTestingProdu...MJOU2\ADMIN (57)          tableTestingOrder...MJOU2\ADMIN (56) + X
USE [WebDB]
GO
/*===== Object: Table [dbo].[TestingOrderDetail]   Script Date: 12/6/2022 8:26:49 PM =====*/
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
CREATE TABLE [dbo].[TestingOrderDetail](
    [orderID] [int] NOT NULL,
    [prodID] [int] NOT NULL,
    [quantity] [int] NULL,
    [totalPrice] [float] NULL,
)
CONSTRAINT FK_Detail_Order FOREIGN KEY ([orderID])
REFERENCES TestingOrder([orderID]),
CONSTRAINT FK_Product_Order FOREIGN KEY ([prodID])
REFERENCES TestingProduct([prodID]),
) ON [PRIMARY]
GO
/* DROP */
DROP TABLE TestingOrderDetail;
/* DROP CONSTRAINT */
ALTER TABLE TestingOrderDetail
DROP CONSTRAINT FK_Detail_Order;
/* FOREIGN KEY, PRIMARY KEY */
ALTER TABLE [TestingOrderDetail]
ADD CONSTRAINT FK_Detail_Order
FOREIGN KEY ([orderID]) REFERENCES TestingOrder(orderID);
USE [WebDB]
GO
INSERT INTO [dbo].[TestingOrderDetail]
    ([orderID]
    ,[prodID]
    ,[quantity])
VALUES
    (1
    ,1
    ,14
    )
GO
INSERT INTO [dbo].[TestingOrderDetail]
61 %

```

```

tableTestingTemp...MJOU2\ADMIN (58)          tableTestingProdu...MJOU2\ADMIN (57)          tableTestingOrder...MJOU2\ADMIN (56)          tableTestingOrder...MJOU2\ADMIN (55) + X
USE [WebDB]
GO
/*===== Object: Table [dbo].[TestingOrder]   Script Date: 12/6/2022 7:41:27 PM =====*/
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
CREATE TABLE [dbo].[TestingOrder](
    [orderID] [int] IDENTITY NOT NULL,
    [orderName] [nvarchar](50) NULL DEFAULT 'ORDER NO NAME',
    [cusName] [nvarchar](50) NULL,
    [address] [nvarchar](250) NULL,
    [payMethod] [nvarchar](50) NULL DEFAULT 'Cash',
    [totalPay] [float] NULL,
    [createAt] [datetime] DEFAULT GETDATE(),
    [statusText] [nvarchar](50) DEFAULT 'Waiting',
    [status] [int] DEFAULT 1,
)
PRIMARY KEY([orderID]),
) ON [PRIMARY]
GO
/* DROP */
DROP TABLE TestingOrder;

ALTER TABLE TestingOrder
DROP COLUMN orderID;
USE [WebDB]
GO
INSERT INTO [dbo].[TestingOrder]
    ([orderName]
    ,[cusName]
    ,[address]
    ,[payMethod])
VALUES
    ('C12001'
    ,'Le Quoc Hung'
    ,'123 Pham Ngu Lao'
    ,'Cash')
GO
61 %

```

```

tableTestingProdu...MJ0U2\ADMIN (57)          tableTestingOrder...MJ0U2\ADMIN (56)          tableTestingOrder...MJ0U2\ADMIN (55)          tableTestingImpor...MJ0U2\ADMIN (53)          tableTestingImpor...MJ0U2\ADMIN (52)
USE [WebDB]
GO
/*---- Object: Table [dbo].[TestingImportReceipt]    Script Date: 12/6/2022 8:47:21 PM -----*/
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
CREATE TABLE [dbo].[TestingImportReceipt](
[receiptID] [int] IDENTITY,
[receiptCode] [varchar](50) NOT NULL,
[nameOrL1] [nvarchar](250) NOT NULL,
[codeCompanyOrL1] [varchar](50) NOT NULL,
[managerName] [nvarchar](250) NOT NULL,
[quantity] [int] NOT NULL,
[dateReceived] [datetime] DEFAULT GETDATE(),
[paymentMethod] [varchar](250) NOT NULL DEFAULT 'Cash',
[totalPrice] [float] NOT NULL,
PRIMARY KEY ((receiptCode)),
) ON [PRIMARY]
GO
/* DROP */
DROP TABLE [TestingImportReceipt];
/* FOREIGN KEY, PRIMARY KEY */
ALTER TABLE TestingImportReceipt
ADD CONSTRAINT FK_Product_ImReceipt
FOREIGN KEY (prodID) REFERENCES TestingProduct(prodID);

-----
```



```

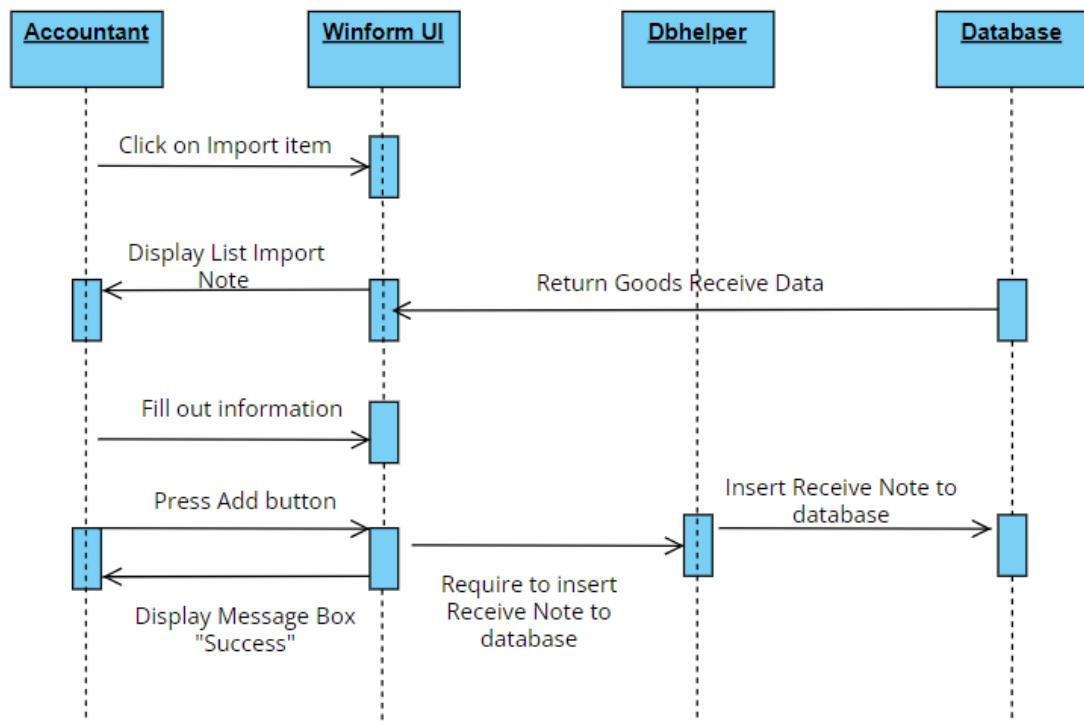
tableTestingOrder...MJ0U2\ADMIN (56)          tableTestingOrder...MJ0U2\ADMIN (55)          tableTestingImpor...MJ0U2\ADMIN (53)          tableTestingImpor...MJ0U2\ADMIN (52)
USE [WebDB]
GO
/*---- Object: Table [dbo].[TestingImportDetailProd]   Script Date: 12/6/2022 8:47:21 PM -----*/
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
CREATE TABLE [dbo].[TestingImportDetailProd](
[receiptCode] [varchar](50) NOT NULL,
[prodName] [nvarchar](50) NOT NULL,
[prodEng] [varchar](250) NULL,
[prodDesc] [nvarchar](max) NULL,
[quantity] [int] NOT NULL,
[priceReceive] [float] NOT NULL,
) ON [PRIMARY]
GO
/* DROP */
DROP TABLE [TestingImportDetailProd];
/* FOREIGN KEY, PRIMARY KEY */
ALTER TABLE [TestingImportDetailProd]
ADD CONSTRAINT FK_ImReceipt_Detail
FOREIGN KEY ([receiptCode]) REFERENCES TestingImportReceipt([receiptCode]);
-----
```

Picture 5.1 Create database

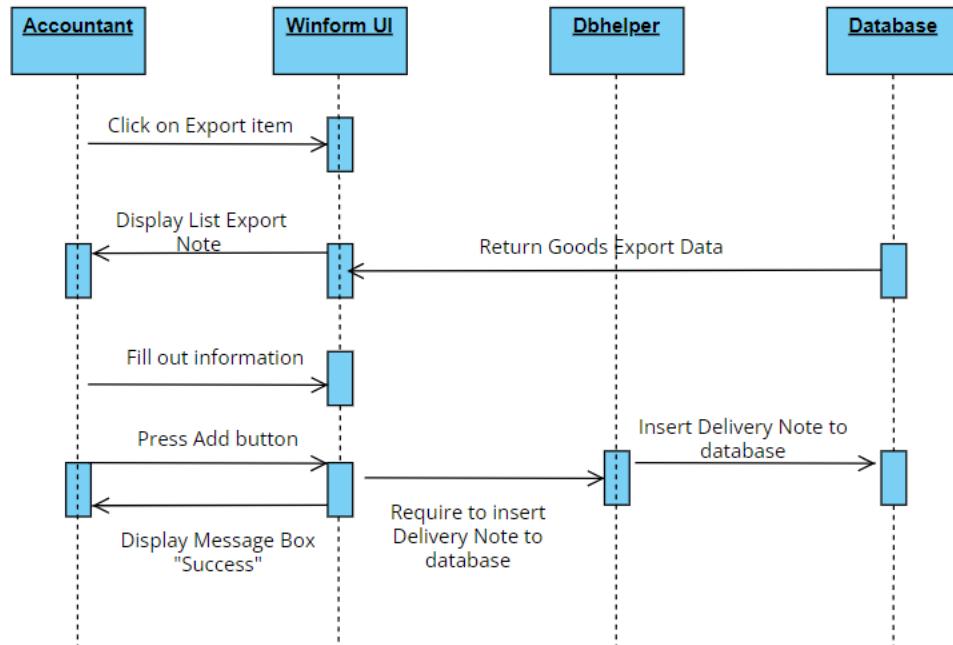


Picture 5.2 Database Diagram

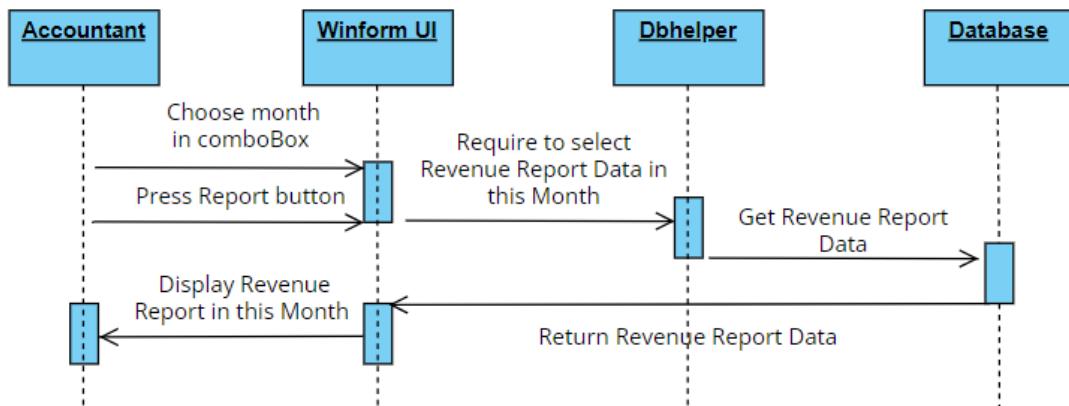
5.3 Dynamic model – sequence diagrams



Picture 5.4 Sequence Diagram – Create Goods Received



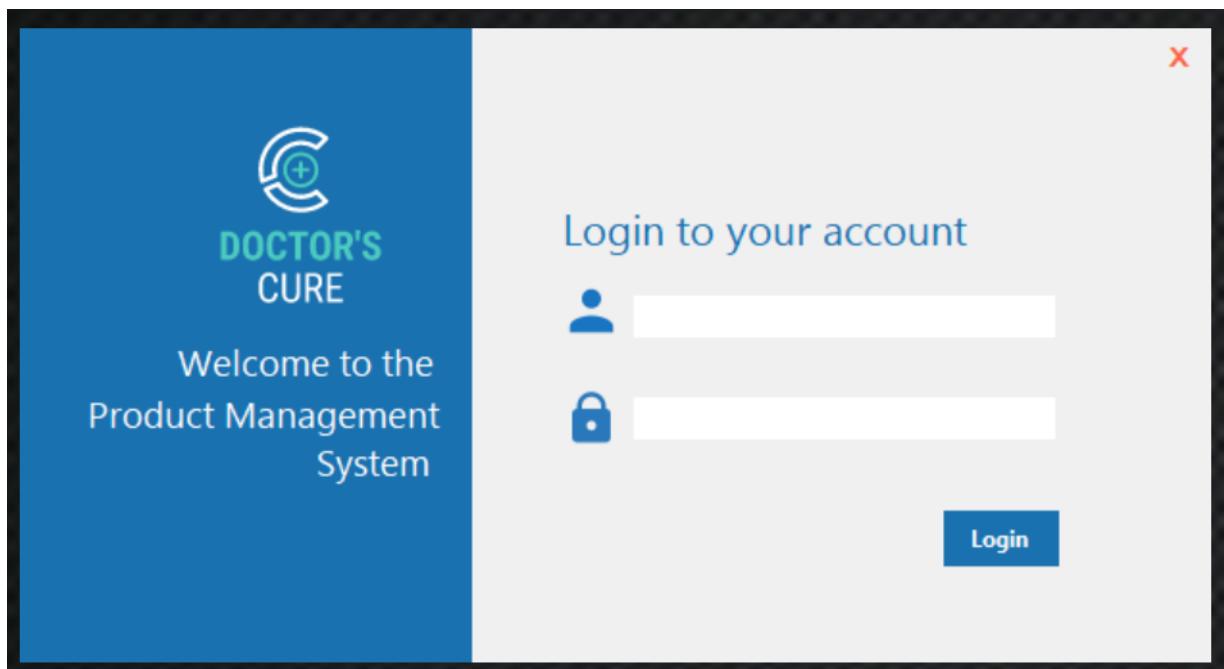
Picture 5.5 Sequence Diagram – Create Goods Delivery



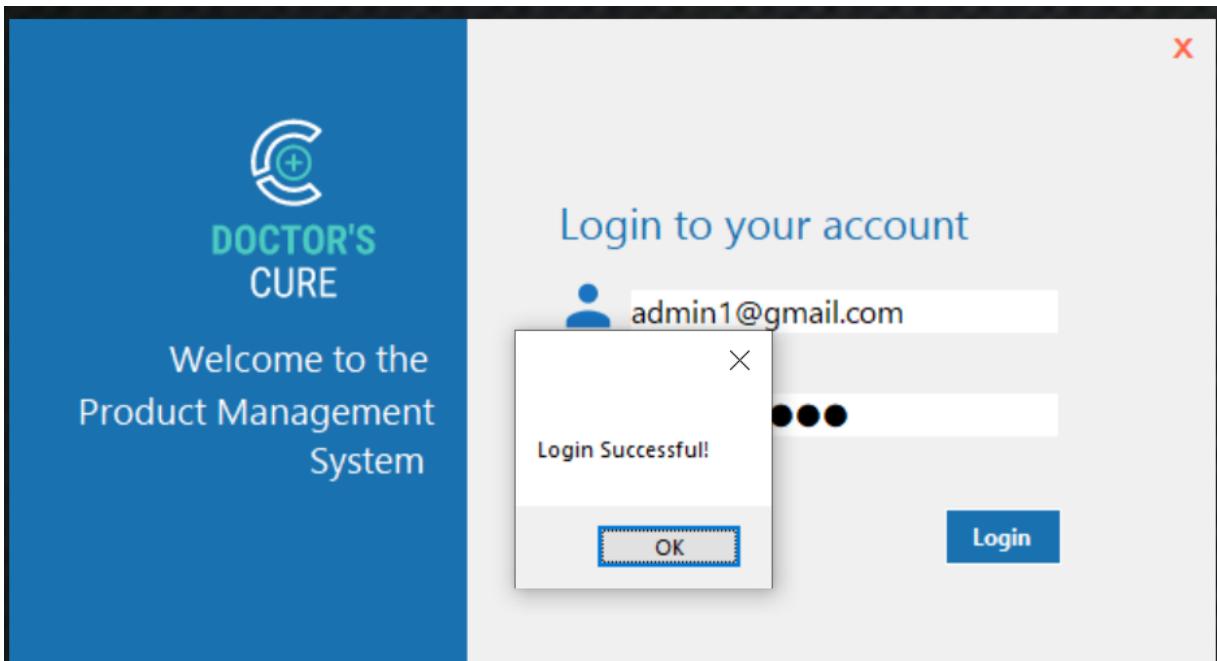
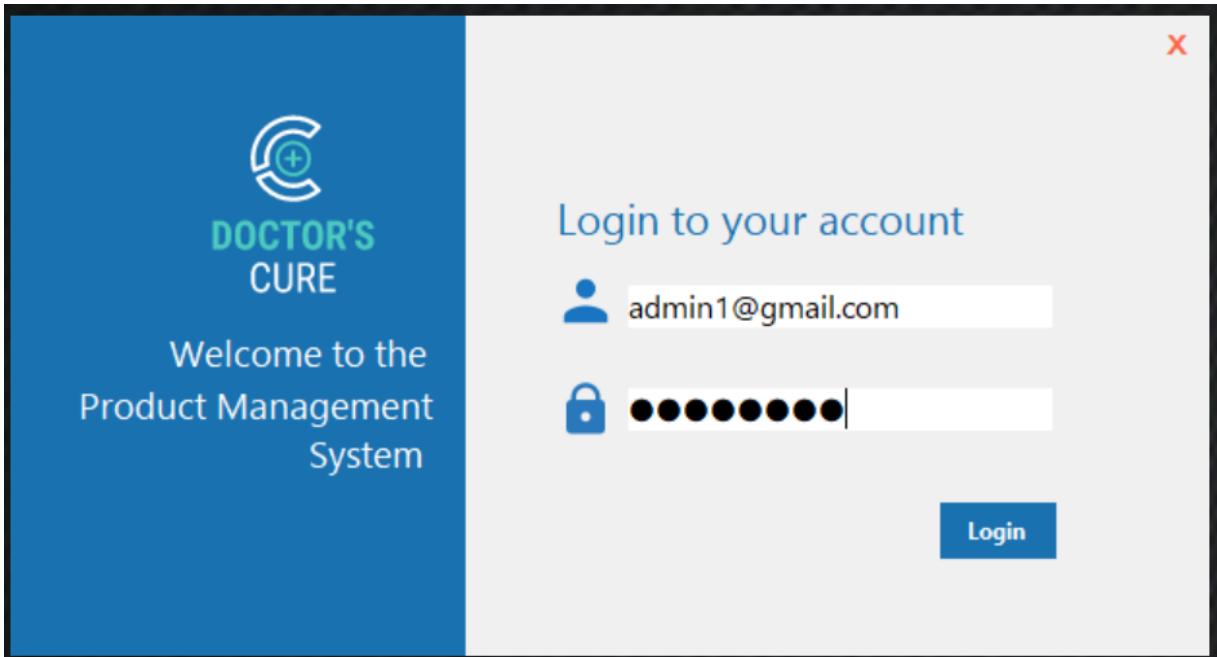
Picture 5.6 Report

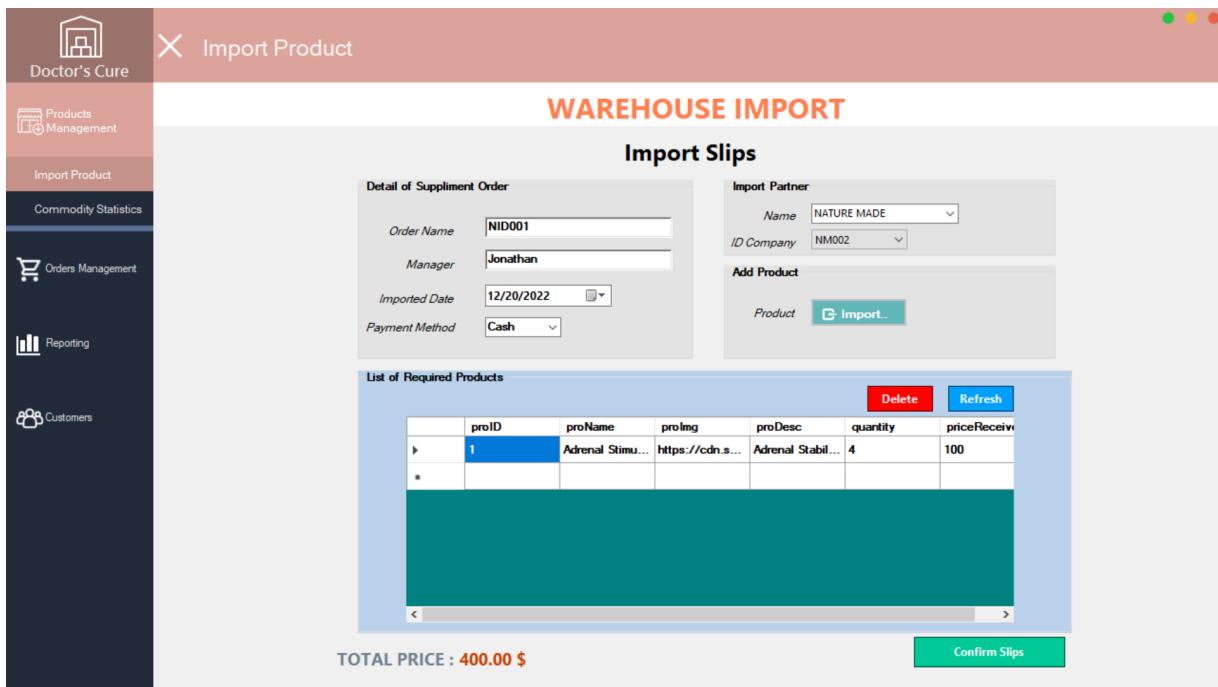
PART 6– TEST PLAN

6.1 Windows Form



Picture 6.1 Login by Email and Password





Picture 6.2 This is Create Products Received

List Of Receipts								Add	Refresh
	receiptID	receiptCode	nameDeli	codeCompanyDeli	managerName	quantityReceipt	dateReceive	paymethod	
▶	5	NID001	NATURE MADE	NM002	Jonathan	1	12/14/2022 12:1...	Cash	
	3	NID004	KIRKLAND SIGN...	KLS003	Jonathan	2	12/12/2022 3:28...	Cash	
	4	NID011	NATURE MADE	NM002	Jonathan	1	12/12/2022 4:41...	Cash	

Picture 6.3 ListReceived

Order Management											Export	
Search By Name			Search	Add	Edit	Delete	Product Details				Filters	Refresh
	orderID	orderName	cusName	address	Product Details	payMethod	totalPay	createdAt	statusText	status		
▶	1	CID001	Le Quoc Hung	123 Pham Ngu Lao	View details	Cash	230000	12/13/2022 4:46...	Waiting	1		

1 : TOTAL ORDERS
\$230,000.00 : TOTAL PRICE

Piture 6.5 This is Goods Delivery

6.2 MVC Web

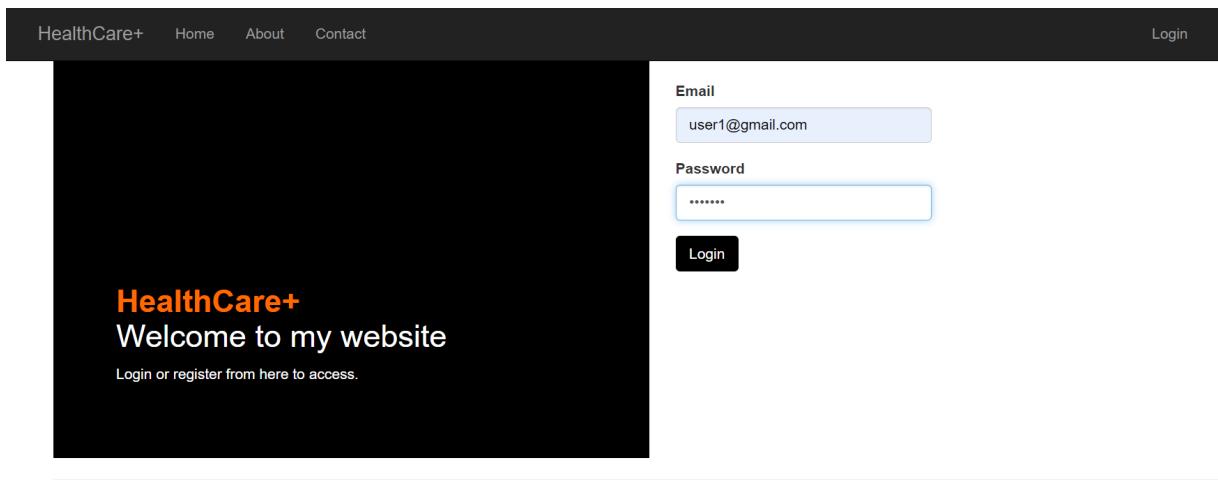
Step 1: Log in

- Log in to the system

Account Login:

Email: user1@gmail.com

Password: user1ab



© 2022 - HealthCare+ Application

Picture 6.10 Login interface

Step 2: Product

- This is the product display interface
- Agents can order at this interface

VITAMINS & SUPPLEMENTS

- Adrenal Stimulator**
\$300
Adrenal Stimulator is a comprehensive blend of standardized extracts of the highest-quality adaptogenic herbs plus three B vitamins.
[View Details](#)
- ICAPS Vision Health**
\$17
Provides a wide spectrum of important ingredients shown to support healthy eyes and vision.* With 10 mg of lutein and 2 mg of zeaxanthin, shown to help promote eye health.
[View Details](#)
- NOW Foods, EcoGreen Multi**
\$26.28
While iHerb strives to ensure the accuracy of its product images and information, some manufacturing changes to packaging and/or ingredients may be pending update on our site.
[View Details](#)
- California Nutrition, Men's Multi Vitamin Gummies**
\$9.14
California Gold Nutrition Men's Multivitamin Gummies provides a convenient way to add essential nutrients into your diet, which can help support a healthy lifestyle.*
[View Details](#)

Picture 6.11 Products

Step 3: Order

- At the product interface, the agent can order the product to be imported, and at each product, the product quantity and payment method can be entered.
- If the ordered product is already placed in the previous order, the quantity in the previous order automatically accumulates with the ordered product.

HealthCare+ Home About Contact Product

List of Products > ICAPS Vision Health

ICAPS Vision Health

Star Rating: ★★★★☆

Price: \$17

Brand: HealthyCare+

Product information - Description

Provides a wide spectrum of important ingredients shown to support healthy eyes and vision.* With 10 mg of lutein and 2 mg of zeaxanthin, shown to help promote eye health.

Quantity:

10

Great Deals on Purchases

Refund 111% If The Goods Are Fake Checked Upon Receipt Exchange in 30 days

Add To Order View Order

© 2022 - HealthCare+ Application

Picture 6.12 Order

Step 4: Add to Order

- After placing an order, dealers can view their order

HealthCare+ Home About Contact Product View Order

Logout

Thanks for your Order, Le Quoc Hung!

Receipt

Receipt Voucher : 1KAU9-84UIL

ID: NID005	ICAPS Vision Health	Qty: 30	\$17
	Provides a wide spectrum of important ingredients shown to support healthy eyes and vision.* With 10 mg of lutein and 2 mg of zeaxanthin, shown to help promote eye health.		

Track Order

Out for delivery

Delivered

Order Details

Total \$510

Invoice Number : 788152

Discount \$0.00

Invoice Date : 14 Dec,2022

Receipts Voucher : 18KU-62IIK

Delivery Charges Free

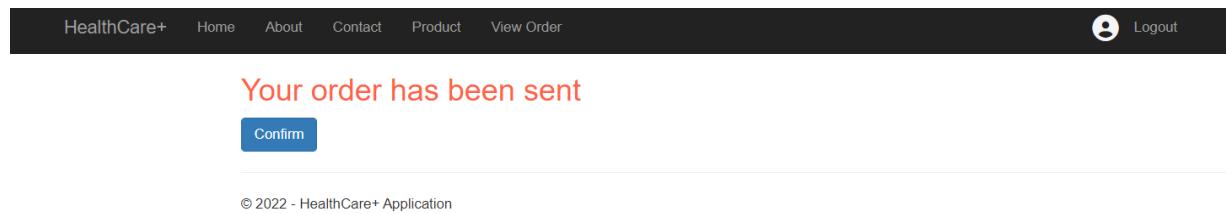
TOTAL PAID: \$510

Payment

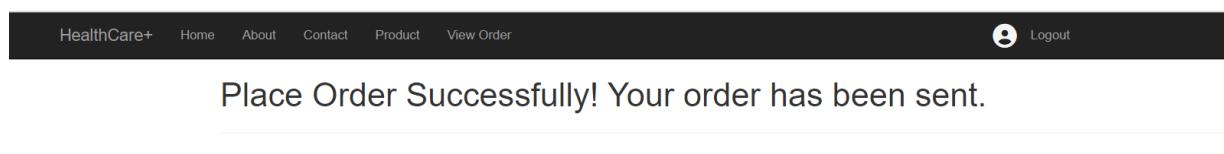
© 2022 - HealthCare+ Application

Picture 6.13 View Order

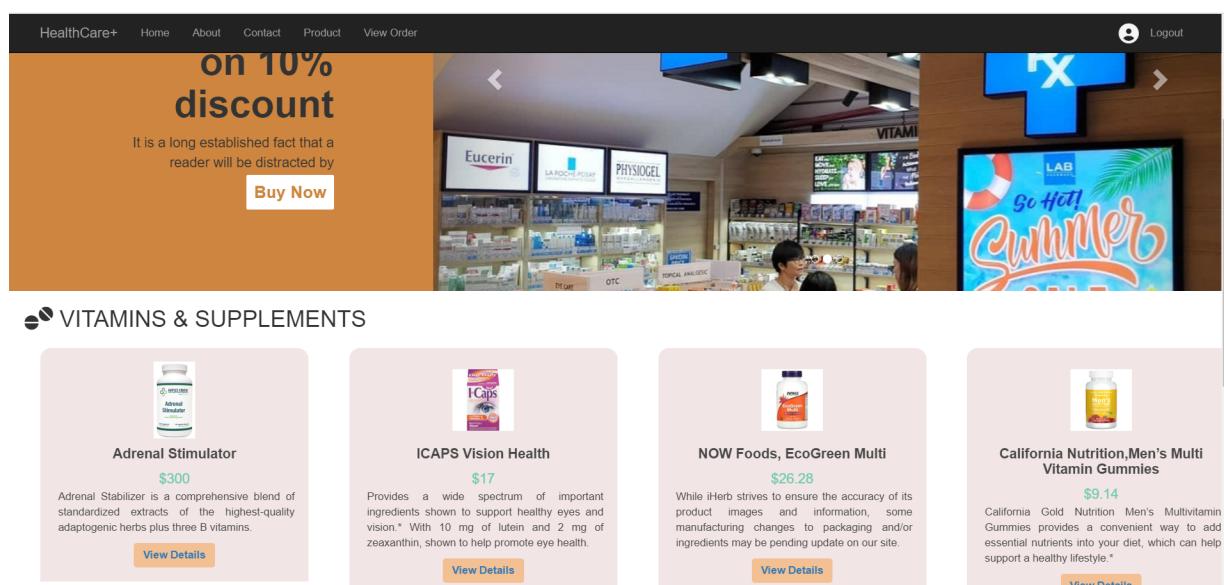
Step 6: Confirm to place an order



Picture 6.14 Confirm Page



Picture 6.14 Buy Successfully.



Picture 6.14 Return to Shopping Page.

6.3 Regulations of the Faculty of Information Technology

- **Plagiarism** is the use of other people's words or idea as their own in academic activities in particular and in creative activities in general. At Ton Duc Thang university, the following acts are considered plagiarism:
 - Copying 02 sentences verbatim without quoting the correct source;
 - Copying verbatim 03 non – consecutive without quoting the correct source;
 - Rephrase (*rephrase*) or translate (*translate*) the whole idea of someone else without citing the correct source;
 - Using more than 30% of the content of a final report written by yourself to submit to 2 different classes (same semester or different semester) without the agree of teacher;
 - Copy part or all of someone else's work
- This is an individual midterm essay. Any case of plagiarism will get 0.

REFERENCES

Vietnamese

1. <https://xuanthulab.net/sql-server-net-framework-c/>
2. <https://learn.microsoft.com/vi-vn/dotnet/desktop/winforms/?view=netframeworkdesktop-4.8>
3. <https://xuanthulab.net/ef-core-gioi-thieu-entity-framework-va-cach-su-dung-phan-co-ban-voi-c-csharp.html>
4. <https://learn.microsoft.com/en-us/aspnet/visual-studio/overview/2013/one-aspnet-integrating-aspnet-web-forms-mvc-and-web-api>