

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



**FINAL EXERCISE**  
**SOFTWARE TECHNOLOGY**

Instructor: **THS ĐẶNG MINH THẮNG**

Implementer: **HUỖNH TRẦN TRUNG HIỂU – 518H0090**

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Class : **18H50303**

School year : **22**

**HO CHI MINH CITY, 2020**

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**TEACHER'S EVALUATION SECTION**

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City. Ho Chi Minh City, month date year  
(sign and write full name)

Hieu

Huỳnh Trần Trung Hiếu

Khang

Nguyễn Thành Khang

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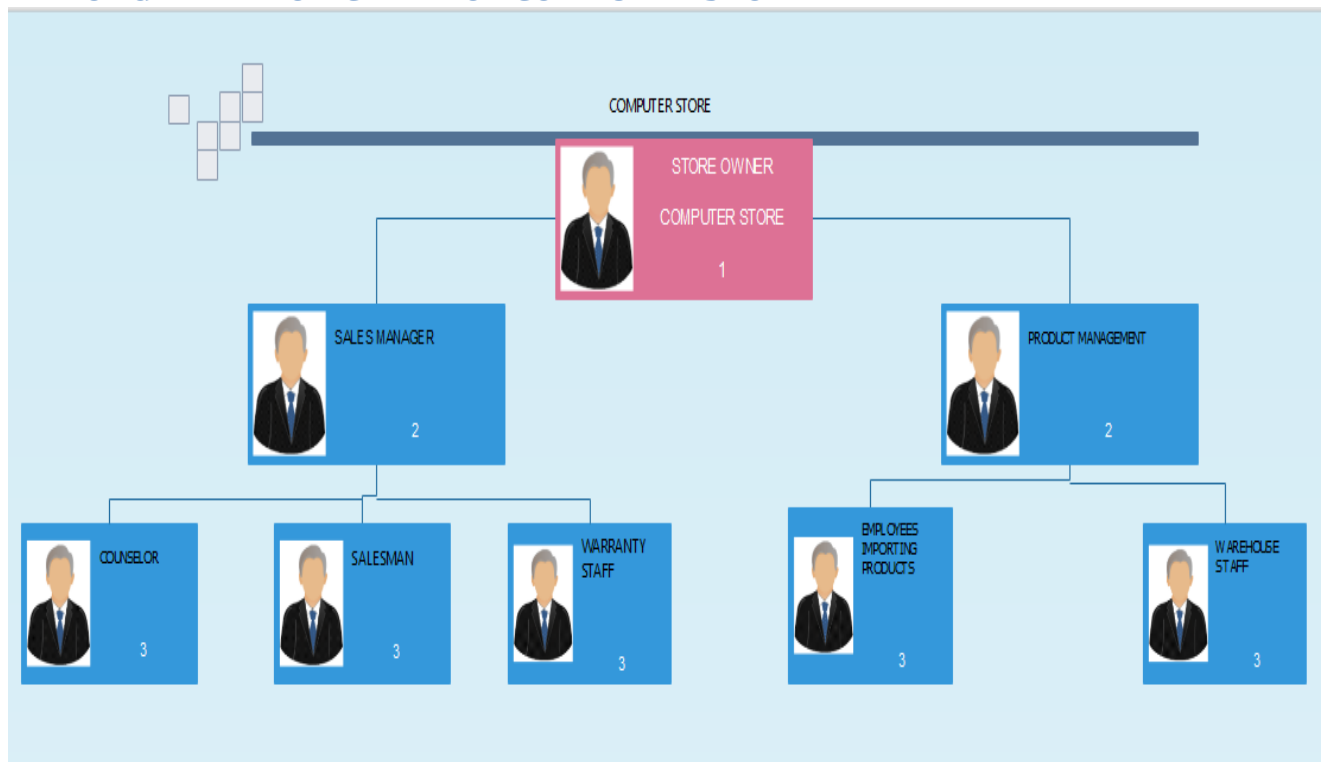
## CHAPTER 1 - SURVEY, ANALYSIS OF CUSTOMER REQUIREMENTS, SOFTWARE INTRODUCTION

### 1.1 INTRODUCTION TO THE COMPUTER STORE

-The customer is the owner of a shop specializing in selling computers and computer accessories, with a variety of products, good quality, comfortable prices and most importantly, the staff is always very enthusiastic, helping customers when they have difficulty choosing products, always enthusiastically advise customers.

-Because the above reasons have made the store more popular, the store's sales are also increasing, but currently the store does not have a useful tool in managing the amount of data. The increasing fact that most of the staff here only use paper for notes has inadvertently made managing products, orders, and customers of the store inadvertently difficult.

### 1.2 ORGANIZATION CHART OF COMPUTER STORE.



ORGANIZATION CHART 1

### **1.3 PROBLEMS THE COMPUTER STORE IS MEETING.**

- The number of customers is increasing, the number of products is more and more diversified, making it ineffective to take notes on paper, making it difficult to manage, it may take longer to search for real information. products, customers.
- Low information security because sometimes only a small mistake is required to take notes on paper, which leads to the loss of a huge amount of data, which can inadvertently cause huge losses in the store.

It-Difficult to update customer information because it takes a lot of time to search when it is needed.

- Creating newspapers takes a lot of time, money, and effort because paper-based notes must then be recorded in-store information then the store has to spend a lot of money and effort to preserve the information.

It- Difficult to manage products, because the products on the market are very diverse, always updating new products and prices, so when you need to import a new order or reject a product that is not needed, it consumes a lot of time. time to do.

=> So the shop owner has ordered a product that helps their store easily manage employees, customers, and products more efficiently and economically to increase productivity.

### **1.4 ABOUT COMPUTER STORE MANAGEMENT SOFTWARE.**

- For the problem that the computer store owner is facing, the computer store management software was born to mistakenly replace the inefficient computer store management with paper.
- The main purpose of this project is to replace paper-based data with computer data, when the user stores information on a product it will be stored in the system database and when needed. device users can access the information stored by the system.



## CHAPTER 2-SRS DOCUMENT

### 2.1 Actor

Customer:

-The customer is not the object of interacting with the system, but the customer will act as the object providing information and requirements to implement the system.

Staff:

- Employees can create and store customer information, orders that customers request, then the system is used to store product and customer information and when needed, the staff will create a simple and system The system will automatically calculate the price.

- Employees can search for products and orders stored in the system.

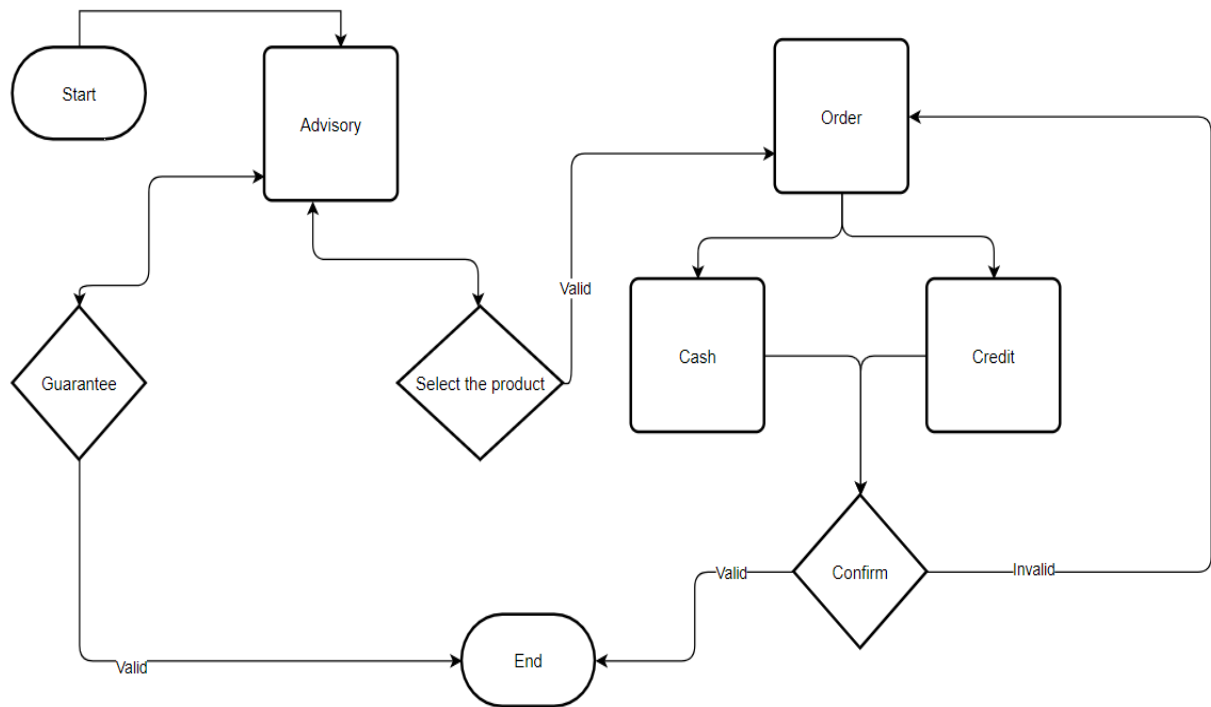
Store owner:

-The store owner is the person who has full authority to decide which products the store is selling, including adding, deleting, and updating the store's products.

- The store owner also has the right to manage employees and orders, and customer information has been stored in the system.

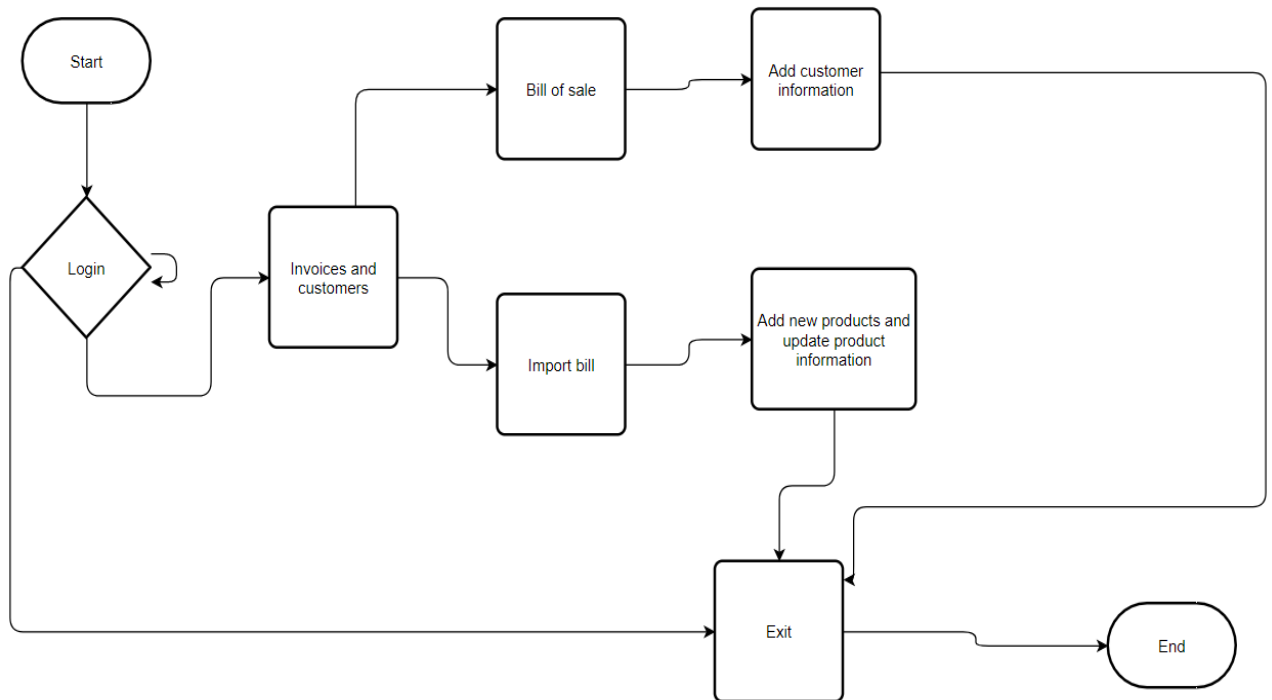
## 2.2 FLOW CHART

### CUSTOMER



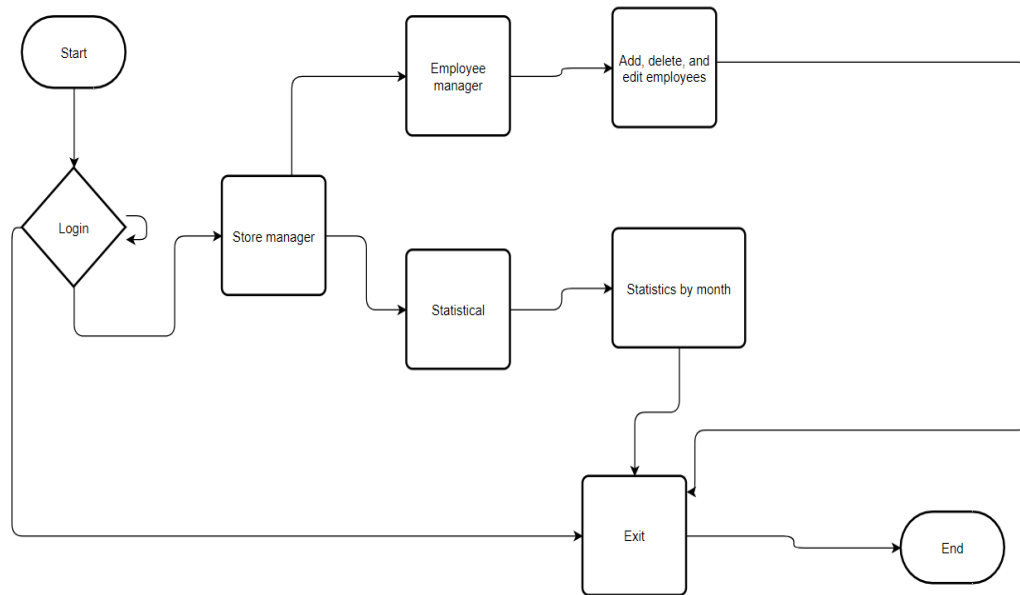
### FLOW CHART CUSTOMER 2

## STAFF



FLOW CHART STAFF 3

## STORE OWNER



FLOW CHART STORE OWNER 4

## 2.3 Question Of Author And Customer Answer

REQUEST	Asking and making choices	ANSWER
Login interface	<p><b>Question:</b> About login</p> <p>In the system, I don't see the mention of the hierarchy for the user at login here. What positions and powers does this include?</p> <p><b>Recommendation:</b> Here, the 2 main positions are employees and administrators.</p> <p>Staff can only log into the</p>	We agree

	<p>system and create invoices, add and delete products, and create customer information.</p> <p>An administrator can log in to view expense management reports, bills, and a current number of store employees.</p>	
Customer Information Management.	<p><b>Question:</b> Employees have the right to create and view customer information.</p> <p><b>Recommendation:</b></p> <p>Employees can easily create customer information for the first time and in the following times, employees just need to save the information, the number of products that the customer has purchased to check if this is a potential customer. function or not at the same time all employees can see customer information when necessary can contact the</p>	We agree

	customer	
Service	<b>Recommendation:</b> We will have a function as an add-on service at special events so that the staff can know and notify the customer, when the employee records customer information if the customer has rated as a loyal customer of the store, the store will notify staff so that customers can enjoy preferential services from the service.	We totally agree
Pay	<b>Recommendation:</b> The staff will propose the form of payment service to the customer, when the customer finishes choosing the form of payment, the staff will create an invoice and store in the system and output the amount that the customer paid.	We totally agree
Consulting and finding	<b>Recommendation:</b> When	We totally agree

product information	customers have a need to advise on services and products, employees can now easily view existing service and product information at the store and if there is a problem, staff are completely available. You can contact the store owner directly.	
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## 2.4 List of functions and non-functions

REQUEST	FUNCTION	NON-FUNCTION
The system allows shop owners to manage products (add, delete, modify products)	x	
The system needs high security, a logical database designed with constraints, compliance with standards, high reliability.		x
The system allows shop owners and employees to search for detailed information about the product.	x	
The system allows the shop owner to manage all employees of the store.	x	
Finding information does not take more than 5 seconds.		x
The system allows employees to create invoices and store them in the system.	x	
The loading time for UI screens should not take more than 2 seconds.		x
The system allows shop owners and employees to record customer information.	x	
The shop owner can use the system to list sales orders and incoming orders.	x	

There is a need for a system with fast performance, each process does not exceed 5 seconds, capable of storing information quickly.		x
---	--	---

## 2.5 List of Use Cases

**Login:** The function allows users to log in to the system with the accounts and passwords stored in the database.

**Product Management:** Employees and store owners have the right to manage all products of the store on the system by adding, deleting, and modifying existing items so that information can be updated quickly.

**Employee manager:** The store owner has the right to add a new employee to the system when new employees are added to the system and at the same time create an account for new employees, besides, the store owner has the right to delete and edit information and accounts. of the staff in the store.

**Supplier information:** The store owner has the right to add, delete, and modify the vendor that has contacted the store.

**Customer information:** The staff and the store owner both have the right to create customer information, and when necessary, both the staff and the store owner have the right to view information and contact the customer.

**Search:** Employees and shop owners can find products using a smart search toolbar with product names or product codes in the system.

**Bill of sale:** When a customer requests a new order, the employee can then create a new invoice.

The owner of the store is the manager of sales invoices. When the employee creates a sales invoice, the system will save it for the store owner to view, delete, and modify the sale invoice.

**Invoice entered:** When the store imports some new products, then the staff, the store owner will check and then create a new invoice to save in the system.

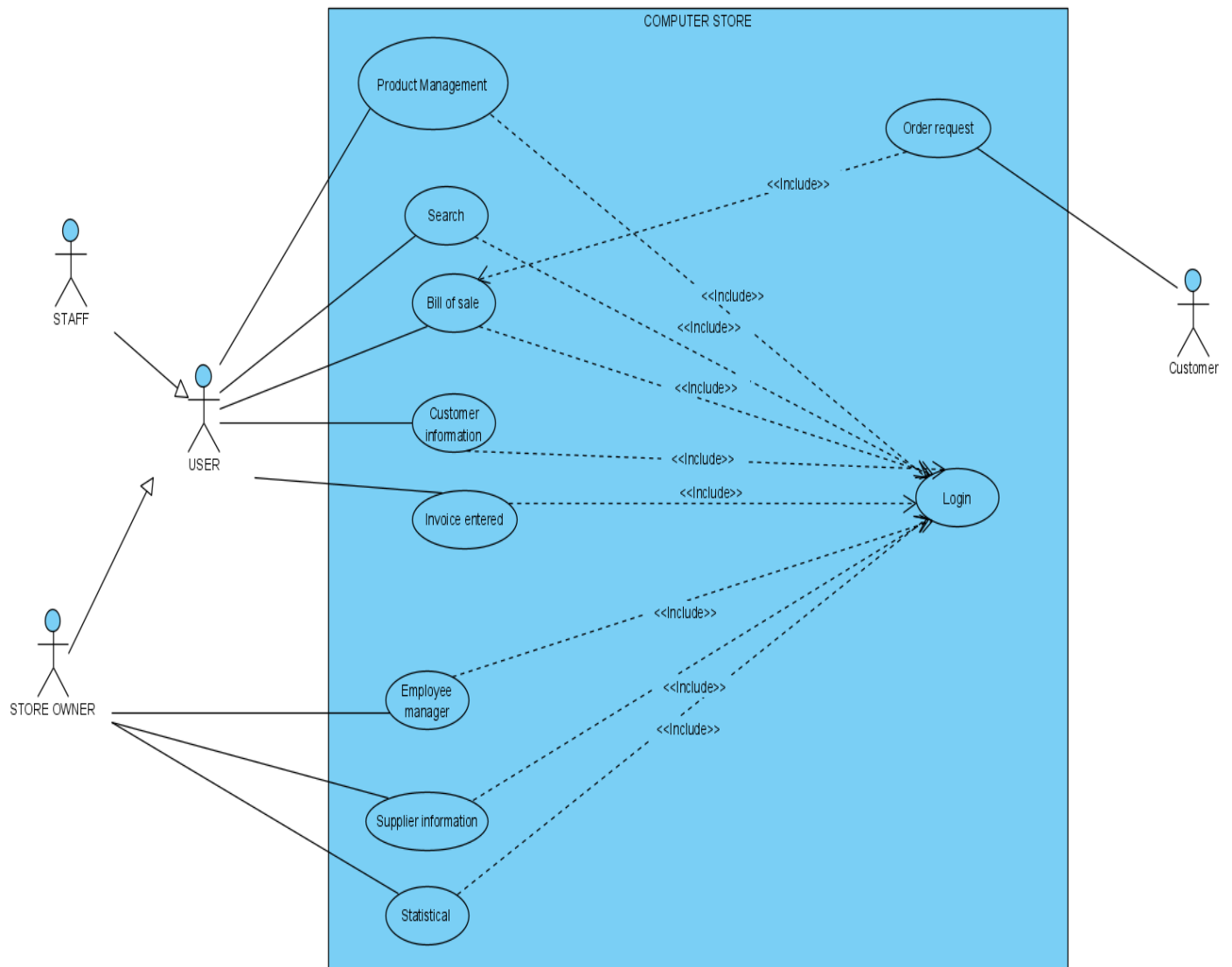


The store owner is the manager who manages the imported invoices when the store orders new products, then the imported invoices will be created and stored in the system, the store owner can view, delete and modify the imported invoices.

**Order request:** Although the customer cannot participate directly in the system, the customer is the object of providing information and requirements to the system.

**Statistical:** Statistics of sales, import, and export, invoices of the store by month.

## 2.6 Use Case Diagram And Description.



USE CASE DIAGRAM 5

## USE CASE DESCRIPTION

### Product Management

USE CASE NAME	Product Management
ACTOR	Store owner Staff
DESCRIBE	<p>-User enters computer information with the following information: computer code, computer name, selling price, brand.</p> <p>-When the input is finished, press the "Add" button, all information on the computer will be loaded up and added to the system.</p> <p>-If you want to "Edit" information of a computer, you just need to select that product on the system and users can edit the product information.</p> <p>-Similarly, with the function "Delete", you just need to select the product on the system and click delete.</p> <p>-If the user presses the "Refresh" button, all the fields currently entered will be empty and the user can enter new product information.</p>
ILLEGAL	<p>-User entered not enough product information.</p> <p>-The user enters in the box the quantity and unit price in text.</p> <p>-User entered invalid search product information.</p>
SCRIPT	<p>-If the user completes and correctly the product information, the system will save the product in the data and notify the user.</p> <p>-If the user enters incomplete information or enters characters in the quantity and unit price boxes, the system will report an error and request the user to re-enter.</p> <p>-Users search for products by computer code, computer name, selling price, brand, if found, the</p>

	<p>system will return relevant product information to the user.</p> <p>-When the user enters the wrong product information, the system will return the result that could not be found for the user.</p>
--	---

### Login.

USE CASE NAME	Login
ACTOR	Store owner Staff
DESCRIBE	<p>This use case starts when the user runs the program.</p> <p>The system will check the validity of the Account and Password.</p> <p>If it is correct, it will give a user group notice of the user and show the main interface screen of the program with the menu system displayed by the function of the user, depending on the user group of that username. Otherwise, it will issue an error message and ask the user to log in again.</p>
ILLEGAL	User entered an invalid account or password.
SCRIPT	<p>The user enters correct username and password for the open form system.</p> <p>If the user's username and password are incorrect, the Login system displays a message asking the user to re-enter the username and password.</p>

### Customer information

USE CASE NAME	Customer information
ACTOR	Store owner Staff
DESCRIBE	<p>The user will enter full customer information into the textbox.</p> <p>When finished entering, press the button "Add", all customer information will be checked by the system and saved in the data.</p> <p>If you want to "Edit" information of any customer, you just need to select that customer in the system then the information is loaded back into the textboxes then the user can edit the information.</p> <p>Similarly, with the function "Delete", we just need to select the customer to delete in the system and click the delete button to delete that customer information.</p> <p>If the user presses the "Refresh" button, all textboxes will go back to empty allowing the user to enter new customer information.</p>
ILLEGAL	<p>User entered incomplete customer information.</p> <p>The user enters character or string data in the phone number box.</p>
SCRIPT	<p>The user enters fully customer information and without errors, the system will check and save it in the data.</p> <p>If the user enters incorrectly, the system will issue an error message and request the user to re-enter the information.</p>

### Supplier information

USE CASE NAME	Supplier information
ACTOR	Store owner
DESCRIBE	<p>The manager will enter full information of the provider including supplier code, name of the supplier.</p> <p>When the information is complete, press the button "Add", all information is checked by the system and stored in the database.</p> <p>The button "Edit" when you want to modify information, we select the supplier code to edit in the system, then the information is loaded back into the Textbox and the user can edit the information.</p> <p>The "Delete" button is used when the user wants to delete a provider for some reason.</p> <p>When the user wants to search for information, the user enters the information into the information textbox and presses the search button, the information includes the code and the name of the provider.</p>
ILLEGAL	User entered incomplete supplier information.
SCRIPT	<p>The user enters full information of the supplier and without errors, the system will check and save it in the data.</p> <p>If the user enters incorrectly, the system will issue an error message and request the user to re-enter the information.</p>

### Employee manager

USE CASE NAME	Employee manager
ACTOR	Store owner
DESCRIBE	<p>The manager will enter the employee's information including information such as: NV code, NV name, gender, address, phone number, entered in the textbox.</p> <p>When the entry is complete, press the "Add" button, all employee information is loaded onto the system and simultaneously saved in the database.</p> <p>If the user presses the "Refresh" button, all textboxes will be empty, allowing the manager to enter a new employee.</p> <p>The "Edit" button when you want to modify information, we select the employee whose information needs to be edited in the system, then the information is loaded back into the Textbox, then the manager can edit the information.</p> <p>The "Delete" button is used when the user wants to delete an employee for a certain reason.</p>
ILLEGAL	User entered incomplete employee's information.
SCRIPT	<p>User enters full employee information and without errors, the system will check and save it in the data.</p> <p>If the user enters incorrectly, the system will issue an error message and request the user to re-enter the information.</p>

### Bill of sale

USE CASE NAME	Bill of sale
ACTOR	Store owner Staff
DESCRIBE	<p>When the Store Owner and employee create a new invoice, information about the invoice will be entered, then the information will be saved on the information system.</p> <p>When the input is finished, press the button "Add", all information about billing, date, total amount will be loaded onto the system and simultaneously saved in the database.</p> <p>If you want to "Edit" any invoice information, you just need to select that invoice on the system then the information is loaded back into the textbox and the user can edit the information.</p> <p>Similarly, with the function "Delete", you just need to select the invoice that needs to be deleted on the system and click the delete button to delete the invoice information.</p> <p>If the user presses the "Refresh" button, all textboxes will be empty, allowing the administrator to enter a new invoice.</p> <p>If you want to "Print sale invoice", you just need to select the Print invoice button, you will print out EXCEL</p>
ILLEGAL	<p>User entered incomplete invoice information.</p> <p>When the user corrects an invoice, he / she enters incorrect information or does not enter complete information.</p>
SCRIPT	<p>The user enters all information of the invoice and without errors, the system will check and save it in the data.</p> <p>If the user enters incorrectly, the system will issue</p>



	<p>an error message and request the user to re-enter the information.</p> <p>If the user enters missing information, the system will report an error and ask the user to enter full information.</p>
--	--

### Invoice entered

USE CASE NAME	Invoice entered
ACTOR	Store owner Staff
DESCRIBE	<p>When the Store Owner and employee create a new invoice, information about the invoice will be entered, then the information will be saved on the information system.</p> <p>When the input is finished, press the button "Add", all information about billing, date, total amount will be loaded onto the system and simultaneously saved in the database.</p> <p>If the user presses the "Refresh" button then all textboxes will be empty allowing the user to enter a new invoice.</p> <p>If you want to "Edit" any invoice information, you just need to select that invoice on the system then the information is loaded back into the textbox and the user can edit the information.</p> <p>Similarly, with the function "Delete", you just need to select the invoice you want to delete on the system and click on the delete button to delete the invoice information.</p>
ILLEGAL	<p>User entered incomplete invoice information.</p> <p>When the user corrects an invoice, he / she enters incorrect information or does not enter complete information.</p>
SCRIPT	The user enters all information of the invoice and without errors, the system will check and save it in the data.

	<p>If the user enters incorrectly, the system will issue an error message and request the user to re-enter the information.</p> <p>If the user enters missing information, the system will report an error and ask the user to enter full information.</p>
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### Search

USE CASE NAME	Search
ACTOR	Store owner Staff
DESCRIBE	If users enter product information to look for in the textbox, the system will display the information that needs to be displayed.
ILLEGAL	User entered incorrect information or information does not exist in the system.
SCRIPT	The user who correctly entered the system information will display the search results. User enters incorrect information or does not exist the system will result in not found.

### Order request

USE CASE NAME	Order request
ACTOR	Customer
DESCRIBE	<p>Customers cannot interact with the system but the customer will provide information and requests to the system.</p> <p>When the order comes into effect, the employee will create an order.</p> <p>If the customer cancels the order, the staff will notify the manager and the manager will consider to cancel the order.</p>
ILLEGAL	<p>Customers do not make orders.</p> <p>The customer has placed an order but wants to cancel the order.</p>
SCRIPT	Customers who make orders will be confirmed by staff and stored in the system.

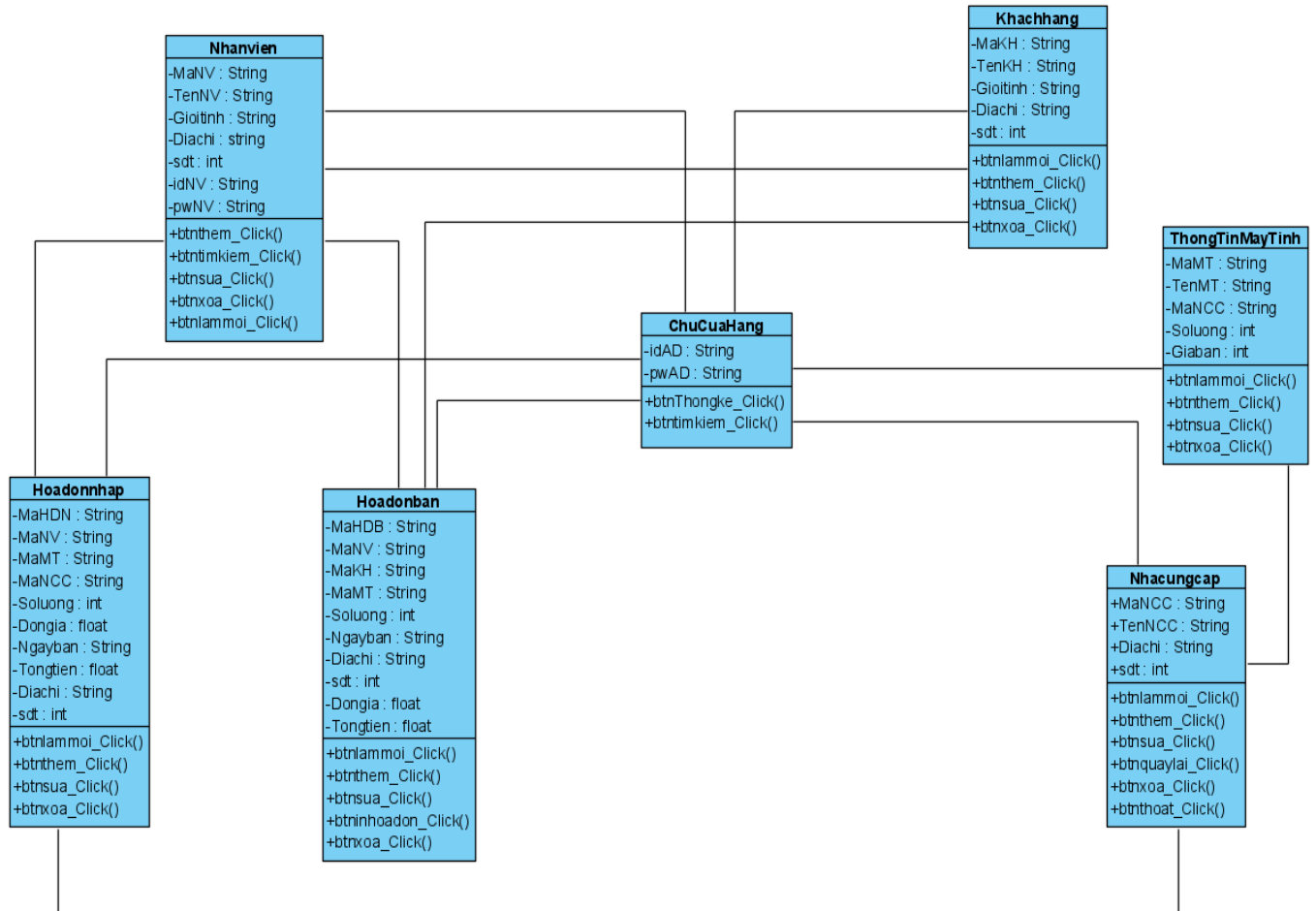
	<p>Customers in the process of product selection contact the employee who does not want to select an order, the order will not be established.</p> <p>Customers who have made an order for products but want to cancel orders will be considered for cancellation or not.</p>
--	---

### Statistical

USE CASE NAME	Statistical
ACTOR	Store owner
DESCRIBE	The manager enters time information into the textbox, the datagrid view will show information about the invoice for that month.
ILLEGAL	The monthly invoice will not be displayed if the shop owner has deleted the invoice.
SCRIPT	<p>If the user enters the correct time, the system will statistic the invoice for the store owner.</p> <p>Invoices do not show up when the user has deleted that month's invoice information.</p>

## CHAPTER 3 - DESIGN DOCUMENT.

### 3.1 Class diagram



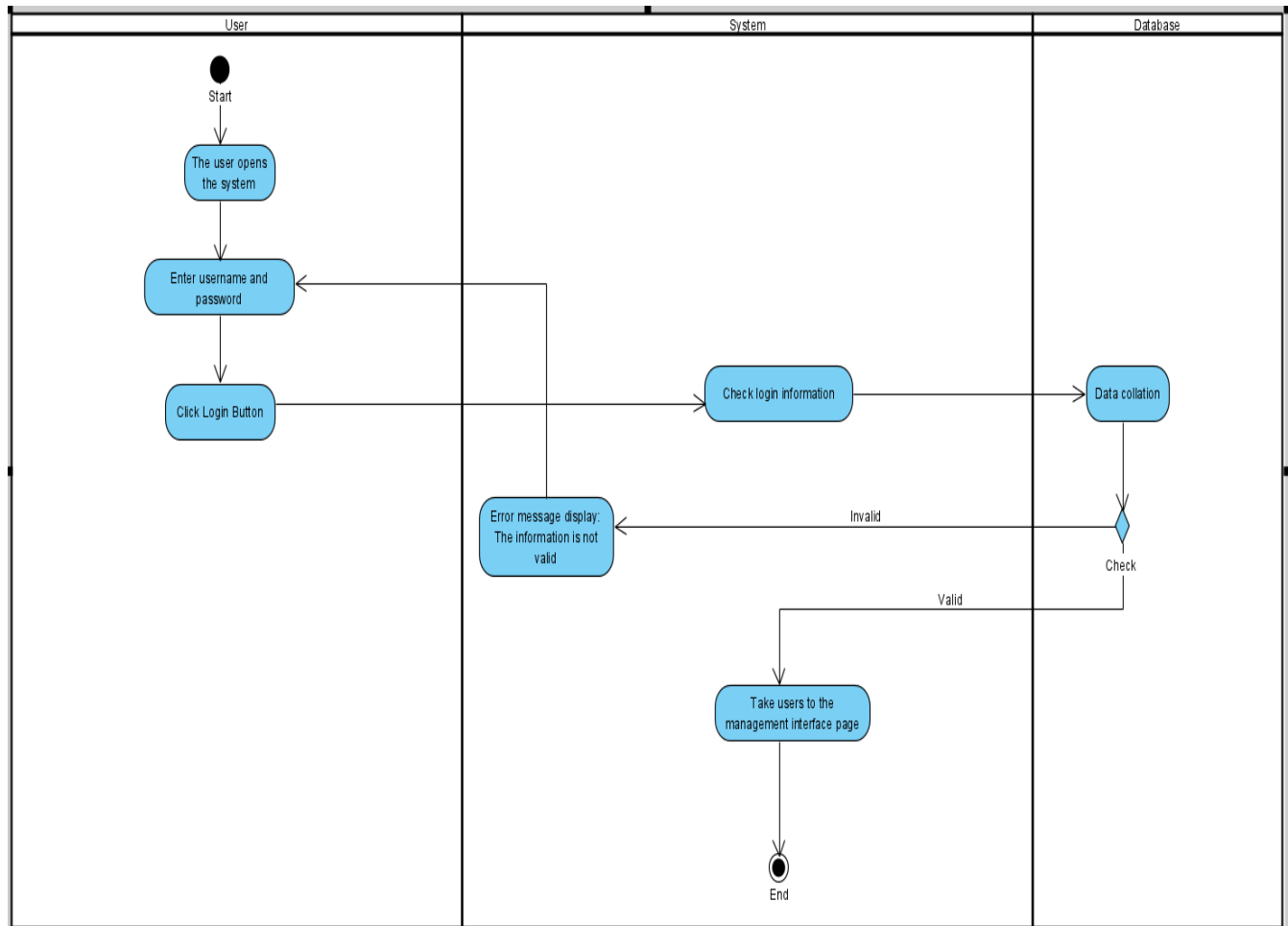
CLASS DIAGRAM 6

- With Hoadonban class: it will save information about products sold, including date, quantity, unit price, total invoice amount.
- With Nhanvien class: this is the place to store the information of the store employee, the shop owner will be the employee manager who can add, delete, edit the store employee information.
- With Hoadonnhap class: this is the place to store information about the bill of goods, price, new items that the store has imported.
- With ChuCuaHang class: place save account and password for process sign in with admin, owner rule.
- With the Khachhang class: with the Customers table, this is the place to store customer information that has transacted with the shop.

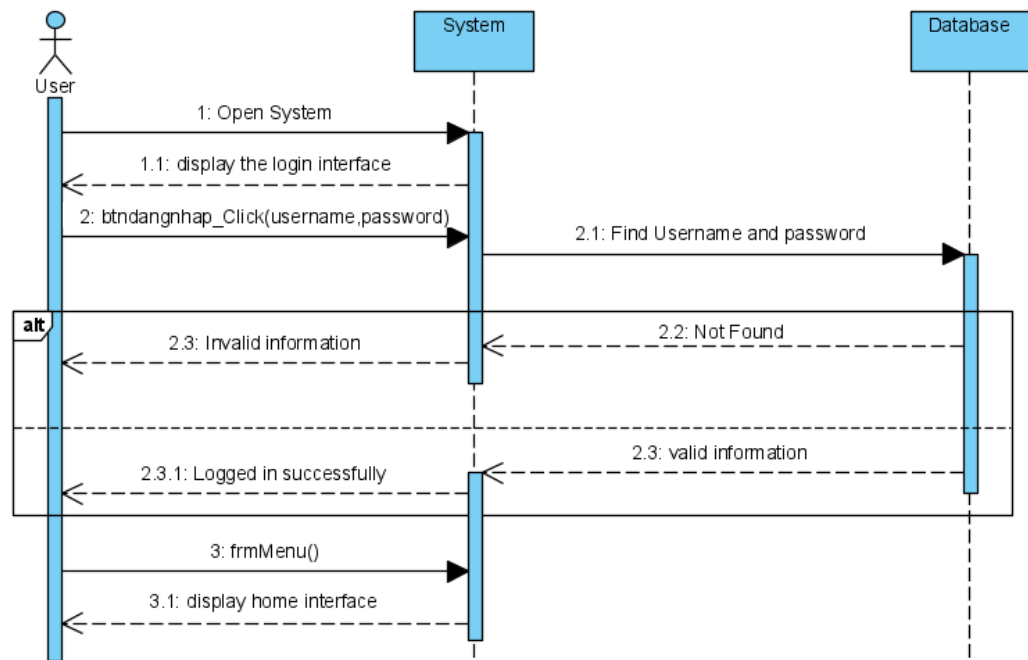
- With ThongTinMayTinh class : this is the place to store information about the store's products including computer name, price, supplier, quantity in stock.
- With Nhapungcap class: this is the place where the suppliers contacted the store including vendor name, address and phone number.

### 3.2 Activity and sequence diagram

#### Login

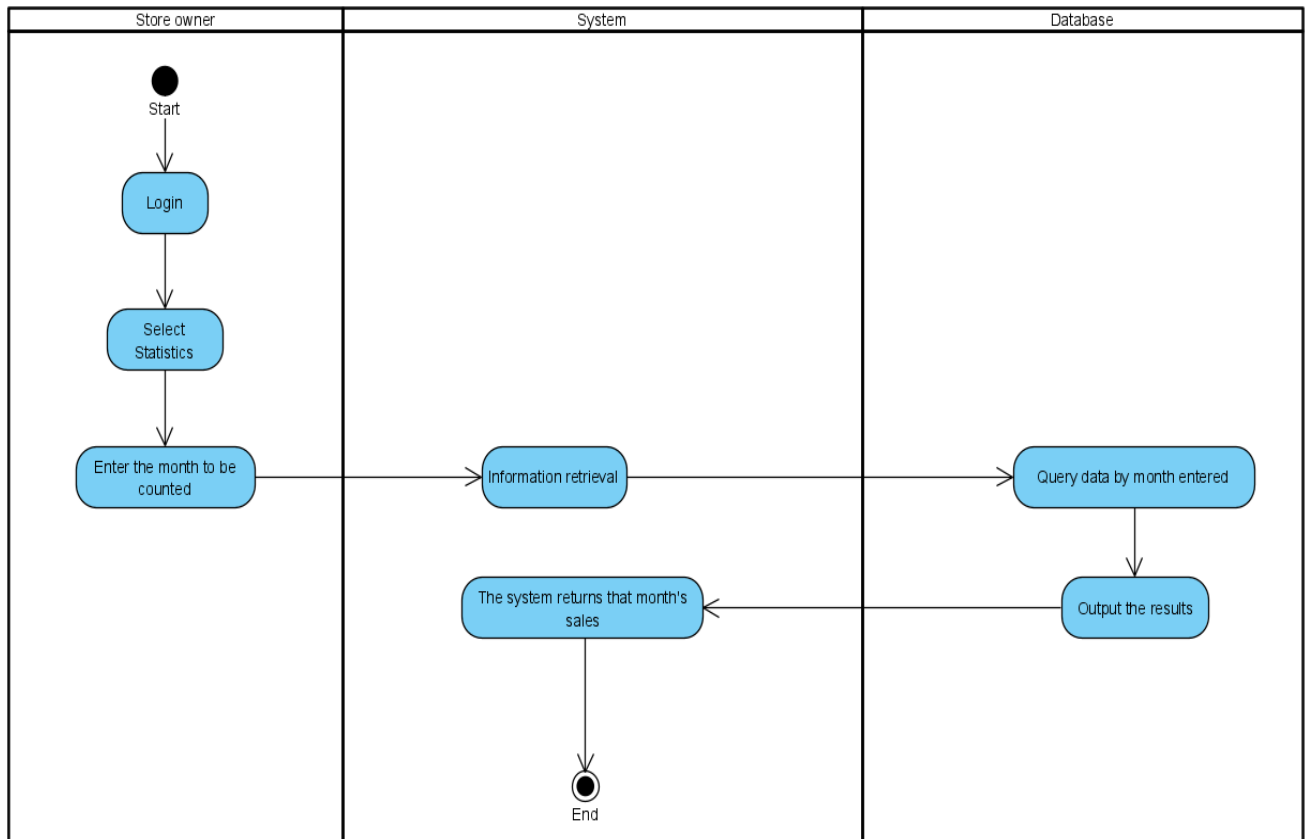


ACTIVITY DIAGRAM-LOGIN 7

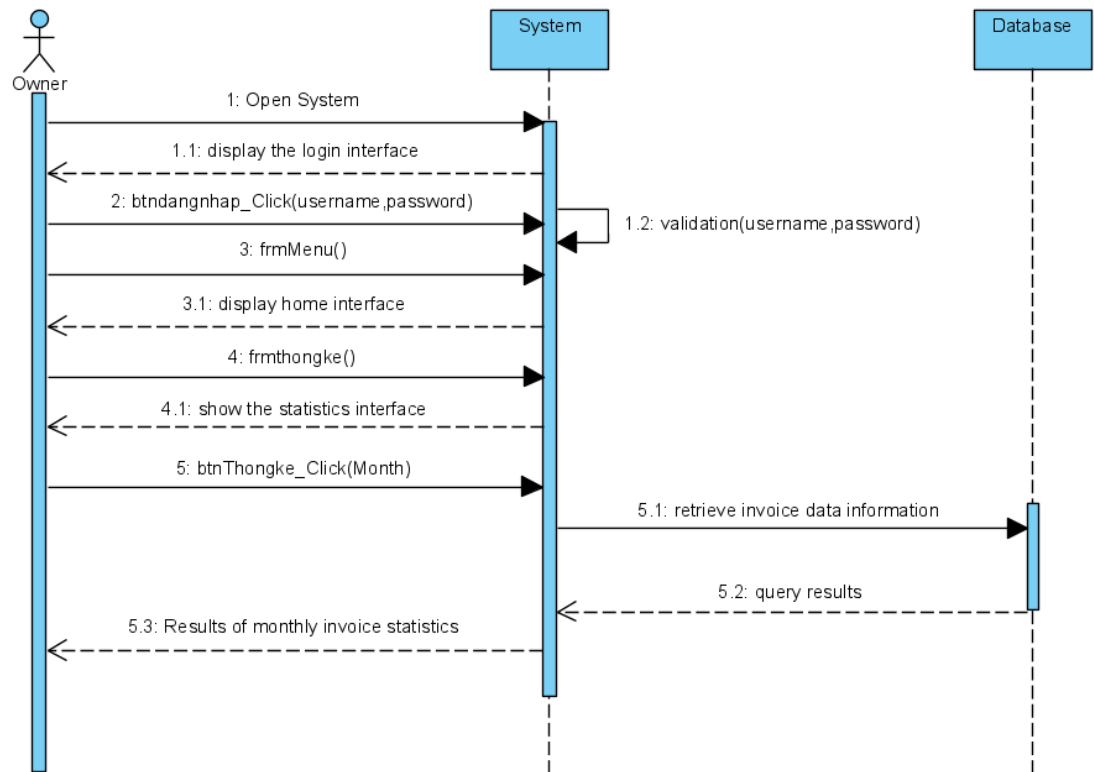


SEQUENCE DIAGRAM-LOGIN 8

## Statistical



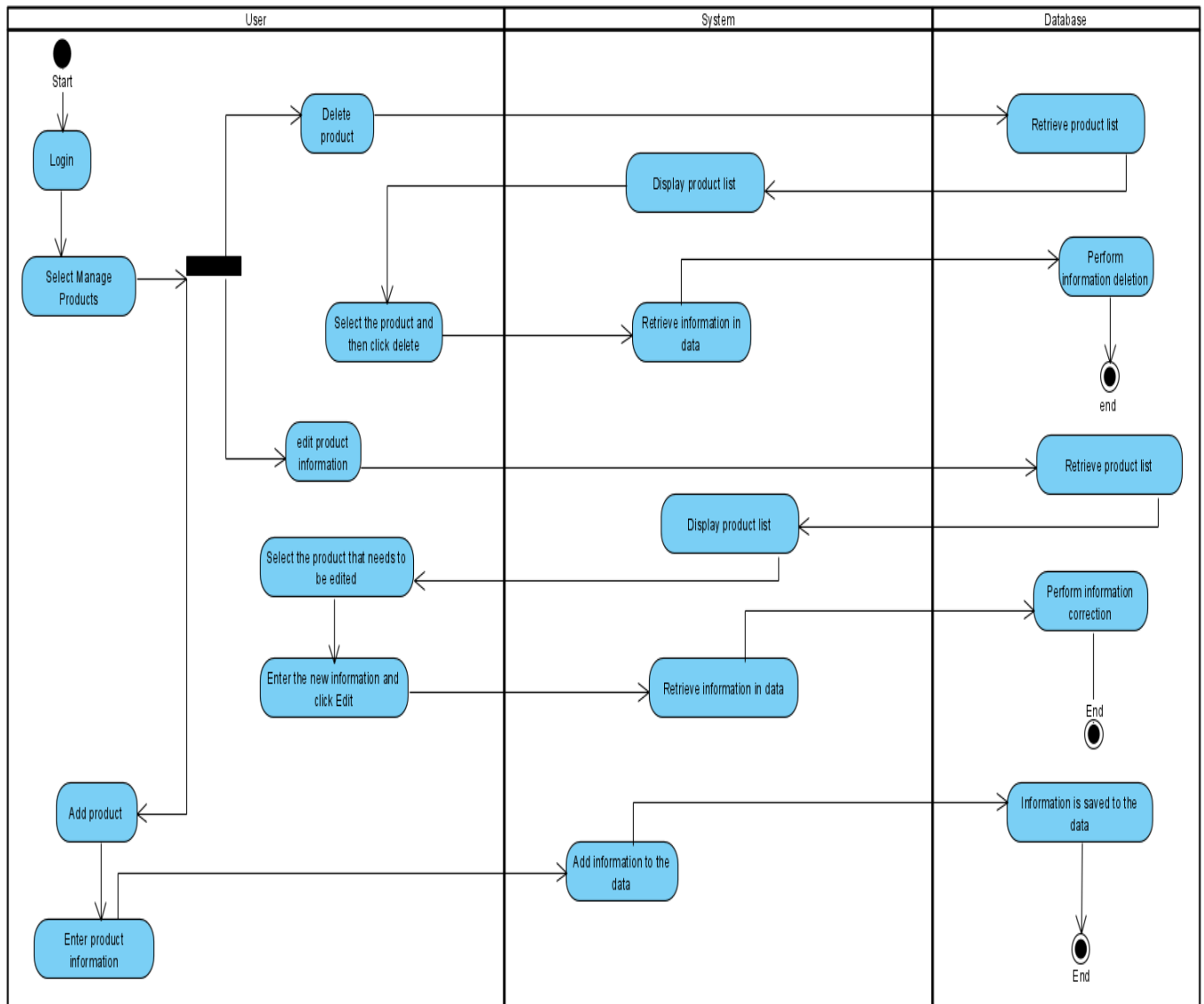
ACTIVITY DIAGRAM-STATISTICAL 9



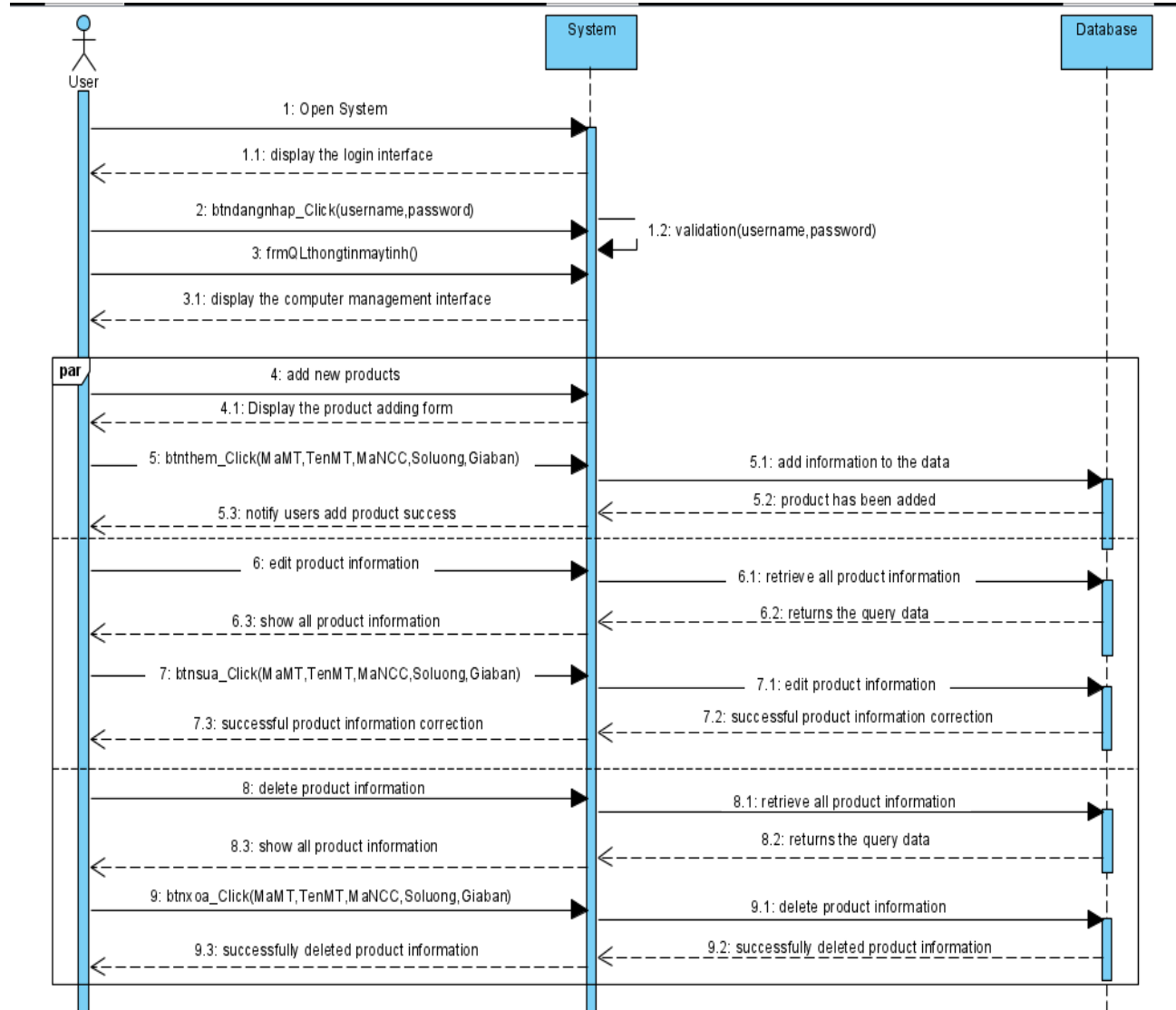
SEQUENCE DIAGRAM-STATISTICAL 10



## Product Management

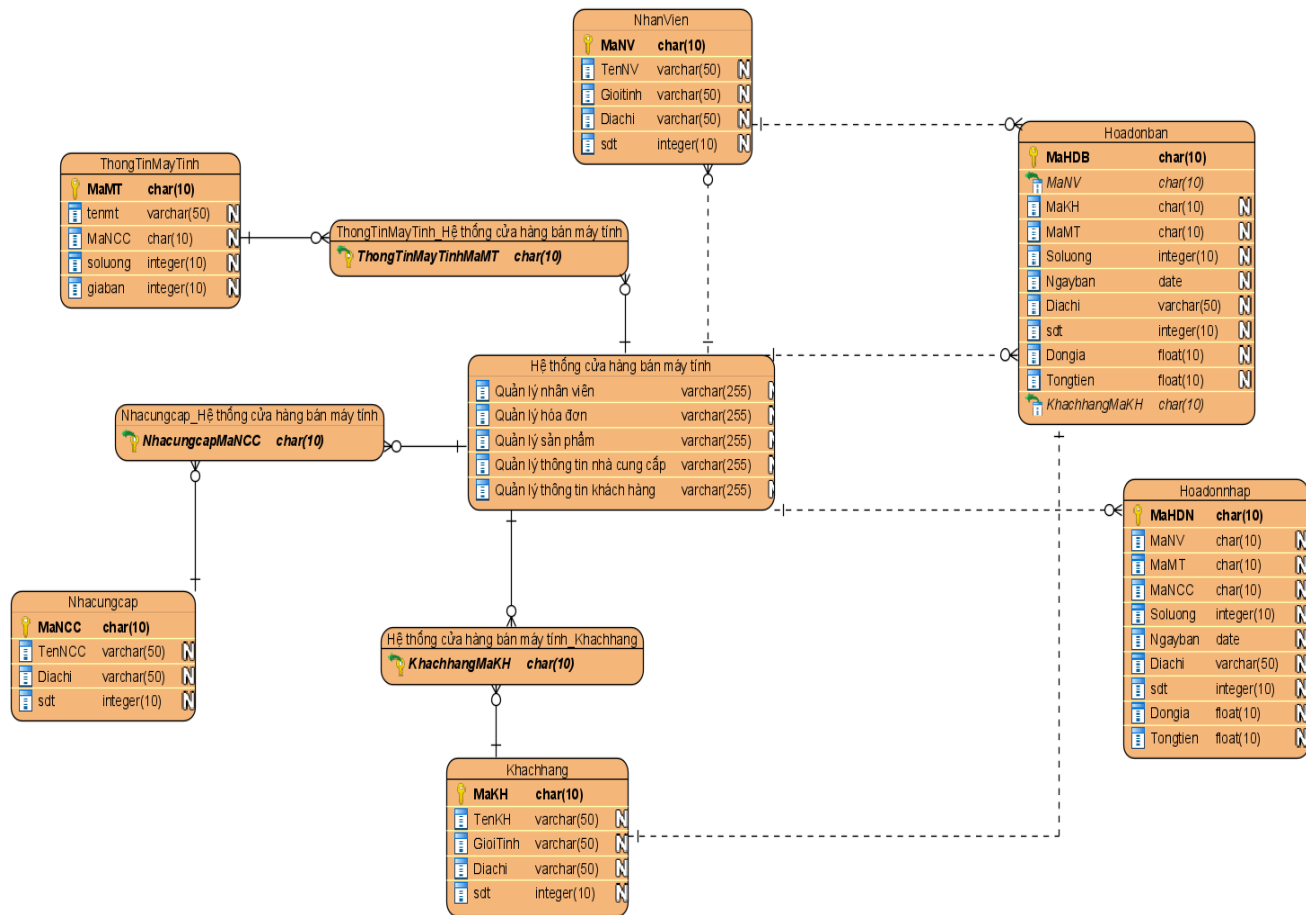


ACTIVITY DIAGRAM-PRODUCT MANAGEMENT 11



SEQUENCE DIAGRAM-PRODUCT MANAGEMENT 12

### 3.3 Entity Relationship Diagram.

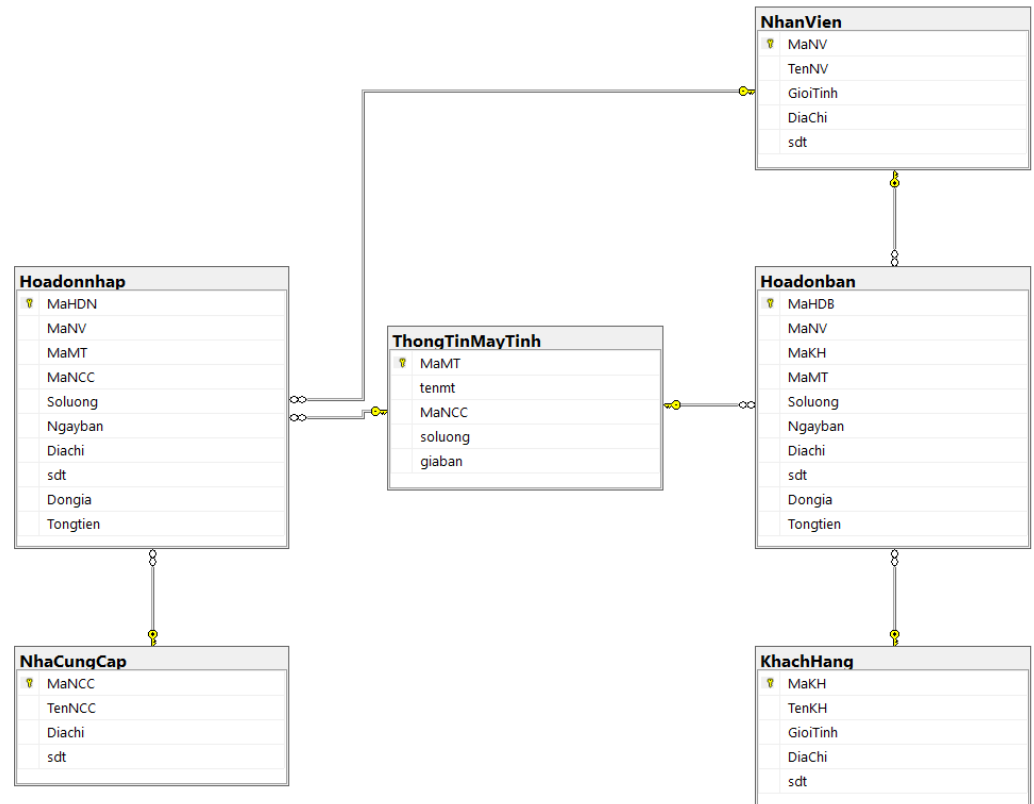


ENTITY RELATIONSHIP DIAGRAM 13

## CHAPTER 4 - REALIZE SOFTWARE.

### 4.1 Database

Data diagram:



DATA DIAGRAM 14

**Details of the tables:**

TABLE ThôngTinMáyTinh

STT	Tên thuộc tính	Kiểu dữ liệu	Kích thước	Ý nghĩa
1	MaMT	Char(10)	10	Mã máy tính- khóa chính
2	TenMT	Varchar(50)	50	Tên máy tính
3	NCC	Char(10)	10	Mã nhà cung cấp
4	Soluong	Int		Số lượng
5	Giaban	Int		Giá bán

TABLE nhanvien

STT	Tên thuộc tính	Kiểu dữ liệu	Kích thước	Ý nghĩa
1	MaNV	Char(10)	10	Mã máy tính- khóa chính
2	TenNV	Varchar(50)	50	Tên nhân viên
3	Gioitinh	NVarchar(50)	50	Giới tính
4	Diachi	NVarchar(50)	50	Địa chỉ
5	sdt	int		Số điện thoại

TABLE hoadonban

STT	Tên thuộc tính	Kiểu dữ liệu	Kích thước	Ý nghĩa
1	MaHDB	Char(10)	10	Mã chủng loại – khóa chính
2	MaNV	Char(10)	10	Mã nhân viên
3	MaKH	Char(10)	10	Mã Khách hàng
4	MaMT	Char(10)	10	Mã máy tính
5	Soluong	Int		Số lượng
6	Ngayban	Date		Ngày bán
7	Diachi	Nvarchar(50)	50	Địa chỉ

8	sdt	Int		Số điện thoại
10	Dongia	Float		Giá bán
11	Tongtien	Float		Tổng tiền

TABLE hoadonnhap

STT	Tên thuộc tính	Kiểu dữ liệu	Kích thước	Ý nghĩa
1	MaHDN	Char(10)	10	Mã Hóa Đơn nhập – khóa chính
2	MaNV	Char(10)	10	Mã nhân viên
3	MaMT	Char(10)	10	Mã máy tính
4	MaNCC	Char(10)	10	Mã nhà cung cấp
5	Soluong	Int		Số lượng
6	Ngaynhap	Date		Ngày nhập
7	Diachi	Varchar(50)	50	Địa chỉ
8	Sdt	Int		Số điện thoại
9	Dongia	Float		Giá bán
10	Tongtien	Float		Tổng tiền

TABLE nhacungcap

STT	Tên thuộc tính	Kiểu dữ liệu	Kích thước	Ý nghĩa
1	MaNCC	Char(10)	10	Mã nhà cung cấp-khóa chính
2	TenNCC	Varchar(50)	50	Tên nhà cung cấp
3	Diachi	Nvarchar(50)	50	Địa chỉ
4	Sdt	Int		Số điện thoại

TABLE khachhang

STT	Tên thuộc tính	Kiểu dữ liệu	Kích thước	Ý nghĩa
1	MaKH	Char(10)	10	Mã khách hàng-khóa chính

2	TenKH	Varchar(50)	50	Tên khách hàng
3	Gioitinh	Nvarchar(50)	50	Giới tính
4	Diachi	Nvarchar(50)	50	Địa chỉ
5	Sdt	Int		Số điện thoại

## 4.2. Interface design and manipulation.

### Form Đăng Nhập

Đăng nhập

Cửa hàng máy tính

User:admin

Tên đăng nhập

Mật khẩu

Pass:1234

Đăng nhập

Thoát

### Form Thông Tin Máy Tính

Nhân viên

Thông tin nhân viên

Mã nhân viên

Địa chỉ

Tên nhân viên

Số điện thoại

Giới tính

Làm mới

Thêm

Sửa

Xóa

Quay lại

Thoát

	Mã nhân viên	Tên nhân viên	Giới tính	Địa chỉ	Số điện thoại
▶	NV01	Trung Hieu	Nam	HCM	3333393
	NV03	Trung Hieu	nam	222	222
*					

## Form Thông Tin Máy Tính

QL Thông tin máy tính

**Thông tin máy tính**

Mã máy tính  Số lượng

Tên máy tính  Giá Bán

Mã NCC

Làm mới Thêm Sửa Xóa Quay lại Thoát

	Mã máy tính	Tên máy tính	Mã NCC	Số lượng	Giá bán
▶	MT01	DELL	NCC01	2	1200
	MT02	ASUS	NCC01	2	1200
*					

## Form Thông Tin Nhân Viên

Nhân viên

**Thông tin nhân viên**

Mã nhân viên  Địa chỉ

Tên nhân viên  Số điện thoại

Giới tính

Làm mới Thêm Sửa Xóa Quay lại Thoát

	Mã nhân viên	Tên nhân viên	Giới tính	Địa chỉ	Số điện thoại
▶	NV01	Trung Hieu	Nam	HCM	3333393
	NV03	Trung Hieu	nam	222	222
*					



## Form Thống Kê

The image shows a software window titled "Thống kê" (Statistics). The window has a light blue header bar with the title "Thống kê" and standard window controls (minimize, maximize, close). Below the header, the main area is divided into two sections. The top section has a light blue background and contains the following elements: a label "Tháng năm" (Month/Year) followed by a date input field showing "11/11", and two radio buttons labeled "Hóa đơn nhập" (Invoice input) and "Hóa đơn bán" (Invoice output). The bottom section has a gray background and contains three buttons: "Thống kê" (Statistics), "Quay lại" (Back), and "Thoát" (Exit).

List of Interface design 15

## CHAPTER 5 – TEST CASE

### 5.1 Alpha Test

1. Form “Sign In”: This is the main login interface of the application and users are required to log in to get into the system.

Case 1: Admin or Owner Sign In.



The screenshot shows a Windows-style application window titled "Đăng nhập". Inside the window, there is a green banner at the top with the text "Cửa hàng máy tính". Below the banner, there are two labels: "Tên đăng nhập" and "Mật khẩu". Under "Tên đăng nhập" is a text input field containing the text "admin". Under "Mật khẩu" is a text input field containing four asterisks "\*\*\*\*". Below these input fields are two buttons: "Đăng nhập" and "Thoát". The "Đăng nhập" button is highlighted with a red border.

- After the admin inputs User and Password on the textbox, the admin needs to click the button “Đăng Nhập” to log in to the system.
- Exam:
  - User: admin
  - Password: 1234.

Case 2: Do not have an account.



- Exam:
    - User: Khang Dep Trai
    - Password: 1234.
  - The system will not allow users to login and require re-entry
  - User selects "OK" to return to login page
2. Form “Menu”: This is a form for the customer service manager as well as Shop services.



- After logging in, employees can perform the following functions: Information management, Statistics, Report, Search, Back, Exit.

### 3. Form “QL Thông Tin Máy Tính”: This is a form for computer information management

QL Thông tin máy tính

**Thông tin máy tính**

Mã máy tính  Số lượng

Tên máy tính  Giá Bán

Mã NCC

Làm mới Thêm Sửa Xóa Quay lại Thoát

	Mã máy tính	Tên máy tính	Mã NCC	Số lượng	Giá bán
▶	MT01	DELL	NCC01	2	1200
	MT02	ASUS	NCC01	2	1200
*					

- The user presses the "Làm mới" button to empty the input area
- User enter the information into blank and click to "Thêm" to add information into Database.
- The user selects the data he wants to edit and clicks the "Sửa" button to change the Database.
- The user selects the data he wants to delete and clicks the "Xóa" button to change the Database.
- The user presses the "Quay Lại" button to return to the Menu form
- The user presses the "Thoát" button to exit the program

Case: Computer Information in the database is displayed

Case 1: The user entered information does not exist in the Database:

- Information will be added to the database, updated to display information in the box below and empty the input box

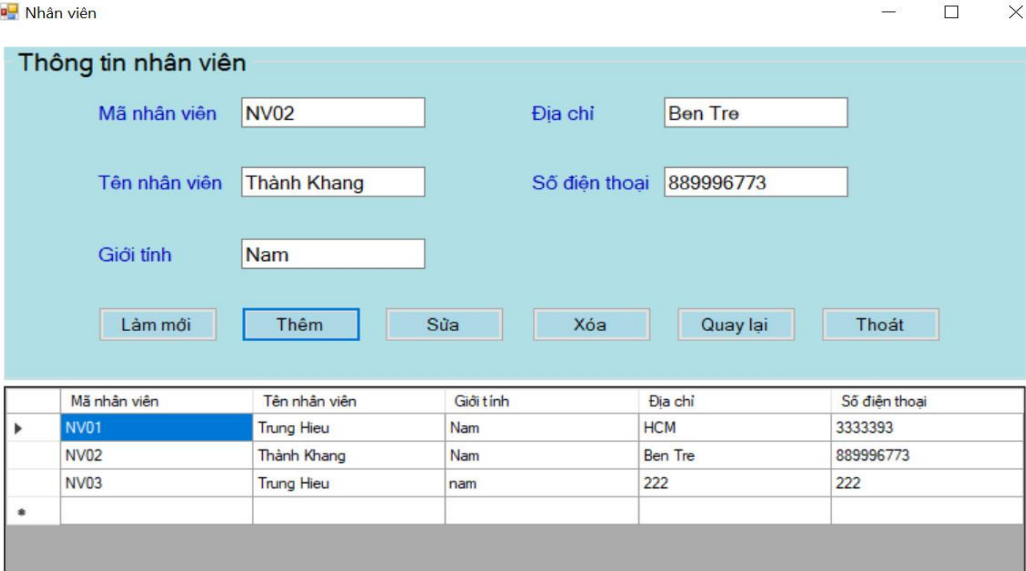
Case 2: User information already exists in the database

- The error system is asking the user to re-enter

Case 3: Not enter full of box

- The error system is asking the user to re-enter

4. Form “Thông Tin Nhân Viên”: This is a form for managing employee information



	Mã nhân viên	Tên nhân viên	Giới tính	Địa chỉ	Số điện thoại
▶	NV01	Trung Hieu	Nam	HCM	3333393
	NV02	Thành Khang	Nam	Ben Tre	889996773
	NV03	Trung Hieu	nam	222	222
*					

- The user presses the "Làm mới" button to empty the input area
- User enter the information into blank and click to "Thêm" to add information into Database.
- The user selects the data he wants to edit and clicks the "Sửa" button to change the Database.
- The user selects the data he wants to delete and clicks the "Xóa" button to change the Database.
- The user presses the "Quay Lại" button to return to the Menu form
- The user presses the "Thoát" button to exit the program

Case 0: Computer Information in the database is displayed

Case 1: The user entered information does not exist in the Database:

- Information will be added to the database, updated to display information in the box below and empty the input box

Case 2: User information already exists in the database

- The error system is asking the user to re-enter

Case 3: Not enter full of box

- The error system is asking the user to re-enter

5. Form “Hóa Đơn Nhập”: This is a form for managing your Invoice information

Case 1: Import bill:

Mã HDN	Mã NV	Mã MT	Mã NCC	Số lượng	Ngày Nhập	Địa chỉ	Số điện thoại	Đơn giá	Tổng tiền	Ngày ban
*										

- When the user logs in to the Calculator Code, the Vendor Code will be retrieved, the total amount will be calculated by Quantity \* Unit price.

Hóa đơn nhập

Mã hóa đơn nhập  Mã NCC  Địa chỉ  Tổng tiền

Mã NV  Số lượng  Số điện thoại

Mã máy tính  Ngày nhập  Đơn giá

	Mã HDN	Mã NV	Mã MT	Mã NCC	Số lượng	Ngày Nhập	Địa chỉ	Số điện thoại	Đơn giá	Tổng tiền	Ngày bán
*											

Example:

("001","NV001","MT01","NCC1","1","20/04/2000","BenTre","0889996773","1000","2000")

Case 2: Bill of Sale:

Hóa đơn bán

Mã hóa đơn bán  Mã máy tính  Địa chỉ  Tổng tiền

Mã NV  Số lượng  Số điện thoại

Mã KH  Ngày bán  Đơn giá

	Mã HDB	Mã NV	Mã KH	Mã MT	Số lượng	Ngày Bán	Địa chỉ	Số điện thoại	Đơn giá	Tổng tiền
*										

- The user presses the "Làm mới" button to empty the input area

- User enter the information into blank and click to "Thêm" to add information into Database.
- The user selects the data he wants to edit and clicks the "Sửa" button to change the Database.
- The user selects the data he wants to delete and clicks the "Xóa" button to change the Database.
- The user presses the "Quay Lại" button to return to the Menu form
- The user presses the "Thoát" button to exit the program

Example:

(“001”, “NV001”, “MT01”, “NCC1”, “1”, “20/04/2000”, “BenTr  
e”, “0889996773”, “1000”, “2000”)

6. Form “Thống Kê”: This is the Order Statistics form:

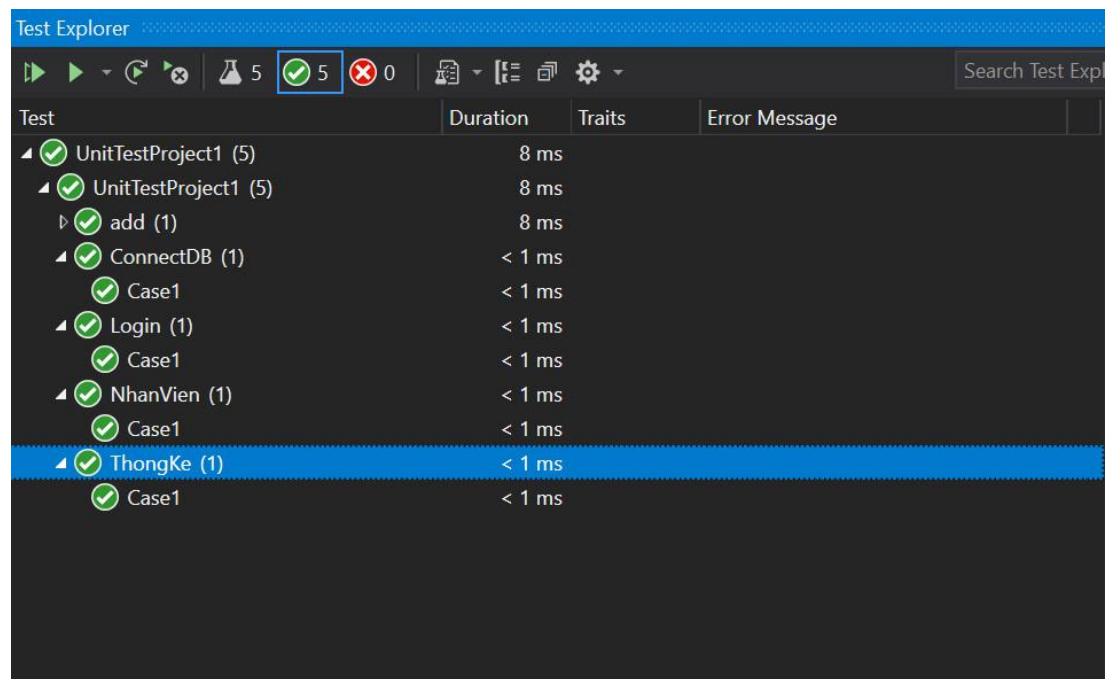
The screenshot shows a Windows-style window titled "Thống kê". Inside the window, the title "Thống kê" is at the top left. Below it, there is a label "Tháng năm" followed by a date input field with slashes. To the right of the date field are two radio buttons: "Hóa đơn nhập" and "Hóa đơn bán". At the bottom of the window, there are three buttons: "Thống kê", "Quay lại", and "Thoát". Below the window, there is a large gray rectangular area.

List of Alpha Test 16



- The user selects the date and clicks the Statistics button to place an order at that time
- Example: 15/08/2015
- The user presses the "Quay Lại" button to return to the Menu form
- The user presses the "Thoát" button to exit the program

## 5.2 Unit Test:



### UNIT TEST RESULT

No	TestCase	Input	Function	Output	Result
1	Login	("admin","1234")	DangNhap	T	Pass
2	Login	("Khang Dep Trai","123")	DangNhap	F	False
3	Add Form "Thông Tin"	("NV01","Thanh Khang","BenTre","0889996773")	NhanVien	T	Pass

	Nhân Viên”:				
4	Add	(“NV01”,”Trung Hieu”,”BenTre”,”0889996773”	NhanVien	F	False
5	Delete	(“NV01”,”Thanh Khang”,”BenTre”,”0889996773”)	NhanVien	T	Pass
6	Delete	(“NV01”,”Thanh Khang”,”BenTre”,”0889996773”)	NhanVien	F	False
7	Logout		Menu	T	Pass
8	Return		Menu	T	Pass
9	Bill	15/8/2015	ThongKe	T	Pass

### 5.3 SVN/GIT

The screenshot shows a GitHub repository page for 'nhanhkhong / Computer-Shop-Management'. The repository has 1 commit, 0 stars, and 0 forks. The main branch is 'main'. The repository contains several files and folders: Alpha Test, Database, Report, Snapshot, Source Code, images, Backup-Source Code.rar, and README.md. The README.md file is selected, showing its content. The right sidebar contains information about the repository, including the description 'Build a sales management program with C#', a link to the README, and sections for Releases and Packages.

### SVN/GIT 17

Demo: [Github](#)

## **5.4.Hardware and software requirements:**

### **5.4.1 Technologies Used**

- VB.Net as front end.
- SQL Server Edition as back end.

### **5.4.2 Software Used**

- Windows 10.
- Visual Studio 2019.
- Microsoft SQL Server.

## CHAPTER 6 – REFERENCES

Vietnamese

English

- 1 Sile Software Engineering.
- 2 [Report Exam](#)
- 3 [Computer Shop Management Software – Student Project Guidance & Development \(studentprojectguide.com\)](#)