

RESTAURANT MANAGEMENT

Members:

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LUONG HOANG HUONG

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I. Problem definition

Today, the population is increasing and the lives of people are increasing, so the demand for shopping, tourism, especially for eating and drinking is also increasing.

With that demand, more and more shops service food and drinks, but it also brings a lot of store management issues because actually managing a store is a very difficult job and complex. According to the current survey, there are many stores still managed in the traditional way of writing on paper. It is very inconvenient and carries a lot of risks because of low security, time-consuming and labor-intensive, the number of customers at the store is often crowded, the customers are often retail customers or go in small groups. Therefore, the store model is often difficult to control. Understanding that, we decided to create an app so we could trust store management and make it more convenient and faster for users with multiple functions for the same reason, price.



Figure 1. Restaurant

II. User requirement

1. Form

***Input**

- Product management: user input product's name, type, price, size, brand name.
- Customer management: user input your name's customer, phone number, email.
- Bill management: user input name product, amount of product, customer name, price, employee name.
- Employee management: employee name, phone number, email.
- Account management: manager account, employee account

***Output**

- Product management: Display all product in warehouse, search. Add and update (check status).
- Customer management: Display information all of customer. Add and update (check status).
- Bill management: Print bill (bill about: name products, amount of product, cost of product, name customer, total money, seller's name, date and time sell product) and back up bill into database. Add and show (check status).
- List of account: account name. Add and update (check status).
- List of employee: name, phone number, email. Add and update (check status).
- Help: how to use program. Add and update (check status).
- About: Information of group. Add and update (check status).

***Overview**

- User input information's product when store and name product sell.
- Print and back up bill after have sold.

2. Hardware and software

*Hardware

Hardware requirement (minimal configuration)	Hardware requirement (recommended configuration)
<ul style="list-style-type: none"> • CPU: 500 MHz processor • RAM: 2GB RAM • HDD: 500MB of free disk space 	<ul style="list-style-type: none"> • CPU: 4GHZ Dual Core or 3GHZ processor • RAM: 4GB RAM • HDD: 1GB of free disk space

*Software

Software requirement
<ul style="list-style-type: none"> • Window 7 or higher • JRE 1.7 or higher

III. Schedule and role

1. Role

No	Name of member	Role	Responsibility
1	TrongNH	Leader	Assignment of tasks
2	ToanTT,QuangNM	Analyst	Define problem, input, output, process
3	TrongNH,TaiDT	Design	Design interface
4	TrongNH,TaiDT,ToanTT,QuangNM	Coder	Program all functions for project
5	TrongNH,TaiDT,ToanTT,QuangNM	Tester	Testing all functions for project
6	TrongNH,TaiDT,ToanTT,QuangNM	Maintenaner	Check and backup data

2. Schedule

No.	Document Name	Date	Estimated number of hours completed	Member names
1	Problem definition	16/02/2020	3	TrongNH,TaiDT,ToanTT,QuangNM
2	User requirement	18/02/2020	3	TrongNH,TaiDT
3	Analysis	23/03/2020	24	ToanTT,QuangNM
4	Making document	24/03/2020	5	TrongNH,TaiDT,ToanTT,QuangNM
5	Design database diagram	23/03/2020	24	TrongNH,TaiDT
6	Coding demo	21/03/2020	24	TrongNH,TaiDT,ToanTT,QuangNM
7	Testing demo	22/03/2020	24	TrongNH,TaiDT,ToanTT,QuangNM
8	Design Powerpoint	25/03/2020	5	QuangNM
9	Design Interface	24/03/2020	12	TrongNH,TaiDT,ToanTT,QuangNM
10	Edit code	20/03/2020	12	TrongNH,TaiDT,ToanTT,QuangNM
11	Check code	21/03/2020	12	TrongNH,TaiDT,ToanTT,QuangNM
12	Test-Fix error	22/03/2020	12	TrongNH,TaiDT,ToanTT,QuangNM
13	Complete code	26/03/2020	3	TrongNH,TaiDT,ToanTT,QuangNM
14	Testing final	26/03/2020	3	TrongNH,TaiDT,ToanTT,QuangNM
15	Check Document	26/03/2020	3	TrongNH,TaiDT,ToanTT,QuangNM
16	Complete Project	27/03/2020	3	TrongNH,TaiDT,ToanTT,QuangNM

IV. Database

1. Database diagram

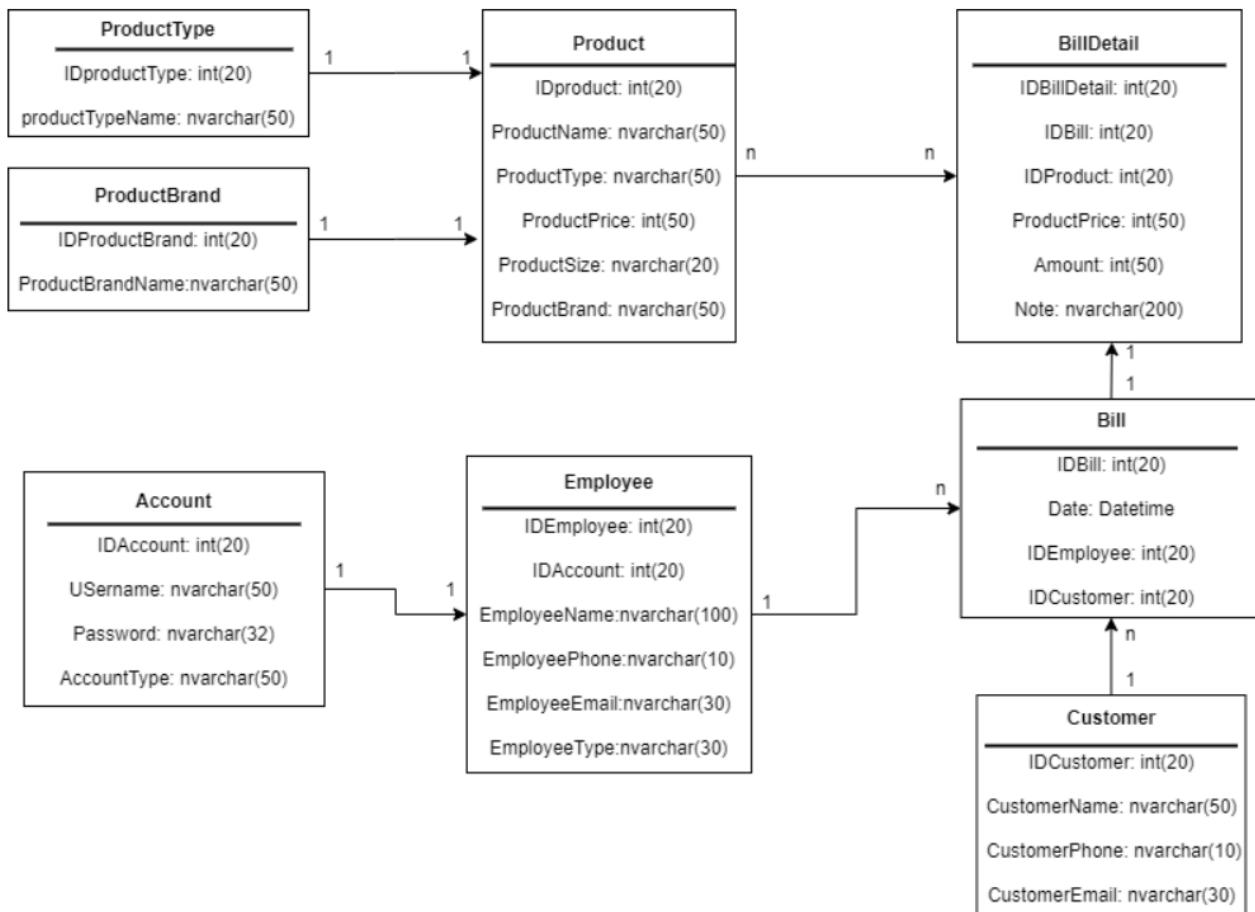


Figure 2. Restaurant management

2. Table structure

Table 1. Product

Field Name	Data Type	Constraint	Description
pid	int(20)	PRIMARY KEY	ID's Username
pname	nvarchar(50)	NOT NULL	Name of product
ptype	nvarchar(50)	NOT NULL	Type of product
price	int(50)	NOT NULL	Price of product
size	nvarchar(10)	NOT NULL	Size of product
brand	nvarchar(20)	NOT NULL	Brand of product

Table 2. Employee

Field Name	Data Type	Constraint	Description
eid	int(20)	PRIMARY KEY	ID's employee
aid	int(20)	NOT NULL	ID's account
ename	nvarchar(100)	NOT NULL	Name of employee
ephone	nvarchar(10)	NOT NULL	Phone number of employee
eemail	nvarchar(30)	NOT NULL	Email of employee
etype	nvarchar(30)	NOT NULL	Type of employee

Table 3. Account

Field Name	Data Type	Constraint	Description
aid	int(20)	PRIMARY KEY	ID's account
aname	nvarchar(50)	NOT NULL	Username
apass	nvarchar(32)	NOT NULL	Password
atype	nvarchar(30)	NOT NULL	Type of account

Table 4. Customer

Field Name	Data Type	Constraint	Description
cid	int(20)	PRIMARY KEY	ID's customer
cname	nvarchar(50)	NOT NULL	Name of customer
cphone	nvarchar(10)	NOT NULL	Phone of customer
cemail	nvarchar(30)	NOT NULL	Email of customer

Table 5. Bill

Field Name	Data Type	Constraint	Description
bid	int(20)	PRIMARY KEY	ID's bill
date	date time	NOT NULL	Date of bill
eid	int(20)	NOT NULL	ID's employee
cid	int(20)	NOT NULL	ID's customer

Table 6. Bill Detail

Field Name	Data Type	Constraint	Description
bdid	int(20)	PRIMARY KEY	ID's bill detail
bid	int(20)	NOT NULL	ID's bill
pid	int(20)	NOT NULL	ID's product
price	int(50)	NOT NULL	Price of product
amount	int(50)	NOT NULL	Amount
note	nvarchar(200)	NOT NULL	Note

3. Class diagram

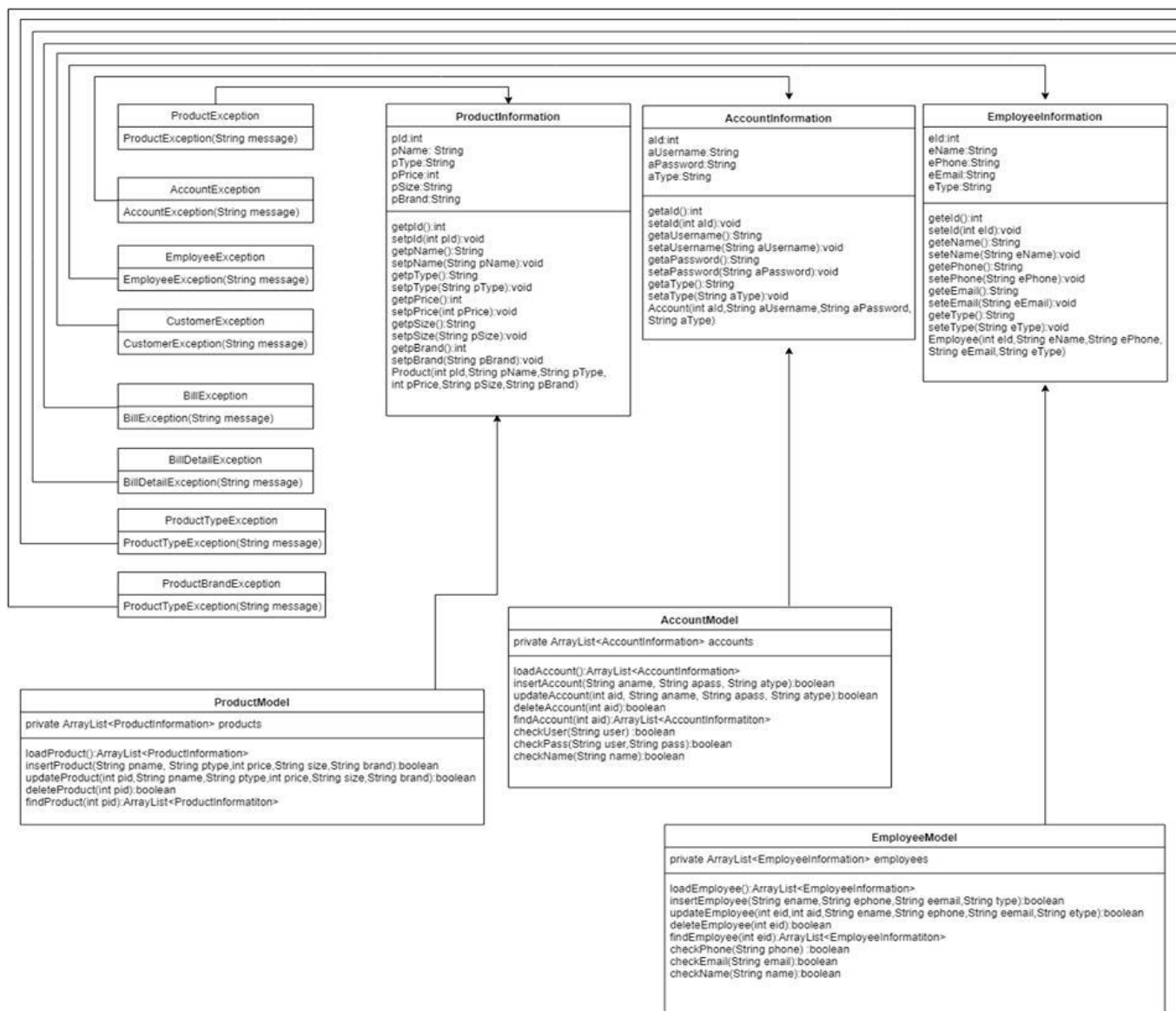


Figure 3. Class diagram (1)

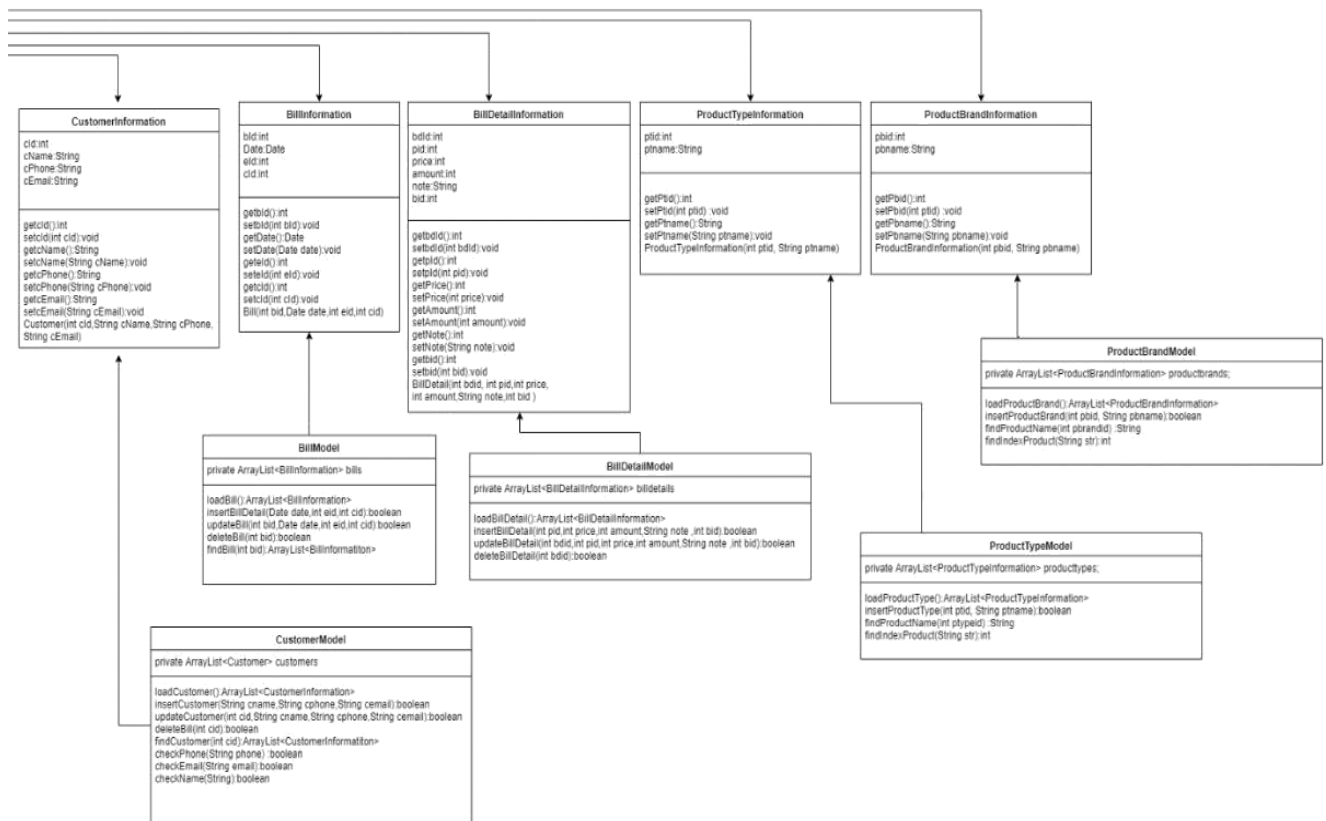


Figure 4. Class diagram (2)

V. Interface

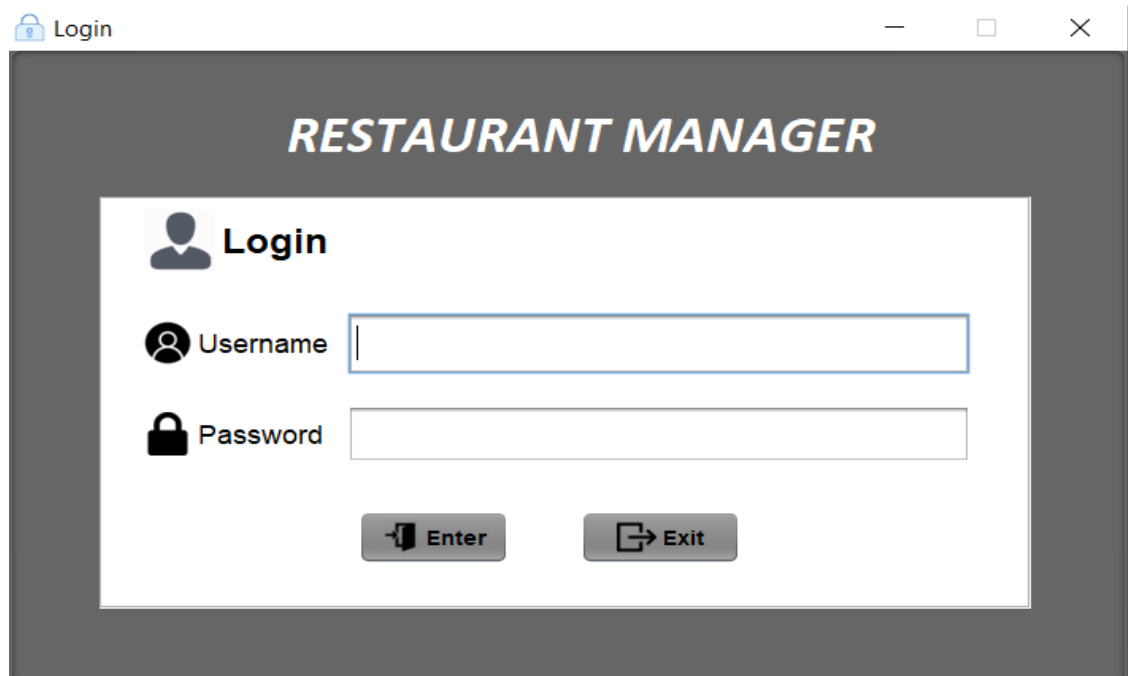


Figure 5. Login Interface

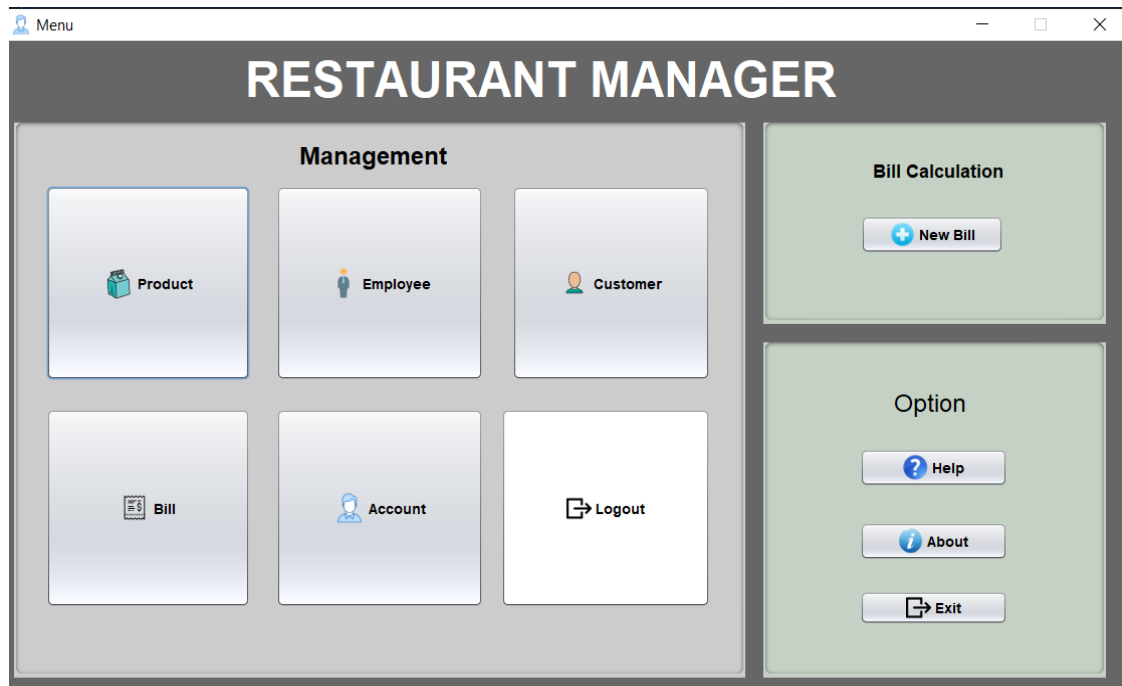


Figure 6. Restaurant Menu

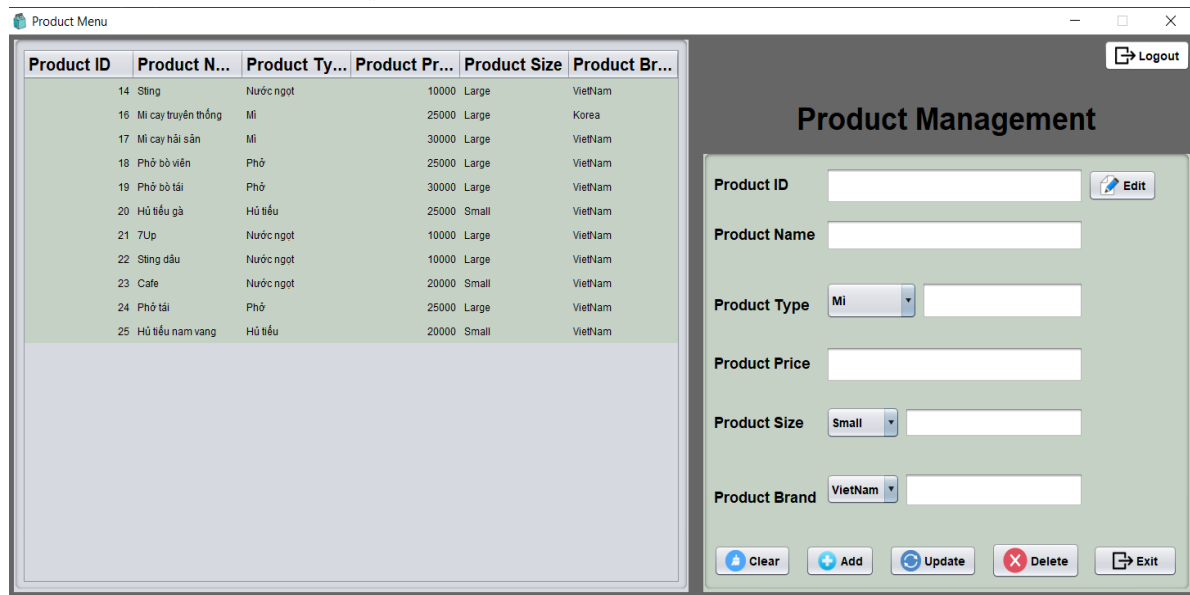


Figure 7. Product Management

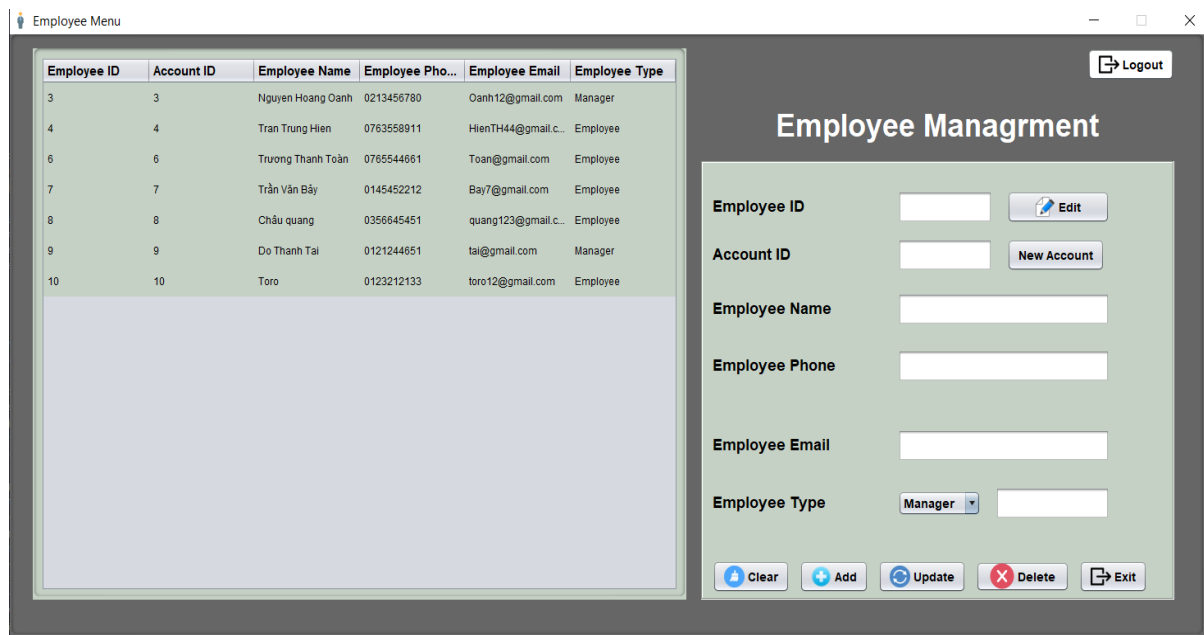


Figure 8. Employee Management

Customer Menu

Customer ID	Customer Name	Customer Phone	Customer Email
1	Nguyen Huu Trong	0123456745	trong1212@gmail.com
5	Đỗ Thành Tài	0763588233	Tai123@gmail.com
6	Đỗ Duy Thái	0354454124	thaidui@gmail.com

Logout

Customer Management

Customer ID

Edit

Customer Name

Customer Phone

Customer Email

Clear

Add

Update

Delete

Exit

Figure 9. Customer Management

Bill Menu

Logout

Bill Detail

Product name	Price
Sting	10000
Mì cay truyền thống	25000
Mì cay hải sản	30000
Phở bò viên	25000
Phở bò tái	30000
Hủ tiêu gà	25000
7Up	10000
Sting dâu	10000
Cafe	20000
Phở tái	25000
Hủ tiêu nam vang	20000

Product Name	Amount	Total
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Bill ID

1

Amount

NOTE

All Total

Print Bill

Exit

Figure 10. Bill Detail

VI. Backup data

Everyday, we always upload all data in Google Drive and send that our program to each member in group. By this way, we don't worry that our program will be destroyed or lost and we are sure each member in group can be understand program.



Figure 11. Backup Data

VII. Check List:

No.	Document Name	Date	Estimated number of hours completed	Complete time	Real time	Member names	Note
1	Problem definition	24/03/2020	3	12:00 24/03/2020	3	TrongNH,TaiDT,Toan TT,QuangNM	Complete
2	User requirement	24/03/2020	3	23:00 24/03/2020	3	TrongNH,TaiDT	Complete
3	Analysis	24/03/2020	24	12:00 24/03/2020	24	ToanTT,QuangNM	Complete
4	Making document	25/03/2020	5	20:00 25/03/2020	9	TrongNH,TaiDT,Toan TT,QuangNM	Delay 4h
5	Design database diagram	26/03/2020	24	23:00 26/03/2020	24	TrongNH,TaiDT	Complete
6	Coding demo	26/03/2020	24	23:00 26/03/2020	24	TrongNH,TaiDT	Complete
7	Testing demo	26/03/2020	24	12:00 27/03/2020	24	TrongNH,TaiDT	Complete
8	Design Powerpoint	24/03/2020	5	20:00 24/03/2020	5	QuangNM	Complete
9	Design Interface	23/03/2020	12	23:00 23/03/2020	12	TrongNH,TaiDT,Toan TT,QuangNM	Complete
10	Edit code	22/03/2020	12	12:00 22/03/2020	13	TrongNH,TaiDT,Toan TT,QuangNM	Delay 1h
11	Check code	23/03/2020	12	22:30 23/03/2020	10	TrongNH,TaiDT,Toan TT,QuangNM	Complete
12	Test-Fix error	24/03/2020	12	12:00 24/03/2020	15	TrongNH,TaiDT,Toan TT,QuangNM	Delay 3h
13	Complete code	26/03/2020	3	20:00 26/03/2020	4	TrongNH,TaiDT,Toan TT,QuangNM	Delay 1h
14	Testing final	27/03/2020	3	22:00 27/03/2020		TrongNH,TaiDT,Toan TT,QuangNM	Complete
15	Check Document	26/03/2020	3	21:00 26/03/2020	3	TrongNH,TaiDT,Toan TT,QuangNM	Complete
16	Complete Project	27/03/2020	3	23:00 27/03/2020	3	TrongNH,TaiDT,Toan TT,QuangNM	Complete

