



**FACULTY OF COMPUTING AND INFORMATION TECHNOLOGY**

**BACS2023 OBJECT-ORIENTED PROGRAMMING**

**Assignment Semester June 2021**

<b>Programme</b>	:	Bachelor of Computer Science (Hons) in Software Engineering
<b>Tutorial Group</b>	:	RSF1S3G1 (Group 1)
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<b>Date Submitted to Tutor</b>	:	12/9/2021

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**We declare that this assignment is free from all forms of plagiarism and for all intents and purposes is my own properly derived work.**

Declaration Statement Acknowledged by

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Hii Puong Hou



Lau Zhou Kang





Tai Kim Ruey





Desmond Lim Chiang Shen

<b>No.</b>	<b>Content</b>	<b>Page</b>
1	Cover Page	1
2	Table of Content	2
3	Team member task(s) allocated	3 - 6
4	Description assignment idea and the relevant entities	7
5	UML	8 - 10
6	Sample Run	11 - 45
7	Individual explanation of inheritance and polymorphism	46 - 55

No.	Team Member Name	Task(s) Allocated	Mark Obtained
1.	 <p>Hii Puong Hou</p>	<p><b><u>Class and Object</u></b></p> <ul style="list-style-type: none"> <li>1) Menu <ul style="list-style-type: none"> <li>- Member Menu</li> </ul> </li> <li>2) Member</li> <li>3) Membership <ul style="list-style-type: none"> <li>- Basic Membership</li> <li>- Silver Membership</li> <li>- Gold Membership</li> </ul> </li> <li>1) GiftRedemption <ul style="list-style-type: none"> <li>- Voucher Redemption</li> <li>- Item Redemption</li> </ul> </li> </ul> <p><b><u>System Module</u></b></p> <ul style="list-style-type: none"> <li>1) Membership Module <ul style="list-style-type: none"> <li>- Membership Management (Create Member) (Display Member) (Update Member) (Delete Member)</li> <li>- Gift Redemption (Generate voucher code) (Item Redemption)</li> <li>- Order (Apply and Validate voucher code)</li> <li>- Payment (Earn membership point After checkout)</li> </ul> </li> </ul>	

2.	 <p>Lau Zhou Kang</p>	<p><b><u>Class and Object</u></b></p> <ol style="list-style-type: none"> <li>1) Menu <ul style="list-style-type: none"> <li>-Main Menu</li> <li>-Staff Menu</li> <li>-Edit Menu</li> <li>-Search Menu</li> <li>-Recovery Question Menu</li> <li>-Role Menu</li> <li>-Search Menu</li> <li>-Update Menu</li> </ul> </li> <li>2) Login</li> <li>3) Staff <ul style="list-style-type: none"> <li>-Take Order (sub module)</li> <li>-Receipt (sub module)</li> </ul> </li> <li>4) Product</li> </ol> <p><b><u>System Module</u></b></p> <ol style="list-style-type: none"> <li>1) Login Module <ul style="list-style-type: none"> <li>-Staff ID</li> <li>-Password</li> <li>-Recovery Question(If forgot password)</li> <li>-Reset Password</li> </ul> </li> <li>2) Staff Module <ul style="list-style-type: none"> <li>-Display Staff</li> <li>-Search Staff</li> <li>-Edit Staff</li> <li>-Add Staff</li> <li>-Delete Staff</li> </ul> </li> <li>3) Receipt Module <ul style="list-style-type: none"> <li>-Display Transaction ID</li> <li>-Staff ID in charge</li> <li>-Receipt date and time made</li> <li>-Grand total</li> </ul> </li> <li>4) Product Module <ul style="list-style-type: none"> <li>-Display Product</li> <li>-Add Product</li> <li>-Edit Product</li> <li>-Delete Product</li> </ul> </li> <li>5) Take Order Module <ul style="list-style-type: none"> <li>-Display latest product</li> <li>-Input and validate product ID</li> <li>-(Edit)Continue/ Stop /Redo Order</li> <li>-Ask User for confirmation Order</li> <li>-Update Order</li> </ul> </li> </ol>	
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3.	 <p>Tai Kim Ruey</p>	<p><b><u>Class and Object</u></b></p> <ol style="list-style-type: none"> <li>1) Menu <ul style="list-style-type: none"> <li>- Delivery Menu</li> </ul> </li> <li>2) Delivery option <ul style="list-style-type: none"> <li>- Standard Delivery</li> <li>- Premium Delivery</li> </ul> </li> </ol> <p><b><u>System Module</u></b></p> <ol style="list-style-type: none"> <li>1) Delivery Module <ul style="list-style-type: none"> <li>- Delivery Management (Display Delivery) ( Update Delivery) ( Delete Delivery)</li> <li>- order ( Choose Delivery Option after order)</li> <li>- payment ( Calculate Delivery Fee by using Delivery Option before payment)</li> </ul> </li> </ol>	

4.	 <p>Desmond Lim Chiang Shen</p>	<p><b><u>Class and Object</u></b></p> <ol style="list-style-type: none"> <li>1) Menu <ul style="list-style-type: none"> <li>- Report Menu</li> <li>- Daily Menu</li> <li>- Monthly Menu</li> <li>- Best Selling Menu</li> <li>- Recovery Question Menu</li> </ul> </li> <li>2) Payment <ul style="list-style-type: none"> <li>- Cash Payment</li> <li>- Card Payment</li> </ul> </li> <li>3) Receipt <ul style="list-style-type: none"> <li>- Daily Report</li> <li>- Monthly Report</li> <li>- Best Selling Report</li> </ul> </li> </ol> <p><b><u>System Module</u></b></p> <ol style="list-style-type: none"> <li>1) Menu <ul style="list-style-type: none"> <li>- Display Report Menu</li> <li>- Display Daily Report Menu</li> <li>- Display Monthly Report Menu</li> <li>- Display Best Selling Report Menu</li> <li>- Display Recovery Question Menu</li> </ul> </li> <li>2) Payment (Business Function) <ul style="list-style-type: none"> <li>- Cash Payment (Use the cash to Calculate the Order Receipt)</li> <li>- Card Payment (User input the card number and CVV and Calculate the Order Receipt)</li> </ul> </li> <li>3) Receipt <ul style="list-style-type: none"> <li>- Receipt <ul style="list-style-type: none"> <li>● Contents of the Receipt Are brought into the report</li> </ul> </li> <li>- Daily Report <ul style="list-style-type: none"> <li>● Display Report</li> </ul> </li> <li>- Monthly Report <ul style="list-style-type: none"> <li>● Display 2021 Year Report</li> <li>● Search Monthly Report</li> </ul> </li> <li>- Best Selling Report <ul style="list-style-type: none"> <li>● Display Report</li> </ul> </li> </ul> </li> </ol>	
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**1. Description of your team's assignment idea. All the relevant entities should be included in your description as well as the basic operations of the system.**

The Sushi Queen is an online sales system that stimulates the real world Sushi selling system. This system contains all the basic operations of an online selling system and it also contains special features and functions to enhance the effectiveness and efficiency of the system.

The entities of the sushi online sales system includes login, order, staff, member, product, payment, receipt, sales report, membership, gift redemption and delivery.

At first, the users are required to login into the system by entering their ID and password. There are only three types of different users who will be able to login into the system, such as manager, staff, and help desk. However, this online sales system can be used by managers to view the daily, monthly and the best-selling report that can do decision making. Staff can use this online sales system to add products, delete products, update products, take orders, select payment methods that customers choose, print receipts, etc. After login to the system, the user will be able to see the main menu of the system, including **Staff module, member module, payment module, receipt module, product module, delivery module** and **an exit function**.

In the **staff module**, the system will further display a submenu for the users to choose the business operations. Users will be able to display all the staff information, search for staff, edit staff, add staff, delete staff, take others and display the receipt based on the past successful transaction.

Meanwhile in the **member module**, there will also be another submenu display for users to decide. The first option would be member management and another is gift redemption. At the member management, users will be able to create new membership, display and list membership, update selected membership from the list and delete or remove membership. And at the gift redemption selection, users will be able to generate voucher codes for registered members and also redeem items based on the amount of membership point.

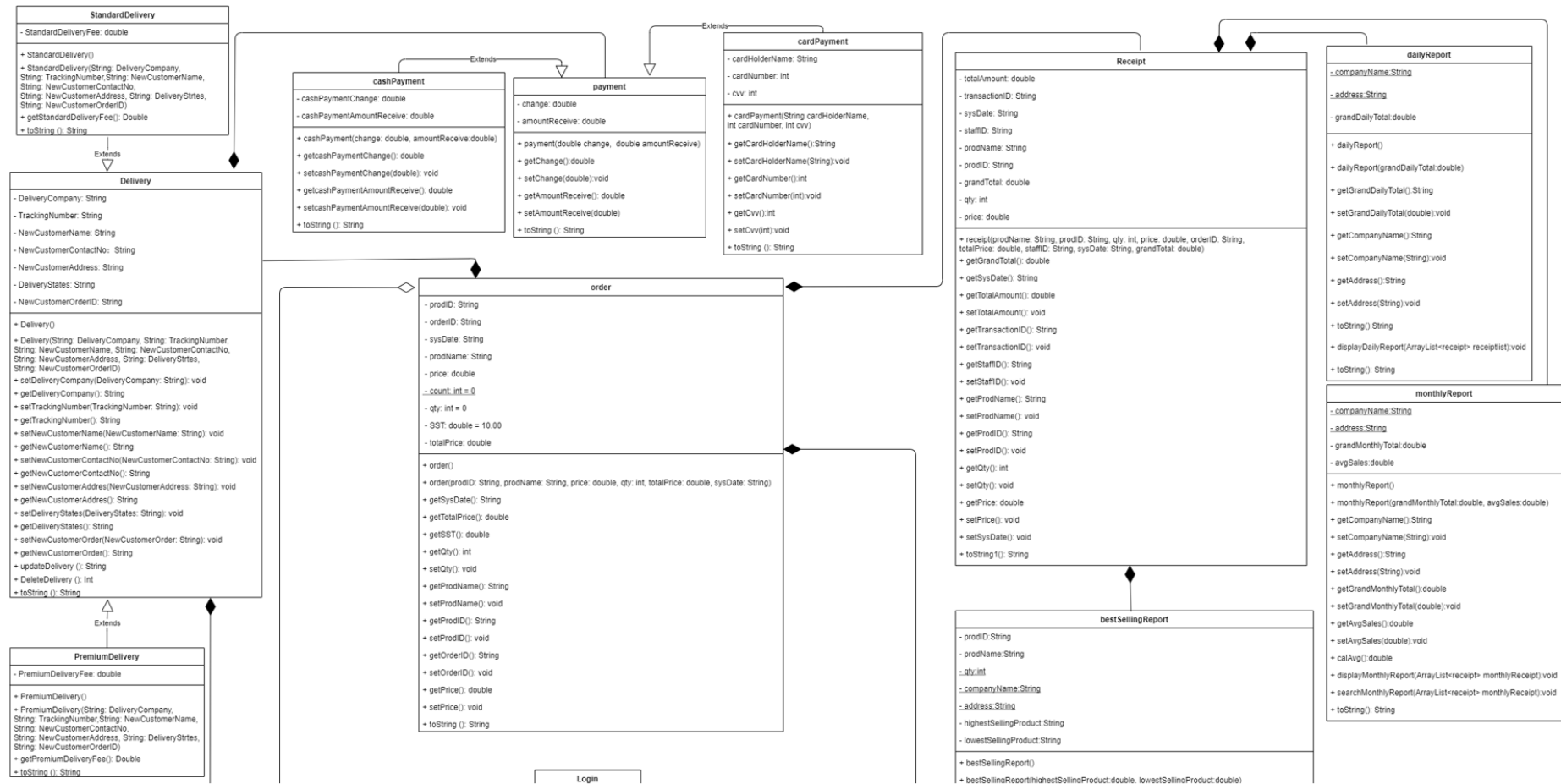
In the **payment module**, when the user completes and confirms the order, a menu will pop up, asking the user which payment method to choose, namely cash payment and bank card payment. If the user chooses to pay in cash, the user must enter the cash amount. If the amount entered by the user is less than the order amount, the amount is insufficient. If the amount is sufficient or exceeds, the remaining amount will be displayed to the user. However, bank card payment requires the user to enter user information such as name, card number (last four digits), and CVV. When the user enters all the correct information, the settlement will be completed immediately and the transaction will be displayed. The transaction bill will inherit the daily report module in the **receipt module**.

In addition, the **receipt module** will be able to generate all types of sales reports based on the pass transaction history. The report type will be generated according to the user's choice, such as daily report, annual report and the best-selling report in each report.

Whereas If the user selects the **product module**, user will be able to add new product, edit product display product and also delete product. In the **delivery module**. First of all, the user will see the detailed delivery list that includes the Customer Order ID, Tracking Number, Delivery Company, Customer Name, Customer Contact, Customer Address and Delivery Status. After that, the system will require the user to input selection to update the delivery detail, delete the delivery or return back. In the update module, users will be able to update the name, contact, address and delivery status.

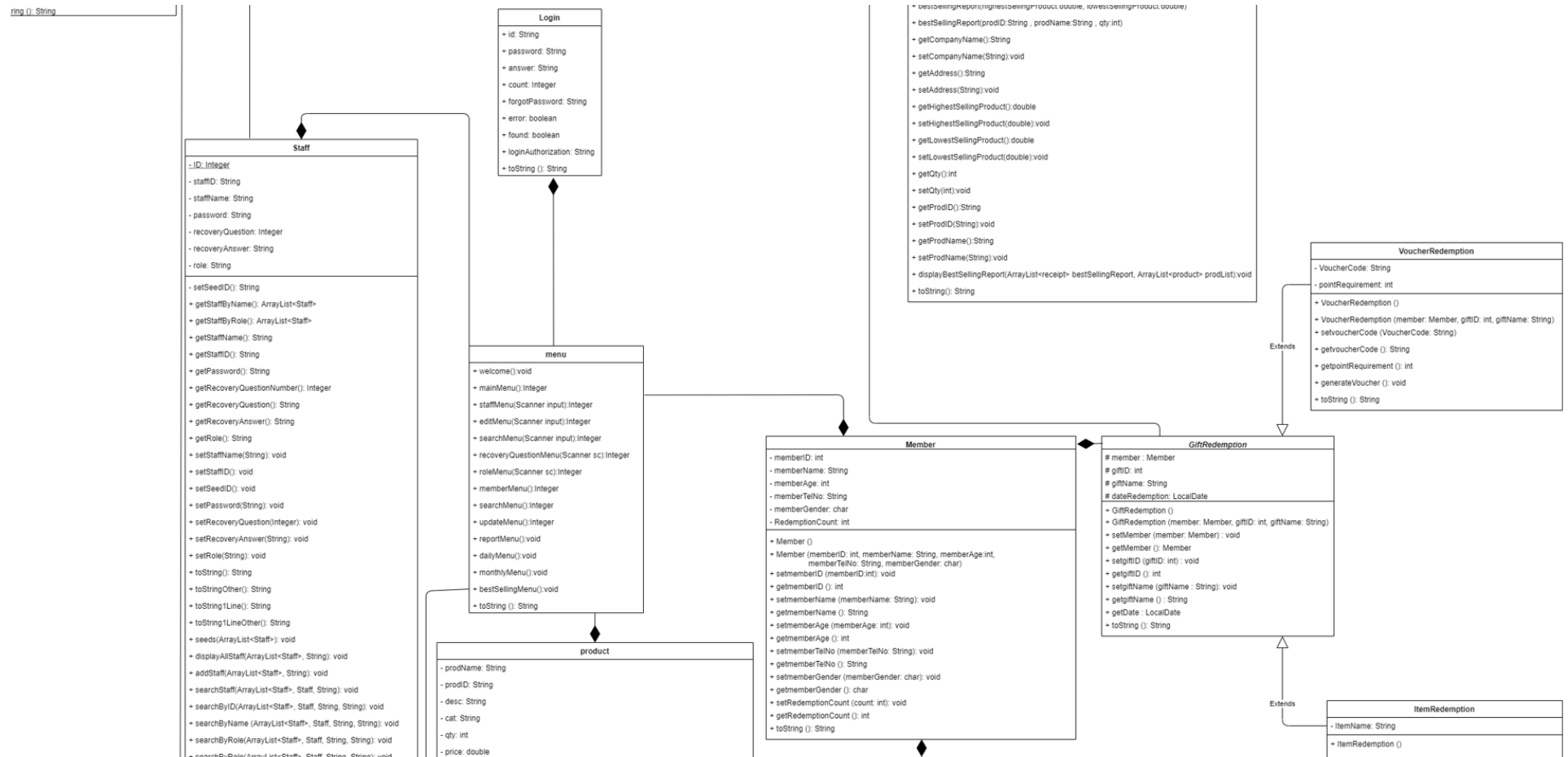
In the **exit function**, the user will exit the system.

## 2. UML class diagram that depicts the entity classes and their relationships.

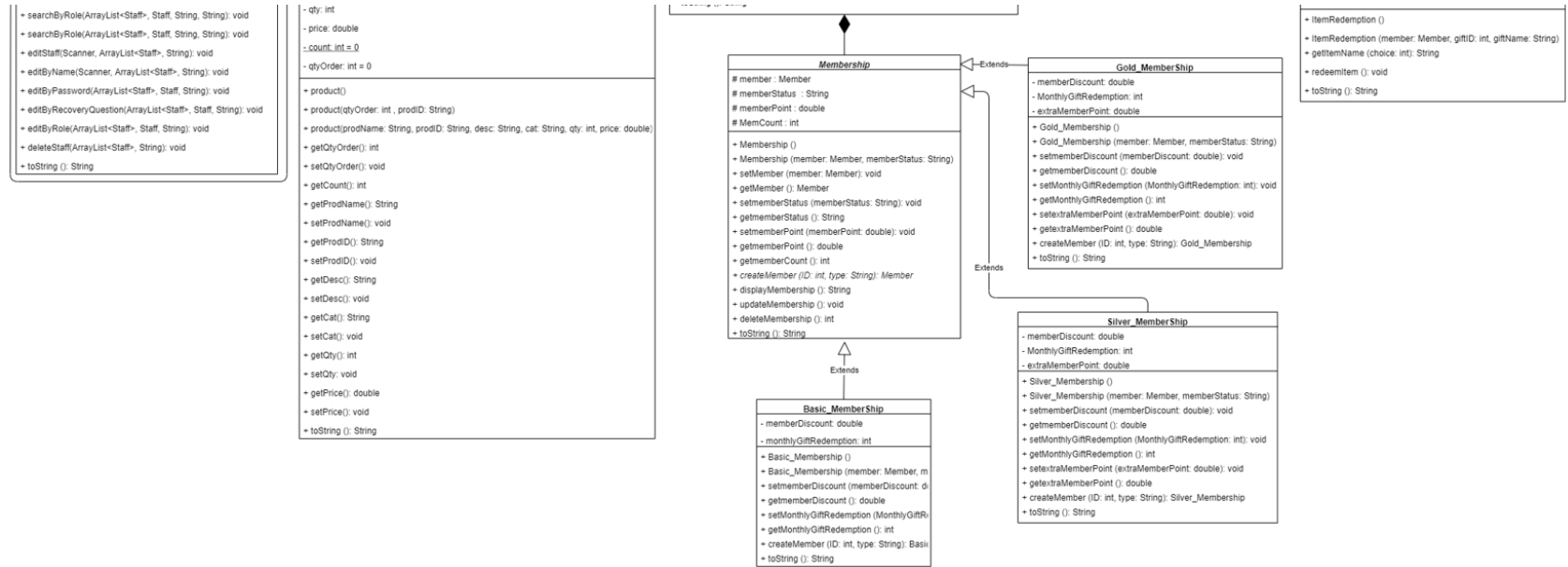





## BACS2023 Object-Oriented Programming – Assignment



## BACS2023 Object-Oriented Programming – Assignment



3. A sample run (output screen with all values entered and displayed) for every module. Every team member should produce the screenshots for their own modules. [Tip: The easiest way to capture screens is using “Screen Snipping”.]

No.	Team Member Name	Sample Run
1.	 <p>Hii Puong Hou</p>	<p><b>1. Membership Module</b></p> <ul style="list-style-type: none"> <li>- After choosing the second selection, from the menu user, they'll be able to access the membership menu. If the user inputs non digit or out of range input, the system will prompt the user to input again for menu selection.</li> </ul> <pre>    *-----*  +--   Choose either (1-6) : 2  Membership ----- 1. Member Management 2. Gift Redemption 3. Back ----- Enter your selection : a Invalid Input! Please try again.....  Enter your selection : 0 Invalid Input! Please try again..... Enter your selection :   </pre> <p><b>2. Member Management</b></p> <ul style="list-style-type: none"> <li>- If the user decides to select the ‘Member Management’ option, they will be able to see a submenu which includes create member, display member, update member and delete member. The concept of exception handling has been applied, such as if a user input non digit or out of range input, the system will display an error message and prompt the user to input again.</li> </ul>

```

|-----|
Enter your selection : 1

|-----|
|      Membership*Management      |
|-----|
| 1. Create Membership             |
| 2. Display Membership            |
| 3. Update Membership             |
| 4. Delete Membership             |
|-----|

Enter your selection : 0
Invalid Input! Please try again.....
Enter your selection : a
Invalid Input! Please try again.....

Enter your selection : 1

```

### 3. Member Management (Create Membership)

- If the user selects the 'create member' selection, the system will provide three types of member to create, which are basic membership, silver membership and Gold membership. The concept of exception handling has been applied.

```

Enter your selection : 1

|-----|
|      Create*Member               |
|-----|
| 1. Basic Member                 |
| 2. Silver Member                |
| 3. Gold Membership              |
|-----|

Enter your selection : 0
Invalid Input! Please try again.....

Enter your selection : 9
Invalid Input! Please try again.....
Enter your selection : 1

|-----|
Enter your selection : 1
----- Create Member -----
=====
Enter new Member Name : Hans Hil
Enter new Member Age : 21
Enter new Member Contact No. : 012-3456789
Enter new Member Gender : M

New Member successfull created !!!!!

Press anything to continue.....

```

**4. Member Management (Display Membership)**

- If the user selects the 'Display Membership' selection, the system will display all the current registered members from all types of membership.

Enter your selection : 2

No.	Member ID	Member Name	Age	Member Contact	Gender	Member Status
1)	1001	Alex Lim	25	019-1234567	M	Basic
2)	1002	Hashirama	23	011-1058567	M	Silver
3)	1003	Debra Yong	20	011-5558990	M	Gold
4)	1004	Hans Hii	21	012-3456789	M	Basic

Press anything to continue.....|

**5. Member Management (Update Membership)**

- If the user selects the 'Update Membership' selection, the system will be able to update the information of selected members. From the update selection, users will be able to choose whether to update name, age, phone number or gender. The concept of exception handling has been applied.

No.	Member ID	Member Name	Age	Member Contact	Gender	Member Status
1)	1001	Alex Lim	25	019-1234567	M	Basic
2)	1002	Hashirama	23	011-1058567	M	Silver
3)	1003	Debra Yong	20	011-5558990	M	Gold
4)	1004	Hans Hii	21	012-3456789	M	Basic

Enter number to be Update (No.) : 1

Update\*Member

---

1. Update Member Name

2. Update Member Age

3. Update Member Contact No

4. Update Member Gender

Enter your selection : 1

Enter new Member Name: Alex Chua

Processing..... Successfull!!!!

Press anything to continue.....

**6. Member Management (Delete Membership)**

- If the user selects the 'Delete Membership' selection, the system will display a list of all members and prompt users to choose which to delete. The concept of exception handling has been applied, such that if the input is non digit or out of range, it will display an error message and prompt the user to input again.

```

Enter your selection : 4

Membership List
=====
No.    Member ID    Member Name    Member Status
1)     1001         Alex Lim       Basic
2)     1002         Hashirama     Silver
3)     1003         Debra Yong     Gold
4)     1004         Hans Hii       Basic

Enter number to be remove (No.) : a
Invalid Input! Please try again.....
Enter number to be remove (No.) : 0
Invalid Input! Please try again.....
Enter number to be remove (No.) : 1

Removed Successfull !!!!

Press anything to continue.....

```

## 7. Gift Redemption

- Besides membership management, if the user decides to select the 'Gift Redemption' option from the membership menu, they will be able to see a submenu which includes voucher redemption and item redemption. The concept of exception handling has been applied.

```

Membership
-----
1. Member Management
2. Gift Redemption
3. Back

Enter your selection : 2

Gift*Redemption
-----
1. Voucher Redemption
2. Item Redemption

Enter your selection : 0
Invalid Input! Please try again.....
Enter your selection : a
Invalid Input! Please try again.....

Enter your selection : 1

```

**8. Gift Redemption (Voucher Redemption)**

- From the gift redemption menu, if the user selects voucher redemption, the user will need to input the member ID in order to generate the voucher code. However, if the memberID does not exist, the voucher code will not be generated. This also depends on the member points availability of the member. If there are not enough member points, the user will not be able to redeem.

```
|-----|
|      Gift*Redemption      |
|-----|
| 1. Voucher Redemption    |
| 2. Item Redemption       |
|-----|
Enter your selection : 1

Enter member ID : 1004

Current Member Point :500.0

Voucher Successfully generated!!

Member ID : 1004
Member Name : Hans Hii

Voucher Code : VCDiscount

Monthly Redemption Chance left for this member :1

Latest Member Point :400.0
```

### 9. Gift Redemption (Item Redemption)

- If the user selects item redemption, the user will also need to input the member ID followed by the item they wish to redeem. If the memberID does not exist, the process will be terminated. This also depends on the member points availability of the member. If there are not enough member points, the user will not be able to redeem. The concept of exception handling has been applied.

```

|-----|
|      Gift*Redemption      |
|-----|
| 1. Voucher Redemption    |
| 2. Item Redemption       |
|-----|
Enter your selection : 2

Enter member ID : 1004

Current Member Point :400.0


      Item List
=====
1) HandBag
2) Mini Fan
3) PowerBank
4) Writing Books X3
5) Iphone Charger
6) Chair

Enter your selection (1 - 6): 0
Invalid Input!!! Please try again.....

Enter your selection (1 - 6): a
Invalid Input!!! Please try again.....

Enter your selection (1 - 6): 1

Processing.....Redemption Successfull!!!

Member ID : 1004
Member Name : Hans Hii
Item Name : HandBag

Latest Member Point :100.0

```



**10. Apply Voucher Code and Earn Member Points**

- The members are allowed to apply the voucher code generated during order to reduce the cost in total amount. Membership points will also be earned depending on the total amount purchased.

```
=====
Grand Total : RM 550.00
=====
```

```
Confirm ? (1 = confirm | 2 = cancelled)
```

```
1
```

```
(Membership Discount ) is customer ? (Y/N)
```

```
Y
```

```
Enter Member ID :
```

```
1004
```

```
Member ID :1004
```

```
Member Name: Hans Hii
```

```
Member Status: Basic
```

```
Enter voucher Code :
```

```
VCDiscount
```

```
Member ID :1004
```

```
Member Name: Hans Hii
```


```
Member Status: Basic
```

```
Discount amount : 2.0
```

```
Membership Discount applied!!!
```

```
Membership point gained : 55.0
```

```
Total membership point : 155.0
```

2.	 <p>Lau Zhou Kang</p>	<div data-bbox="660 203 906 241"><b>1. Login Module</b></div> <div data-bbox="660 241 1289 280">- Each user has a different password to access.</div> <div data-bbox="647 320 948 421"> <pre>Staff ID : s1001 Password: 0529 Succesfully Login~~~</pre> </div> <div data-bbox="647 461 874 521"> <pre>Staff ID: S1001 Staff Name: Ken</pre> </div> <div data-bbox="643 600 956 701"> <pre>Staff ID : s1002 Password: 1314 Succesfully Login~~~</pre> </div> <div data-bbox="643 741 956 808"> <pre>Staff ID: S1002 Staff Name: HiiPuong</pre> </div> <div data-bbox="655 887 968 987"> <pre>Staff ID : s1003 Password: 1234 Succesfully Login~~~</pre> </div> <div data-bbox="655 1032 956 1097"> <pre>Staff ID: S1003 Staff Name: Desmond</pre> </div> <div data-bbox="660 1249 1426 1321">- If the user input the wrong Staff ID and will require the user to reinput again.</div> <div data-bbox="651 1361 979 1507"> <pre>Staff ID : s1234 Staff ID Not Found!!!  Staff ID :  </pre> </div>
----	--	---

		<ul style="list-style-type: none"> <li>- After user input the correct staff ID will require user input password, if user gives a wrong password an error message will pop up.</li> </ul>
		<pre> Staff ID : s1234 Staff ID Not Found!!!  Staff ID : s1001 Password: qwer  Incorrect Password!!!  Did you forgot your password Y or N: </pre>
		<ul style="list-style-type: none"> <li>- If the user presses 'N/n' and the next part will ask the user input the password.</li> </ul>
		<pre> Staff ID : s1234 Staff ID Not Found!!!  Staff ID : s1001 Password: qwer  Incorrect Password!!!  Did you forgot your password Y or N: N Password: 0529 Succesfully Login~~~  Staff ID: S1001 Staff Name: Ken </pre>
		<ul style="list-style-type: none"> <li>- If user press 'Y/y' a recovery question will pop up and the user is required to answer it.</li> </ul>
		<pre> Staff ID : s1234 Staff ID Not Found!!!  Staff ID : s1001 Password: qwer  Incorrect Password!!!  Did you forgot your password Y or N: y  1. What is your hobby? Recover Answer: </pre>

		<ul style="list-style-type: none"> <li>- If the user answers it wrongly the program will stop directly.</li> </ul>
		<pre> 1. What is your hobby? Recover Answer: sing  System has exited due to user provided the wrong recovery answer... BUILD SUCCESSFUL (total time: 1 minute 39 seconds) </pre>
		<ul style="list-style-type: none"> <li>- If the user answers the question correctly it will require the user to input the new password.</li> </ul>
		<pre> Staff ID : s1234 Staff ID Not Found!!!  Staff ID : s1001 Password: qwer  Incorrect Password!!!  Did you forgot your password Y or N: y  1. What is your hobby? Recover Answer: sleep  Enter new password :   </pre>
		<ul style="list-style-type: none"> <li>- If the user input the new password and the confirm new password part is a different password it will pop up an error message and ask the user to input the new password again.</li> </ul>
		<pre> Did you forgot your password Y or N: y  1. What is your hobby? Recover Answer: sleep  Enter new password : 0924 Enter confirm the new password : 0994 Password and Confirm Password not matched! Please enter again!!!  Enter new password : </pre>

		<div data-bbox="660 165 1406 241"> <ul style="list-style-type: none"> <li>- Only the password at these two parts are matched and can only proceed to the next part of the program.</li> </ul> </div> <div data-bbox="643 304 1272 533"> <pre> Enter new password : 0924 Enter confirm the new password : 0994 Password and Confirm Password not matched! Please enter again!!!  Enter new password : 0924 Enter confirm the new password : 0924 Succesfully Login~~~  Staff ID: S1001 Staff Name: Ken </pre> </div> <div data-bbox="660 629 1382 768"> <ul style="list-style-type: none"> <li>- Each staff has a different answer and question at the recovery question part, and all the processes are the same goes with the above screenshot.</li> <li>-</li> </ul> </div> <div data-bbox="636 808 1153 1845"> <pre> Staff ID : s1002 Password: qwe  Incorrect Password!!!  Did you forgot your password Y or N: y  1. What is your hobby? Recover Answer: gym  Enter new password : 123 Enter confirm the new password : 123 Succesfully Login~~~  Staff ID: S1002 Staff Name: HiiPuong  s1003 user :  Staff ID : s1003 Password: qwe  Incorrect Password!!!  Did you forgot your password Y or N: y  What your favourite number? Recover Answer: 69  Enter new password : 1133 Enter confirm the new password : 1133 Succesfully Login~~~  Staff ID: S1003 Staff Name: Desmond </pre> </div>
--	--	---

## 2. Staff Module

- This is Staff Menu

```

|-----|
|   Staff*Module   |
|-----|
| 1. Display Staff |
| 2. Search Staff  |
| 3. Edit Staff    |
| 4. Add Staff     |
| 5. Delete Staff  |
| 6. Take Order    |
| 7. Display Receipt|
| 8. Back          |
|-----|
Choose either (1-8) :

```

### (Display Staff)

- After entering 1. Display staff , only the staff role as ‘Manager’ are able to see all the other staff details.

```

Choose either (1-8) : 1

```

No.	Staff ID	Name	Password	Recovery Question	Recovery Answer	Role
1	S1001	Ken	0529	1	sleep	Manager
2	S1002	HiiPuong	1314	1	gym	Staff
3	S1003	Desmond	1234	4	69	Help Desk

```

=====
3 record(s) found

```

**(Search Staff)**

-Staff role as other than 'Manager' will only able to see their own details and the other details for another staff will replace by '\*'.

```

No. Staff ID   Name           Password           Recovery Question   Recovery Answer   Role
=====
1      S1001      Ken               *****            *****            *****            Manager
2      S1002      HiiPuong         1314               1                  gym                Staff
3      S1003      Desmond          *****            *****            *****            Help Desk
=====
3 record(s) found

```

```

No. Staff ID   Name           Password           Recovery Question   Recovery Answer   Role
=====
1      S1001      Ken               *****            *****            *****            Manager
2      S1002      HiiPuong         *****            *****            *****            Staff
3      S1003      Desmond          1234               4                  69                Help Desk
=====
3 record(s) found

```

- And here is the 2.Search Staff, users can search byID, Role and Name only.

Choose either (1-8) : 2

```

| Search By : |
|-----|
| 1. ID       |
| 2. Role     |
| 3. Name     |
|             |
Choose either (1-3) : |

```

- If the user enters the option other than 1 to 3 an error will pop up asking if the user wants to search for another records or not.

```

| Search By : |
|-----|
| 1. ID       |
| 2. Role     |
| 3. Name     |
|             |
Choose either (1-3) : 4

```

Invalid input,please enter (1-3) only.

Search another records? (Y=yes OR N=no) :

- If the user wants to use it by ID, it will require the user to input the staff that they want to find.

```

|  S. NAME  |
|           |
Choose either (1-3) : 1

Staff ID : s1001
User ID   : S1001
Name      : Ken
Password  : 0529
Recovery Question : 1
Recovery Answer : sleep
Role      : Manager

Search another records? (Y=yes OR N=no) :

```

---

```

|           |
Choose either (1-3) : 1

Staff ID : s1003
User ID   : S1003
Name      : Desmond
Password  : 1234
Recovery Question : 4
Recovery Answer : 69
Role      : Help Desk

Search another records? (Y=yes OR N=no) : |

```

- If the user is not role as Manager and want to find the records it will display the specific staff that want to find but all password, recovery question and answer will replace by '\*'.

```

|           |
Choose either (1-3) : 1

Staff ID : s1001
User ID   : S1001
Name      : Ken
Password  : *****
Recovery Question : *****
Recovery Answer : *****
Role      : Manager

Search another records? (Y=yes OR N=no) :

```

- And here is the Search by role option.

```

|  S. NAME  |
|           |
Choose either (1-3) : 2

|           |
| Role:     |
|-----|
| 1. Staff  |
| 2. Manager|
| 3. Help Desk |
|           |
Choose role of the person (1 - 3) : 4

Role does not exist in the record
Search another records? (Y=yes OR N=no) : |

```



- If user role Manager search for the staff role:

```

No. Staff ID      Name      Password      Recovery Question      Recovery Answer      Role
=====
S1003      Desmond      1234      4      69      Help Desk
=====
1 record(s) found
Search another records? (Y=yes OR N=no) : |

```

- If user role as other than Manager search for staff role:

```

No. Staff ID      Name      Password      Recovery Question      Recovery Answer      Role
=====
S1001      Ken      *****      *****      *****      Manager
=====
1 record(s) found
Search another records? (Y=yes OR N=no) : |

```

- If the user searches for the staff name who does not exist.

```

Staff Name : Kim
Name does not exist in the record
Search another records? (Y=yes OR N=no) : |

```

- If the user role as Manager searches for the staff name

```

Staff Name : Desmond
=====
No. Staff ID      Name      Password      Recovery Question      Recovery Answer      Role
=====
S1003      Desmond      1234      4      69      Help Desk
=====
1 record(s) found
Search another records? (Y=yes OR N=no) : |

```

- If the user role other than Manager searches for the staff name.

```

Staff Name : Ken
=====
No. Staff ID      Name      Password      Recovery Question      Recovery Answer      Role
=====
S1001      Ken      *****      *****      *****      Manager
=====
1 record(s) found
Search another records? (Y=yes OR N=no) : |

```

- The user role other than Manager cannot access to edit the staff details

```

|-----|
|  Staff*Module  |
|-----|
| 1. Display Staff |
| 2. Search Staff  |
| 3. Edit Staff    |
| 4. Add Staff     |
| 5. Delete Staff  |
| 6. Take Order    |
| 7. Display Receipt |
| 8. Back          |
|-----|
Choose either (1-8) : 3

```

You have no authority to perform this action

### (Edit Staff)

- In this edit part only can be accessed by Manager, and input the correct staff ID to process to the part. Manager can edit the staff details by Name, Password, Recovery Question and Role, other than these four options, an error message will pop up and ask the user to input again.

```

Please input staff id for edit, press 'e/E' to exit : s1030
Unable to find the record

Please input staff id for edit, press 'e/E' to exit : s1001

```

```

|-----|
| Edit By :   |
|-----|
| 1. Name     |
| 2. Password |
| 3. Recovery Question |
| 4. Role     |
|-----|
Choose either (1-4) :

```

```

|-----|
| Edit By : |
|-----|
| 1. Name |
| 2. Password |
| 3. Recovery Question |
| 4. Role |
|-----|
Choose either (1-4) : 5

Invalid input. Please enter (1-4) only, and enter -1 to exit.

|-----|
| Edit By : |
|-----|
| 1. Name |
| 2. Password |
| 3. Recovery Question |
| 4. Role |
|-----|
Choose either (1-4) : 1

User ID      : S1001
Name         : Ken
Password     : 0529
Recovery Question : 1
Recovery Answer : sleep
Role         : Manager

Continue edit (Y=Yes OR N=No) ? y
New Name : SixteenNight
Confirm edit (Y=Yes OR N=No) ? y
After Edit
=====
User ID      : S1001
Name         : SixteenNight
Password     : 0529
Recovery Question : 1
Recovery Answer : sleep
Role         : Manager

Next edit (Y=yes OR N=no) :

```

- After this if the user wants to keep editing for other staff can press Y/y to continue and press n/N to stop the action.

```

                                |_____|
                                | Edit By : |
                                |-----|
                                | 1. Name   |
                                | 2. Password|
                                | 3. Recovery Question |
                                | 4. Role   |
                                |_____|
                                Choose either (1-4) : 2

User ID      : S1002
Name         : HiiPuong
Password     : 1314
Recovery Question : 1
Recovery Answer : gym
Role         : Staff

Continue edit (Y=Yes OR N=No) ? y
Enter new password : 112233
Enter new confirm password : 1122
Password and Confirm Password not matched! Please enter again
Enter new password : 112233
Enter new confirm password : 112233
Confirm edit (Y=Yes OR N=No) ?
Y
After Edit
=====
User ID      : S1002
Name         : HiiPuong
Password     : 112233
Recovery Question : 1
Recovery Answer : gym
Role         : Staff

Next edit (Y=yes OR N=no) :n

```

- After all editing, the user can go and display for all staff , and the details are updated accordingly with what Manager has been edited just now.

```

                                |_____|
                                Choose either (1-8) : 1

No. Staff ID   Name           Password      Recovery Question  Recovery Answer  Role
=====
1   S1001      SixteenNight    0529          1                  sleep           Manager
2   S1002      HiiPuong         112233        1                  gym             Staff
3   S1003      Desmond          1234          4                  69              Help Desk
=====
3 record(s) found

```

**(Add Staff)**

- Next, is the add staff part, it will require user to input how many staff are going to add first, after that only can enter the new staff details.

```

Choose either (1-8) : 4

Enter number of staff you wish to add :
qwe
Enter number(only) of staff you wish to add :
1
Staff Name : steven
Enter password : 123
Enter confirm password : 321
Password and Confirm Password not matched! Please enter again
Enter password : 123
Enter confirm password : 123

=====
No. Staff ID   Name           Password      Recovery Question  Recovery Answer  Role
=====
1.   S1001     SixteenNight   0529           1                  sleep            Manager
2.   S1002     HiPuong        112233        1                  gym              Staff
3.   S1003     Desmond        1234          4                  69              Help Desk
4.   S1004     steven         123           1                  dance            Staff
=====
4 record(s) found

Enter the staff ID that you wish to delete, press 'e/E' to exit : jedjd
Unable to find the record

Please input staff id for delete, press 'e/E' to exit : jeje
Unable to find the record

Please input staff id for delete, press 'e/E' to exit : s1001
You are not allowed to delete the logging in staff information.

```

**(Delete Staff)**

- Manager can delete staff by inputting the correct Staff ID, after that, will ask for confirmation, press y/Y to confirm and press n/N to cancel.

```

=====
No. Staff ID   Name           Password      Recovery Question  Recovery Answer  Role
=====
1.   S1001     SixteenNight   0529           1                  sleep            Manager
2.   S1002     HiPuong        112233        1                  gym              Staff
3.   S1003     Desmond        1234          4                  69              Help Desk
4.   S1004     steven         123           1                  dance            Staff
=====
4 record(s) found

Enter the staff ID that you wish to delete, press 'e/E' to exit : jedjd
Unable to find the record

Please input staff id for delete, press 'e/E' to exit : jeje
Unable to find the record

Please input staff id for delete, press 'e/E' to exit : s1001
You are not allowed to delete the logging in staff information.

Enter the staff ID that you wish to delete, press 'e/E' to exit : s1003
User ID       : S1003
Name          : Desmond
Password      : 1234
Recovery Question : 4
Recovery Answer : 69
Role          : Help Desk

Confirm delete all the information for the above record (Y=yes OR N=no) : y

=====
No. Staff ID   Name           Password      Recovery Question  Recovery Answer  Role
=====
1.   S1001     SixteenNight   0529           1                  sleep            Manager
2.   S1002     HiPuong        112233        1                  gym              Staff
3.   S1004     steven         123           1                  dance            Staff
=====
3 record(s) found

```

### 3. Take Order Module

- Users can only take the product listed in the order menu by input the product ID, if not an error message will pop up and ask the user to input again.

-----Sushi Queen Menu-----		
Product ID	Product Name	Price (RM)
PID0001	Salmon Sushi	5.0
PID0002	Tuna Sushi	5.0
PID0003	Takoyaki	7.0
PID0004	Green Tea (Hot)	1.0
PID0005	Green Tea (Ice)	1.5
PID0006	Udon	12.0
PID0007	Tempura	9.0
PID0008	Yakitori	3.9
PID0009	Donburi	11.0

\*\*Quantity order for each product cannot exceed 100\*\*

Row 1  
 Enter product ID ( E/e to exit):1  
 This product ID does not exist !!!  
 Enter product ID ( E/e to exit):pid12345  
 This product ID does not exist !!!  
 Enter product ID ( E/e to exit):

- For each product quantity ordered can only be in integer format, and the quantity for each product cannot be ordered more than 100 at the same time and less than 0. But users can input '-1' in order to exit the order part.

Enter product ID ( E/e to exit):pid0001  
 PID0001 found ~  
 Enter quantity want (-1 to exit): 101  
 This quantity is exceed !!!  
 Enter quantity want (-1 to exit): onetwothree  
 Invalid quantity !!!  
 Enter quantity want (-1 to exit): -1

```

|-----|
|  Staff*Module  |
|-----|
| 1. Display Staff |
| 2. Search Staff  |
| 3. Edit Staff    |
| 4. Add Staff     |
| 5. Delete Staff  |
| 6. Take Order    |
| 7. Display Receipt |
| 8. Back          |
|-----|
Choose either (1-8) :
```

		<p>- After an order is made, it will display the confirmation of the ordered product and ask if the user wants to continue or not, press y/Y to continue, press n/N to stop and confirm order, and press 'r/R' to redo.</p> <pre> Row 1 Enter product ID ( E/e to exit):pid0001 PID0001 found ~  Enter quantity want (-1 to exit): 10  ~~~Accept quantity ~~~  CONFIRMATION: ===== Product name : Salmon Sushi Product ID : PID0001 Quantity : 10 pcs Price: RM 5.00 Total Price : RM 50.00 ===== Anymore ? (Y/YES   N/NO   R/REDO):  ~~~Accept quantity ~~~  CONFIRMATION: ===== Product name : Salmon Sushi Product ID : PID0001 Quantity : 10 pcs Price: RM 5.00 Total Price : RM 50.00 CONFIRMATION: ===== Product name : Tuna Sushi Product ID : PID0002 Quantity : 20 pcs Price: RM 5.00 Total Price : RM 100.00 CONFIRMATION: ===== Product name : Takoyaki Product ID : PID0003 Quantity : 30 pcs Price: RM 7.00 Total Price : RM 210.00 ===== Anymore ? (Y/YES   N/NO   R/REDO): </pre>
--	--	--

		<p>- After confirm Order, an order detail will show and the user can press '1' to confirm the order and process to the payment part, and press '2' to cancel the order.</p> <pre> Anymore ? (Y/YES   N/NO   R/REDO): n  ===== Order Details : ===== Order ID : OID00001 Order Name : Salmon Sushi Quantity : 10 pcs Price: RM 5.00 Total Price : RM 50.00 Service charge (SST) : 10.0% ===== Order ID : OID00001 Order Name : Tuna Sushi Quantity : 20 pcs Price: RM 5.00 Total Price : RM 100.00 Service charge (SST) : 10.0% ===== Order ID : OID00001 Order Name : Takoyaki Quantity : 30 pcs Price: RM 7.00 Total Price : RM 210.00 Service charge (SST) : 10.0% ===== Grand Total : RM 396.00 =====  Confirm ? (1 = confirm   2 = cancelled) 1 </pre>
--	--	--



		<ul style="list-style-type: none"><li>- If the user presses for redo all the ordered product will be reset and ask the user to input again.</li></ul>
		<pre>Row 1 Enter product ID ( E/e to exit):pid0001 PID0001 found ~  Enter quantity want (-1 to exit): 10  ~~~Accept quantity ~~~  CONFIRMATION: ===== Product name : Salmon Sushi Product ID : PID0001 Quantity : 10 pcs Price: RM 5.00 Total Price : RM 50.00 ===== Anymore ? (Y/YES   N/NO   R/REDO): r All rows details has been removed !</pre>

#### 4. Receipt Module

- After all the process has been done in the payment and membership part, users can go to the receipt module to view the daily order that has been made as well as the staff in charge, date and time receipt made and all the ordered product details.

Choose either (1-8) : 7

```
=====
Receipt details :
=====
Transaction ID : OID00001
Staff ID : S1001
Receipt date : 2021/09/12 19:13
Product Name : Salmon Sushi
Product ID : PID0001
Quantity : 10
Price : RM 5.00
Total Price : RM 50.00
Grand total : RM 397.00
=====
Transaction ID : OID00001
Staff ID : S1001
Receipt date : 2021/09/12 19:13
Product Name : Tuna Sushi
Product ID : PID0002
Quantity : 20
Price : RM 5.00
Total Price : RM 100.00
Grand total : RM 397.00
=====
Transaction ID : OID00001
Staff ID : S1001
Receipt date : 2021/09/12 19:13
Product Name : Takoyaki
Product ID : PID0003
Quantity : 30
Price : RM 7.00
Total Price : RM 210.00
Grand total : RM 397.00
=====
```

## 5. Product Module

### (Display Product)

- Display all the current products.

```

Display Product Details
-----
Product 1 =>
Product Name : Salmon Sushi
Product ID : PID0001
Product Description : Salmon sushi is often eaten nigiri style, with a ball of vinegared sushi rice topped with a slice of salmon.
Product Category : Sushi
Product Quantity : 100
Product Price : RM 5.00

Product 2 =>
Product Name : Tuna Sushi
Product ID : PID0002
Product Description : Tuna sushi is similar to salmon sushi, except it is made by tuna fish.
Product Category : Sushi
Product Quantity : 100
Product Price : RM 5.00

Product 3 =>
Product Name : Takoyaki
Product ID : PID0003
Product Description : Takoyaki is a ball-shaped Japanese snack or appetizer made of a wheat flour-based batter and cooked in a special molded pan.
Product Category : Sushi
Product Quantity : 100
Product Price : RM 7.00

Product 4 =>
Product Name : Green Tea (Hot)
Product ID : PID0004
Product Description : Green tea is a type of tea that is made from Camellia sinensis leaves.
Product Category : Drink
Product Quantity : 100
Product Price : RM 1.00

Product 5 =>
Product Name : Green Tea (Ice)
Product ID : PID0005
Product Description : Green tea is a type of tea that is made from Camellia sinensis leaves.
Product Category : Drink
Product Quantity : 100
Product Price : RM 1.50

Product 6 =>
Product Name : Udon
Product ID : PID0006
Product Description : Udon is a type of thick, wheat-flour noodle used frequently in Japanese cuisine.
Product Category : Noodles
Product Quantity : 100
Product Price : RM 12.00

```

### (Add Product)

- Users can add the new product in this part, by set the description of the product, name and the product ID differently with the other if not an error message will pop up and ask the user to change the Product ID. Of course users can press 'e/E' to exit.

```

-----
Add Product
-----

Product Name ( E/e to exit ) : Sushi hawaii
Product ID (Ex: OID00001) ( E/e to exit ) : pid0001
This product ID has been register !
Product ID (Ex: OID00001) ( E/e to exit ) : pid0010
Description ( E/e to exit ) : super one floor nice sushi!!

```

- After that, it will be required to categorize the new product added, add the price and quantity as well. Users can press 'y/Y' to confirm to add and press 'n/N' to cancel the product.

```

|-----|
|Category:|
|-----|
| S/s => Sushi|
| D/d => Drink|
| N/n => Noodles|
| R/r => Rice|
| E/e => Back|
|-----|
Choose :s

```

```

Quantity (-1 to exit):
10
Price (-1 to exit):
10
=====
Product details :

Product Name : Sushi hawayi
Product ID : PID0010
Product Description : super one floor nice sushi!!
Product Category : Sushi
Product Quantity : 10
Product Price : RM 10.00
=====
Confirm add product? (Y/YES | N/NO) (Case insensitive) y
1 product has been added succesfully !
Do you want to add more product? (Y/YES | N/NO) (Case insensitive) n
Thank you
-----

```

- After that, the user will be able to see the product added in the bottom of the order menu and product menu.

```

Product 9 =>
Product Name : Donburi
Product ID : PID0009
Product Description : Donburi is a Japanese rice bowl dish consisting of f
Product Category : Rice
Product Quantity : 100
Product Price : RM 11.00

```

```

Product 10 =>
Product Name : Sushi hawayi
Product ID : PID0010
Product Description : super one floor nice sushi!!
Product Category : Sushi
Product Quantity : 10
Product Price : RM 10.00

```

#### - Order Menu:

```

PID0008          Yakitori          3.9
PID0009          Donburi            11.0
PID0010          Sushi hawayi       10.0
-----

```

**(Delete Product)**

- To perform this action the user must enter the correct product that needs to be deleted or else an error message will pop up and user to input again. And users can press 'n/N' to exit this part.

```
Enter Product ID you want to delete (E/e to exit):
we
```

```
This product ID does not exist !
Do you want to delete more product? (Y/YES | N/NO) (Case insensitive) |
```

- In this case, I have deleted the product for 'pid0001' 'Salmon Sushi'

```
Enter Product ID you want to delete (E/e to exit):
pid0001

Product found !

Product Details =>
Product Name : Salmon Sushi
Product ID : PID0001
Product Description : Salmon sushi is often eaten nigiri style, with a ball of vinegared sushi rice topped with a slice of salmon.
Product Category : Sushi
Product Quantity : 100
Product Price : RM 5.00
Confirm delete product? (Y/YES | N/NO) (Case insensitive) y
1 Product Removed Successfully !
Do you want to delete more product? (Y/YES | N/NO) (Case insensitive) n
-----
```

- So in the product list the pid0001 Salmon Sushi will be deleted and the product menu with 9 products will become 8 products.

```
-----
Display Product Details
-----
Product 1 =>
Product Name : Tuna Sushi
Product ID : PID0002
Product Description : Tuna sushi is similar to salmon sushi, except it is made by tuna fish.
Product Category : Sushi
Product Quantity : 100
Product Price : RM 5.00

Product 2 =>
Product Name : Takoyaki
Product ID : PID0003
-----
```

- In the order menu the pid0001 Salmon Sushi will be deleted as well, if the user inputs 'pid0001', an error message will pop up and mention that the product doesn't exist.

```
-----Sushi Queen Menu-----
Product ID      Product Name      Price (RM)
-----
PID0002         Tuna Sushi         5.0
PID0003         Takoyaki            7.0
PID0004         Green Tea (Hot)     1.0
PID0005         Green Tea (Ice)     1.5
PID0006         Udon                12.0
PID0007         Tempura             9.0
PID0008         Yakitori            3.9
PID0009         Donburi             11.0
-----

**Quantity order for each product cannot exceed 100**

Row 1
Enter product ID ( E/e to exit):pid0001
This product ID does not exist !!!

Enter product ID ( E/e to exit):
```

**(Edit Product)**

- This part will allow the user to edit the details for each product in the product list, and the user can edit the product name, ID , description, price and quantity.

Modify Product Details

Enter Product ID you want to modify (E/e to exit):

pid0002

Product found !

Enter new product details-----

Product Name ( E/e to exit ): Sushi Burger

Product ID ( E/e to exit ): pid0011

Description ( E/e to exit): Hot and Spicy sushi come have a try.

|Category:

| S/s => Sushi

| D/d => Drink

| N/n => Noodles

| R/r => Rice

| E/e => Back

Choose :S

Quantity (-1 to exit):

100

Price (-1 to exit):

10

Confirm add product? (Y/YES | N/NO) (Case insensitive) y

Update succesful !

Do you want to modify more product? (Y/YES | N/NO) (Case insensitive) n

- After that, the latest product edit will display in the product menu and order menu.

Display Product Details

Product 1 =>

Product Name : Sushi Burger

Product ID : PID0011

Product Description : Hot and Spicy sushi come have a try.

Product Category : Sushi

Product Quantity : 100

Product Price : RM 10.00

order menu :

-----Sushi Queen Menu-----		
Product ID	Product Name	Price (RM)
PID0011	Sushi Burger	10.0
PID0003	Takoyaki	7.0
PID0004	Green Tea (Hot)	1.0
PID0005	Green Tea (Ice)	1.5

3.



Tai Kim Ruey

## 1. Delivery

When the user chooses in the delivery module, the user will see the delivery details and the user can choose the option to update delivery or cancel the delivery.

No.	Order ID	Tracking No	Delivery Company	Customer Name	Customer Contact	Address	Delivery Status
1)	OID00124	100001	Sushi Queen Express	Eric Tan	011-21941587	23, Jalan Rakyat, Kampus Uthman, Jalan Genting Kelang, 53300 Kuala Lumpur	Preparing
2)	OID00235	100002	Sushi Queen Express	James Low	014-2945412	54-B, Jalan Sihat, Bandar Barat, 52300 Kuala Lumpur	Shipping
3)	OID00243	100003	Sushi Queen Express	Riza Lee	012-9423487	27, Jalan Jaya, 53300 Kuala Lumpur	Delivered

```

DeliveryManagement
-----
1. Update Delivery
2. Delete Delivery
3. Back
Enter your selection :

```

## 2. Update Delivery

- When the user chooses to update delivery, at first, the system will give the user choice with the order you want to update. After keying in the number of selection, the system will print out the update list including 4 types of things that can be updated, which are update customer name, update customer address, update customer contact no and the last one update delivery status.

Enter number do you want to update (No.) : 1

```

Update*Delivery
-----
1. Update Customer Name
2. Update Customer Address
3. Update Customer Contact No
4. Update Delivery Status

```

Enter your selection (1-4) : |

## 3. Update Customer Name

- When the user chooses to update the customer name, the system will print out “Enter new Customer Name” to give the user to key in new name. If successful key in, the system will print out a successful letter.

```

Update*Delivery
-----
1. Update Customer Name
2. Update Customer Address
3. Update Customer Contact No
4. Update Delivery Status

```

Enter your selection (1-4) : 1

Enter new Customer Name: Ali

Processing..... Successfull!!!!

## 4. Update Customer Address

When the user chooses to update the customer address, the system will print out “Enter new Customer Address” to give the user to key in new address. If successful key in, the system will print out a successful letter.

```

|-----|
| Update*Delivery |
|-----|
| 1. Update Customer Name |
| 2. Update Customer Address |
| 3. Update Customer Contact No |
| 4. Update Delivery Status |
|-----|

```

Enter your selection (1-4) : 2

Enter new Customer Address: 89- Selamat,23560 Selangor.

Processing..... Successfull!!!!

## 5. Update Customer Contact No

- When the user chooses to update the customer contact no, the system will print out “Enter new Customer Contact No” to give the user to keyin new contact. If successful keyin, the system will print out a successful letter.

```

|-----|
| Update*Delivery |
|-----|
| 1. Update Customer Name |
| 2. Update Customer Address |
| 3. Update Customer Contact No |
| 4. Update Delivery Status |
|-----|

```

Enter your selection (1-4) : 3

Enter new Customer Contact No: 012-3247689

Processing..... Successfull!!!!

## 6. Update Delivery Status

When the user chooses to update the delivery status, the system will print out “Enter new Delivery Status” to give the user to keyin new status. If successful keyin, the system will print out a successful letter.

```

|-----|
| Update*Delivery |
|-----|
| 1. Update Customer Name |
| 2. Update Customer Address |
| 3. Update Customer Contact No |
| 4. Update Delivery Status |
|-----|

```

Enter your selection (1-4) : 4


Enter new Delivery Status: Shipping

Processing..... Successfull!!!!

## 7. Delete Delivery

- When the user chooses to Delete Delivery, the system will give the user a choice with the number of delivery orders you want to delete. After choosing the order, the system will print out to let the user know the order is successfully deleted.



		<pre>   Delivery*Management    -----    1. Update Delivery      2. Delete Delivery      3. Back                                       Enter your selection : 2  Enter number do you want to remove (No.) : 2 Remove Successful !!!!  No.  Order ID  Tracking No  Delivery Company  Customer Name  Customer Contact  Address  Delivery Status ----- 1)  02D00124  100001  Sunli Queen Express  Ali  012-3247689  89- Selamat, 23540 Selangor.  Shipping 2)  02D00243  100003  Sunli Queen Express  Fiza Lee  012-5423487  27, Jalan Jaya, 53300 Kuala Lumpur  Delivered </pre> <h3>8. Delivery Option</h3> <p>This delivery option table will display before the payment. In this delivery option, the user can choose 2 different delivery tracking, either Standard Delivery or Premium Delivery. After the user chooses the delivery tracking, the system will require the user to keyin name, contact and Delivery address. Next, System displays the delivery distance and the delivery fee to let the user know.</p> <h3>9. Standard Delivery</h3> <pre>   Delivery*Tracking    -----    1. Standard Delivery     2. Premium Delivery                           Choose Delivery Option (1/2) : 1  Enter Receiver Name : Abu Enter Contact Number : 011-2354687 Enter Delivery Address : 12- Manjob 34670 selangor. Delivery Distance : 11 KM Delivery Fee: RM 5.5 </pre> <h3>10. Premium Delivery</h3> <pre>   Delivery*Tracking    -----    1. Standard Delivery     2. Premium Delivery                           Choose Delivery Option (1/2) : 2  Enter Receiver Name : John Enter Contact Number : 014-9761258 Enter Delivery Address : 90- Faststreet, 54780 selangor. Delivery Distance : 5 KM Delivery Fee: RM 7.5 </pre>
4.		<h3>1. Payment</h3> <ul style="list-style-type: none"> <li>- When the user completes the order, the payment menu will be displayed, asking the user which payment method to choose.</li> </ul>


	Desmond Lim Chiang Shen	<div data-bbox="660 241 1182 555"> <pre>    Payment Type Selection:       1. Cash Payment          2. Card Payment           Choose (1-2) :   </pre> </div> <div data-bbox="660 622 912 658"> <h2>2. Cash Payment</h2> </div> <div data-bbox="660 696 1436 952"> <ul style="list-style-type: none"> <li>- When the user chooses to pay in cash, the user must enter the payment amount. If the receipt amount entered by the user is less than the amount that must be paid, it will show that there is not enough money and ask the user to enter the receipt amount until it exceeds the payment amount. If there is any remaining amount, it will also be displayed.</li> </ul> </div> <div data-bbox="655 1041 1385 1489"> <pre> Cash Payment ----- RM 229.00 need to pay Receive amount: RM 220 Not enough money!  Receive amount: RM 230 Accept amount !  Change : RM 1.00 Thank you for your Payment! Have a nice day! ----- </pre> </div> <div data-bbox="660 1572 912 1608"> <h2>3. Card Payment</h2> </div> <div data-bbox="660 1646 1436 1904"> <ul style="list-style-type: none"> <li>- When the user chooses bank card payment, the user must enter the card holder name, last 4 digit card number and cvv. If the user enters the last 4 digit card number, an error will be displayed and the CVV number must be a 3 digit number. If it is not, it will show the wrong input. When the user enters all the correct operations, the amount will be directly settled.</li> </ul> </div>
--	-------------------------	---

	<pre> Product Details : ----- Product Name : Takoyaki Product ID : PID0003 Quantity : 30 Price : RM 7.00 Total Price : RM 210.00 Service charge (SST) : 10.0% Membership Discount : 0.0 Delivery Fee : RM 3.0 =====  Grand Total : RM 234.00 =====  Payment Type Selection: ----- 1. Cash Payment 2. Card Payment ----- Choose (1-2) : 2  Card Payment ----- Enter Card Holder Name : Desmond Please enter LAST 4 digit card number : 4231 Please enter cvv number : 252 Thank you DESMOND with card 4231 pay with Amount RM 234.00 for your Payment! Have a nice day! ----- </pre>	
	<h4>4. Receipt</h4> <ul style="list-style-type: none"> <li>- The receiving module is when the order is completed, it will be displayed to the user to check or check whether the food purchased by the user is selected by the user. And when the user confirms the order, the content will be inherited to the daily report module.</li> </ul>	
	<pre> ===== Receipt details : ===== Transaction ID : OID00001 Staff ID : S1001 Receipt date : 2021/09/12 19:52 Product Name : Salmon Sushi Product ID : PID0001 Quantity : 15 Price : RM 5.00 Total Price : RM 75.00 Grand total : RM 109.50 ===== ===== </pre>	
	<h4>5. Daily Report</h4> <ul style="list-style-type: none"> <li>- The content of the daily report module inherits the food content (such as quantity, product id, etc.) and the total price in the receipt.</li> </ul>	

		<pre> ----- Sushi Queen Sdn Bhd Address:10, Jalan Raya 19/8, 15, 57100 Subang Jaya, Selangor  -----Daily Summary Report----- Date          Product ID    Product Name    Total Quantity    Total Amount ===== 2021/09/12 01:38  PID0003      Takoyaki          30              210.00 ===== Grand Total: RM 210.00  ===== ( 1 ) Record Found  Press anything to continue..... </pre> <h2>6. Monthly Report</h2> <ul style="list-style-type: none"> <li>- The content of the monthly report module will display all food sales in 2021, the total number of sales and the total price, and will calculate the average amount of funds that the company can obtain each month. If the user also wants to view the monthly report module for a single month, he can enter the month he wants to view after selecting option 2 in the 2021 monthly report menu, and the report will show the sales and total price of the single month.</li> </ul> <pre> ----- Sushi Queen Sdn Bhd Address:10, Jalan Raya 19/8, 15, 57100 Subang Jaya, Selangor  -----2021 Summary Report----- Date          Product ID    Product Name    Total Quantity    Total Amount ===== 2021/1/31      PID0001      Salmon Sushi    360              1800.00 2021/1/31      PID0002      Tuna Sushi      250              1250.00 2021/2/28      PID0001      Salmon Sushi    440              2250.00 2021/2/28      PID0003      Takoyaki        256              1792.00 2021/3/31      PID0002      Tuna Sushi      240              1200.00 2021/3/31      PID0003      Takoyaki        220              1540.00 2021/4/30      PID0004      Green Tea (Hot)  45               45.00 2021/4/30      PID0005      Green Tea (Ice)  45              67.50 2021/5/31      PID0001      Salmon Sushi    350              1750.00 2021/5/31      PID0006      Udon            78              936.00 2021/6/30      PID0002      Tuna Sushi      400              2000.00 2021/6/30      PID0004      Green Tea (Hot)  408              408.00 2021/7/31      PID0007      Tempura         100              900.00 2021/7/31      PID0002      Tuna Sushi      350              1750.00 2021/8/31      PID0008      Yakitori        70              273.00 2021/8/31      PID0006      Udon            55              660.00 2021/9/30      PID0009      Donburi         92              1150.00 2021/9/30      PID0005      Green Tea (Ice)  435              652.50 2021/10/31     PID0009      Donburi         780              8580.00 2021/10/31     PID0008      Yakitori        620              2418.00 2021/11/30     PID0001      Salmon Sushi    350              1750.00 2021/11/30     PID0007      Tempura         120              1080.00 2021/12/31     PID0002      Tuna Sushi      310              1550.00 2021/12/31     PID0006      Udon            800              9600.00 ===== Grand Total: RM 45402.00 Average: RM 1891.75  ===== ( 24 ) Record(s) Found  Press anything to continue.....  </pre>
--	--	--

		<div style="text-align: center; border: 1px solid black; padding: 5px; margin-bottom: 10px;"> 2021 Monthly Report  -----  1. Display Report  2. Search Monthly Report  3. Back  ----- </div> <p>Enter month(1-12): 10  Date: 2021/10/31</p> <p style="text-align: right;">Choose either (1-3) : 2</p> <p style="text-align: center;">Sushi Queen Sdn Bhd  Address:10, Jalan Raya 19/8, 15, 57100 Subang Jaya, Selangor</p> <p style="text-align: center;">-----Monthly Summary Report-----</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Date</th> <th style="text-align: left;">Product ID</th> <th style="text-align: left;">Product Name</th> <th style="text-align: left;">Total Quantity</th> <th style="text-align: left;">Total Amount (RM)</th> </tr> </thead> <tbody> <tr> <td>2021/10/31</td> <td>PID0009</td> <td>Donburi</td> <td>780</td> <td>8580.00</td> </tr> <tr> <td>2021/10/31</td> <td>PID0008</td> <td>Yakitori</td> <td>620</td> <td>2418.00</td> </tr> <tr> <td colspan="4"></td> <td style="text-align: right;">=====</td> </tr> <tr> <td colspan="4"></td> <td style="text-align: right;">Grand Total: RM 10998.00</td> </tr> </tbody> </table> <p style="text-align: center;">=====</p> <p style="text-align: center;">( 2 ) Record(s) Found</p>	Date	Product ID	Product Name	Total Quantity	Total Amount (RM)	2021/10/31	PID0009	Donburi	780	8580.00	2021/10/31	PID0008	Yakitori	620	2418.00					=====					Grand Total: RM 10998.00					
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		<h2 style="margin: 0;">7. Best Selling Report</h2> <ul style="list-style-type: none"> <li>- The best-selling report module will inherit the data in the receipt module and will have the total number of foods in the monthly report to make a ranking list. When a user completes a new order, the number of foods in the best-selling report will also change. If the number of foods exceeds the number of other foods, the ranking will change accordingly.</li> </ul>																														
		<p style="text-align: center;">Sushi Queen Sdn Bhd  Address:10, Jalan Raya 19/8, 15, 57100 Subang Jaya, Selangor</p> <p style="text-align: center;">-----Best Selling Summary Report-----</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Product Name</th> <th style="text-align: left;">Product ID</th> <th style="text-align: left;">Quantity</th> </tr> </thead> <tbody> <tr> <td>Tuna Sushi</td> <td>PID0002</td> <td>1550</td> </tr> <tr> <td>Salmon Sushi</td> <td>PID0001</td> <td>1500</td> </tr> <tr> <td>Udon</td> <td>PID0006</td> <td>933</td> </tr> <tr> <td>Donburi</td> <td>PID0009</td> <td>872</td> </tr> <tr> <td>Yakitori</td> <td>PID0008</td> <td>690</td> </tr> <tr> <td>Takoyaki</td> <td>PID0003</td> <td>506</td> </tr> <tr> <td>Green Tea (Ice)</td> <td>PID0005</td> <td>480</td> </tr> <tr> <td>Green Tea (Hot)</td> <td>PID0004</td> <td>453</td> </tr> <tr> <td>Tempura</td> <td>PID0007</td> <td>220</td> </tr> </tbody> </table> <p style="text-align: center;">=====</p> <p style="text-align: center;">( 9 ) Record Found</p> <p>Press anything to continue..... </p>	Product Name	Product ID	Quantity	Tuna Sushi	PID0002	1550	Salmon Sushi	PID0001	1500	Udon	PID0006	933	Donburi	PID0009	872	Yakitori	PID0008	690	Takoyaki	PID0003	506	Green Tea (Ice)	PID0005	480	Green Tea (Hot)	PID0004	453	Tempura	PID0007	220
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**4. Individual explanation on inheritance and polymorphism. (Note: Every team member must write on their own.)**

No.	Team Member Name	Explanation on inheritance and polymorphism
1.	 <p>Hii Puong Hou</p>	<p><b><u>Inheritance</u></b></p> <p>(Membership Class)</p> <ul style="list-style-type: none"> <li>- The concept of inheritance is applied in the Membership class, Basic_Membership class, Silver_Membership class and Gold Membership class. <b>Membership</b> class is the parent class or superclass that contain membership's attributes such as member, member status, member point and the membership methods such as constructors, setter and getter methods, create member, display member, update member and delete member.</li> <li>- Meanwhile, the other classes such as <b>Basic_Membership</b>, <b>Silver_Membership</b> and <b>Gold_Membership</b> are the child classes that inherit all the attributes and methods from the parent class, which is the <b>Membership</b> class. In order to inherit from the parent class, the keyword '<b>extends</b>' is used in each of the child classes. Besides that, by using the keyword '<b>Super</b>' in all types of membership class, they are able to use all the attributes and methods from the parent class, which is the Membership class. For example in the Basic_Membership class, in order to call the attributes from the Membership class, simply type '<b>Super (member, memberStatus);</b>'</li> </ul> <pre> 17 public class VoucherRedemption extends GiftRedemption {     private String VoucherCode;     private static int pointRequirement = 100;      public VoucherRedemption () {     }      public VoucherRedemption (Member member, int giftID, String giftName){         super (member, giftID, giftName);     } </pre> <p>(GiftRedemption Class)</p> <ul style="list-style-type: none"> <li>- Besides that, the parent class <b>GiftRedemption</b> contains attributes such as member, giftID, giftName, dateRedemption and methods such as constructors and</li> </ul>

all the setter and getter methods. There are two child classes, **VoucherRedemption** class and **ItemRedemption** Class that inherit from the parent class, GiftRedemption.

- Similarly to the Membership class and its child class, if the VoucherRedemption and ItemRedemption class are to use the attributes or method from parent class, GiftRedemption, the keyword 'Super' is used, for example, "**Super (member, giftID, giftName)**" and "**return super.toString();**"

```
public class ItemRedemption extends GiftRedemption{
    private static String [] ItemName = {"HandBag", "Mini Fan", "PowerB
    public ItemRedemption () {
    }
    public ItemRedemption (Member member, int giftID, String giftName){
        super (member, giftID, giftName);
    }
}
```

### Polymorphism

- The concept of polymorphism also applied both in the parent class of **Membership class** and **GiftRedemption** class with its child classes.

(Membership Class)

- The **createMember** method in Basic\_Membership, Silver\_Membership and Gold\_Membership are inherited from the Membership class. However, the createMember method that inherits to each of the child classes is modified. For example, the createMember method in **Silver\_Membership** class will create silver type of membership with value String type "**Silver**" save to the memberStatus variable while in **Gold\_Membership** will create gold type of membership with value String type "**Gold**" save to the memberStatus variable.
- And also, the toString method in each child class that inherits from Membership class is modified. For example, **Silver\_Membership** class will return the **toString** method that called from the parent class with **add ons of returning all the attributes** in the Silver\_Membership class.

```
@Override
public String toString () {
    return super.toString() + "\nMember Ship : " + memberDiscount + "\n Month1
}
```

(GiftRedemption Class)

- Similar to the Membership class and its child class, the attributes and methods in the **VoucherRedemption** class and **ItemRedemptionclass** are inherited from the **GiftRedemption** class with modification and add ons. For example, the toString method in both child class that inherit from the GiftRedemption class are used and modified, such as returning the toString method from the parent class with its own different attributes and values, thus achieving the polymorphism concept.

```
@Override
public String toString () {
    return super.toString() + "\tPoint Required per Redemption : " + pointRequirement;
}
```



2.



Lau Zhou Kang

## Inheritance

(Staff Class)

- The concept of inheritance is applied in the **Staff class** and **Login class**. **Staff class** is the parent class or superclass that contain staff attributes such as staffID, staffName, password, recoveryQuestion and recoveryAnswer. Besides, the staff methods such as constructors, setter and getter methods, display staff, search staff, edit staff, add staff and delete staff.

```
public class Login extends Staff {
    String id = ""; // user input id during login
    String password = ""; // user input password during login
    String answer; // user input recovery answer during login
    Integer count = 0; // number of time wrong password
    String forgotPassword = " "; // decision for recovery question
    boolean error = false; // login error
    boolean found = true; // login success
}
```

- Meanwhile, the other class, **Login class**, is the child class that inherits all the attributes and methods from the parent class, which is the Staff class. In order to inherit from the parent class, the keyword '**extends**' is used in each of the child classes. Besides that, by using the keyword '**Super**' in all types of **Staff class**, they are able to use all the attributes and methods from the parent class.

(Order class)

- The parent class of **Order** contains the attributes such as prodID, orderID, sysDate, prodName, price, quantity and totalPrice and methods such as constructors and all setter and getter methods. There are two child classes, **product class** and **receipt class**.

```
public class product extends order{
    //variable
    private String prodName;
    private String prodID;
    private String desc;
    private String cat;
    private int qty;
    private double price;
    public static int count = 0;
    private int qtyOrder = 0;

    public product() {
        this("", "", "", "", 0, 0.0);
    }
    public product(int qtyOrder, String prodID) {
        this.qtyOrder=qtyOrder;
        this.prodID = prodID;
    }
}
```

- The **product class** and **receipt class** are using the attributes or method from parent class, Order, the keyword 'Super' is used for example if the subclass wants to call the property in the parent class, it only needs to add "super.toString() + "\nOrder ID: " + orderID + "\nProduct Name : " + prodName + "\nTotal Price" + totalPrice"

```
public class receipt extends order {
    //variable
    private double totalAmount;
    private String transactionID;
    private String sysDate;
    public String staffID;
    private String prodName;
    private String prodID;
    private double grandTotal;
    int qty;
    double price;

    public receipt (String prodName, String prodID, int qty, double price, String orderID, double totalPrice, String staffID, String sysDate,
        transactionID = orderID;
        this.grandTotal = grandTotal;
        this.sysDate = sysDate;
        totalAmount = totalPrice;
        this.staffID = staffID;
        this.prodName=prodName;
        this.prodID = prodID;
        this.qty = qty;
        this.price = price;
    }
}
```

## Polymorphism

(Staff Class)


- This class has been fully applied to the CRUD process All the modification data can only be edited in the Staff catalog. However, only the role of "Manager" will have the authority to display all the details for other staff, edit, add and delete staff. Thus achieving the polymorphism concept.

```
for the staff and help desk role so that they can't see other
tail
toStringOther() {
    in String.format("User ID          : " + staffID + "\nName          : " + staffName
        + "\nPassword          : ***** \nRecovery Question : ***** \nRecovery Answer : ***** \nRole
        + role + "\n\n");

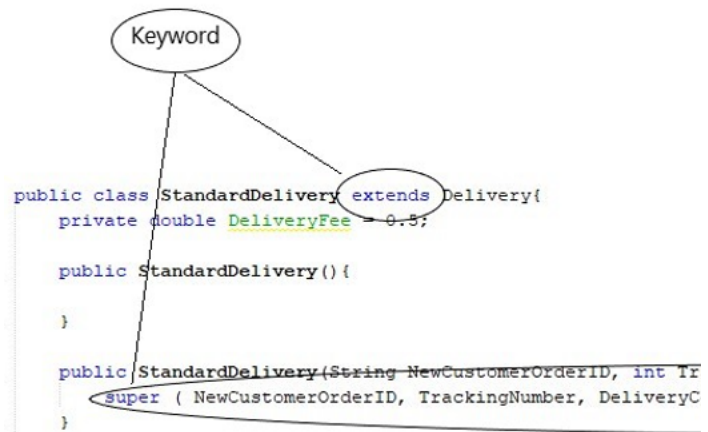
    method for manager role that can view all detail of all the staff
    toString() {
        in String.format("User ID          : " + staffID + "\nName          : " + staffName
            + "\nPassword          : " + password + "\nRecovery Question : " + recoveryQuestion
            + "\nRecovery Answer : " + recoveryAnswer + "\nRole          : " + role + "\n\n");

    method output in 1 line
    toStringLine() {
        in String.format("%9s \t %-20s %-20s %-20d %-20s %-15s\n", staffID, staffName, password, recoveryQuestion,
            recoveryAnswer, role);

    toStringLineOther() {
        in String.format("%9s \t %-20s *****          *****          %-15s\n",
            staffID, staffName, role);
    }
}
```

		<p>(Order class)</p> <ul style="list-style-type: none"> <li>- This class has been fully applied to the CRUD process as well. Order can be taken accordingly from the product that is in the product menu. If the staff wish to edit, delete or even add more products they can just insert all the details in the correct way like for example the prodID, description, prodName, price and after all this the product menu will also update to the latest one which was edited by the staff. Thus achieving the polymorphism concept.</li> </ul> <pre> public String toString () { return toString() + "\nOrder ID: " + orderID + "\nProduct Name : " + prodName + "\nTotal Price" + totalPrice; } </pre>
3.	 <p>Tai Kim Ruey</p>	<p><b><u>Inheritance</u></b></p> <p>(Delivery Class)</p> <ul style="list-style-type: none"> <li>- The concept of <b>inheritance</b> applied in the <b>Delivery class</b>, <b>StandardDelivery class</b> and <b>PremiumDelivery class</b>. The <b>Delivery</b> class is a <b>parent class</b> or call it as <b>superclass</b> contain the delivery attributes such as CustomerOrderID, TrackingNumber, DeliveryCompany, CustomerName, CustomerContactNo, CustomerAddress and DeliveryStatus.</li> <li>- The <b>StandardDelivery</b> and <b>PremiumDelivery</b> are <b>child classes</b> that inherit all the attributes in the parent class(Delivery). In order to inherit from the parent class, the keyword '<b>extends</b>' is used in each of the child classes. Beside that, the keyword '<b>Super</b>' is used in all</li> </ul>

types of Delivery class that inherit to the Delivery class, which is a parent class. **For example**, in the Standard class, in order to call the attributes from the Delivery Class, simply type 'super ( NewCustomerOrderID, TrackingNumber, DeliveryCompany, NewCustomerName, NewCustomerContactNo, NewCustomerAddress, DeliveryStates);'




### Polymorphism

- The concept of polymorphism also applied both in the parent class of **StandardDelivery** and **PremiumDelivery** with its child classes.

(Delivery Class)

- The **StandardDelivery** and **PremiumDelivery** are inherited from the Delivery class. So that, the **toString** method in each **child class** that inherits from the Delivery class is **modified**. **For example**, the **PremiumDelivery** class will **return** the **toString** method that was called from the parent class with some new attributes in the **PremiumDelivery** class.

		<pre> public class PremiumDelivery extends Delivery{     private double DeliveryFee = 1.5;      public PremiumDelivery() {      }      public PremiumDelivery(String NewCustomerOrderID,         super ( NewCustomerOrderID, TrackingNumber, I     }      public double getPremiumDeliveryFee() {         return DeliveryFee;     }      @Override     public String toString () {         return super.toString() + DeliveryFee ;     } } </pre>
4.	 <p>Desmond Lim Chiang Shen</p>	<p><b>Inheritance</b></p> <p>(payment Class)</p> <ul style="list-style-type: none"> <li>The concept of <b>inheritance</b> applies to <b>payment</b>, <b>cashPayment</b>, and <b>cardPayment</b> classes. (<b>Payment is a business module</b>) So the <b>payment class</b> is the <b>parent class</b> or <b>super class</b>. The <b>cashPayment class</b> and the <b>cardPayment class</b> must inherit all the properties of the <b>parent class</b>, such as receiving the amount, so that the amount can be settled, as well as the constructor, setter, and getter methods. The <b>cashPayment class</b> and the <b>cardPayment class</b> are both <b>subclasses</b>, so to inherit all the attributes of the <b>parent class</b>, you must use the keyword "<b>extends</b>" to connect, and use the keyword "<b>super</b>" in the class. For example, if the <b>subclass</b> wants to call the property in the <b>parent class</b>, it only needs to add "<b>super(change, amoutReceive);</b>" and "<b>return super.toString();</b>".</li> </ul> <p><u>cashPayment</u></p> <pre> public class cashPayment extends payment{     private double cashPaymentChange;     private double cashPaymentAmountReceive;      public cashPayment(double change, double amoutReceive) {         super(change, amoutReceive);         // TODO Auto-generated constructor stub     } } </pre> <p><u>cardPayment</u></p>

```

public class cardPayment extends payment {

    // variable
    private String cardHolderName;
    private int cardNumber;
    private int cvv;

    //constructor
    public cardPayment(double change) {
        super(change, getAmountReceive());
    }
}

```

### Polymorphism

(payment Class)

- **cashPayment class** and **cardPayment class** are **business modules** so they must inherit the payment class. The **toString method** in each subclass inherited by the payment class will also change. For example, the **cashPayment class** will return the **toString method** called from the **payment parent class** and return all the attributes in the **cashPayment class**, such as amountReceive.

payment

```

@Override
public String toString() {
    return "payment{" + "change=" + change + '}';
}

```

cashPayment

```

@Override
public String toString() {
    return "cashPayment{" + "cashPaymentChange=" + cashPaymentChange + ", cashPaymentAmountReceive=" + cashPaymentAmountReceive + '}';
}

```

cardPayment

```

@Override
public String toString() {
    return "cardPayment{" + "cardHolderName=" + cardHolderName + ", cardNumber=" + cardNumber + ", cvv=" + cvv + '}';
}

```

(Receipt Class)

- The **display methods** in **DailyReport class**, **monthlyReport class**, and **bestSellingReport class** are inherited from the **Receipt class**. The **toString method** in each **subclass** inherited by the **Receipt class** will also change. For example, the **DailyReport class** will return the **toString method** called from the **Receipt parent class** and return all the attributes in the **DailyReport class**, thus realizing the concept of **polymorphism**.

		<div> <u>Receipt</u> <pre> public String toString1() { //print the details     return String.format("%-17s %-8s %15s %1d %25.2f", sysDate, prodID, prodName, qty, totalAmount); } </pre> </div> <div> <u>dailyReport</u> <pre> //toString methods public String toString() {     return String.format("%.2f", grandDailyTotal); } </pre> </div> <div> <u>monthlyReport</u> <pre> @Override public String toString() {     return "monthlyReport{" + "grandMonthlyTotal=" + grandMonthlyTotal + ", avgSales=" + avgSales + '}'; } </pre> </div> <div> <u>bestSellingReport</u> <pre> @Override public String toString() {     return "bestSellingReport{" + "prodID=" + prodID + ", prodName=" + prodName + ", qty=" + qty + ", highestSellingProduct=" + highestSellingProduct + ", lowestSellingProduct=" + lowestSellingProduct + '}'; } </pre> </div>
--	--	--