

# Software Design

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Answer:

使用案例圖需求:

1. 客人向店員點餐
2. 店員向客人確認餐點
3. 店員向客人確認是否有會員?
4. 店員向客人確認是否有統編、載具?
5. 店員向客人收錢找零
6. 店員給客人飲料明細、取餐編號
7. 客人取餐

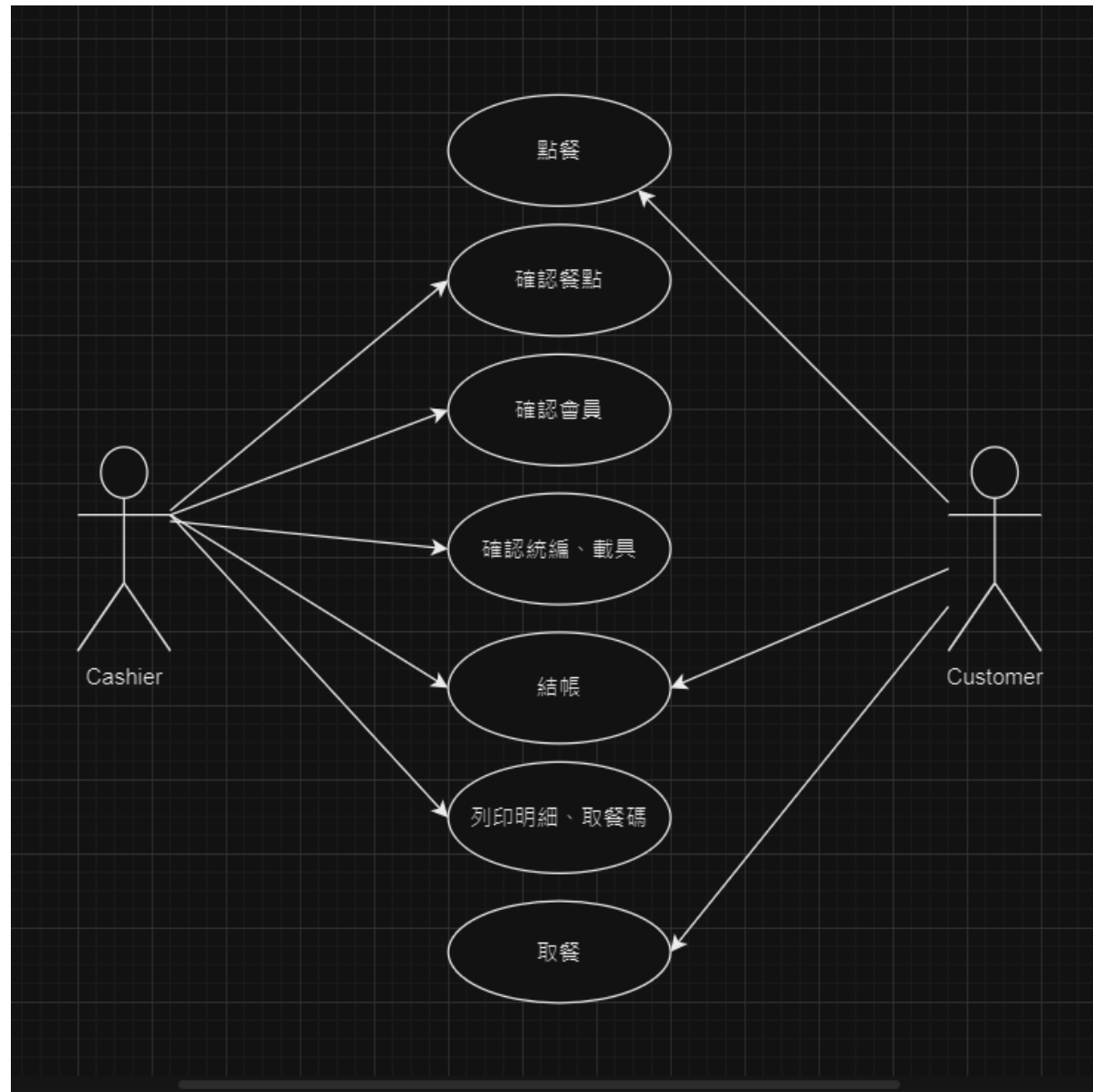
Key word:

客人、店員、會員、統編、載具、餐點、結帳、明細、取餐編號

Methods	My Outcomes
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draw.io	<b>Items</b>	<b>Content</b>
	<b>SharedFile</b>	<a href="https://drive.google.com/file/d/1BiHlW9O1rZgYaFucwjPTStGJOSpf6Xfe/view?usp=sharing">https://drive.google.com/file/d/1BiHlW9O1rZgYaFucwjPTStGJOSpf6Xfe/view?usp=sharing</a>
	<b>Type</b>	Use Case Diagram

Diagram



	<b>MyLearning</b>	1. 可以自由拖拉內容比較方便，有時在無法用文字明確表達自己想法的時候，可以透過拖拉圖表來描述。

PlantU ML	<b>Items</b>	<b>Content</b>
	<b>SharedFile</b>	<a href="https://www.plantuml.com/plantuml/uml/ROyzReGm48LxdsBA8C4TYA19aGH5KNh77c24VrRZCTBUVhtiKe2sVDzd-RrfasYMx9roE0f81APf5h34Q8HYK4eRYGnTJX8zyXvrcgaajNDe6dZxPejCOQhKvf-qYs4azeN3zk1aPpGBVAB_Hoxqyih-IV_2Hr-NLcOwV_231cb56FJLOv2Z73YkP15wfh10ZwB9fVgn0xxolRGwtj15vz38FhN5OBDtDm00">https://www.plantuml.com/plantuml/uml/ROyzReGm48LxdsBA8C4TYA19aGH5KNh77c24VrRZCTBUVhtiKe2sVDzd-RrfasYMx9roE0f81APf5h34Q8HYK4eRYGnTJX8zyXvrcgaajNDe6dZxPejCOQhKvf-qYs4azeN3zk1aPpGBVAB_Hoxqyih-IV_2Hr-NLcOwV_231cb56FJLOv2Z73YkP15wfh10ZwB9fVgn0xxolRGwtj15vz38FhN5OBDtDm00</a>
	<b>Type</b>	Use Case Diagram
	<b>Code</b>	<pre> @startuml left to right direction  actor Customer actor Cashier  Customer -- (Ordering) Cashier -- (Confirming Order) Cashier -- (Check Membership) Cashier -- (Check VAT ID, Carrier) Cashier -- (Receive Payment) Cashier -- (Provide Drink Details, Order Number) Customer -- (Collect Order) @enduml </pre>

	Diagram	<pre> graph LR     Cashier((Cashier)) --- UC1(Confirming Order)     Cashier --- UC2(Check Membership)     Cashier --- UC3(Check VAT ID, Carrier)     Cashier --- UC4(Receive Payment)     Cashier --- UC5(Provide Drink Details, Order Number)     Customer((Customer)) --- UC6(Ordering)     Customer --- UC7(Collect Order)   </pre>
	MyLearning	<p>1. 可以透過文字描述的方式自動產生圖表，只要想好需求則一鍵產生。</p>

ChatGPT	<b>Items</b>	<b>Content</b>
	<b>SharedFile</b>	<a href="https://chat.openai.com/share/0aa565cd-9085-4806-bb06-fbe682d4b525">https://chat.openai.com/share/0aa565cd-9085-4806-bb06-fbe682d4b525</a>
	<b>Type</b>	Use Case Diagram
	<b>ChatGPT Version</b>	V3.5
	<b>ChatGPT Prompt</b>	<p>下列為飲料店點餐系統的需求 使用案例圖需求：</p> <ol style="list-style-type: none"> <li>1. 客人向店員點餐</li> <li>2. 店員向客人確認餐點</li> <li>3. 收銀員向客人確認是否有會員？</li> <li>4. 收銀員向客人確認是否有統編、載具？</li> <li>5. 收銀員向客人收錢找零</li> <li>6. 收銀員給客人飲料明細、取餐編號</li> <li>7. 客人取餐</li> </ol> <p>請將上述需求透過 plantUML 語法，產生使用案例圖的 code</p>
	<b>ChatGPT Code</b>	<pre>@startuml left to right direction actor Customer as C actor Clerk as K actor Cashier as A</pre>



		<p>C -- (Ordering)</p> <p>K -- (Confirming Order)</p> <p>A -- (Check Membership)</p> <p>A -- (Check VAT ID, Carrier)</p> <p>A -- (Receive Payment)</p> <p>A -- (Provide Drink Details, Order Number)</p> <p>C -- (Collect Order)</p> <p>@enduml</p>
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Diagram

plantuml

@startuml

left to right direction

actor Customer as C

actor Clerk as K

actor Cashier as A

C -- (Ordering)

K -- (Confirming Order)

A -- (Check Membership)

A -- (Check VAT ID, Carrier)

A -- (Receive Payment)

A -- (Provide Drink Details, Order Number)

C -- (Collect Order)

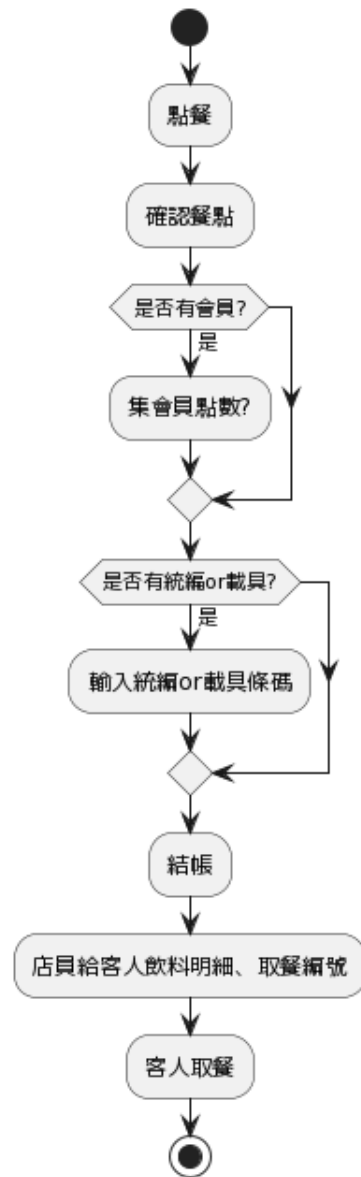
@enduml

	<b>MyLearn ing</b>	1. 第一次透過 chatGPT 來產生一個系統的圖表模型，它能將簡單的需求描述得更完善，不過有時候跑出來的答案卻不一定是自己想要的。

Method s	My Outcomes	
draw.io	Items	Content
	SharedFile	<a href="https://drive.google.com/file/d/1uEHaitc1EigtYsn8ik2crhO0HN4bNcue/view?usp=sharing">https://drive.google.com/file/d/1uEHaitc1EigtYsn8ik2crhO0HN4bNcue/view?usp=sharing</a>
	Type	Activity Diagram
	Diagram	<pre> graph LR     Start(( )) --&gt; Search[搜尋商品]     Search --&gt; Decision1{是否有會員}     Decision1 -- 是 --&gt; NoPoints[無會員點數]     Decision1 -- 否 --&gt; Checkout[結帳]     NoPoints --&gt; Decision2{是否有折碼、點數}     Decision2 -- 是 --&gt; InputCode[輸入折碼or 會員條碼]     Decision2 -- 否 --&gt; Checkout     InputCode --&gt; Checkout     Checkout --&gt; Receipt[給收據、找零]     Receipt --&gt; End((( )))   </pre>
	MyLearning	Draw.io 有內建泳道圖供使用，我覺得真的好方便，很輕鬆就拉出自己想表達的意思。

PlantUML	<b>Items</b>	<b>Content</b>
	<b>SharedFile</b>	<a href="https://www.plantuml.com/plantuml/uml/SoWkIImgAStDuG8pkAnUxfxtSia4QowhvuislLZL2sG3HQovCjCKD9xDMFzqmh9dSpgVpMb-EdcXIQP2IKPg7bXSaqj1mUhbx3Q83537iwaxxAsvKIDICjDGzJxVkl7vzXNvHI sT3vjtOvXneizEvwsBaLLz6pHtEUBzi1Citg-TSBJ7Pk1BdowQphGikTRbprTj-Z9hbql5szwDctcinbzpxTiUDpG-BH_6j3nG6DUp9mFL0nH0n6q1deslu3B0MWWqES0">https://www.plantuml.com/plantuml/uml/SoWkIImgAStDuG8pkAnUxfxtSia4QowhvuislLZL2sG3HQovCjCKD9xDMFzqmh9dSpgVpMb-EdcXIQP2IKPg7bXSaqj1mUhbx3Q83537iwaxxAsvKIDICjDGzJxVkl7vzXNvHI sT3vjtOvXneizEvwsBaLLz6pHtEUBzi1Citg-TSBJ7Pk1BdowQphGikTRbprTj-Z9hbql5szwDctcinbzpxTiUDpG-BH_6j3nG6DUp9mFL0nH0n6q1deslu3B0MWWqES0</a>
	<b>Type</b>	Activity Diagram
	<b>Code</b>	<pre> @startuml  start :點餐; :確認餐點; if (是否有會員?) then (是)     :集會員點數?; endif if (是否有統編 or 載具?) then (是)     :輸入統編 or 載具條碼; endif :結帳; :店員給客人飲料明細、取餐編號; :客人取餐; stop  @enduml </pre>

Diagram



	<b>MyLearning</b>	將 chatgpt 產生的 code 不合理、和自己預想不同之處加以修改，能輕易產出更加貼近自己想像的 Activity Diagram。

ChatGPT	<b>Items</b>	<b>Content</b>
	<b>SharedFile</b>	<a href="https://chat.openai.com/share/59050a38-62d4-4623-ba62-66b77491536c">https://chat.openai.com/share/59050a38-62d4-4623-ba62-66b77491536c</a>
	<b>Type</b>	Activity Diagram
	<b>ChatGPT Version</b>	V3.5
	<b>ChatGPT Prompt</b>	<p>以下是飲料店的點餐系統需求，請依照這些需求幫我以 plantUML 的 code 產出 Activity Diagram 使用案例圖需求：</p> <ol style="list-style-type: none"> <li>1. 客人向店員點餐</li> <li>2. 店員向客人確認餐點</li> <li>3. 店員向客人確認是否有會員？</li> <li>4. 店員向客人確認是否有統編、載具？</li> <li>5. 店員向客人收錢找零</li> <li>6. 店員給客人飲料明細、取餐編號</li> <li>7. 客人取餐</li> </ol>
	<b>ChatGPT Code</b>	<pre>@startuml start :客人向店員點餐; :店員向客人確認餐點; if (是否有會員?) then (是)     :店員向客人確認是否有會員?; else (否)     :店員向客人確認是否有會員?; endif</pre>



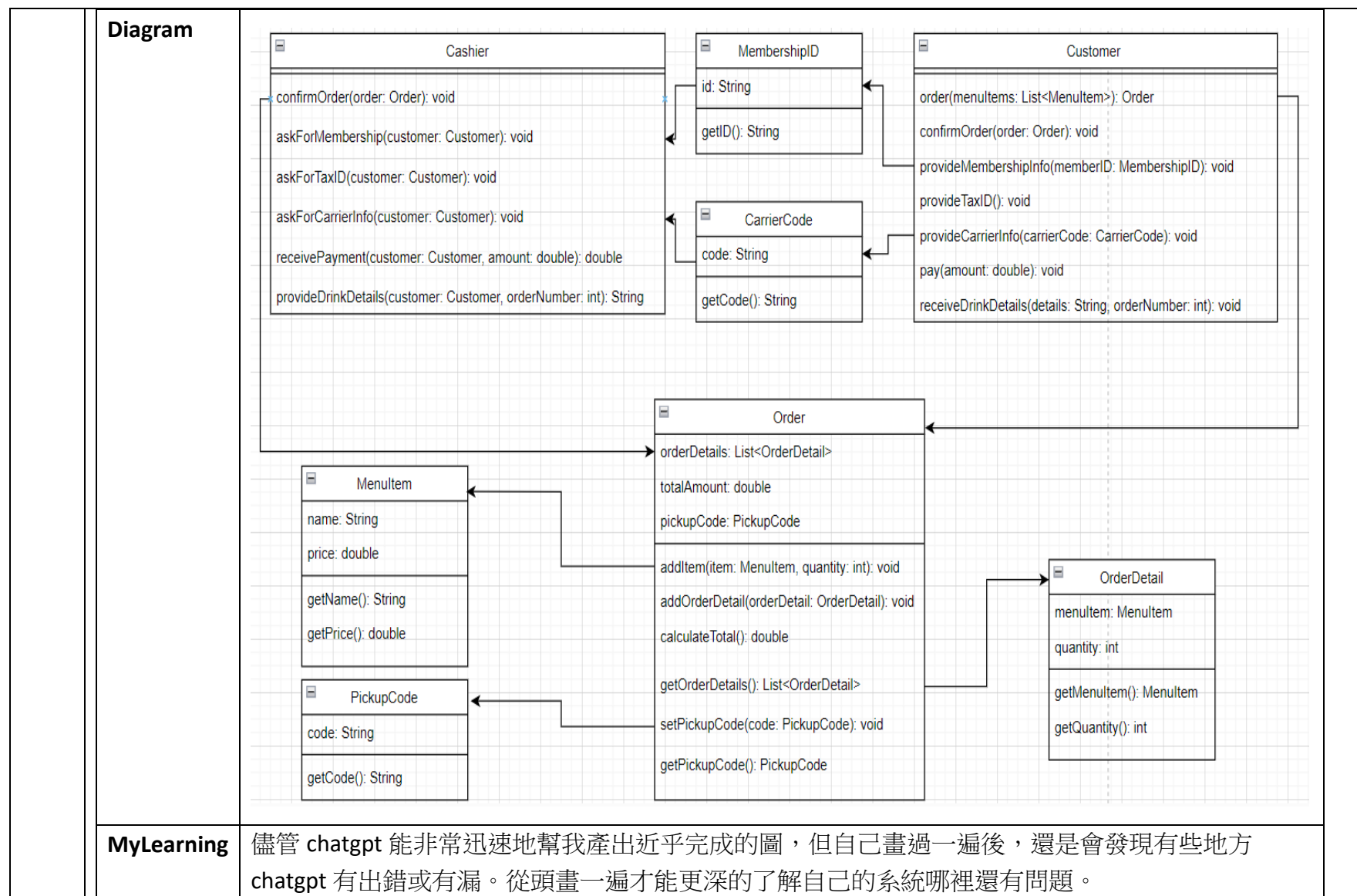
		<pre>if (是否有統編、載具?) then (是)     :店員向客人確認是否有統編、載具?; else (否)     :店員向客人確認是否有統編、載具?; endif :店員向客人收錢找零; :店員給客人飲料明細、取餐編號; :客人取餐; stop  @enduml</pre>	
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	Diagram	<pre>@startuml  start : 客人向店员点餐; : 店员向客人确认餐点; if (是否有会员?) then (是)     : 店员向客人确认是否有会员?; else (否)     : 店员向客人确认是否有会员?; endif if (是否有统编、载具?) then (是)     : 店员向客人确认是否有统编、载具?; else (否)     : 店员向客人确认是否有统编、载具?; endif : 店员向客人收钱找零; : 店员给客人饮料明细、取餐编号; : 客人取餐; stop  @enduml</pre> 	
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	<b>MyLearning</b>	Chatgpt 能直接產出 Activity Diagram 的程式，讓完全沒接觸過 plantUML 的我能輕易學習他的語法如何撰寫。

Methods	My Outcomes
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draw .io	<b>Items</b>	<b>Content</b>
	<b>SharedFile</b>	<a href="https://drive.google.com/file/d/1kthvSozOlgISYj_vszZO3TS-4cam3Rvc/view?usp=sharing">https://drive.google.com/file/d/1kthvSozOlgISYj_vszZO3TS-4cam3Rvc/view?usp=sharing</a>
	<b>Type</b>	Class Diagram



Plant UML	<b>Items</b>	<b>Content</b>
	<b>Share dFile</b>	<a href="https://www.plantuml.com/plantuml/uml/ZLJHZjiW47ptL_28rUG7h2gwAb6bIBsxLBqVuCnUYc8WXILgrFRVQmVMc8Y7tCivkpFUsS73aqVXCEYXQVf1UC-smQFLuDYVXer_dvXr4XpNOC8UGVkeVLCUFp-dtvksOwyJ8g5xQpwKqxSlr5JVyHTh989TdRseYGyWtu7vt-gyzvyM5x5l8dV-rszjHNEAN0rhXoeMqms35fm_iOPTz13-e2EwVCQGSerE2vZFyxzWF7yd4LDty9ayIEAOFqYd_a5PcGI5ep8pGGFvNEJlL08jBq8-3BYEGjONFzCC5vluHvLZIH1aLfKJYTo6ikRH8ABOhXIs43gLBzAPotLaB73lHCyelKqrPS8UXkNdB5VWLXKE5rQKQcBERpXRoEBHebgHT37mQ1y3Rfp4jdDnPKpzlQeX7g0VCMlBzRgvnwBB3j4bYuJJDcpoa2sPBOA7t9KmZ5syp8tU-9nDj8cqTdEVFakD3zfqBwOps_O2l6GEK0Fnf9uKzVhSk9v7sw2Jgw4wg46C_7i8kyLXcLX1x4LOF12dp5xW9E3yKTKKQyzfPAohEZ16FhzTzDTAsivPEjGEFOihFytEYaCgCi4R5fdi38soNT_0S0">https://www.plantuml.com/plantuml/uml/ZLJHZjiW47ptL_28rUG7h2gwAb6bIBsxLBqVuCnUYc8WXILgrFRVQmVMc8Y7tCivkpFUsS73aqVXCEYXQVf1UC-smQFLuDYVXer_dvXr4XpNOC8UGVkeVLCUFp-dtvksOwyJ8g5xQpwKqxSlr5JVyHTh989TdRseYGyWtu7vt-gyzvyM5x5l8dV-rszjHNEAN0rhXoeMqms35fm_iOPTz13-e2EwVCQGSerE2vZFyxzWF7yd4LDty9ayIEAOFqYd_a5PcGI5ep8pGGFvNEJlL08jBq8-3BYEGjONFzCC5vluHvLZIH1aLfKJYTo6ikRH8ABOhXIs43gLBzAPotLaB73lHCyelKqrPS8UXkNdB5VWLXKE5rQKQcBERpXRoEBHebgHT37mQ1y3Rfp4jdDnPKpzlQeX7g0VCMlBzRgvnwBB3j4bYuJJDcpoa2sPBOA7t9KmZ5syp8tU-9nDj8cqTdEVFakD3zfqBwOps_O2l6GEK0Fnf9uKzVhSk9v7sw2Jgw4wg46C_7i8kyLXcLX1x4LOF12dp5xW9E3yKTKKQyzfPAohEZ16FhzTzDTAsivPEjGEFOihFytEYaCgCi4R5fdi38soNT_0S0</a>
	<b>Type</b>	Class Diagram
	<b>Code</b>	<pre>@startuml  class Customer {     + order(menuItems: List&lt;MenuItem&gt;): Order     + confirmOrder(order: Order): void     + provideMembershipInfo(memberID: MembershipID): void     + provideTaxID(): void     + provideCarrierInfo(carrierCode: CarrierCode): void     + pay(amount: double): void     + receiveDrinkDetails(details: String, orderNumber: int): void }  class MenuItem {     - name: String</pre>

```
- price: double
+ getName(): String
+ getPrice(): double
}

class Order {
    - orderDetails: List<OrderDetail>
    - totalAmount: double
    - pickupCode: PickupCode
    + addItem(item: MenuItem, quantity: int): void
    + addOrderDetail(orderDetail: OrderDetail): void
    + calculateTotal(): double
    + getOrderDetails(): List<OrderDetail>
    + setPickupCode(code: PickupCode): void
    + getPickupCode(): PickupCode
}

class OrderDetail {
    - menuItem: MenuItem
    - quantity: int
    + getMenuItem(): MenuItem
    + getQuantity(): int
}
```



		<pre>class PickupCode {     - code: String     + getCode(): String }  class CarrierCode {     - code: String     + getCode(): String }  class MembershipID {     - id: String     + getID(): String }  class Cashier {     + confirmOrder(order: Order): void     + askForMembership(customer: Customer): void     + askForTaxID(customer: Customer): void     + askForCarrierInfo(customer: Customer): void     + receivePayment(customer: Customer, amount: double): double     + provideDrinkDetails(customer: Customer, orderNumber: int): String }</pre>
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		<p>Customer -- &gt; Order</p> <p>Customer -- &gt; MenuItem</p> <p>Customer -- &gt; OrderDetail</p> <p>Customer -- &gt; PickupCode</p> <p>Customer -- &gt; CarrierCode</p> <p>Customer -- &gt; MembershipID</p> <p>Cashier -- &gt; Order</p> <p>Cashier -- &gt; Customer</p> <p>@enduml</p>
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	<div>Diagram</div> <div><pre>classDiagram     class Cashier {         confirmOrder(order: Order): void         askForMembership(customer: Customer): void         askForTaxID(customer: Customer): void         askForCarrierInfo(customer: Customer): void         receivePayment(customer: Customer, amount: double): double         provideDrinkDetails(customer: Customer, orderNumber: int): String     }     class Customer {         order(menuItems: List&lt;MenuItem&gt;): Order         confirmOrder(order: Order): void         provideMembershipInfo(memberID: MembershipID): void         provideTaxID(): void         provideCarrierInfo(carrierCode: CarrierCode): void         pay(amount: double): void         receiveDrinkDetails(details: String, orderNumber: int): void     }     class Order {         orderDetails: List&lt;OrderDetail&gt;         totalAmount: double         pickupCode: PickupCode         addItem(item: MenuItem, quantity: int): void         addOrderDetail(orderDetail: OrderDetail): void         calculateTotal(): double         getOrderDetails(): List&lt;OrderDetail&gt;         setPickupCode(code: PickupCode): void         getPickupCode(): PickupCode     }     class MenuItem {         name: String         price: double         getName(): String         getPrice(): double     }     class OrderDetail {         menuItem: MenuItem         quantity: int         getMenuItem(): MenuItem         getQuantity(): int     }     class PickupCode {         code: String         getCode(): String     }     class CarrierCode {         code: String         getCode(): String     }     class MembershipID {         id: String         getID(): String     }     Cashier --&gt; Customer     Cashier --&gt; Order     Customer --&gt; Order     Customer --&gt; MenuItem     Customer --&gt; OrderDetail     Customer --&gt; PickupCode     Customer --&gt; CarrierCode     Customer --&gt; MembershipID</pre><p>The diagram illustrates the relationships between various classes in a food ordering system. The <b>Cashier</b> class interacts with the <b>Customer</b> and <b>Order</b> classes. The <b>Customer</b> class interacts with the <b>Order</b>, <b>MenuItem</b>, <b>OrderDetail</b>, <b>PickupCode</b>, <b>CarrierCode</b>, and <b>MembershipID</b> classes. The <b>Order</b> class interacts with the <b>MenuItem</b>, <b>OrderDetail</b>, and <b>PickupCode</b> classes. The <b>MenuItem</b>, <b>OrderDetail</b>, <b>PickupCode</b>, <b>CarrierCode</b>, and <b>MembershipID</b> classes are all subclasses of the <b>Order</b> class.</p></div>
	<div>MyLe arning</div> <div>透過 Chatgpt 產生的圖在稍加修飾，即能產生完整的圖</div>

Chat GPT	<b>Items</b>	<b>Content</b>
	<b>SharedFile</b>	<a href="https://chat.openai.com/share/3d8177c3-5a5c-4275-953e-736e9c5cd5ae">https://chat.openai.com/share/3d8177c3-5a5c-4275-953e-736e9c5cd5ae</a>
	<b>Type</b>	Class Diagram
	<b>ChatGPT Version</b>	V3.5
	<b>ChatGPT Prompt</b>	<p>使用案例圖需求:</p> <p>客人向店員點餐</p> <p>店員向客人確認餐點</p> <p>店員向客人確認是否有會員?</p> <p>店員向客人確認是否有統編、載具?</p> <p>店員向客人收錢找零</p> <p>店員給客人飲料明細、取餐編號</p> <p>客人取餐</p> <p>以上是飲料店點餐系統的需求，請幫我用 plantUML 的 code 產生 class Diagram</p> <p>請幫我加上客人點的"訂單明細"，"取餐編碼"、" 載具編碼"、" 會員號碼"的 class</p>
	<b>ChatGPT Code</b>	<pre>@startuml class Customer {     + order(menuItems: List&lt;MenuItem&gt;): Order     + confirmOrder(order: Order): void     + provideMembershipInfo(memberID: MembershipID): void     + provideTaxID(): void     + provideCarrierInfo(carrierCode: CarrierCode): void     + pay(amount: double): void }</pre>

```
+ receiveDrinkDetails(details: String, orderNumber: int): void  
}
```

```
class MenuItem {  
    - name: String  
    - price: double  
    + getName(): String  
    + getPrice(): double  
}
```

```
class Order {  
    - orderDetails: List<OrderDetail>  
    - totalAmount: double  
    - pickupCode: PickupCode  
    + addItem(item: MenuItem, quantity: int): void  
    + addOrderDetail(orderDetail: OrderDetail): void  
    + calculateTotal(): double  
    + getOrderDetails(): List<OrderDetail>  
    + setPickupCode(code: PickupCode): void  
    + getPickupCode(): PickupCode  
}
```

```
class OrderDetail {  
    - menuItem: MenuItem
```

		<pre>- quantity: int + getMenuitem(): MenuItem + getQuantity(): int }  class PickupCode {     - code: String     + getCode(): String }  class CarrierCode {     - code: String     + getCode(): String }  class MembershipID {     - id: String     + getID(): String }  class Cashier {     + confirmOrder(order: Order): void     + askForMembership(customer: Customer): void     + askForTaxID(customer: Customer): void</pre>
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		<pre>+ askForCarrierInfo(customer: Customer): void + receivePayment(customer: Customer, amount: double): double + provideDrinkDetails(customer: Customer, orderNumber: int): String }  Customer -- &gt; Order Customer -- &gt; MenuItem Customer -- &gt; OrderDetail Customer -- &gt; PickupCode Customer -- &gt; CarrierCode Customer -- &gt; MembershipID Cashier -- &gt; Order Cashier -- &gt; Customer  @enduml</pre>
--	--	---

Diagram

```
@startuml
```

```
class Customer {  
    + order(menuItems: List<MenuItem>): Order  
    + confirmOrder(order: Order): void  
    + provideMembershipInfo(memberID: MembershipID): void  
    + provideTaxID(): void  
    + provideCarrierInfo(carrierCode: CarrierCode): void  
    + pay(amount: double): void  
    + receiveDrinkDetails(details: String, orderNumber: int): void  
}
```

```
class MenuItem {  
    - name: String  
    - price: double  
    + getName(): String  
    + getPrice(): double  
}
```

```
class Order {  
    - orderDetails: List<OrderDetail>  
}
```





```
class Order {
    - orderDetails: List<OrderDetail>
    - totalAmount: double
    - pickupCode: PickupCode
    + addItem(item: MenuItem, quantity: int): void
    + addOrderDetail(orderDetail: OrderDetail): void
    + calculateTotal(): double
    + getOrderDetails(): List<OrderDetail>
    + setPickupCode(code: PickupCode): void
    + getPickupCode(): PickupCode
}

class OrderDetail {
    - menuItem: MenuItem
    - quantity: int
    + getMenuItem(): MenuItem
    + getQuantity(): int
}

class PickupCode {
    - code: String
    + getCode(): String
```



```
class PickupCode {  
    - code: String  
    + getCode(): String  
}
```

```
class CarrierCode {  
    - code: String  
    + getCode(): String  
}
```

```
class MembershipID {  
    - id: String  
    + getID(): String  
}
```

```
class Cashier {  
    + confirmOrder(order: Order): void  
    + askForMembership(customer: Customer): void  
    + askForTaxID(customer: Customer): void  
    + askForCarrierInfo(customer: Customer): void  
    + receivePayment(customer: Customer, amount: double): double  
    + provideDrinkDetails(customer: Customer, orderNumber: int): String
```

```
class Cashier {  
    + confirmOrder(order: Order): void  
    + askForMembership(customer: Customer): void  
    + askForTaxID(customer: Customer): void  
    + askForCarrierInfo(customer: Customer): void  
    + receivePayment(customer: Customer, amount: double): double  
    + provideDrinkDetails(customer: Customer, orderNumber: int): St  
}
```

```
Customer --|> Order
```

```
Customer --|> MenuItem
```

```
Customer --|> OrderDetail
```

```
Customer --|> PickupCode
```

```
Customer --|> CarrierCode
```

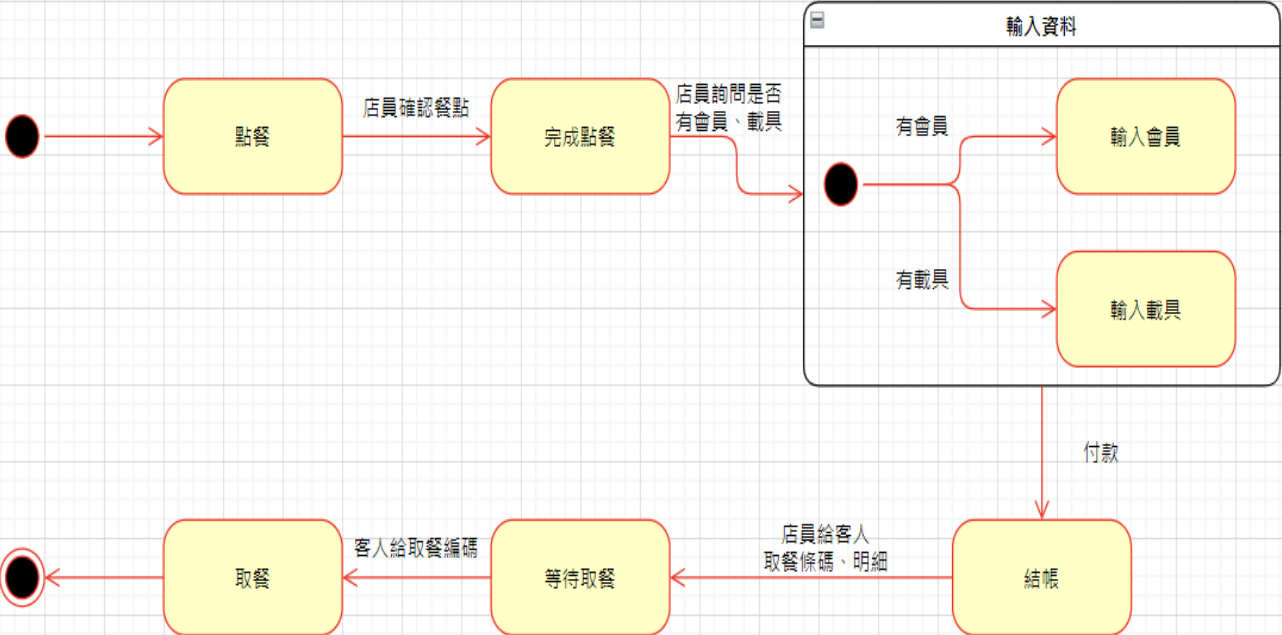
```
Customer --|> MembershipID
```

```
Cashier --|> Order
```

```
Cashier --|> Customer
```

```
@enduml
```

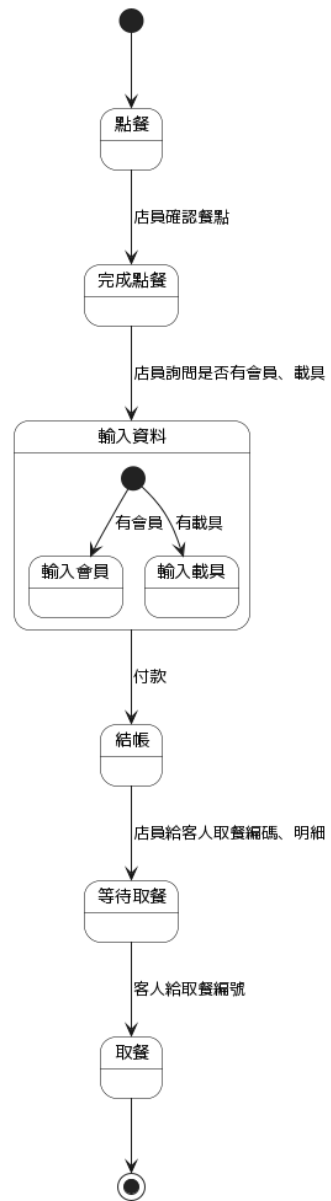
	<b>MyLearnin g</b>	Chatgpt 真的能很迅速地幫我產生近乎完整的圖。

Methods	My Outcomes	
draw.io	Items	Content
	SharedFile	<a href="https://drive.google.com/file/d/1OCHee5SSXb4DkpagBSbAUso_DAXt8ejh/view?usp=sharing">https://drive.google.com/file/d/1OCHee5SSXb4DkpagBSbAUso_DAXt8ejh/view?usp=sharing</a>
	Type	State Diagram
	Diagram	 <pre> stateDiagram-v2     [*] --&gt; 點餐     點餐 --&gt; 完成點餐 : 店員確認餐點     完成點餐 --&gt; 輸入會員 : 店員詢問是否有會員、載具     完成點餐 --&gt; 輸入載具 : 店員詢問是否有會員、載具     state 輸入資料 {         輸入會員         輸入載具     }     輸入會員 --&gt; 結帳 : 付款     輸入載具 --&gt; 結帳 : 付款     結帳 --&gt; 等待取餐 : 店員給客人取餐條碼、明細     等待取餐 --&gt; 取餐 : 客人給取餐編碼     取餐 --&gt; [*]   </pre>
	MyLearning	經過 plantUML 自己畫過後，用 draw.io 自己拉更輕鬆

Plant UML	<b>Items</b>	<b>Content</b>
	<b>Share dFile</b>	<a href="https://www.plantuml.com/plantuml/uml/LP71liD048RlynHx5le27gJeOuY7Q8EMfebiKpo8e4ZGWDg0M5CeYa6BYbQXbfOqz6NiRBPluSGf8Sabkz - tx0pMssvXdJRJGkWrQZRXuOqceAOQufZ4FHjEh9coYt7SgJOjOoz1bDQx4kdRTVuvEYWxffm0h2zjYCgbGsnd3qidmFWtp_1uPMw35PWNM1yZxTFQHJhzsiYn84J1KKdK_HUzEX2TNkvejyYIEkey0k3WUhxgdzEyFVqJ2S-UXCeELcHT1pWT4JwOXQgZpdmdey-VPnxsEcMhZGUu31Qn37pTFAQHWdLL-5D-ICD9IShakjiaPwBklS8XIJD1e1dMxmb3peRNA5fRekgvYskGeKCTymPNcSIK3NjMIQUVm00">https://www.plantuml.com/plantuml/uml/LP71liD048RlynHx5le27gJeOuY7Q8EMfebiKpo8e4ZGWDg0M5CeYa6BYbQXbfOqz6NiRBPluSGf8Sabkz - tx0pMssvXdJRJGkWrQZRXuOqceAOQufZ4FHjEh9coYt7SgJOjOoz1bDQx4kdRTVuvEYWxffm0h2zjYCgbGsnd3qidmFWtp_1uPMw35PWNM1yZxTFQHJhzsiYn84J1KKdK_HUzEX2TNkvejyYIEkey0k3WUhxgdzEyFVqJ2S-UXCeELcHT1pWT4JwOXQgZpdmdey-VPnxsEcMhZGUu31Qn37pTFAQHWdLL-5D-ICD9IShakjiaPwBklS8XIJD1e1dMxmb3peRNA5fRekgvYskGeKCTymPNcSIK3NjMIQUVm00</a>
	<b>Type</b>	State Diagram
	<b>Code</b>	<pre>@startuml  skinparam state {     BorderColor black     BackgroundColor white }  [*] --&gt; 點餐 點餐 --&gt; 完成點餐 : 店員確認餐點 完成點餐 --&gt; 輸入資料 : 店員詢問是否有會員、載具 輸入資料 --&gt; 結帳 : 付款 結帳 --&gt; 等待取餐 : 店員給客人取餐編碼、明細 等待取餐 --&gt; 取餐 : 客人給取餐編號 取餐 --&gt; [*]  state 輸入資料 {</pre>

		<div><div>[*] --&gt; 輸入會員：有會員</div><div>[*] --&gt; 輸入載具：有載具</div><div>}</div><div>@enduml</div></div>
--	--	---

Diagram





	<b>MyLe arning</b>	透過 Chatgpt 了解程式邏輯後，能很容易照自己的想法畫出符合自己想像的圖。

Chat GPT	<b>Items</b>	<b>Content</b>
	<b>SharedFile</b>	<a href="https://chat.openai.com/share/3c7c0ee8-c913-40a7-ad33-5165299b8142">https://chat.openai.com/share/3c7c0ee8-c913-40a7-ad33-5165299b8142</a>
	<b>Type</b>	State Diagram
	<b>ChatGPT Version</b>	V3.5
	<b>ChatGPT Prompt</b>	<p>以下為飲料店點餐系統的要求 使用案例圖需求:</p> <ol style="list-style-type: none"> <li>1. 客人向店員點餐</li> <li>2. 店員向客人確認餐點</li> <li>3. 店員向客人確認是否有會員?</li> <li>4. 店員向客人確認是否有統編、載具?</li> <li>5. 店員向客人收錢找零</li> <li>6. 店員給客人飲料明細、取餐編號</li> <li>7. 客人取餐</li> </ol> <p>請依據此要求產生此系統的狀態圖，以 plantUML 的 code 表示</p>
	<b>ChatGPT Code</b>	<p>@startuml</p> <p>[*] --&gt; 客人向店員點餐</p> <p>客人向店員點餐 --&gt; 店員向客人確認餐點：提交訂單</p> <p>店員向客人確認餐點 --&gt; 店員向客人確認是否有會員?: 確認餐點</p> <p>店員向客人確認是否有會員? --&gt; 店員向客人確認是否有統編、載具?: 是會員</p> <p>店員向客人確認是否有會員? --&gt; 店員向客人收錢找零：非會員</p> <p>店員向客人確認是否有統編、載具? --&gt; 店員向客人收錢找零：有統編、載具</p>

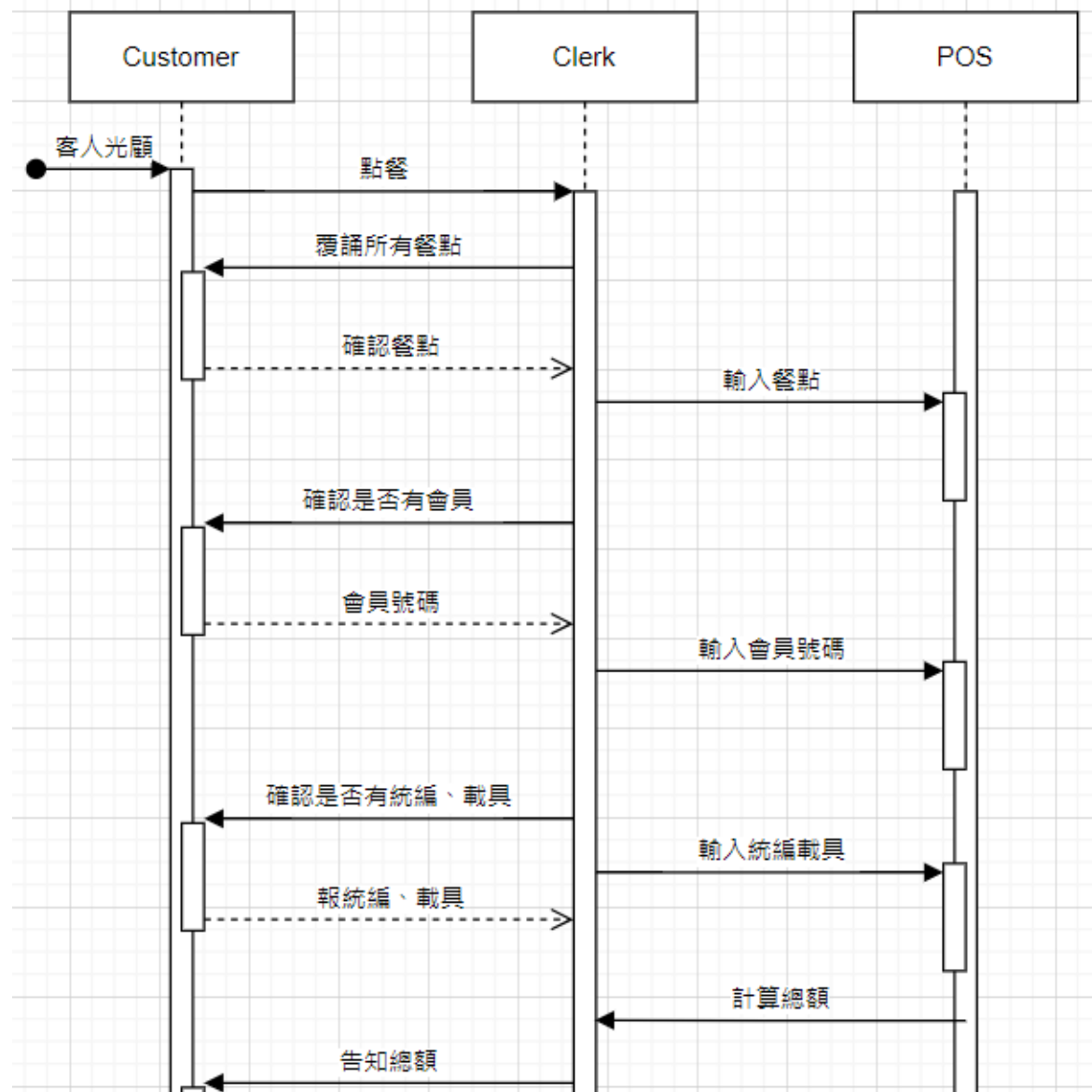
		<p>店員向客人確認是否有統編、載具? --&gt; 店員向客人收錢找零：無統編、載具 店員向客人收錢找零 --&gt; 店員給客人飲料明細、取餐編號：收錢 店員給客人飲料明細、取餐編號 --&gt; 客人取餐：提供明細、編號 客人取餐 --&gt; [*]：完成取餐</p> <p>@enduml</p>
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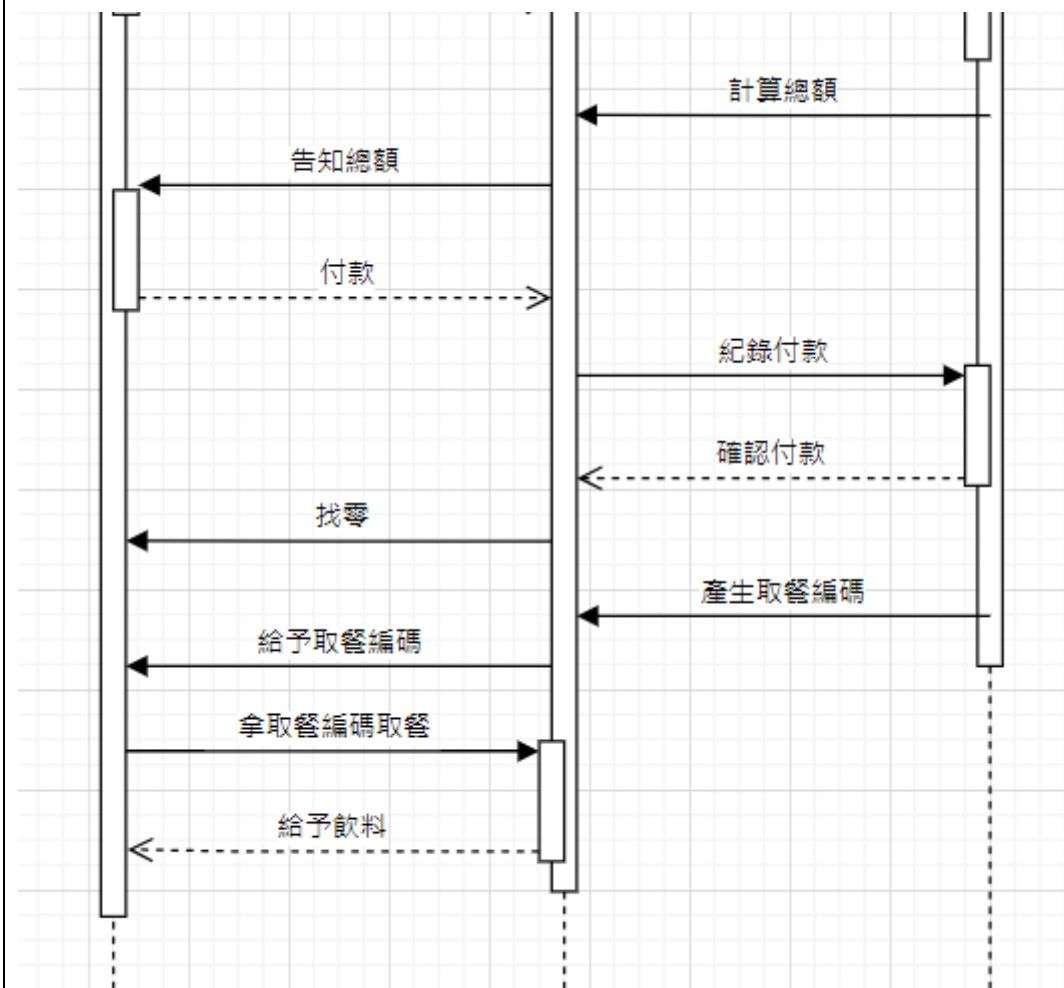
	Diagram	<pre> plantuml  @startuml  [*] --&gt; 客人向店员点餐  客人向店员点餐 --&gt; 店员向客人确认餐点 : 提交订单 店员向客人确认餐点 --&gt; 店员向客人确认是否有会员? : 确认餐点 店员向客人确认是否有会员? --&gt; 店员向客人确认是否有统编、载具? : 是会员 店员向客人确认是否有会员? --&gt; 店员向客人收钱找零 : 非会员 店员向客人确认是否有统编、载具? --&gt; 店员向客人收钱找零 : 有统编、载具 店员向客人确认是否有统编、载具? --&gt; 店员向客人收钱找零 : 无统编、载具 店员向客人收钱找零 --&gt; 店员给客人饮料明细、取餐编号 : 收钱 店员给客人饮料明细、取餐编号 --&gt; 客人取餐 : 提供明细、编号 客人取餐 --&gt; [*] : 完成取餐  @enduml </pre>
	MyLearning	<p>Chatgpt 雖然能很快速產生出答案來，但有時答案卻不會是我要的。它最大的功用是幫助我認識 plantUML 的撰寫格式，讓我能順利理解並轉成自己的想法，產出符合自己要求的圖。</p>

Methods	My Outcomes
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dra w.io	Items	Content
	SharedFile	<a href="https://drive.google.com/file/d/1mo8WjzLG-xwbx4BG32WwfoR4K32U8TNu/view?usp=sharing">https://drive.google.com/file/d/1mo8WjzLG-xwbx4BG32WwfoR4K32U8TNu/view?usp=sharing</a>
	Type	Sequence Diagram

Diagram





**MyLearning**

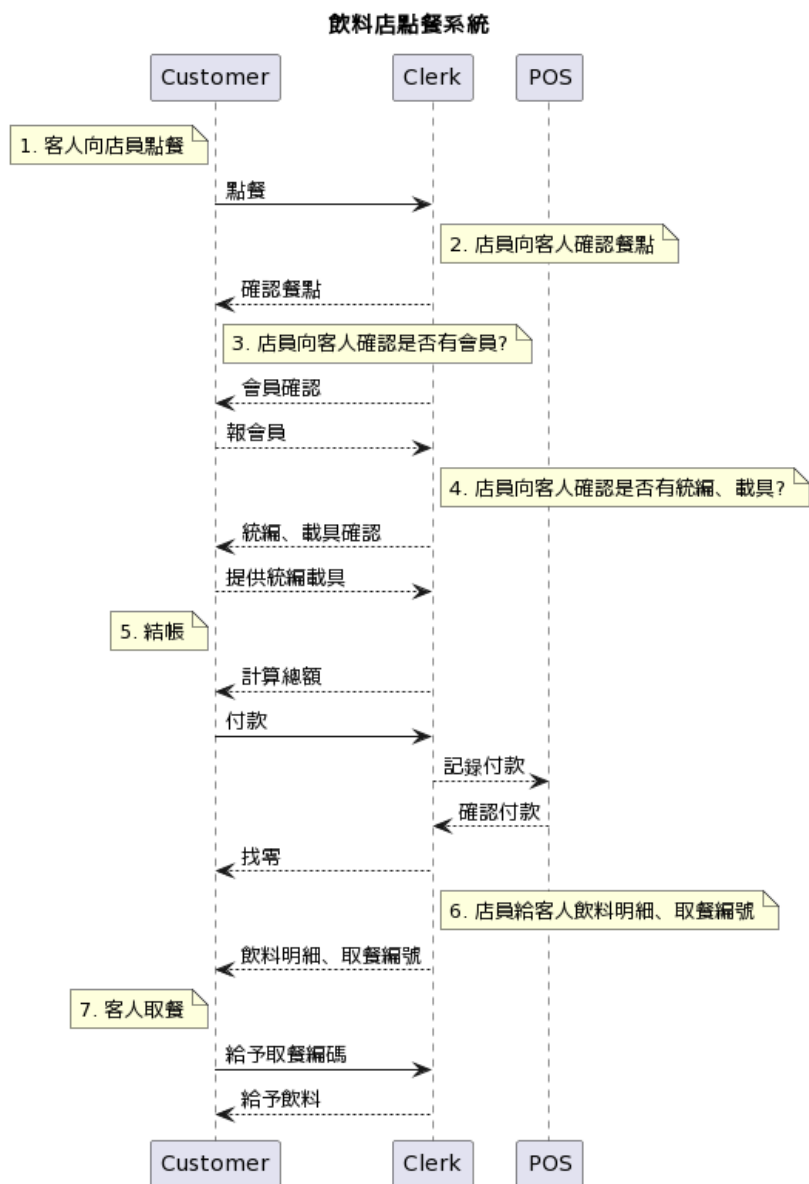
自己拉圖時，又會想到一些細節是自己在畫 plantUML 時沒想到的，像是仔細想想，POS 機那邊當初還有很多細節沒寫到，透過自己重頭拉圖又更全面思考過一遍。



PlantUML	<b>Items</b>	<b>Content</b>
	<b>Share dFile</b>	<a href="https://www.plantuml.com/plantuml/uml/XLFTIW915BwVfvWNKEWVI2YX1oZe2QJMMbf_MCVxeWA5p8r0LvHA2v48oyoKrNoPTcRSjsYsawuRitOxv_ivvpjdeXalqqasel6Y4at1piCRArMeLNQ6jywZmRj3tkiWb1OWTLzDnv84RsSp99LGTf-ZfkZ7lfVTdJs4aYcYO4s94voApuWHl1J6jDsmBOiQryABtjJ13aqXEBG9aX4C5L3lrSCZa8BQSW3NUY086zOawU280WQ-a7XaD3oh7q0lwW7MWdGPUOBDPgibcUrCr7TaZf03GXp0taJqViEOEH3hVvdBZR2-wslazF9A4yl-l8k_e0MjCEAXZsk0Xx0GMjR2mjPWmwwKiT9AyVRPJxuTEe5sIBjeScUnnxLIH2NPJgNvxryrJBV6JGDDNdK-R5J_P37k3wDaVUQ42FSDZEI-Fkh28OMI-w5Yw4hTrBrHVVY0X3QcXmrWMGoY7TlApSHuOoGr1nYqWA9Ayi3zezy0">https://www.plantuml.com/plantuml/uml/XLFTIW915BwVfvWNKEWVI2YX1oZe2QJMMbf_MCVxeWA5p8r0LvHA2v48oyoKrNoPTcRSjsYsawuRitOxv_ivvpjdeXalqqasel6Y4at1piCRArMeLNQ6jywZmRj3tkiWb1OWTLzDnv84RsSp99LGTf-ZfkZ7lfVTdJs4aYcYO4s94voApuWHl1J6jDsmBOiQryABtjJ13aqXEBG9aX4C5L3lrSCZa8BQSW3NUY086zOawU280WQ-a7XaD3oh7q0lwW7MWdGPUOBDPgibcUrCr7TaZf03GXp0taJqViEOEH3hVvdBZR2-wslazF9A4yl-l8k_e0MjCEAXZsk0Xx0GMjR2mjPWmwwKiT9AyVRPJxuTEe5sIBjeScUnnxLIH2NPJgNvxryrJBV6JGDDNdK-R5J_P37k3wDaVUQ42FSDZEI-Fkh28OMI-w5Yw4hTrBrHVVY0X3QcXmrWMGoY7TlApSHuOoGr1nYqWA9Ayi3zezy0</a>
	<b>Type</b>	Sequence Diagram
	<b>Code</b>	<pre>@startuml title 飲料店點餐系統  participant Customer participant Clerk participant POS  note left of Customer: 1. 客人向店員點餐 Customer -&gt; Clerk: 點餐 note right of Clerk: 2. 店員向客人確認餐點 Clerk --&gt; Customer: 確認餐點 note right of Customer: 3. 店員向客人確認是否有會員? Clerk --&gt; Customer: 會員確認 Customer --&gt; Clerk: 報會員 note right of Clerk: 4. 店員向客人確認是否有統編、載具? Clerk --&gt; Customer: 統編、載具確認</pre>

		<p>Customer --&gt; Clerk: 提供統編載具</p> <p>note left of Customer: 5. 結帳</p> <p>Clerk --&gt; Customer: 計算總額</p> <p>Customer -&gt; Clerk: 付款</p> <p>Clerk --&gt; POS: 記錄付款</p> <p>POS --&gt; Clerk: 確認付款</p> <p>Clerk --&gt; Customer: 找零</p> <p>note right of Clerk: 6. 店員給客人飲料明細、取餐編號</p> <p>Clerk --&gt; Customer: 飲料明細、取餐編號</p> <p>note left of Customer: 7. 客人取餐</p> <p>Customer -&gt; Clerk: 給予取餐編碼</p> <p>Clerk --&gt; Customer: 給予飲料</p> <p>@enduml</p>
--	--	--

Diagram



	<b>MyLe arnin g</b>	因為 chatgpt 產生的 code 已經很接近我的想法了，只需稍加修改即可。

Chat GPT	<b>Items</b>	<b>Content</b>	
	<b>SharedFile</b>	<a href="https://chat.openai.com/share/8fbe631e-d82d-46f7-b972-158a7e6637ca">https://chat.openai.com/share/8fbe631e-d82d-46f7-b972-158a7e6637ca</a>	
	<b>Type</b>	Sequence Diagram	
	<b>ChatGPT Version</b>	V3.5	
	<b>ChatGPT Prompt</b>	<p>以下是飲料店點餐系統的需求 使用案例圖需求:</p> <ol style="list-style-type: none"> <li>1. 客人向店員點餐</li> <li>2. 店員向客人確認餐點</li> <li>3. 店員向客人確認是否有會員?</li> <li>4. 店員向客人確認是否有統編、載具?</li> <li>5. 店員向客人收錢找零</li> <li>6. 店員給客人飲料明細、取餐編號</li> <li>7. 客人取餐</li> </ol> <p>請依據要求產生時序圖，以 plantUML 的 code 表示</p>	
	<b>ChatGPT Code</b>	<pre>@startuml title 飲料店點餐系統  participant Customer participant Clerk participant POS  note left of Customer: 1. 客人向店員點餐 Customer -&gt; Clerk: 點餐</pre>	

		<p>note right of Clerk: 2. 店員向客人確認餐點</p> <p>Clerk --&gt; Customer: 確認餐點</p> <p>note right of Customer: 3. 店員向客人確認是否有會員?</p> <p>Customer --&gt; Clerk: 會員確認</p> <p>note right of Clerk: 4. 店員向客人確認是否有統編、載具?</p> <p>Clerk --&gt; Customer: 統編、載具確認</p> <p>note left of Customer: 5. 店員向客人收錢找零</p> <p>Customer -&gt; Clerk: 付款</p> <p>Clerk --&gt; POS: 記錄付款</p> <p>POS --&gt; Clerk: 確認付款</p> <p>Clerk --&gt; Customer: 找零</p> <p>note right of Clerk: 6. 店員給客人飲料明細、取餐編號</p> <p>Clerk --&gt; Customer: 飲料明細、取餐編號</p> <p>note left of Customer: 7. 客人取餐</p> <p>Customer -&gt; Clerk: 取餐</p> <p>@enduml</p>	
--	--	---	--

Diagram

plantuml

@startuml

title 飲料店點餐系統

participant Customer

participant Clerk

participant POS

note left of Customer: 1. 客人向店員點餐

Customer -> Clerk: 點餐

note right of Clerk: 2. 店員向客人確認餐點

Clerk --> Customer: 確認餐點

note right of Customer: 3. 店員向客人確認是否有會員?

Customer --> Clerk: 會員確認

note right of Clerk: 4. 店員向客人確認是否有統編、載具?

Clerk --> Customer: 統編、載具確認

note left of Customer: 5. 店員向客人收錢找零

Customer -> Clerk: 付款

Clerk --> POS: 記錄付款

POS --> Clerk: 確認付款

Clerk --> Customer: 找零



		<pre> Clerk --&gt; Customer: 找零 note right of Clerk: 6. 店員給客人飲料明細、取餐編號 Clerk --&gt; Customer: 飲料明細、取餐編號 note left of Customer: 7. 客人取餐 Customer -&gt; Clerk: 取餐 @enduml </pre>	
	MyLearning	<p>這次 chatgpt 產生的東西就比較貼近我想要的樣子，只需稍微修改即可。可能是我輸入的需求跟時序圖的需求比較接近，看來還是跟輸入的文字有很大的關係。</p>	