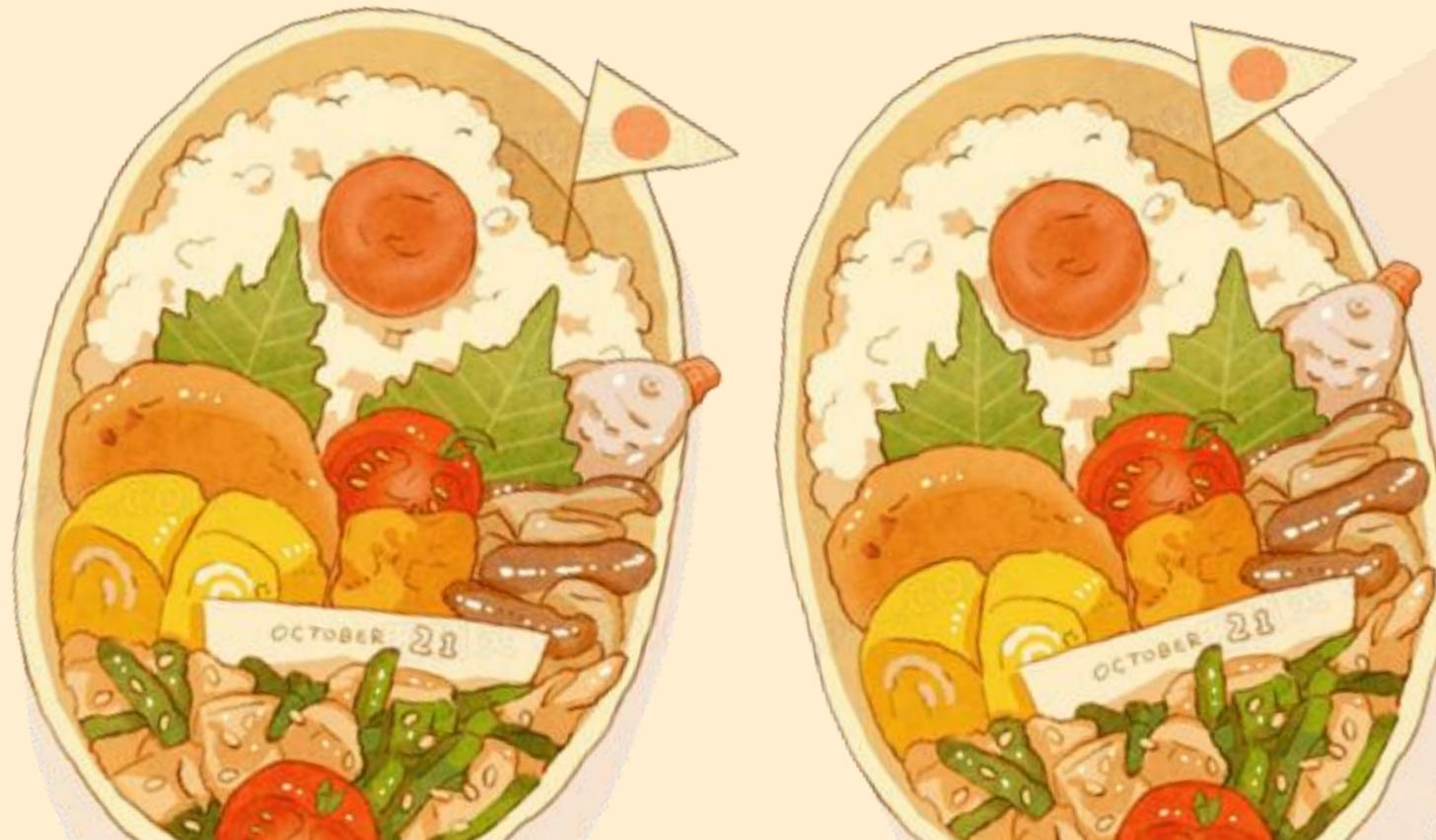
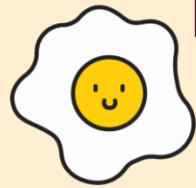


BENTO
STORE

自助餐店服務流程優化



GROUP 1

110034701 曾柏誠
111030751 徐卉妘
111030752 周劭謙
110036529 吳劉軒

TOPIC OUTLINE

- ① 背景介紹
- ② 模擬
- ③ Web及App
- ④ 結論

PART ONE

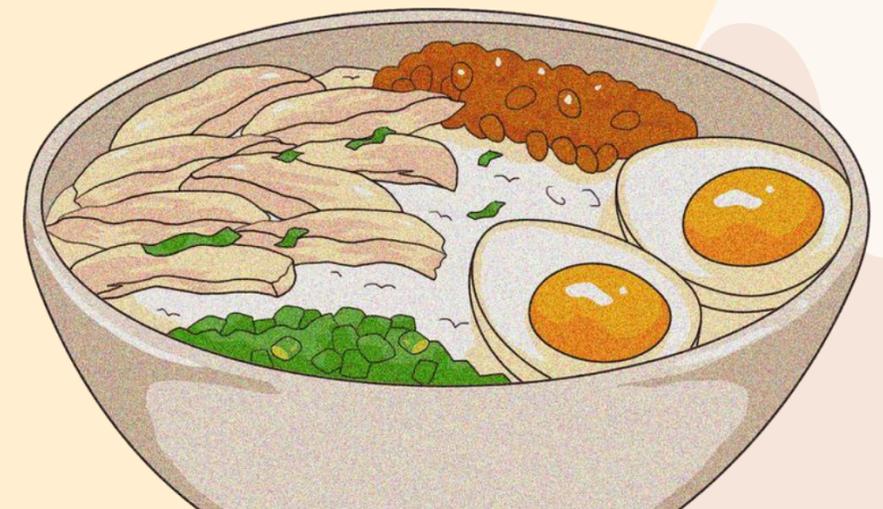
背景介紹



背景動機

此專案以自助餐店為原型，希望可以透過建立高度資訊化整合的系統，幫助自助餐店在營運上可以有更大的競爭優勢，並且透過降低等待時間，提升顧客的滿意度。我們的規劃包含以下幾個面向：

- ① 降低等待時間
- ② 減少錯誤
- ③ 快速點餐和出餐

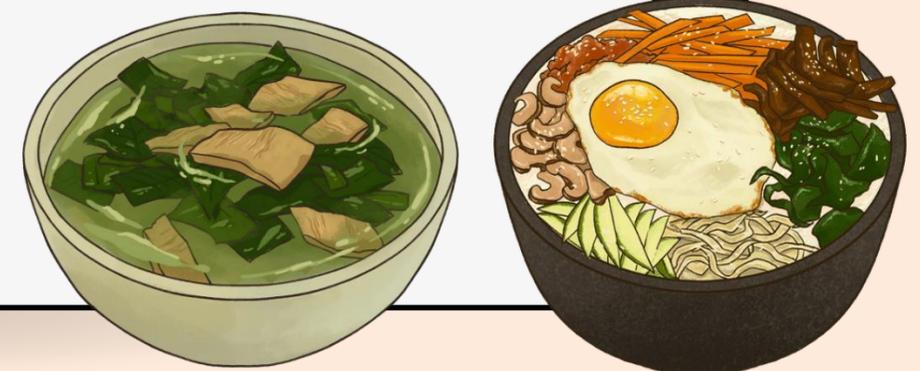


發想目的



一般自助餐與便當店都需要顧客親自到現場挑選主菜與配菜，而在尖峰時段，會造成顧客大排長龍的現象，不但等待時間拉長，其製作的效率也不好。

隨著現今生活步調加快，快速出餐成為餐飲業者必備的技能。對於外帶的顧客，在點餐後即開始等待，如何快速服務與處理訂單以減少顧客等待時間是店家須重視並著手改善的課題。



5W1H



自助餐店家

WHERE

WHO

店家與顧客

整合性定義方法論 (IDEF)

HOW

自助餐店

WHAT

顧客排隊等待，
挑選自己主餐與配菜

顧客希望減少排隊等待時間，
店家希望能夠減少人力成本

WHY

WHEN

尖峰時段，午餐與晚餐時間

Business Model

關鍵伙伴

- ◆ 食材供應商
- ◆ 物流合作夥伴

關鍵活動

- ◆ 白飯吃到飽
- ◆ 餐點風味佳

關鍵資源

- ◆ 店面地理位置佳
- ◆ 專業廚師、員工
- ◆ 線上點餐系統

價值主張

- ◆ 快速的服務流程
- ◆ 滿足顧客需求 (便利性)
- ◆ 衛生健康

客戶關係

- ◆ 集點卡
- ◆ 會員制度
- ◆ 優惠活動

通路

- ◆ 官方網站
- ◆ 實體店面
- ◆ APP

客戶族群

- ◆ 外食族
- ◆ 街坊鄰居
- ◆ 上班族
- ◆ 學生族群

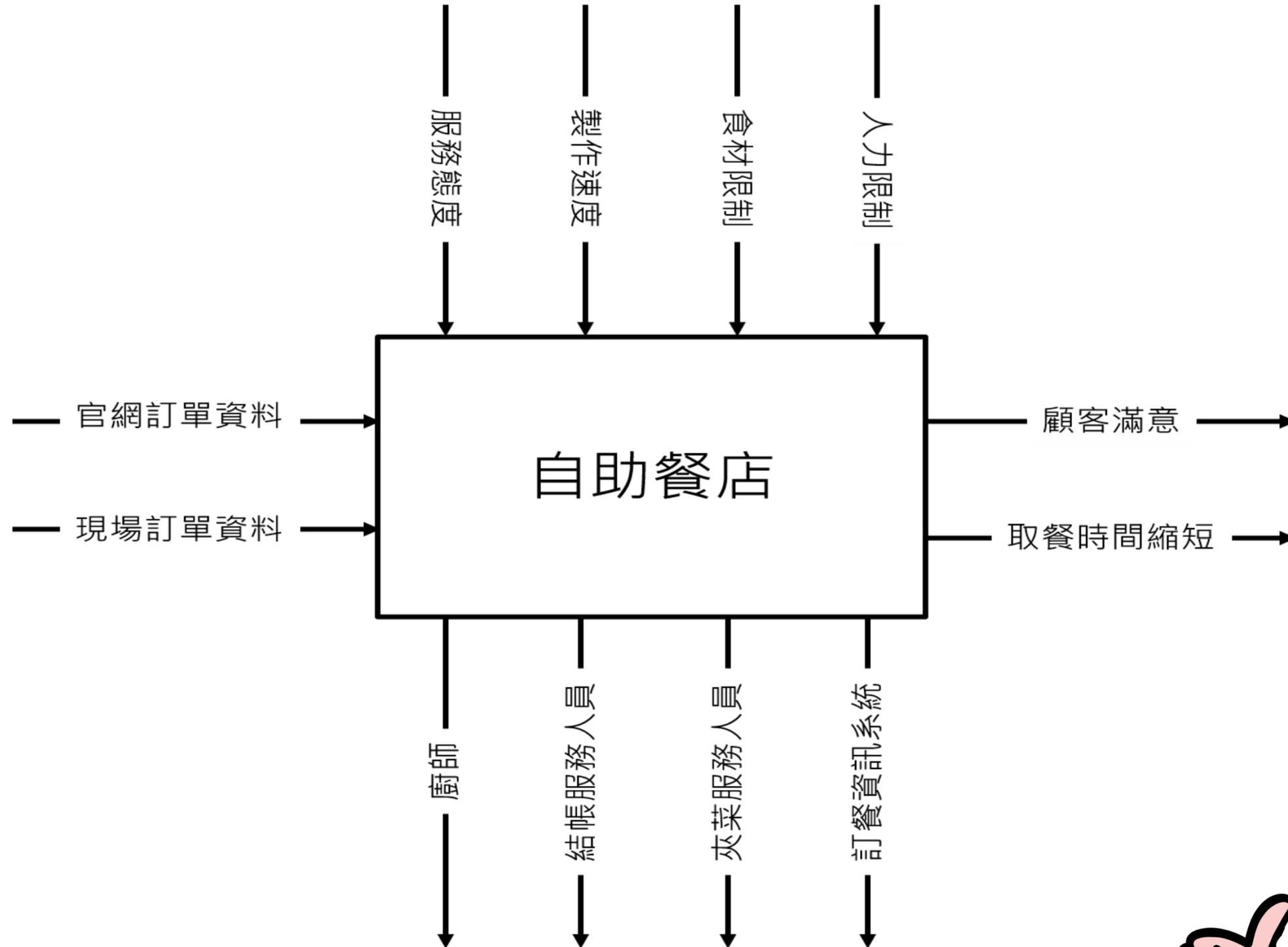
成本結構

- ◆ 房租
- ◆ 薪資
- ◆ 食材
- ◆ 瓦斯水電費
- ◆ 清潔費
- ◆ 平台維護和建置

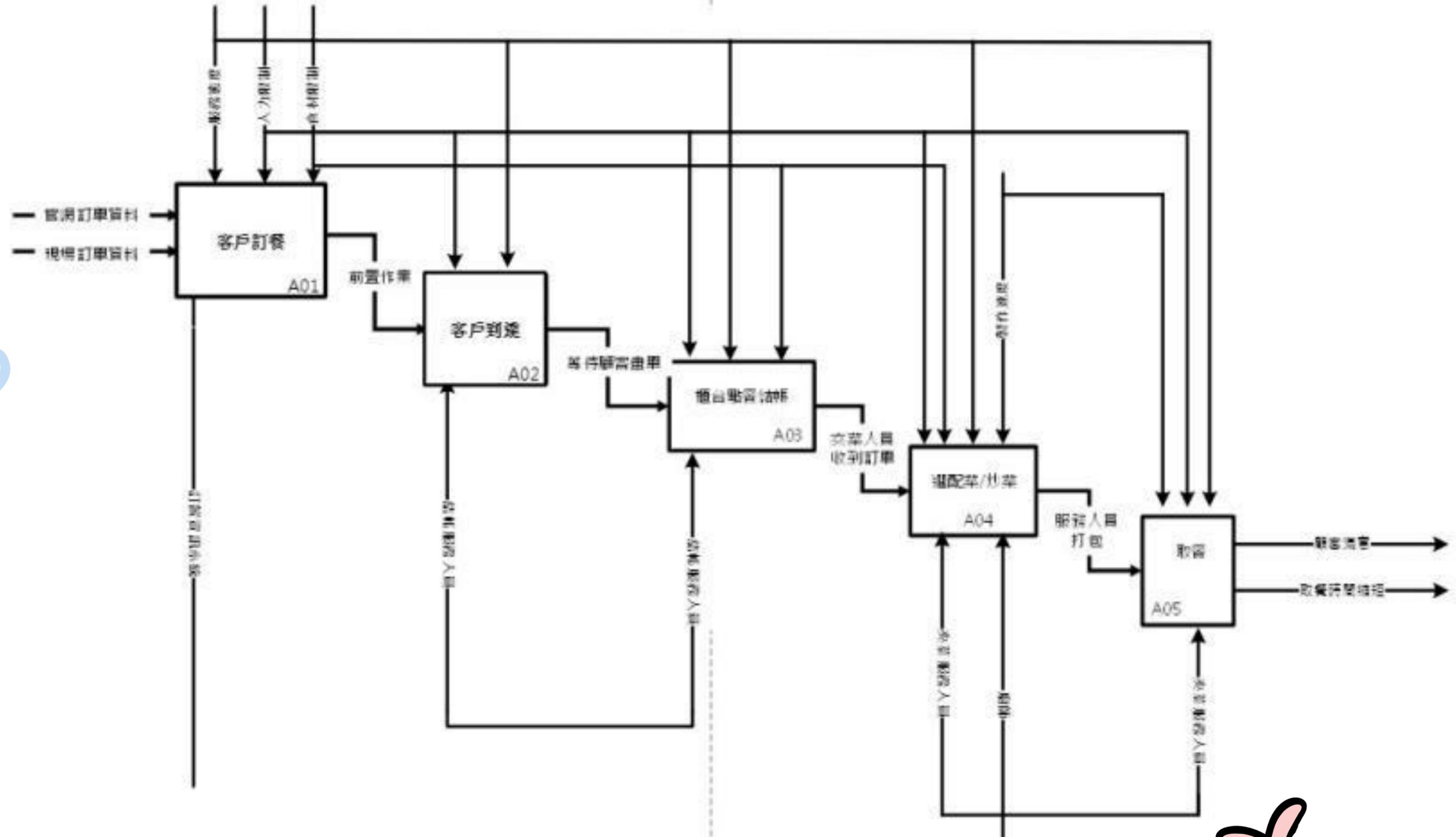
營收流

- ◆ 食材利潤

IDEF流程分析 A-0

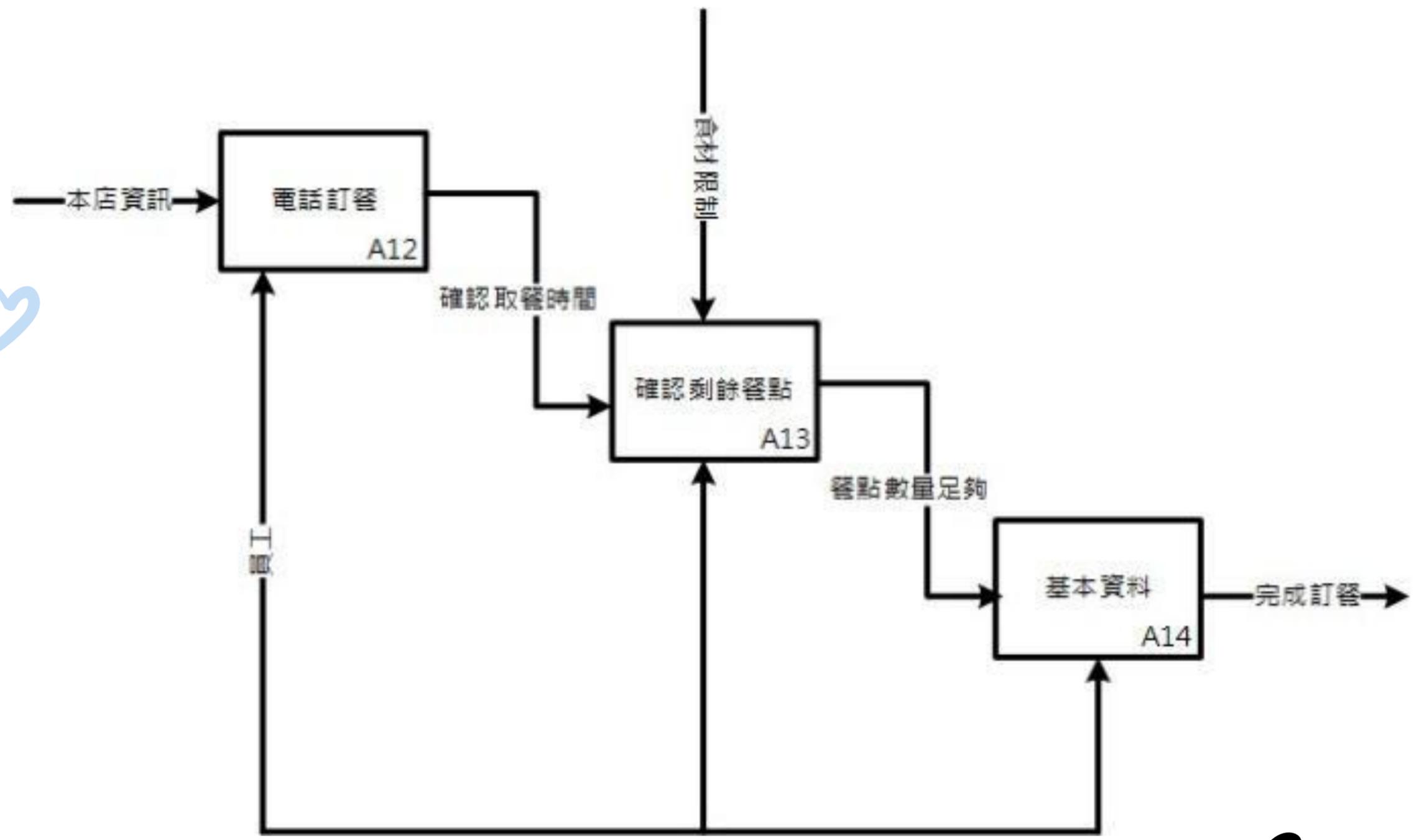
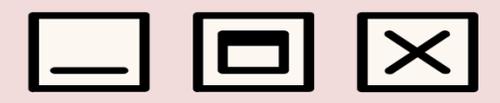


IDEF流程分析 A0



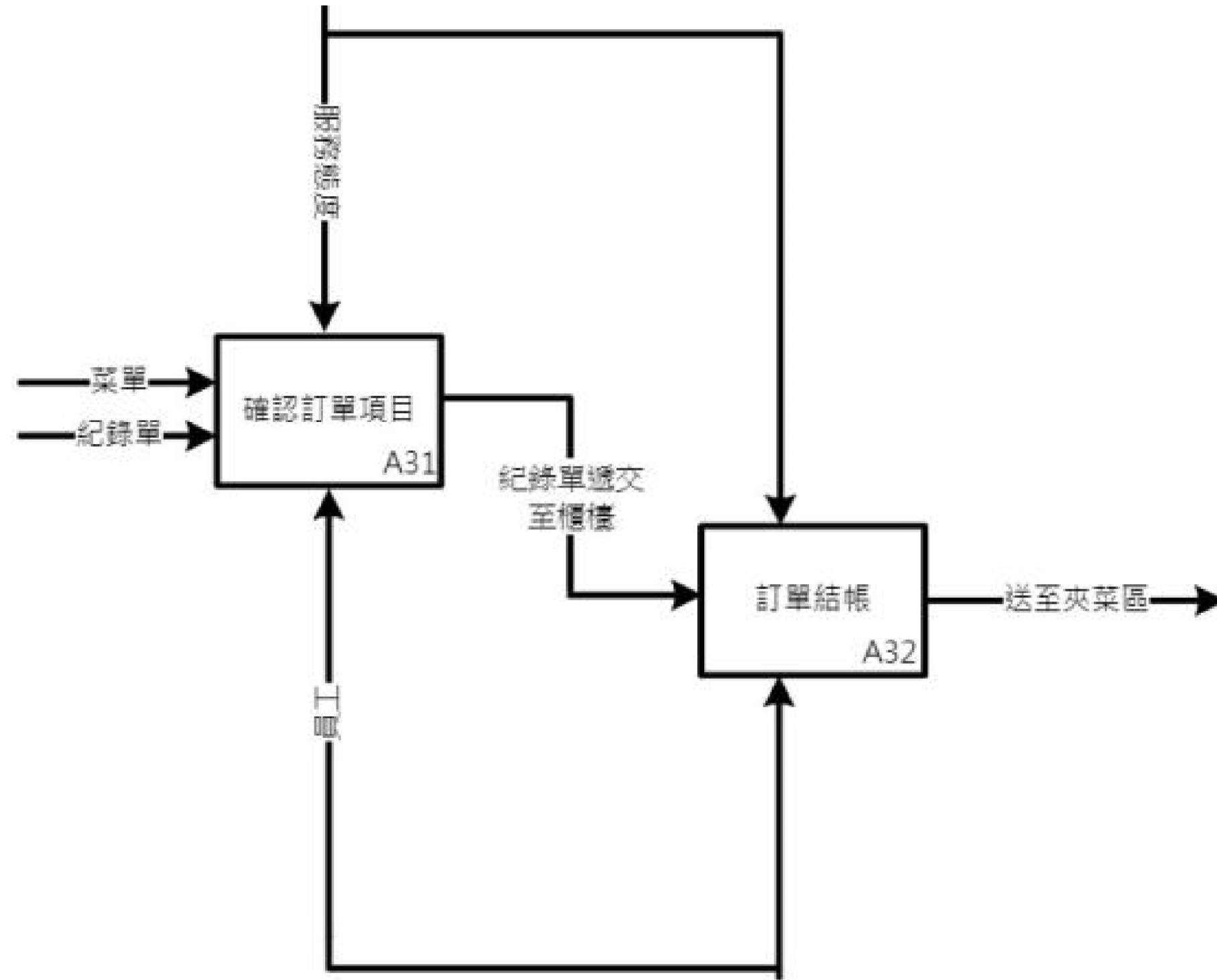
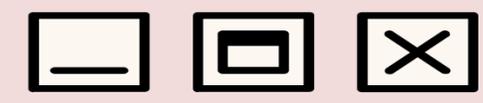
IDEF流程分析 A1

AS-IS



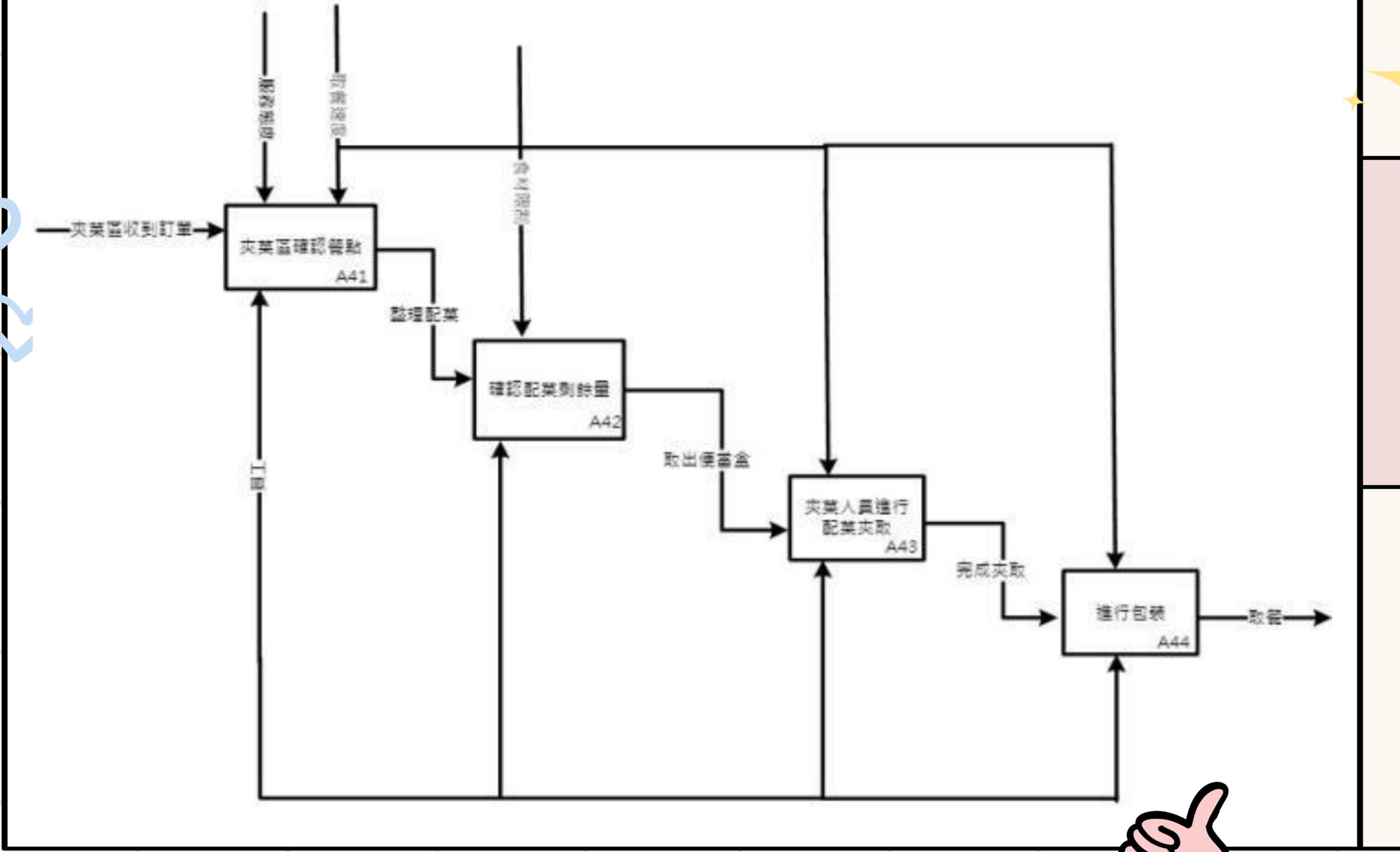
IDEF流程分析 A3

AS-IS



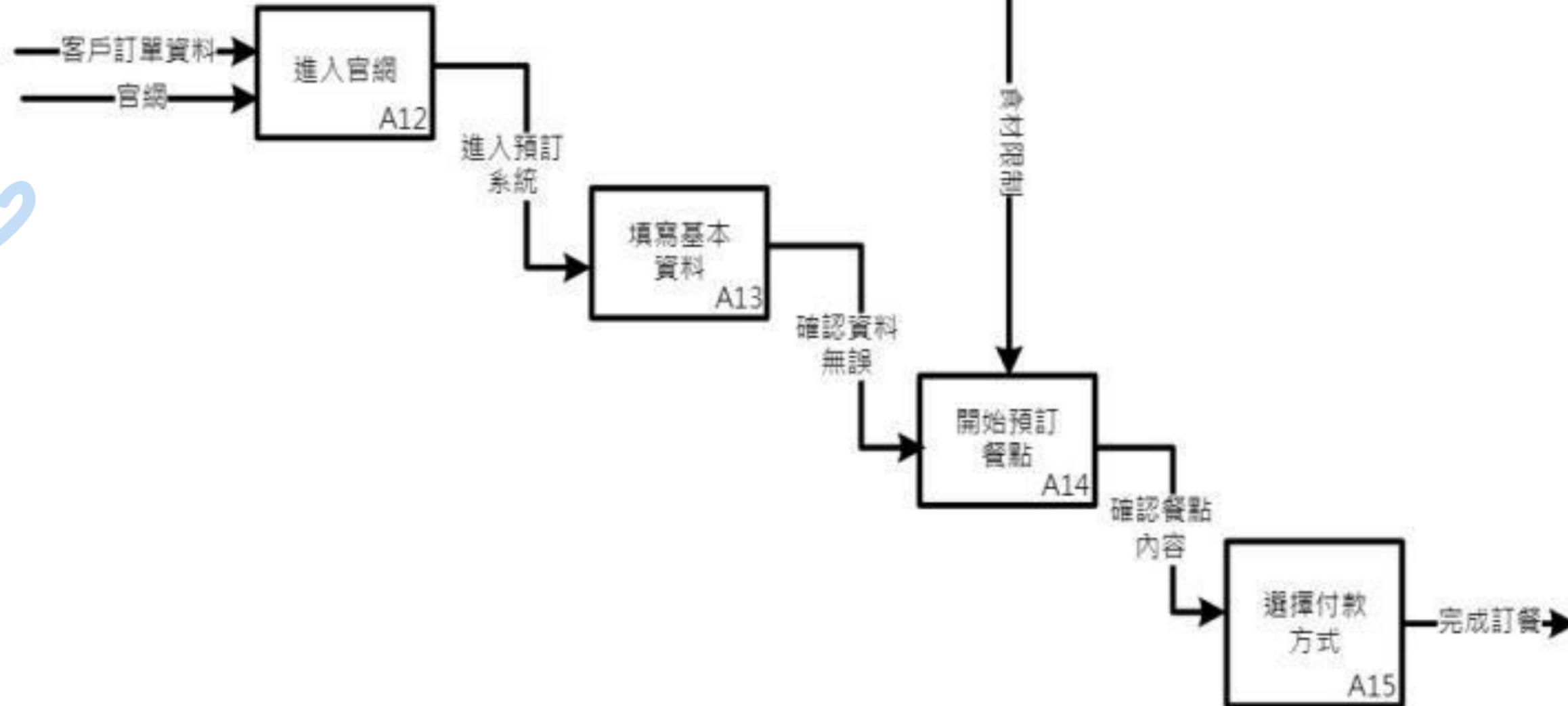
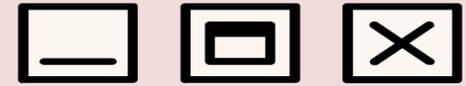
IDEF流程分析 A4

AS-IS



IDEF流程分析 A1

TO-BE



PART TWO

模擬 

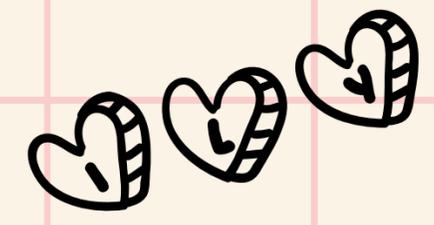


基本假設AS-1S



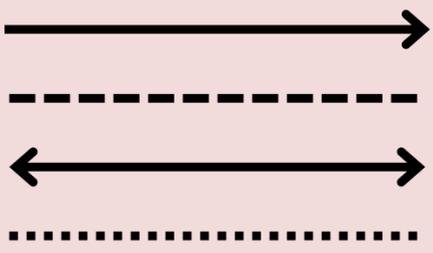
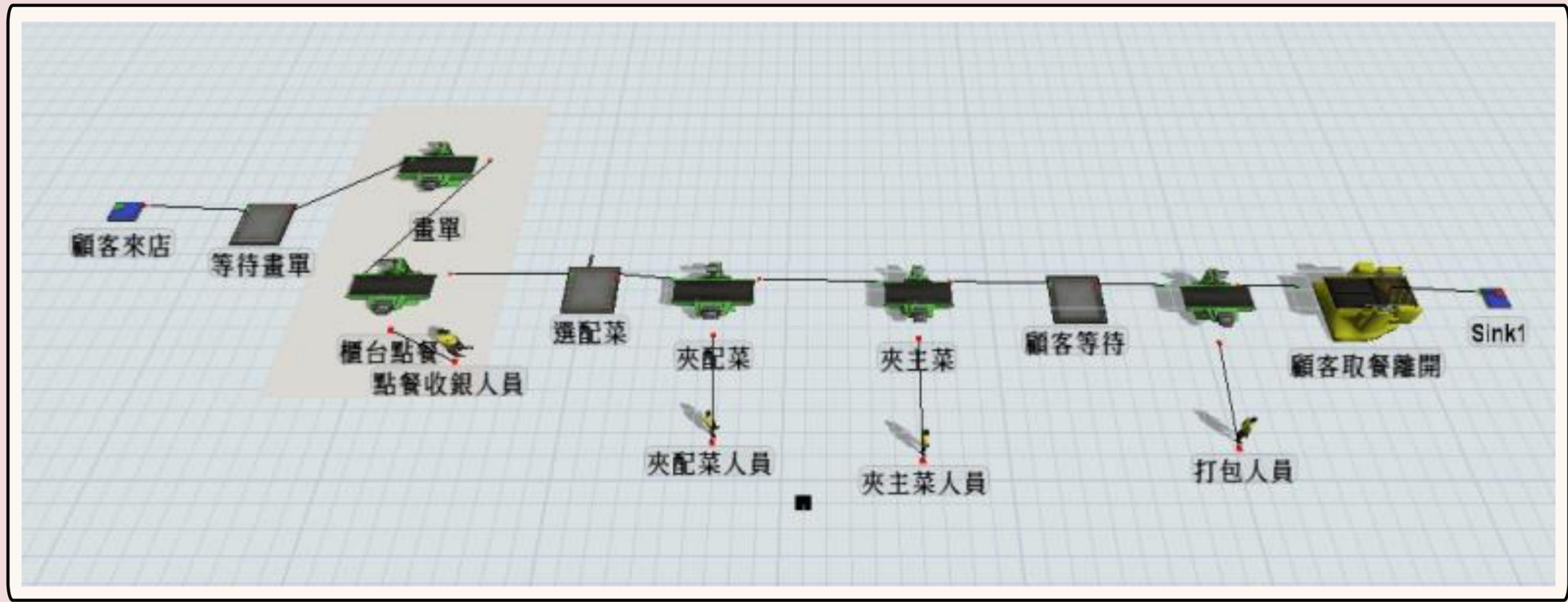
× □ — 模擬150組顧客來店，時間設定2小時(7200秒)

項目	名稱	參數	備註
source	顧客來店	exponential(45.0)	平均45秒來一組
processor	畫單點餐	N(90,10)	
	櫃檯點餐結帳	N(120,25)	
	選配菜	N(120,20)	
	夾主菜	N(40,10)	
	店員打包給餐	30	顧客等待
combiner	顧客取餐離開	N(20,1)	



MODEL

AS-IS



基本假設TO-BE



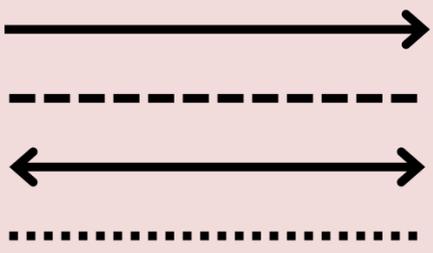
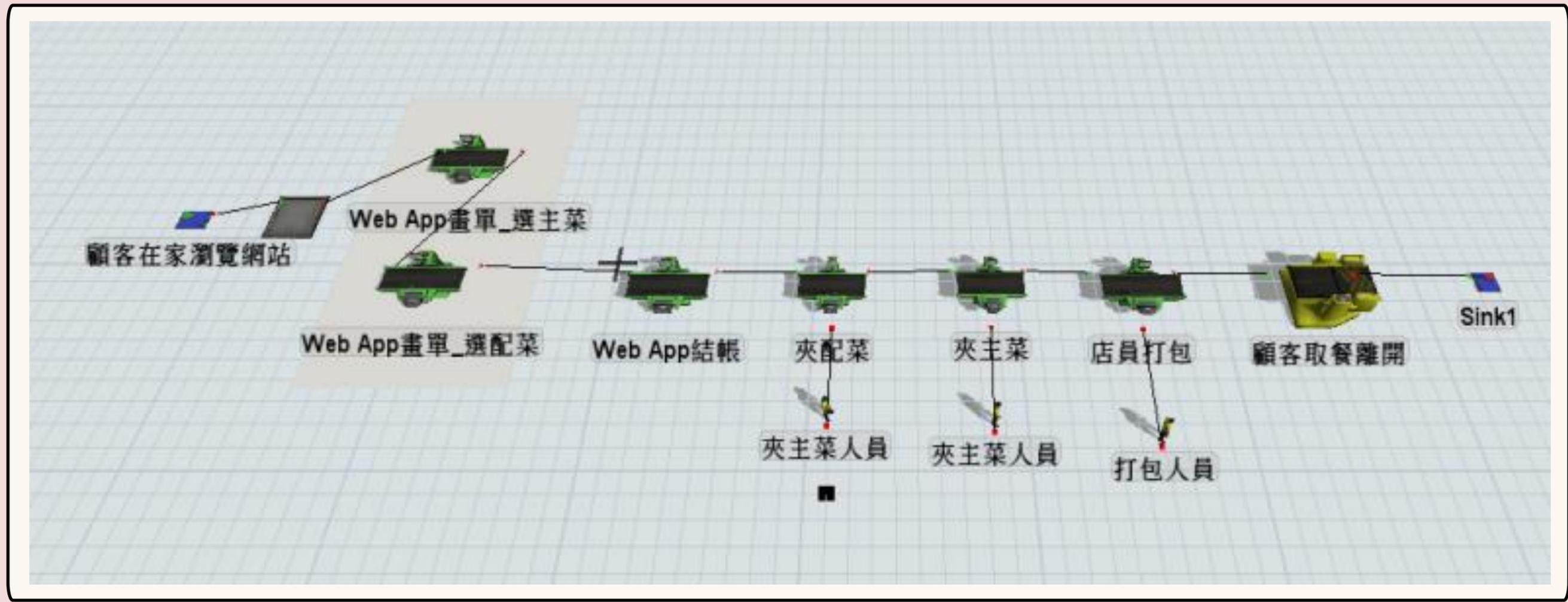
模擬150組顧客來店，時間設定2小時(7200秒)

項目	名稱	參數	備註
source	顧客在家瀏覽網站	exponential(45.0)	平均45秒有一組在瀏覽網站
processor	Web/App 畫單(選主菜)	N(30,10)	
	Web/App 畫單(選配菜)	N(60,25)	
	Web/App 結帳	N(30,25)	
	夾配菜	N(20,20)	
	夾主菜	N(10,20)	
	店員打包給餐	15	
combiner	顧客到店取餐離開	N(15,1)	



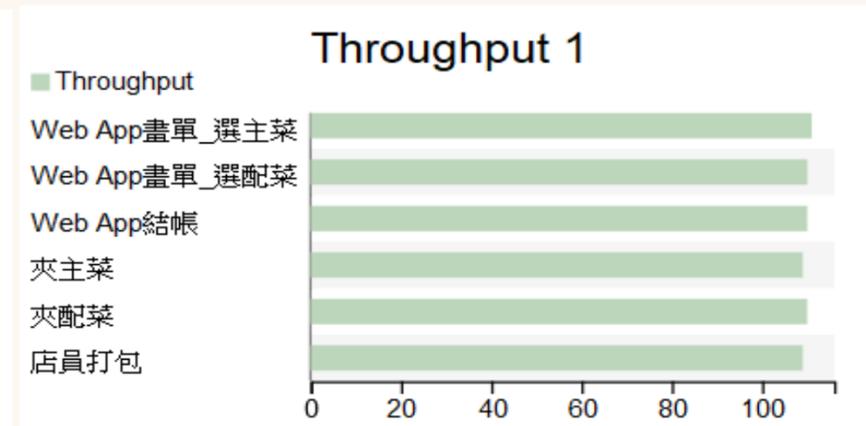
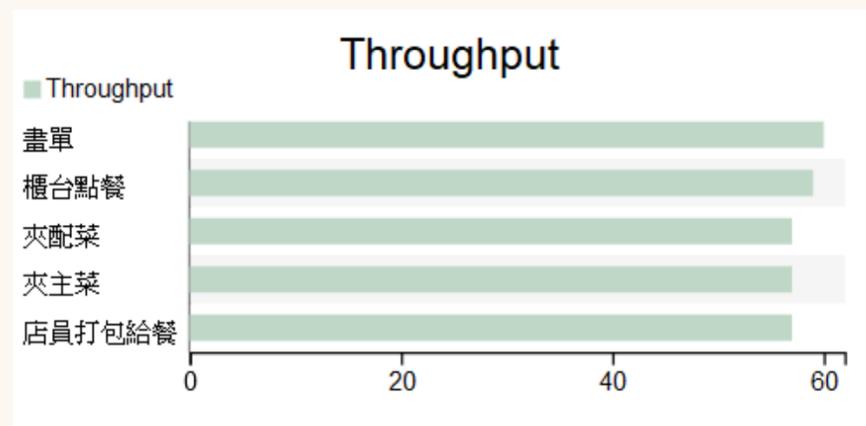
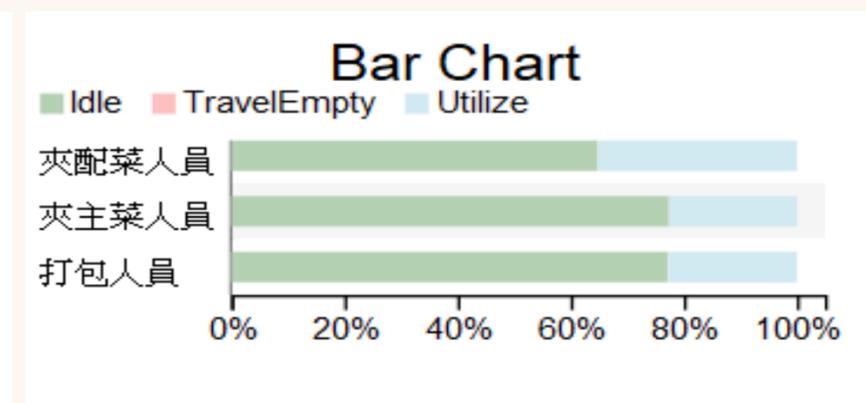
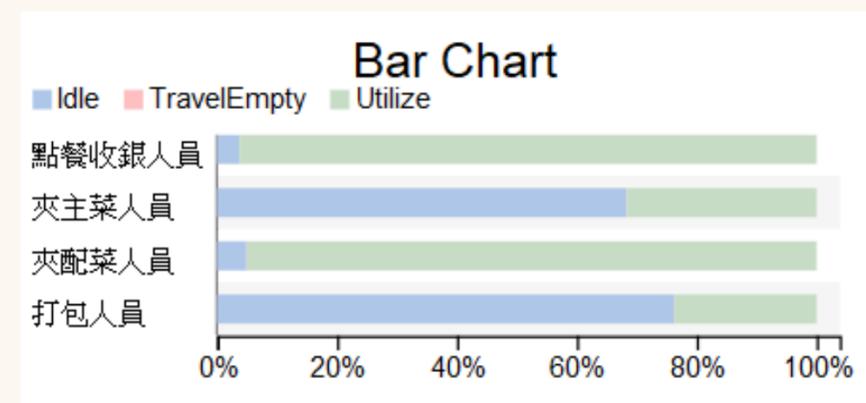
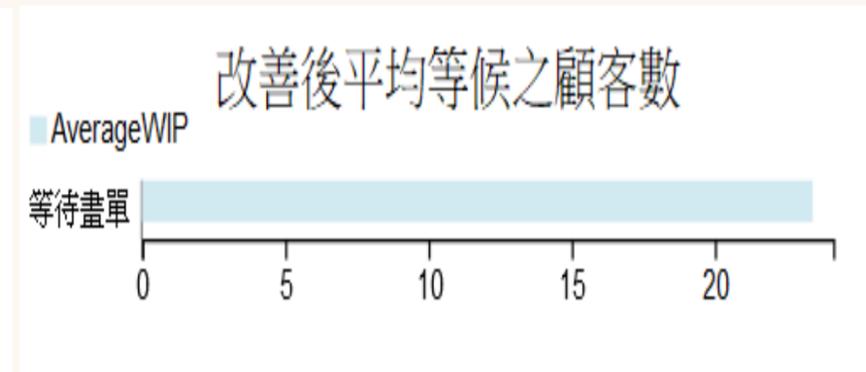
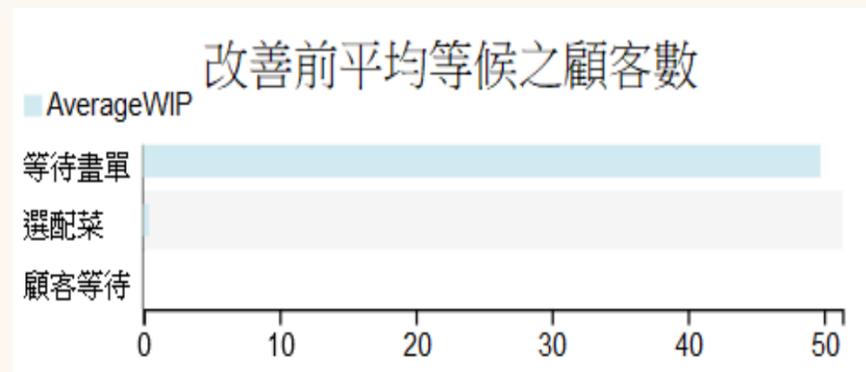
MODEL

TO-BE



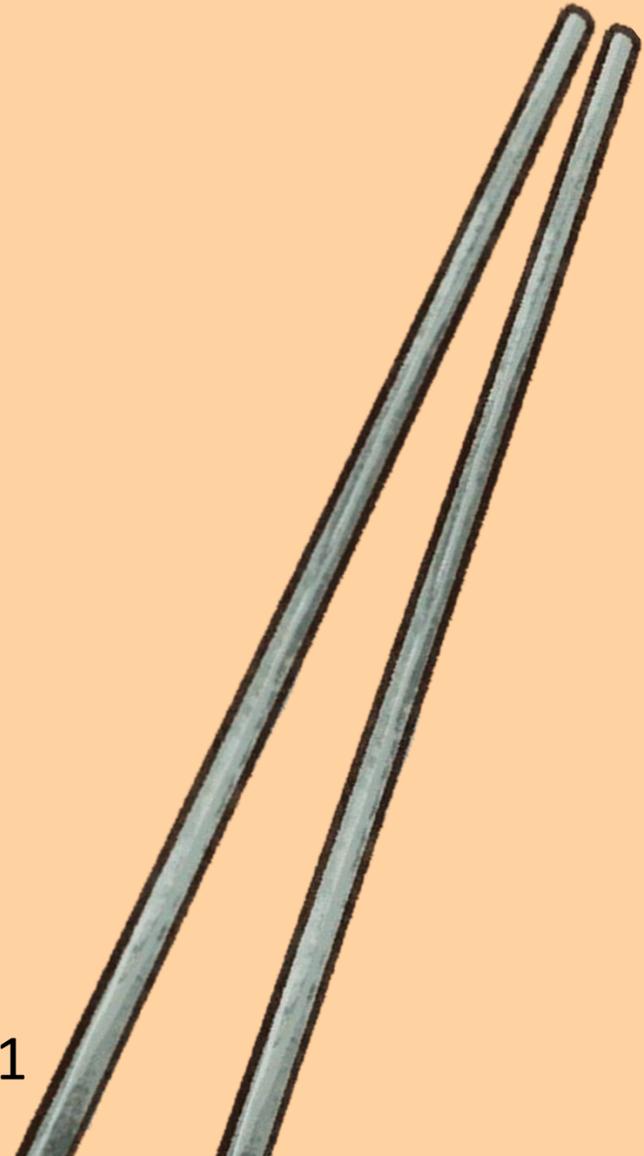
比較

	數值	改善
改善前_平均等待時間(秒)	2270.93	-54.52 %
改善後_平均等待時間(秒)	1032.76	
改善前_平均等待人數	50.16	-53.12 %
改善後_平均等待人數	23.51	
改善前_店員平均閒置時間	2756.21	47.66 %
改善後_店員平均閒置時間	5265.87	
改善前_產出	58	47.27 %
改善後_產出	110	

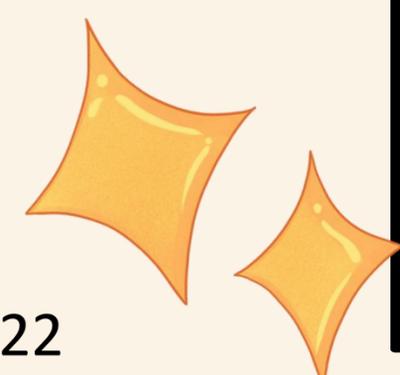
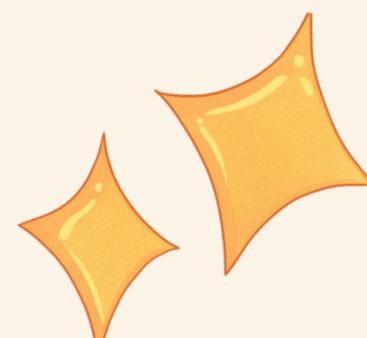
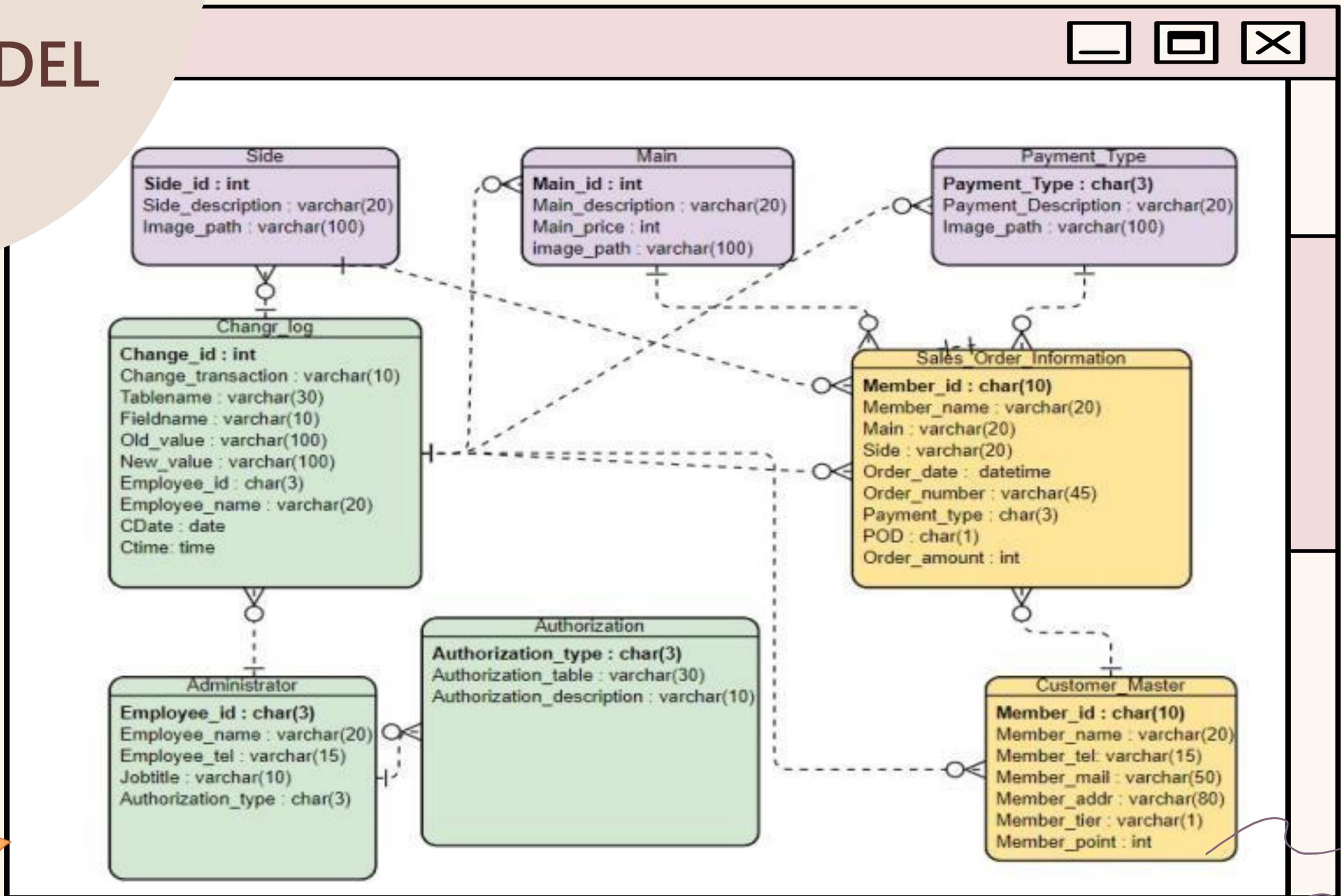


PART THREE

WEB及APP



ER MODEL



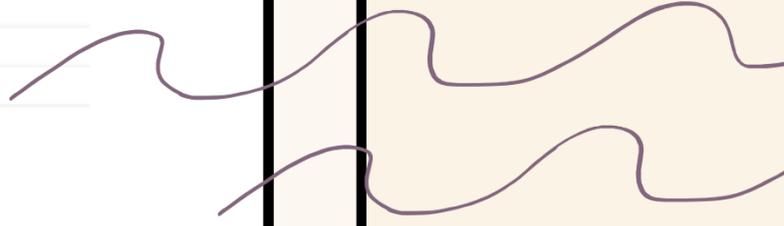
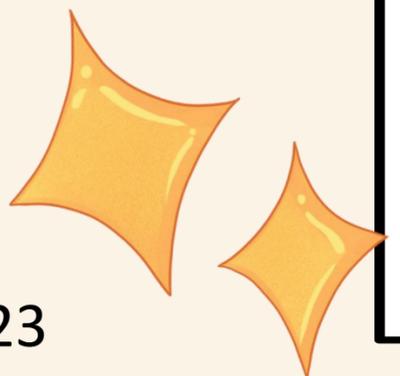
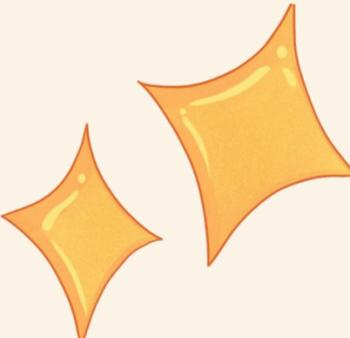
MySQL Table Schema

The screenshot shows the MySQL Workbench interface. On the left, the 'SCHEMAS' tree is expanded to show the 'project_db' database, with the 'administrator' table selected. The main pane displays the table's properties: Table Name: administrator, Schema: project_db, Charset/Collation: Default Charset / Default Collation, and Engine: InnoDB. Below this, a table lists the columns and their attributes.

Column Name	Datatype	PK	NN	UQ	B	UN	ZF	AI	G	Default/Expression
Employee_id	CHAR(3)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>						
Employee_name	VARCHAR(20)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
Employee_tel	VARCHAR(15)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
Jobtitle	VARCHAR(10)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
Authorization_type	CHAR(3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL

The screenshot shows the MySQL Workbench interface. On the left, the 'SCHEMAS' tree is expanded to show the 'project_db' database, with the 'authorization' table selected. The main pane displays the table's properties: Table Name: authorization, Schema: project_db, Charset/Collation: Default Charset / Default Collation, and Engine: InnoDB. Below this, a table lists the columns and their attributes.

Column Name	Datatype	PK	NN	UQ	B	UN	ZF	AI	G	Default/Expression
Authorization_type	CHAR(3)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>						
Authorization_table	VARCHAR(30)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>						
Authorization_description	VARCHAR(10)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL



MySQL Table Schema

Table Name: change log Schema: project_db
Charset/Collation: Default Charset Default Collation Engine: InnoDB

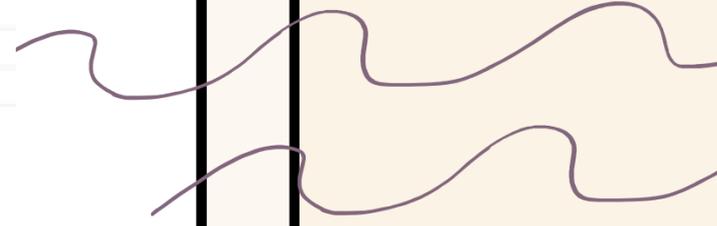
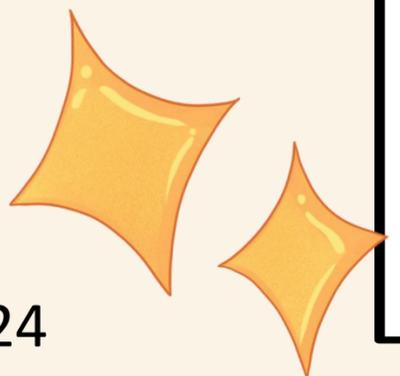
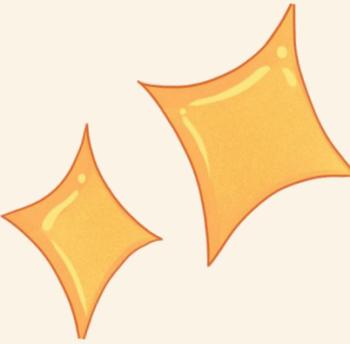
Comments:

Column Name	Datatype	PK	NN	UQ	B	UN	ZF	AI	G	Default/Expression
Change_id	INT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>						
Change_transaction	VARCHAR(10)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
Tablename	VARCHAR(30)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
Fieldname	VARCHAR(30)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
Old_value	VARCHAR(50)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
New_value	VARCHAR(50)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
Employee_id	CHAR(3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
Employee_name	VARCHAR(20)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
CDate	DATE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
CTime	TIME	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL

Table Name: payment_type Schema: project_db
Charset/Collation: Default Charset Default Collation Engine: InnoDB

Comments:

Column Name	Datatype	PK	NN	UQ	B	UN	ZF	AI	G	Default/Expression
PAYMENT_TYPE	CHAR(3)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>						
PAYMENT_DESCRIPTION	VARCHAR(20)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL



MySQL Table Schema

The image shows two screenshots of the MySQL Table Schema tool. The top screenshot displays the 'main' table, and the bottom screenshot displays the 'side' table. Both are within the 'project_db' schema.

Table: main

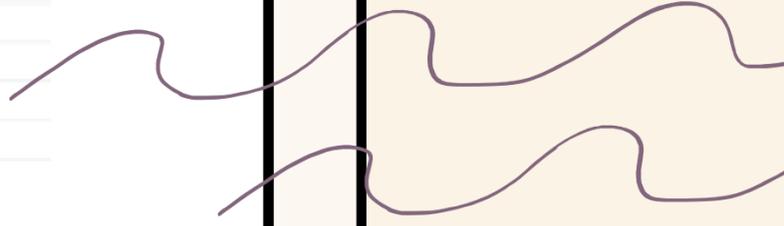
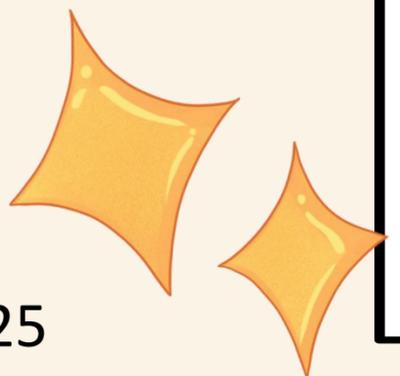
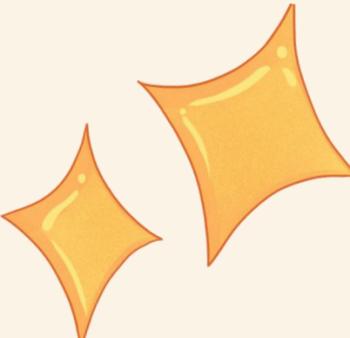
Table Name: main | Schema: project_db
Charset/Collation: Default Charset | Default Collation | Engine: InnoDB

Column Name	Datatype	PK	NN	UQ	B	UN	ZF	AI	G	Default/Expression
MAIN_ID	CHAR(3)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>						
MAIN_DESCRIPTION	VARCHAR(20)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
MAIN_PRICE	INT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
IMAGE_PATH	VARCHAR(100)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
ABSOLUTE_PATH	VARCHAR(100)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL

Table: side

Table Name: side | Schema: project_db
Charset/Collation: Default Charset | Default Collation | Engine: InnoDB

Column Name	Datatype	PK	NN	UQ	B	UN	ZF	AI	G	Default/Expression
SIDE_ID	CHAR(3)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>						
SIDE_DESCRIPTION	VARCHAR(20)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
IMAGE_PATH	VARCHAR(100)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
ABSOLUTE_PATH	VARCHAR(100)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL



MySQL Table Schema

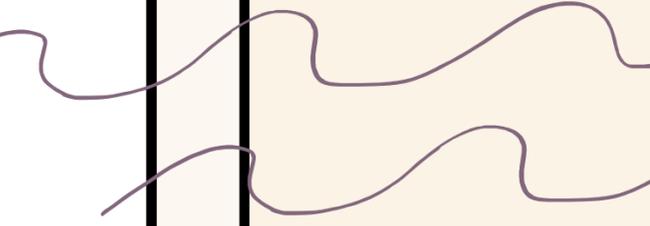
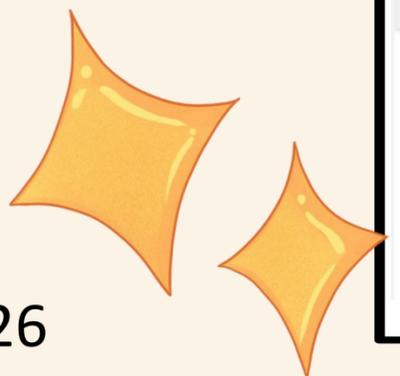
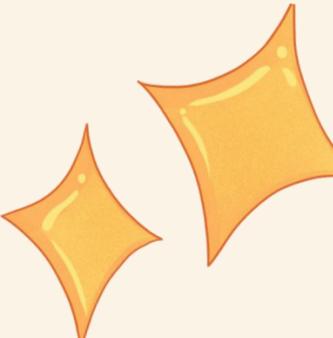
The image shows two screenshots of the MySQL Table Schema tool. The top screenshot displays the schema for the 'customer_master' table, and the bottom screenshot displays the schema for the 'sales_order_information' table. Both tables are located in the 'project_db' schema.

customer_master Table Schema:

Column Name	Datatype	PK	NN	UQ	B	UN	ZF	AI	G	Default/Expression
MEMBER_ID	CHAR(10)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>						
MEMBER_NAME	VARCHAR(20)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
MEMBER_TEL	VARCHAR(15)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
MEMBER_MAIL	VARCHAR(50)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
MEMBER_ADDR	VARCHAR(80)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
MEMBER_TIER	VARCHAR(1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
MEMBER_POINT	INT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL

sales_order_information Table Schema:

Column Name	Datatype	PK	NN	UQ	B	UN	ZF	AI	G	Default/Expression
MEMBER_ID	CHAR(10)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>						
MEMBER_NAME	VARCHAR(20)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
MAIN	VARCHAR(8)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
SIDE	VARCHAR(8)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
ORDER_DATE	DATE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
ORDER_NUMBER	VARCHAR(45)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
PAYMENT_TYPE	CHAR(3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
POD	CHAR(1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
ORDER_AMOUNT	INT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL



網站介紹



網頁介面

顧客及員工功能

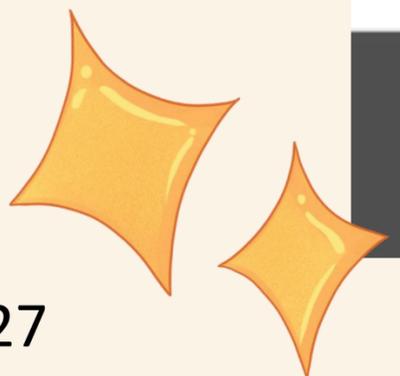
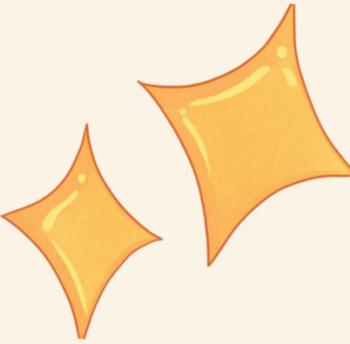
顧客功能

Chatbot

立即點餐

與我們交談

聯絡我們



DEMO

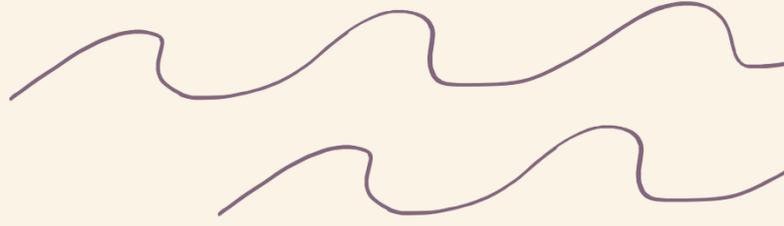
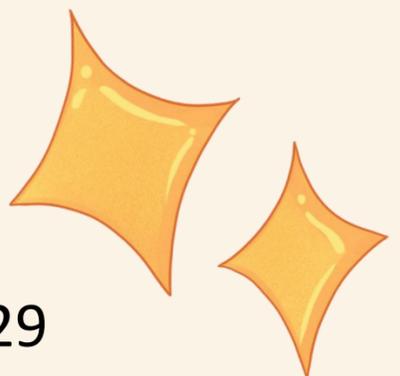
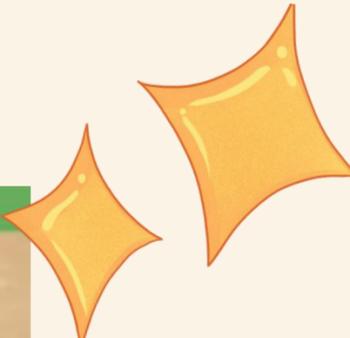
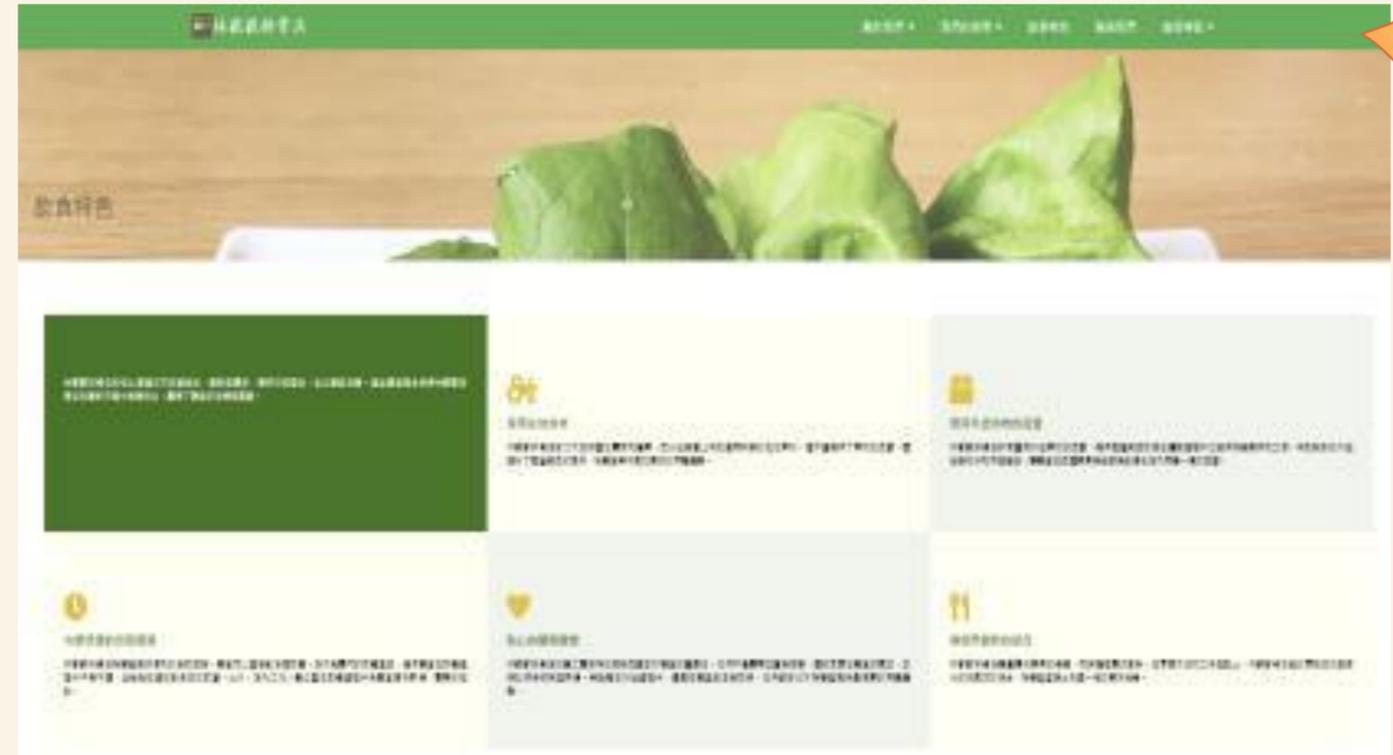


立即點餐

聯絡我們



網頁頁面



顧客功能

會員註冊/登入



林歡歡排骨店

關於我們 ▾

我們的菜單 ▾

飲食特色

聯絡我們

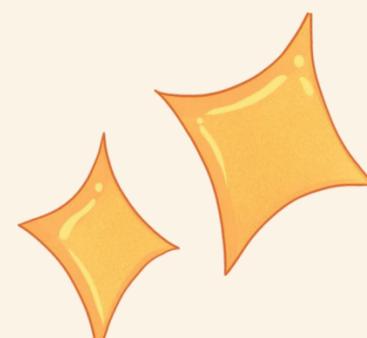
會員專區 ▾

一般會員登入

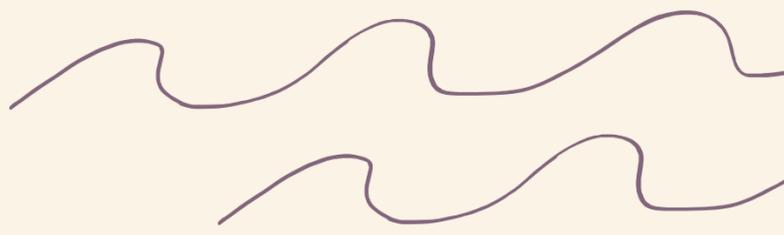
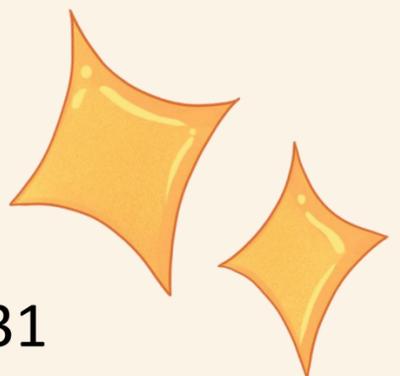
Login

[Create an account](#)

顧客功能

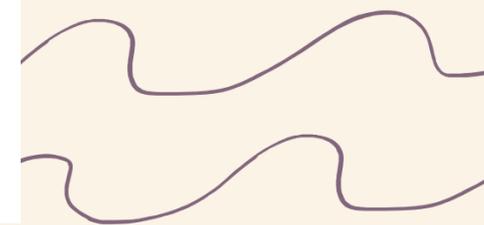
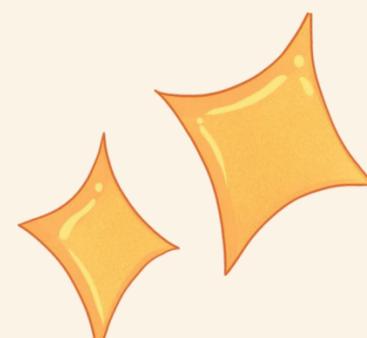


點選主菜



顧客功能

點選配菜



員工功能

員工登入

林歡歡排骨店

關於我們 ▾ 我們的菜單 ▾ 飲食特色 聯絡我們 會員專區 ▾

員工登入

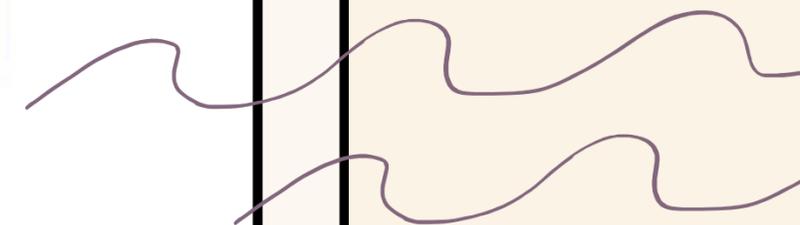
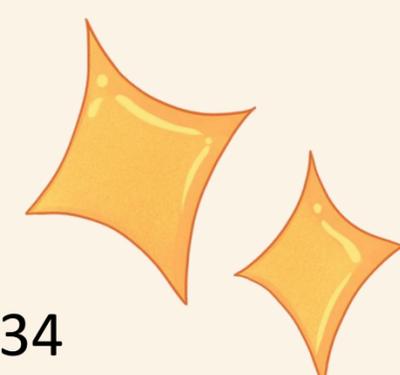
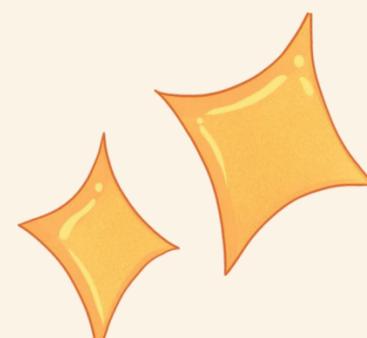
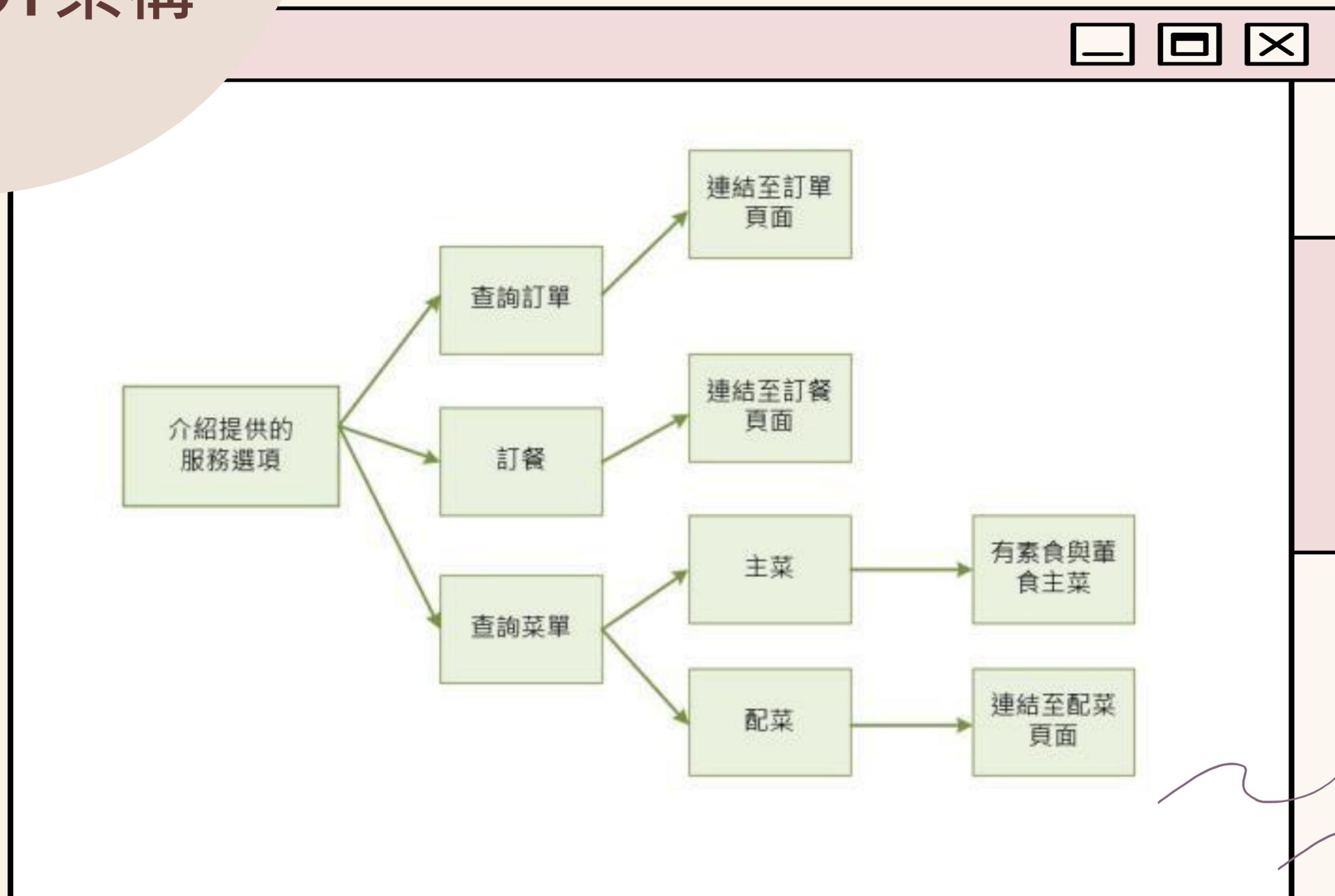
Email

Password

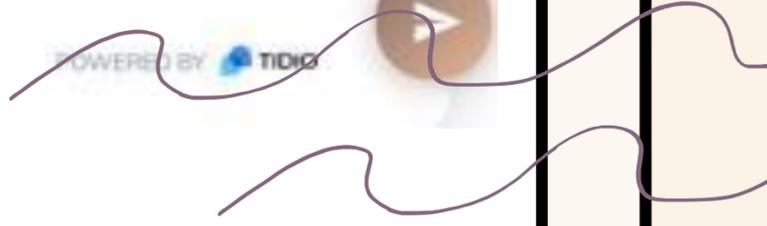
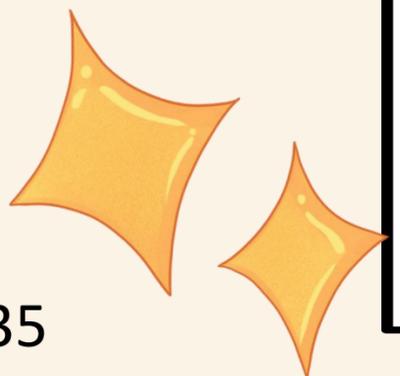
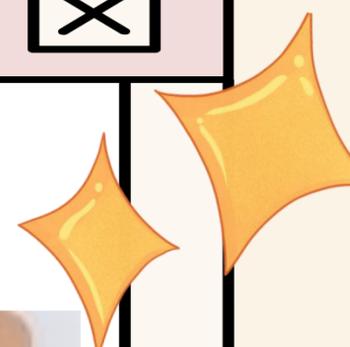
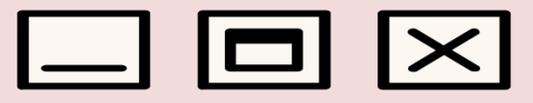
Login

[Create an account](#)

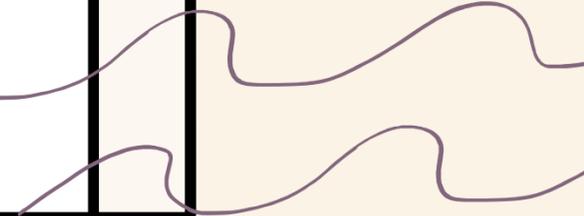
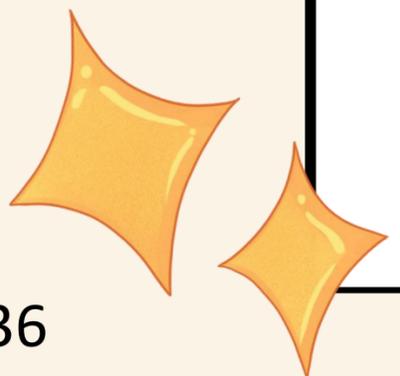
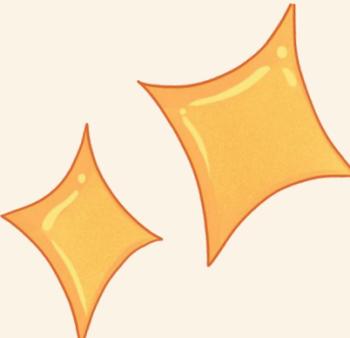
CHATBOT架構



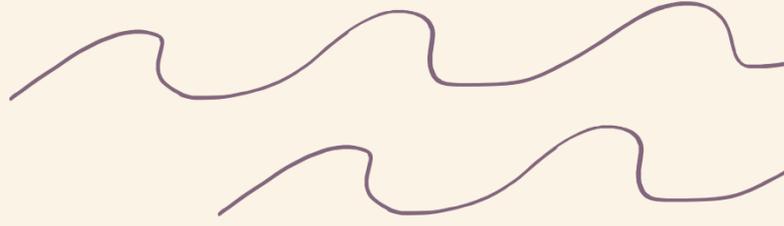
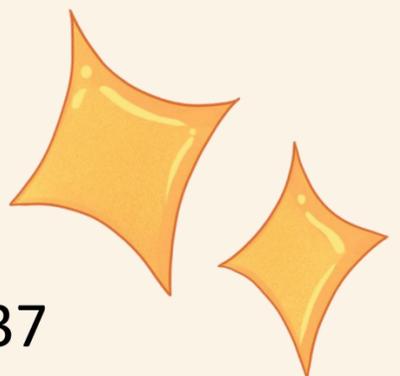
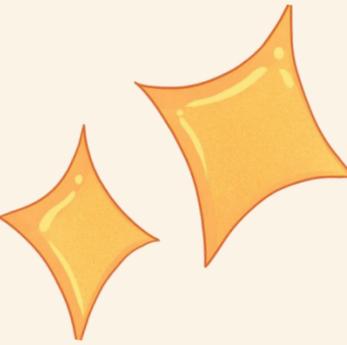
CHATBOT流程



APP

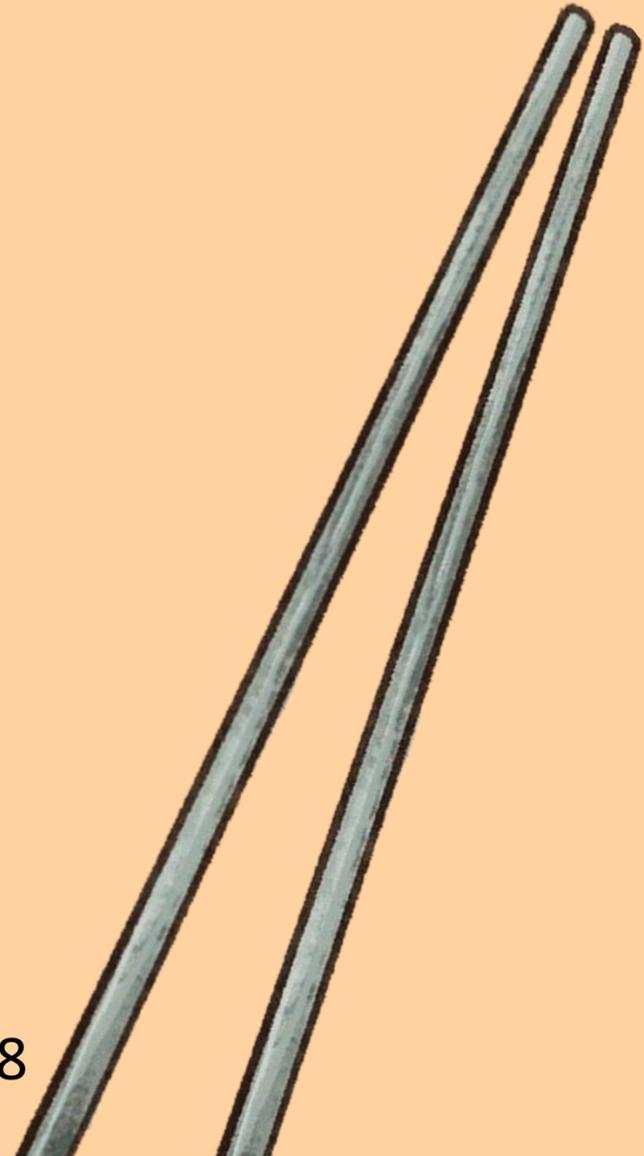


DEMO



PART FOUR

結論



結論



架設線上客製化
選菜訂購便當系統



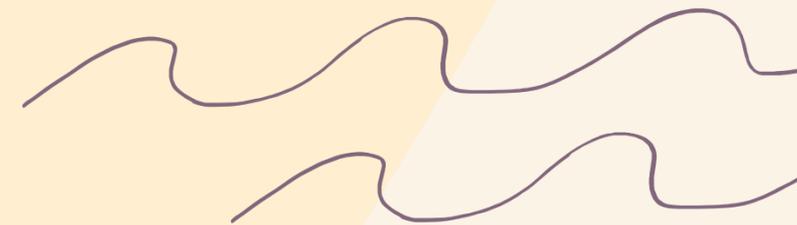
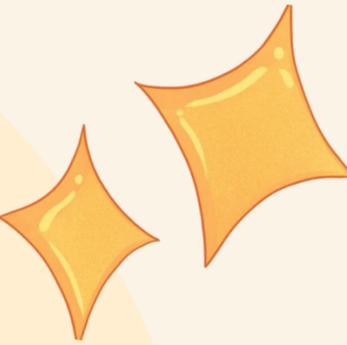
減少顧客等待時間
提升整體營收



降低店家人力成本
店內人員工作負荷降低



提升產量
提高顧客滿意度



THANKS

