

Portfolio Projects

Evan Wong

List of Projects

Web ERP System (page 03)

RentHub (page 20)

PotPoint (page 34)

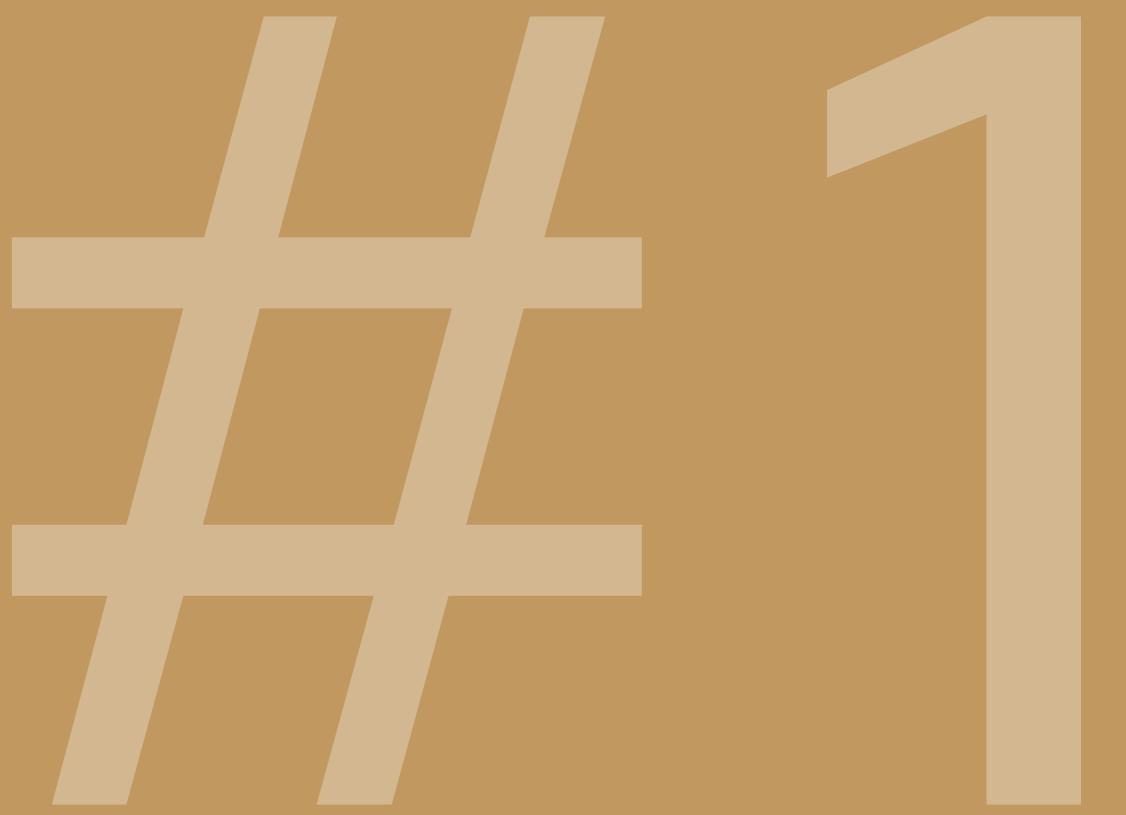
Web ERP System

GitHub:

<https://github.com/Evan-Wong-FSD/ERP-Korise>

Remark:

The following information is fictional; all confidential information has been redacted by █.



Tech stack

Front end

Vue.js, Vuex, Quasar
Framework



Data communication

Axios, Socket.IO



Back end

Node.js, Express.js,
Formidable, ExcelJS,
MongoDB



Main functions

Financial management

- Including accounting, financial reporting, budget management, and cost control functionalities.

Production management

- Planning and controlling the production process, including material requirements planning and resource allocation.

Inventory management

- Tracking and managing inventory levels.
- Creating material codes for inventories to establish a standardized and structured system for identifying and categorizing inventory items.

Project management

- Managing project schedules, resource allocation, and project costs.

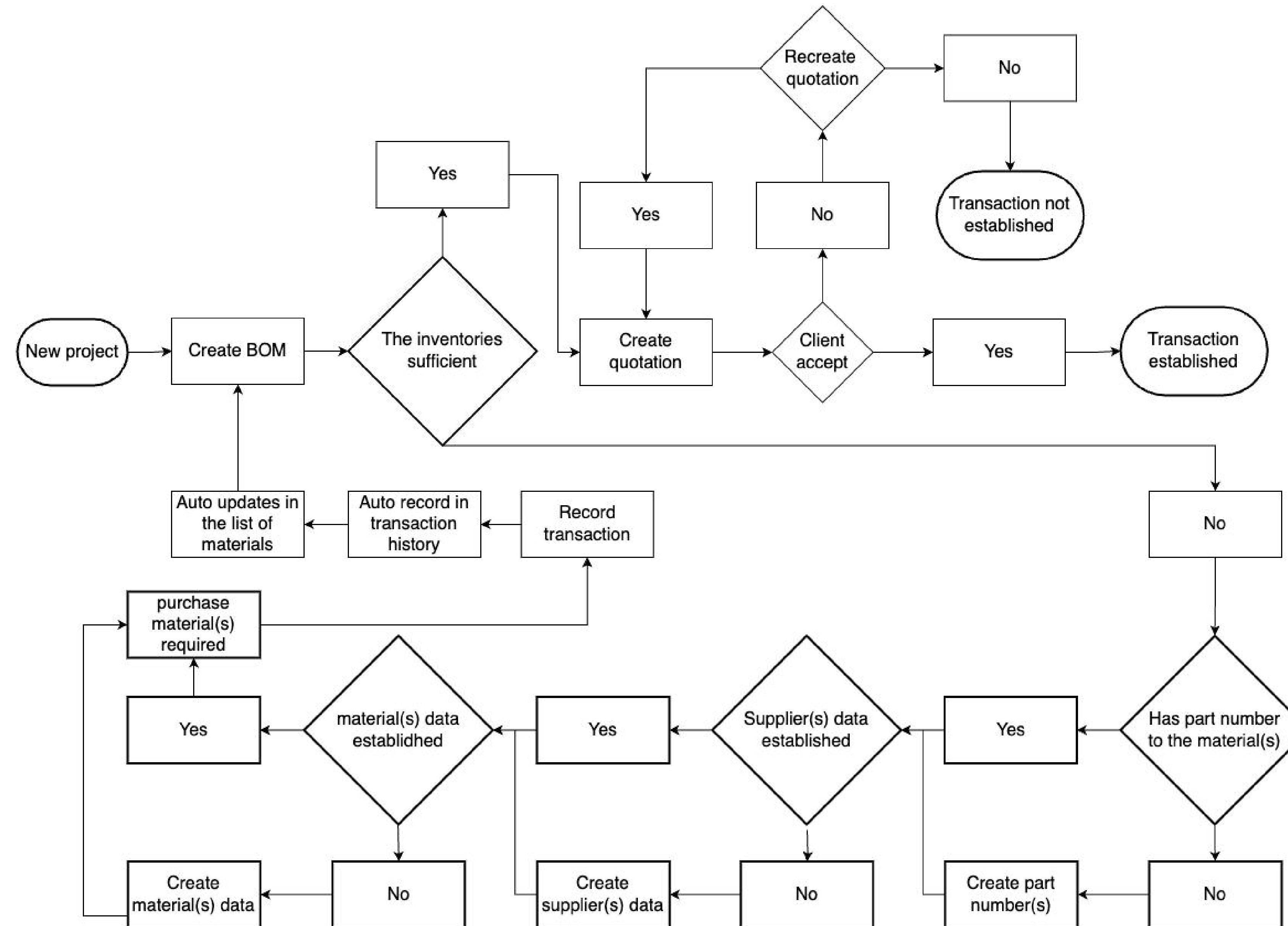
Purchasing management

- Managing the procurement process, including supplier selection, purchase orders, and supplier payments.

Customer and Supplier management

- Tracking customers and suppliers information.

Flow chart



Customers and Suppliers information

Customer and Supplier management

- Record customer and supplier data.
- Validate user-entered data before submission to ensure compliance with rules and prevent duplicates.
- Provide CRUD functionality.

The screenshot displays a software interface for managing customer and supplier data. It includes a navigation bar with links like '進銷庫存記錄', '歷史進銷查詢', '物料清單', 'BOM表', '材料資料管理', '產品種類', and '廠商資料'. A red box highlights the 'Search bar' at the top right of the main content area. Another red box highlights the 'List of firms' on the left, which shows a list of company codes and names. A third red box highlights the 'Open update dialog' button in the detail view, with an arrow pointing from the list to it. A fourth red box highlights the 'Open delete confirmation' button in the detail view, also with an arrow pointing from the list to it. The detail view shows various input fields for company information such as name, address, contact, and products.

Search bar

List of firms

Open update dialog

Open delete confirmation

廠商資料

廠商資料

統編

公司名稱

傳真國際區號

負責人

公司類型

主要產品

網址

備註 (選填)

重設

繼續

表單

歷史進銷查詢

物料清單

BOM表

材料資料管理

產品種類

廠商資料

統編

公司名稱

傳真國際區號

負責人

公司類型

主要產品

網址

備註 (選填)

統編

公司名稱

傳真國際區號

負責人

公司類型

主要產品

網址

備註 (選填)

下一頁

Materials classification

- 進銷庫存記錄
- 歷史進銷查詢
- 物料清單
- BOM表
- 材料資料管理
- 產品種類**
- 廠商資料

產品種類

Search field **Input field**

統編	公司名稱	產品種類	種類料號	產品材質	材質料號
<input type="checkbox"/>	[REDACTED]	管材	K000	透明水管	14
<input type="checkbox"/>	[REDACTED]	管材	K000	自來水管	09
<input type="checkbox"/>	[REDACTED]	管材	K000	軟管	13
<input type="checkbox"/>	[REDACTED]	管材	K000	軟管	13
<input type="checkbox"/>	[REDACTED]	管材	K000	EMT管	12

每頁筆數: 5 ▾ 1-NaN / [object Object]

Materials classification

Inventory Management

- Manage (CRUD) part numbers help the company track the flow of materials in the supply chain. By assigning part numbers, the company can accurately identify each material and replenish inventory when needed, ensuring an adequate supply while avoiding overstock or stockouts.

Quality Control

- Part numbers enable precise identification and tracking of different materials. This helps ensure consistent product quality and facilitates quick traceability to specific material batches or suppliers in case of defects or issues.

Supply Chain Coordination

- In the supply chain, the company interact and collaborate with suppliers, manufacturers, and distributors. Using part numbers allows different trading partners to precisely identify and communicate specific materials, ensuring accuracy and consistency in orders and deliveries.

Cost Management

- Part numbers assist in better cost management. By assigning standardized numbers and tracking materials, the company can more easily analyze and compare prices and performance from different suppliers, enabling more informed procurement and sourcing decisions.

Efficiency Improvement

- The use of part numbers can enhance internal process efficiency. For example, in procurement and manufacturing, using part numbers simplifies the ordering process, reduces errors and confusion, and speeds up material sourcing and production schedules.

Material Management

Inventory management

- Record, track, and manage (CRUD) detailed information about materials, inventory levels, supplier information, and part numbers.

Upload / Download invoice

- Upload invoices before submitting material data for future downloading and viewing.
- Facilitate comparison of supplier price increases.
- Helps the accountant record purchase costs accurately and supports activities such as tax filings, cost calculations, and financial analysis.

The screenshot displays a Material Management system interface. On the left, a sidebar menu lists several options: 進銷庫存記錄 (Sales and Inventory Record), 歷史進銷查詢 (Historical Sales and Purchase Query), 物料清單 (Material List), BOM表 (BOM Table), **材料資料管理** (Material Data Management), 產品種類 (Product Type), and 廠商資料 (Supplier Information). The '材料資料管理' option is currently selected and highlighted in blue.

The main area contains two forms:

- 材料資料管理 (Material Data Management):** This form is used to input detailed material information. It includes fields for: 統編 (Serial Number), 公司名稱 (Company Name), 產品種類 (Product Type), 產品材質 (Product Material), 型號 (Model), 產品名稱 (Product Name), 電壓 (Voltage), 描述 (Description), 電流 (Current), 電率 (Frequency), 輸出功率 (Output Power), 規格 (Specification), and 特性 (Characteristics). A red box highlights the 'Upplad invoice' button, which is associated with the '上傳發票' (Upload Invoice) button in the top right corner of the form.
- 材料資料管理 (Material Data Management):** This form shows a list of material items. The columns include: 統編 (Serial Number), 公司名稱 (Company Name), 產品種類 (Product Type), 產品材質 (Product Material), 產品名稱 (Product Name), 管材口徑 (Piping Diameter), 管材名稱 (Piping Name), 產品料號 (Product Part Number), 型號 (Model), 描述 (Description), 電壓 (Voltage), 電流 (Current), 電率 (Frequency), 輸出功率 (Output Power), 規格 (Specification), and 特性 (Characteristics). A red box highlights the 'Download invoice' button, which is associated with the '下載發票' (Download Invoice) button in the top right corner of the list view. The list view also includes buttons for 表單 (Form), 更新 (Update), 重設 (Reset), and 刪除 (Delete).

At the bottom right of the interface, there is a page navigation bar with the text: 每頁筆數: 15 | 1-15 / 972 | < < > >|.

Bill of Material (BOM) / Quotation

Generate BOM or Quotation

- A Bill of Materials (BOM) is a comprehensive list of items, parts, assemblies, and materials required to produce or manufacture a specific finished product. It serves as a blueprint for creating the product.
- A quotation, also known as a quote, is a fixed-price proposal provided to a customer. It outlines the cost of a product or service and cannot be modified once the customer agrees.

The screenshot shows a software interface for managing BOM and Quotation. On the left, there is a sidebar with buttons for '進銷庫存記錄', '歷史進銷查詢', '物料清單', 'BOM表' (highlighted in blue), '材料資料管理', '產品種類', and '廠商資料'. The main area has a title '• 基本資料' and two red boxes highlighting sections: '• Basic information' (covering project details like code, date, client info) and '• Header in the sheet' (covering material classification). A red arrow points from the 'Basic information' box to the client details section. Another red arrow points from the 'Header in the sheet' box to the materials classification table below. The table has columns for '產品種類' (Product Type) and contains entries for '變壓器' (Transformer), '電控材料' (Electrical Control Materials), and '工具' (Tools). The bottom right corner of the table shows '1~3 / 3'.

• Basic information

• Header in the sheet

Materials classification applied in the sheet

Bill of Material (BOM) / Quotation

Select type of sheet

Input field

Export Excel file

Click to insert data into sheet

報價單										物料清單													
客戶名稱：領先豐貿易有限公司										客戶名稱：領先豐貿易有限公司													
工程名稱：工程一										工程名稱：工程一													
連絡人：張雋弘										連絡人：張雋弘													
客戶電話：(886) 02 - 85223325										客戶電話：(886) 02 - 85223325													
客戶傳真：02 - 85223323										客戶傳真：02 - 85223323													
項次	名稱內容		規格		數量	單位	單價	複價	備註	小計	項次	名稱內容		規格		數量	單位	單價	複價	備註	小計		
1	變壓器(H型) 380.415.440V/110.220V(1A)TRS		380.415.440V/110.220V(1A)TRS		1	個	1,000	1,000		11,800	1	變壓器											
2	S-P35T接觸器		S-P35T接觸器		1	個	1,500	1,500		590	2	電控材料											
3	電焊機ARC-250CS 新展		ARC-250CS		1	個	3,000	3,000		12,390	3	工具											
4	八里-石門				1	趟	3,300	3,300			4	運費											
5	起重搬運				1	趟	3,000	3,000			5	其他費用											
合計											11,800	合計											11,800
營業稅5%											590	八里-石門											3,300
總計：壹萬貳仟參佰玖拾元整											12,390	起重搬運											3,000
1. 本報價單有效期限：15天。												經辦人：潘啟川											
2. 交貨期限：圖面確認後45天。												合計											11,800

Bill of Material (BOM) / Quotation

Data input reminders

- Only allow users to select materials with available inventory to avoid issues from insufficient stock.
- Provide inventory quantity alerts.
- Display an insufficient stock warning when the input quantity exceeds the material's inventory level.

Flexibility of data display and manipulation

- Real-time data synchronization in the form of instant data review and reduced errors.
- Instantly switch between BOM and Quotation form templates.
- Provide Excel export functionality for time-saving compilation.

Enhancement of managements

- **Financial management:** include budget management and cost control functionalities.
- **Production management:** plan the production process, including material requirements planning, production scheduling, and resource allocation.
- **Project management:** manage project schedules, resource allocation, and project costs.

Bill of Material (BOM) / Quotation

Provide search functionality

- Easily search BOM or Quotation by entering any search criteria.
- Ability to delete specified BOM or Quotation from the search results.
- Provide Excel export functionality.

The screenshot shows a search interface for BOM or Quotation. On the left, there is a search form with fields for '工程名稱' (Project Name), '編號' (Number), '客戶名稱' (Customer Name), '日期' (Date), '產品種類' (Product Type), and '產品名稱' (Product Name). A red box labeled 'Input keyword' points to the '工程名稱' field. A red box labeled 'Search' points to the '搜尋' (Search) button. At the top right, a red box labeled 'Open search dialog' points to the '搜尋' button in the header. On the right, a red box labeled 'View details' points to a '檢視' (View) button in a modal window. The modal window displays a table of search results with columns: 編號 (Number), 編號 (Number), 表單名稱 (Form Name), 統編 (Serial Number), 客戶名稱 (Customer Name), 工程名稱 (Project Name), Project code, and 日期 (Date). Two entries are shown: 2024030901 (Form Name: 物料清單, Serial Number: 12803855, Customer Name: 領先豐貿易有限公司, Project Name: 工程一, Project code: 00001, Date: 113/03/10) and 2024030902 (Form Name: 報價單, Serial Number: 12803855, Customer Name: 領先豐貿易有限公司, Project Name: 工程一, Project code: 00001, Date: 113/03/10). The bottom right of the modal shows '每頁筆數: 5' (5 rows per page) and '1-2 / 2' (Page 1 of 2).

The screenshot shows a search interface for BOM or Quotation. It includes the same search fields as the previous interface: '工程名稱' (Project Name), '編號' (Number), '客戶名稱' (Customer Name), '日期' (Date), '產品種類' (Product Type), and '產品名稱' (Product Name). A red box labeled 'Export Excel file' points to the '匯出檔案' (Export File) button in a modal window. The modal window contains a header with '埠安企業有限公司' (Boon An Enterprise Co., Ltd.) and address '新北市八里區賢一街129-1號'. Below the header is a contact section with 'Tel : 02-8292-7060' and 'Fax : 02-8292-7201'. The main body of the modal is titled '報 價 單' (Quotation). It shows customer information '客戶名稱：領先豐貿易有限公司' and project information '工程名稱：工程一'. It also lists contact person '連絡人：張雋弘', phone '客戶電話：(886) 02 - 85223325', and fax '客戶傳真：02 - 85223323'. The central part of the modal is a table of items with columns: 項次 (Item No.), 名稱內容 (Description), 規格 (Specification), 數量 (Quantity), 單位 (Unit), 單價 (Unit Price), 複價 (Multiple Price), 備註 (Remarks), and 小計 (Subtotal). The table contains 10 items, with the last item being '起重搬運' (Crane Moving). The total at the bottom is '合計 11,800'.

List of materials

Inventory management

- Track and manage (CRUD) inventory levels and supplier information for materials.
- Provide convenient search functionality for users to quickly find the requested material data.
- By leveraging recorded material data, the company could compare quotes from different suppliers and identify materials with the most competitive prices.
- Efficiently compare whether suppliers have adjusted prices.

The screenshot displays two views of a material management application. On the left, a sidebar menu lists various functions: 進銷庫存記錄, 歷史進銷查詢, 物料清單 (highlighted in blue), BOM表, 材料資料管理, 產品種類, and 廠商資料. On the right, the main area shows a 'Material List' (物料清單) for 'Copper Pipe - 2-1/8" - 90 Degree Bend 2-1/8"'. A red box highlights the 'Materials tree menu' (物料樹形選單) on the left side of the main window, which is a hierarchical list of material categories and sub-categories. Another red box highlights the 'Search field' (Search field) at the top of the main window, where the date '111/07/25' has been entered. The main table lists five entries for the specified material, showing details like date, quantity, unit price, and total value.

日期	進銷項	統編	公司名稱	單價	數量	折扣	複價	付款條件	稅金	Project code	備註
111/07/25	進項			\$213	20	0折	\$4,260	無	未稅		
111/07/25	進項			\$213	20	0折	\$4,260	無	未稅		
111/08/23	進項			\$213	10	0折	\$2,130	無	未稅		
111/12/26	進項			\$213	10	0折	\$2,130	無	未稅		
111/12/26	進項			\$213	10	0折	\$2,130	無	未稅		

Transaction record

Transaction management

- Create transaction records, including information on suppliers/customers, orders and payments/revenues.

進銷庫存記錄

報價單編號
2024030902

發票基本資料

時間 113/03/14	發票種類 二聯式統一發票
發票號 ex000001	期年 2000
期數 3-4	

重設 下一頁

進銷庫存記錄

歷史進銷查詢

物料清單

BOM表

材料資料管理

產品種類

廠商資料

進銷庫存記錄

發票基本資料

時間 113/03/14	發票種類 三聯式統一發票
發票號 xa000001	統編 41164033
公司名稱 中國青年救國團新北市土城國民運動中心	期年 2024
期數 1-2	

重設 繼續

進銷庫存記錄

歷史進銷查詢

物料清單

BOM表

材料資料管理

產品種類

廠商資料

進銷庫存記錄

發票基本資料

產品種類
電子零件

產品材質
電動閥

產品名稱
電動閥PEI-0622

型號
電動頭JS-03H*110V單相**加手輪

數量
2

單價
\$ 1250

Project code
00001

備註(選填)

進項

發票細項

每頁筆數: 5 1-5 / 5

返回 送出

2. Input sales data

Inventory management

- Based on purchase or sales records, automatically increase or decrease the inventory levels.

Transaction history

Transaction management

- Manage transaction details, including the ability to query or delete past orders and payment information.
- Offer a wide range of search criteria, such as time range, accounting period, transaction type, invoice number and project code.
- Using the project code as a search parameter allows for rapid retrieval of project-specific expenses and revenues to provide real-time visibility into the company's business operations.

Filter by time period Filter by accounting period

歷史進銷查詢

選項	進銷項	期年	期數	公司名稱	發票號	時間	統編	銷售額	稅金	總額	發票種類	備註
<input type="checkbox"/>	進項	2022	09-10	[REDACTED]	[REDACTED]	111/10/19	[REDACTED]	\$15,475	\$774	\$16,249	三聯式統一發票	
<input type="checkbox"/>	進項	2022	09-10	[REDACTED]	[REDACTED]	111/09/16	[REDACTED]	\$53,980	\$2,699	\$56,679	三聯式統一發票	
<input type="checkbox"/>	進項	2022	09-10	[REDACTED]	[REDACTED]	111/08/19	[REDACTED]	\$31,167	\$1,574	\$32,741	三聯式統一發票	
<input type="checkbox"/>	進項	2022	09-10	[REDACTED]	[REDACTED]	111/10/31	[REDACTED]	\$3,912	\$196	\$4,108	收銀機統一發票	
<input type="checkbox"/>	進項	2022	09-10	[REDACTED]	[REDACTED]	111/09/27	[REDACTED]	\$5,060	\$253	\$5,313	三聯式統一發票	
合計												
\$109,594 \$5,496 \$115,090												

每頁筆數: 5 1-5 / 139 | < < > >|

Search field

歷史進銷查詢

選項	進銷項	期年	期數	公司名稱	發票號	時間	統編	銷售額	稅金	總額	發票種類	備註
<input type="checkbox"/>	進項	2022	09-10	[REDACTED]	[REDACTED]	111/10/19	[REDACTED]	\$15,475	\$774	\$16,249	三聯式統一發票	
<input type="checkbox"/>	進項	2022	09-10	[REDACTED]	[REDACTED]	111/09/16	[REDACTED]	\$53,980	\$2,699	\$56,679	三聯式統一發票	
<input type="checkbox"/>	進項	2022	09-10	[REDACTED]	[REDACTED]	111/08/19	[REDACTED]	\$31,167	\$1,574	\$32,741	三聯式統一發票	
<input type="checkbox"/>	進項	2022	09-10	[REDACTED]	[REDACTED]	111/10/31	[REDACTED]	\$3,912	\$196	\$4,108	收銀機統一發票	
<input type="checkbox"/>	進項	2022	09-10	[REDACTED]	[REDACTED]	111/09/27	[REDACTED]	\$5,060	\$253	\$5,313	三聯式統一發票	
合計												
\$109,594 \$5,496 \$115,090												

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Transaction history

Transaction management

- Users can manage (CRUD) detailed information for each order.
- Track all items within each order, including the project code they are associated with.
- Allow managers to access this data anytime and make informed decisions.

歷史進銷查詢

The screenshot shows a table of purchase invoices. The columns include: 進銷項 (Purchase Type), 期年 (Year), 期數 (Period), 公司名稱 (Company Name), 發票號 (Invoice No.), 時間 (Time), 統編 (Serial No.), 賣額 (Sales Amount), 稅金 (Tax), 總額 (Total Amount), 發票種類 (Invoice Type), and 備註 (Remarks). The 'Invoice Details' button is highlighted with a red box and an arrow points from it to the bottom section of the interface.

進銷項	期年	期數	公司名稱	發票號	時間	統編	賣額	稅金	總額	發票種類	備註
進項	2022	09-10	[REDACTED]	111/10/19	[REDACTED]	\$15,475	\$774	\$16,249	三聯式統一發票		
進項	2022	09-10	[REDACTED]	111/09/16	[REDACTED]	\$53,980	\$2,699	\$56,679	三聯式統一發票		
進項	2022	09-10	[REDACTED]	111/08/19	[REDACTED]	\$31,167	\$1,574	\$32,741	三聯式統一發票		
進項	2022	09-10	[REDACTED]	111/10/31	[REDACTED]	\$3,912	\$196	\$4,108	收銀機統一發票		
進項	2022	09-10	[REDACTED]	111/09/27	[REDACTED]	\$5,060	\$253	\$5,313	三聯式統一發票		
合計						\$109,594	\$5,496	\$115,090			

歷史進銷查詢

發票號 : DU39334456

The screenshot shows the details of an invoice with the number DU39334456. The table includes columns for Product Type, Product Name, Model, Quantity, Unit Price, Total Price, and Project Code. The 'Invoice details' table is highlighted with a red box and an arrow points from it to the bottom section of the interface.

產品種類	產品名稱	型號	數量	單價	複價	Project code
[REDACTED]	[REDACTED]	[REDACTED]	2	\$25	\$50	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	1	\$230	\$230	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	1	\$940	\$940	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	1	\$320	\$320	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	2	\$320	\$640	[REDACTED]
合計				\$2,755	\$15,475	

Invoice details

Transaction history

Financial management

- Offer the ability to export financial data and automatically categorize it based on invoice types, specified amounts and so on, to meet the format requirements of accounting firms and save on labor costs.
- When there is a need to track the generation of specific reports and related data, it becomes easy to trace back to the corresponding records in the system.

歷史進銷查詢

Export Excel file

A	B	C	D	E	F	G	H	I	J	K
1 業主	項目	發票號碼	日期mmdd	稅別/項目	統編	銷售額	稅額	總額	種類	備註
2		DU39334456	111/10/19	三聯式統一發票		15,475	774	16,249		
3		du39334084	111/09/16	三聯式統一發票		53,980	2,699	56,679		
4		BS39294866	111/08/19	三聯式統一發票		31,167	1,574	32,741		
5		DU37110252	111/09/22	三聯式統一發票		25,690	1,285	26,975		
6		DU42443010	111/09/01	三聯式統一發票		10,500	525	11,025		
7		DU52443039	111/10/01	三聯式統一發票		10,500	525	11,025		
8		DU28390359	111/09/22	三聯式統一發票		11,204	560	11,764		
9		DV11049154	111/09/29	三聯式統一發票		12,630	632	13,262		
10		DU28390313	111/10/19	三聯式統一發票		120,600	6,030	126,630		
11		FL09140231	111/09/16	電子發票		10,368	518	10,886	住宿費	
12		DU32093254	111/09/15	三聯式統一發票		300,000	15,000	315,000		
13		BS03913791	111/08/19	三聯式統一發票		14,274	714	14,988		
14		BS39034443	111/08/31	三聯式統一發票		44,000	2,200	46,200	1.5HR 16T爬山	
15		DU11408192	111/09/02	三聯式統一發票		24,250	1,213	25,463		
16		EZ43493627	111/09/20	電子發票		47,760	2,388	50,148		
17		EV85762794	111/09/12	電子發票		28,000	700	28,700		
18		EX51924546	111/09/20	電子發票		30,000	1,500	31,500		
19		DU39098834	111/09/30	三聯式統一發票		19,500	1,650	21,150	9/5 2HR 16T 加班	
20		DV21156424	111/09/30	收銀機統一發票		23,900	1,195	25,095	上等17:00~18:06	
21		DU40430457	111/09/08	三聯式統一發票		25,000	1,250	26,250	楊梅裕成路17號 機台*5組合定位	
22		BS50072165	111/08/25	三聯式統一發票		183,913	9,196	193,109		
23		BS51644655	111/08/23	三聯式統一發票		12,800	640	13,440		
24		BS51644525	111/08/12	三聯式統一發票		223,560	11,178	234,738		
25		DU33315950	111/09/29	三聯式統一發票		137,725	6,889	144,614		
26		DU53256798	111/09/25	三聯式統一發票		57,215	2,874	60,089		
27		DU40430523	111/10/13	三聯式統一發票		15,000	750	15,750	楊梅體育園區 空調箱定位	
28		EX51925008	111/10/19	電子發票		10,800	540	11,340		
29		DU35657809	111/10/27	三聯式統一發票		12,952	648	13,600	圖號：K5-22A301A	
30		DU33317573	111/10/14	三聯式統一發票		39,930	1,997	41,927		
31		DU32093271	111/10/31	三聯式統一發票		940,000	47,000	987,000	康橋二期熱泵工程	
32		DU35940256	111/09/10	三聯式統一發票		84,857	4,243	89,100		
33		DU35940206	111/10/10	三聯式統一發票		84,857	4,243	89,100		
34	合計					2,662,407	133,130	2,795,537		
35										

進貨發票稅額500元以上 進貨發票稅額500元以下 其他費用-稅額500元以下 交通費 銷貨發票 營業稅估算 + | < > |

RentHub

GitHub:

<https://github.com/Evan-Wong-FSD/RentHub-FRDProject>



Introduction

A mobile app for rental service

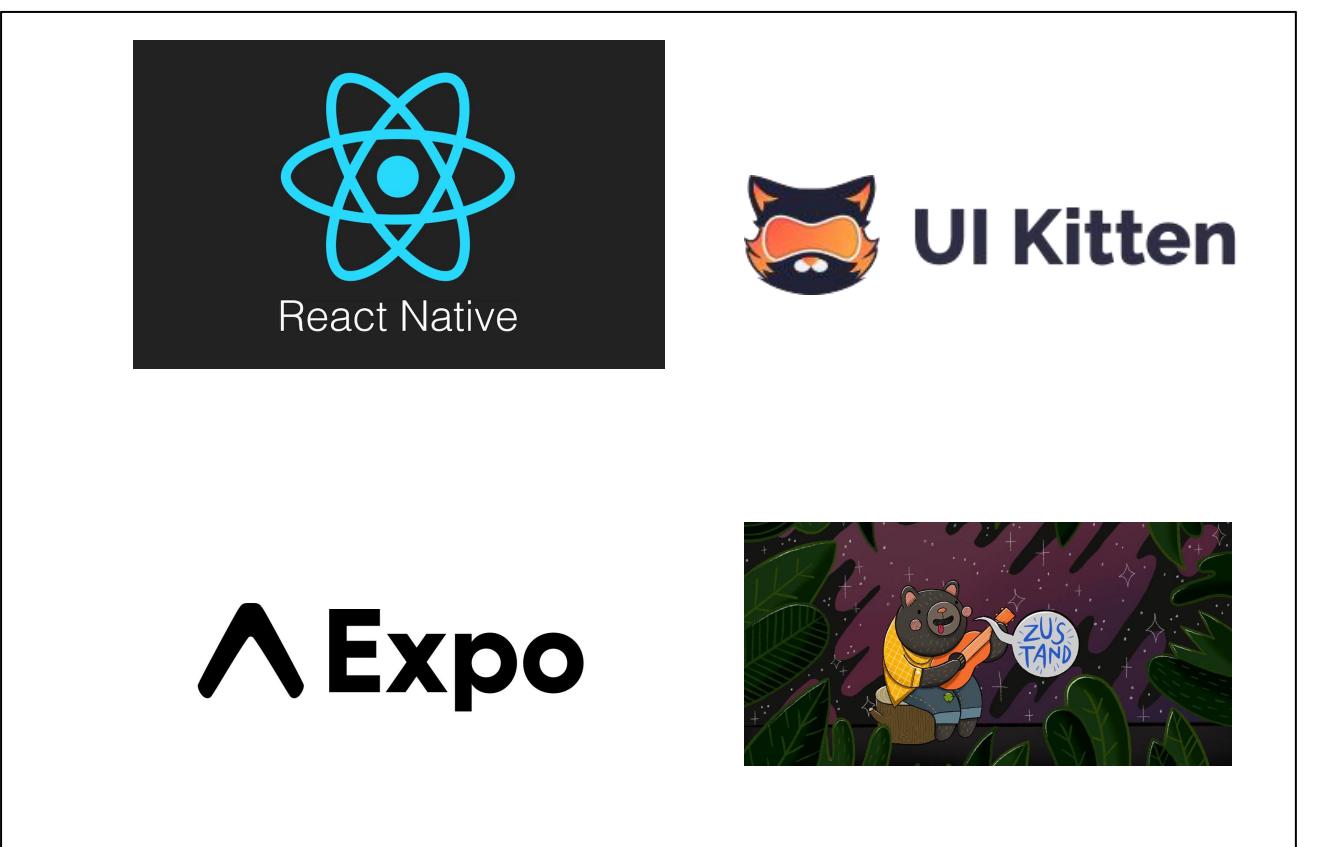
- As an intermediary between property owners and tenants, providing services such as property listing, rental management, and rent collection for property owners, as well as property information and consultation services for tenants.
- Connect property owners and tenants, offering a convenient way to search for and rent properties.



Tech stack

Front end

React Native, UI Kitten, Zustand, Expo (camera, document-picker, file-system, image-picker, linking, sharing, status-bar)



Ajax

Axios



Main services offered

Property Listing

Property owners can list their available properties on the platform, including detailed information, photos, and pricing. This allows tenants to find a variety of rental options in one place.

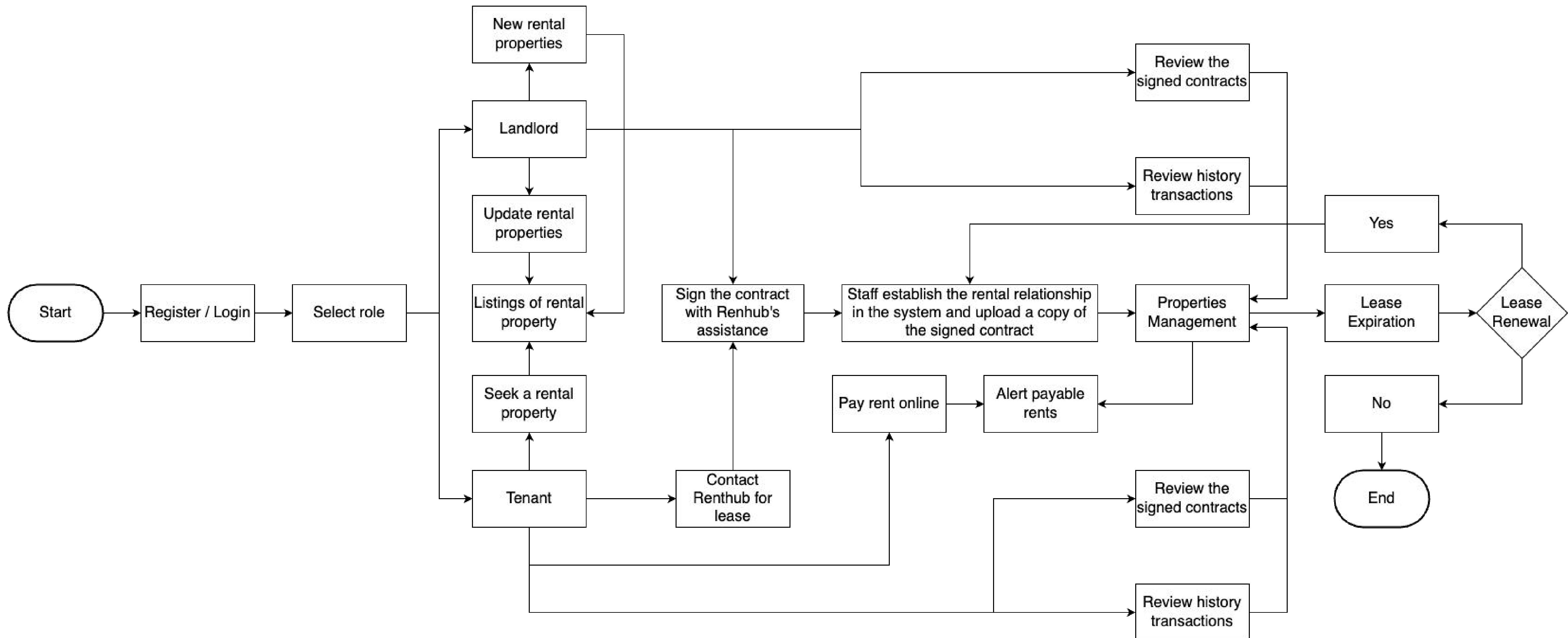
Rental Management and Rent Collection Services

The platform may provide services to property owners for managing rentals and collecting rent. This means that property owners can delegate rental tasks to the platform, such as tenant screening, lease signing, and rent collection.

Property Information and Consultation Services

For tenants, these platforms typically offer search and filtering functions, allowing them to search for suitable rental properties based on their requirements. The platforms may also provide additional services such as rental consultation, arranging property viewings, and assisting with lease agreements.

Flow Chart



Home page

Click to provide properties in specific region.

Navigate to Property Details.

Properties Overview

- In list format, provide an overview of various properties, including details such as location, size, type, age, monthly rent, and listing date.
- Offer filtering by different regions in Hong Kong.
- Provide pull refresh.

The screenshot shows the RentHub mobile application's home screen. At the top, there is a red call-to-action button with the text "Click to provide properties in specific region." and a red arrow pointing to the right. Below this, the RentHub logo is displayed, followed by a dropdown menu set to "全香港" (All Hong Kong). A red box highlights the "全香港" dropdown, and another red box highlights the "元朗" (Yuen Long) option in the sidebar menu, which is also highlighted with a red border. The main content area displays five property listings in a grid format:

- 近地鐵行一層一房一廳**
深水埗
實160呎 | 唐樓 | 49年樓齡
\$4,800/月
刊登日期：2023-12-04
- 靚裝修多窗有街闊有家電近地鐵**
深水埗
實120呎 | 唐樓 | 49年樓齡
\$5,500/月
刊登日期：2023-12-04
- 八鄉翠苑 2房1廳**
元朗
實350呎 | 村屋 | 15年樓齡
\$7,000/月
刊登日期：2023-12-04
- 西頭圍 2房1廳 可貓**
元朗
實700呎 | 村屋 | 30年樓齡
\$9,800/月
刊登日期：2023-12-03

At the bottom of the screen, there are three navigation icons: "首頁" (Home), "帳戶" (Account), and "聯絡我們" (Contact Us).

Open Google Maps and display the location of the rental property.

Rental property listings

Property Details

- Image Carousel
 - A view with a set of swipeable images, uploaded by the property owner.
- Description
 - Provide comprehensive property information, such as title, monthly rent and layout.
- Features
 - List the included amenities in the rent, such as furniture, electrical appliances, and facilities.
- Location
 - Place a marker on the map to provide the geographical location information of the rental property.
- Contact
 - Provide phone, WhatsApp, and Telegram contact methods so interested users can reach out for further inquiries or arrange property viewings.

The image shows two side-by-side screenshots of a mobile application for rental properties. Both screenshots feature a yellow header bar with a back arrow and the text '2房1廳 \$7,000/月' (2 bedrooms, 1 bathroom, \$7,000/month).

Screenshot 1 (Left): This section displays a large image of a building's exterior, followed by detailed property information:

- 八鄉翠苑 2房1廳** (Wai Tsuen Greenery 2 bedrooms, 1 bathroom)
- \$7,000/月 2房1廳** (\$7,000/month, 2 bedrooms, 1 bathroom)
- 實用面積 : 350呎 樓層 : 地下 (Useful area: 350 square feet, Floor level: Ground floor)
- 用途 : 村屋 位置 : 元朗 (Type: Village house, Location: Yuen Long)
- 按金 : 兩個月租金 屋齡 : 15年 (Deposit: Two months' rent, Age: 15 years)
- 租金 : 包含差餉, 地租/地稅, 管理費 刊登時間 : 2023-12-04 (Rent: Includes rates, ground rent/tax, management fees, Publication time: 2023-12-04)

At the bottom are three buttons: 電話查詢 (Phone Inquiry), WhatsApp查詢 (WhatsApp Inquiry), and Telegram查詢 (Telegram Inquiry).

Redirect to phone, WhatsApp, or Telegram, providing a phone number or chat window.

This screenshot shows a map with a green location marker indicating the property's location. To the right of the map is a red box containing the text '打開 Google Map' (Open Google Map). At the bottom are three buttons: 電話查詢 (Phone Inquiry), WhatsApp查詢 (WhatsApp Inquiry), and Telegram查詢 (Telegram Inquiry).

Register / Login

註冊

名稱
Vsitor1

Email
Visitor1@gmail.com

密碼
.....

再次輸入密碼
.....

保持登入

註冊

已有帳戶？ 立即 **登入**

首頁 帳戶 聯絡我們

登入

Email
Visitor1@gmail.com

密碼
.....

保持登入

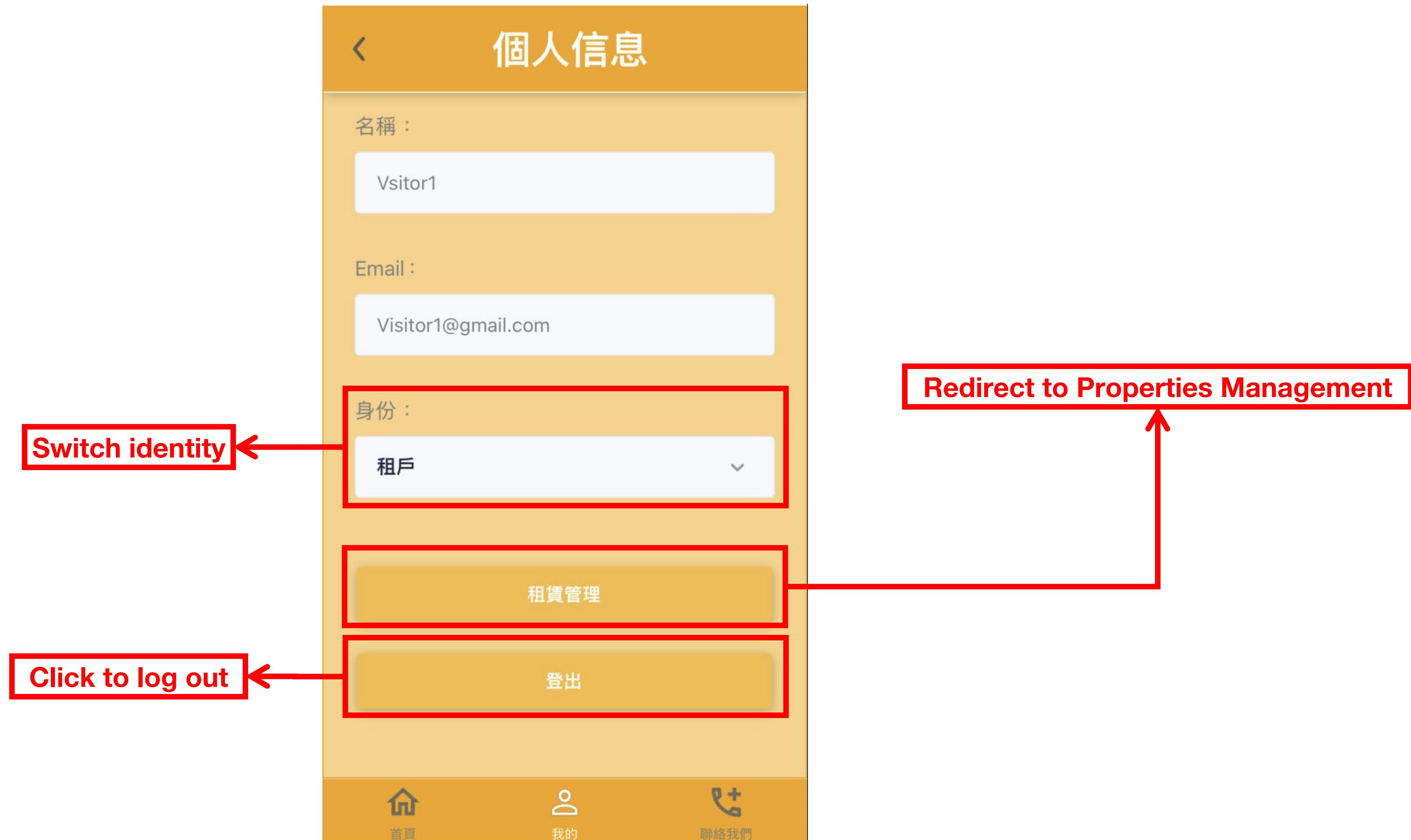
登入

還沒註冊帳戶？ 立即 **免費註冊**

首頁 帳戶 聯絡我們



Account management



Upload photos by photographing

Upload photos from image media

Properties Management for Landlord

租賃管理

目前沒有已刊登租盤廣告。
租盤廣告將在刊登後自動生成。

New a rental property

刊登租盤廣告

刊登租盤廣告

刊登租盤廣告

上傳圖片數量上限 5 張

拍照 圖片

類型(必填)
屋苑

附近港鐵站(必填)
觀塘

詳細地址
觀塘巧明街 117 號

緯度(必填)
22.3115037

經度(必填)
114.2247862

房數(必填)
2 房

廳數(必填)
1 廳

實用面積(整數)(ft²)(必填)
180

出租樓層(必填)
中層

樓齡(年)
20

租金(整數)(元/月)(必填)
2800

租金包括
水費,管理費,電費

按金
二個月租金

廣告標題(必填)
測試刊登租盤

設施(必填)
熱水爐,電視,洗衣機,冷氣

死約期限(年)(必填)
1

生約期限(年)(必填)
3

送出

Properties Management for Landlord - Console

The screenshot displays the RentHub Properties Management Console interface. On the left, a sidebar titled '租賃管理' (Rental Management) includes tabs for '控制台' (Control Panel), '交易記錄' (Transaction Record), and '合約' (Contract). A large image of a garden with pink flowers serves as the background for the sidebar. Below the sidebar, a card for a newly added rental property is shown, featuring a large '+' icon and the text '測試刊登租盤' (Test Listing), '1房 | 實180呎 | 屋苑' (1 Bed | Actual 180 sq ft | Apartment), and '\$2,800/月' (\$2,800/month). To the right of this card is a red box labeled 'Newly added rental property'. A red arrow points from this box to the '+ Add' button on the sidebar. Another red arrow points from the same box to the '上架' (List) button on the sidebar. A third red arrow points from the same box to the '更新' (Update) button on the sidebar.

The main content area shows a list of three rental properties:

- 測試刊登租盤**
觀塘
實180呎 | 屋苑 | 20年樓齡
\$2,800/月
刊登日期：2024-03-18
- 靚裝修多窗有街闊有
傢電近地鐵**
深水埗
實120呎 | 唐樓 | 49年樓齡
\$5,500/月
刊登日期：2023-12-04
- 八鄉翠苑 2房1廳**
元朗
實350呎 | 村屋 | 15年樓齡
\$7,000/月
刊登日期：2023-12-04

A red box labeled 'The listing of newly added rental property' is placed over the first listing. A red arrow points from this box to the '上架' (List) button on the sidebar. Another red arrow points from the same box to the '更新' (Update) button on the sidebar.

On the far right, a detailed view of the first listing is shown:

測試刊登租盤 租盤編號：
 000106

\$2,800/月 2房1廳

實用面積 : 180呎 樓層 : 中層
用途 : 屋苑 位置 : 觀塘
按金 : 二個月租金 屋齡 : 20年
租金 : 包含水費, 管理費, 電費 刊登時間 : 2024-03-18

屋內設備

電話查詢 WhatsApp查詢 Telegram查詢

Newly added rental property

Control listing On/Off for the rental property

Update information of the rental property

The listing of newly added rental property

Lease Confirmed

Upload contract

- Once a tenant is interested in renting a property, we will assist and facilitate the contract signing between the landlord and the tenant.
- Our staff would upload the information of both the landlord and the tenant, along with the signed contract, to Renthub for convenient reference by both parties.
- After uploading, both the landlord and the tenant can view the information on the Properties Management.

行政

租盤編號 : 000106

contract.pdf
合約上載 (.pdf)

租戶名稱 : Visitor2

業主名稱 : Vsitor1

合約日期 : 18/03/2024

起租日 : 01/04/2024

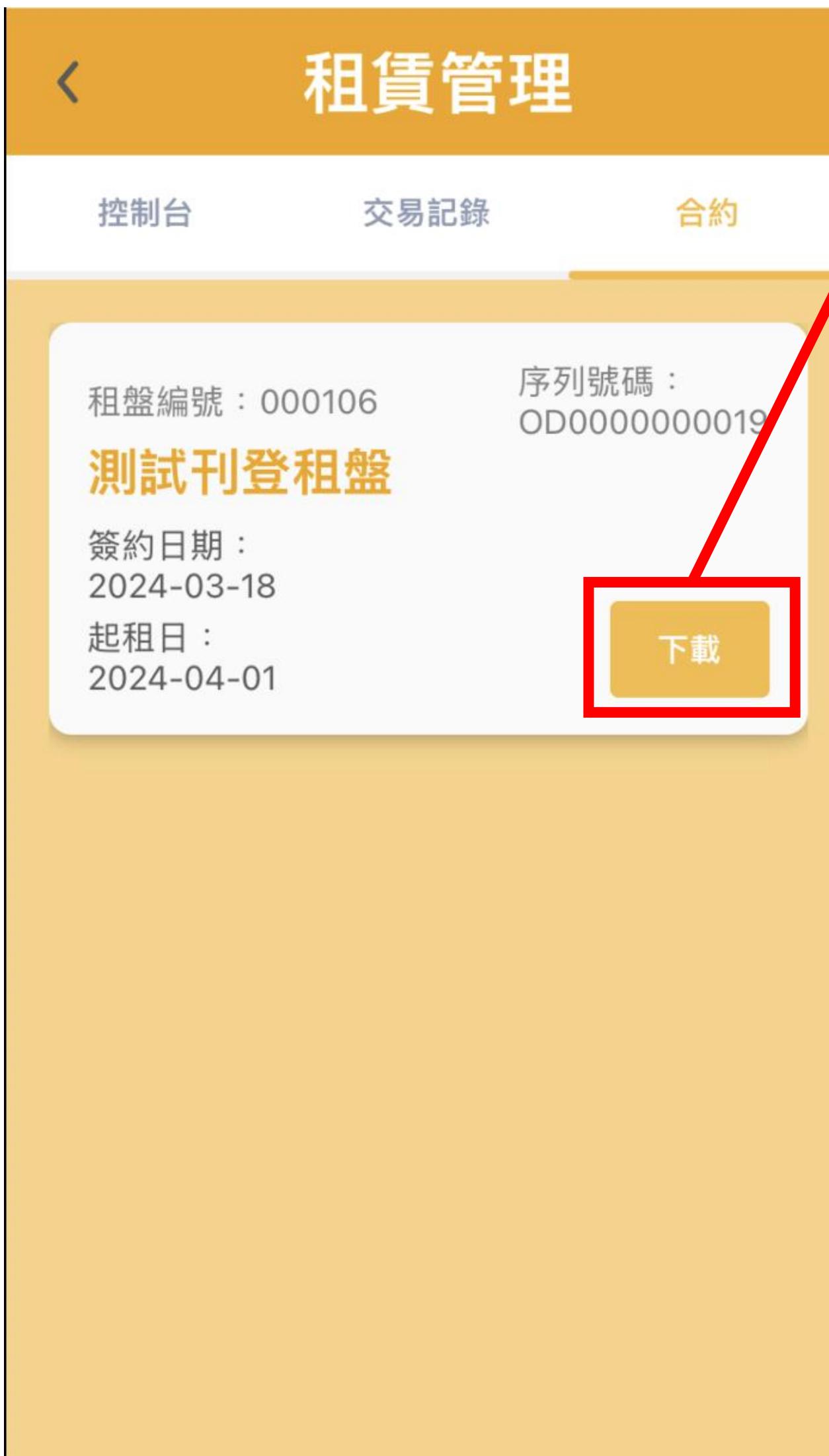
每月起租日 : 01

上載

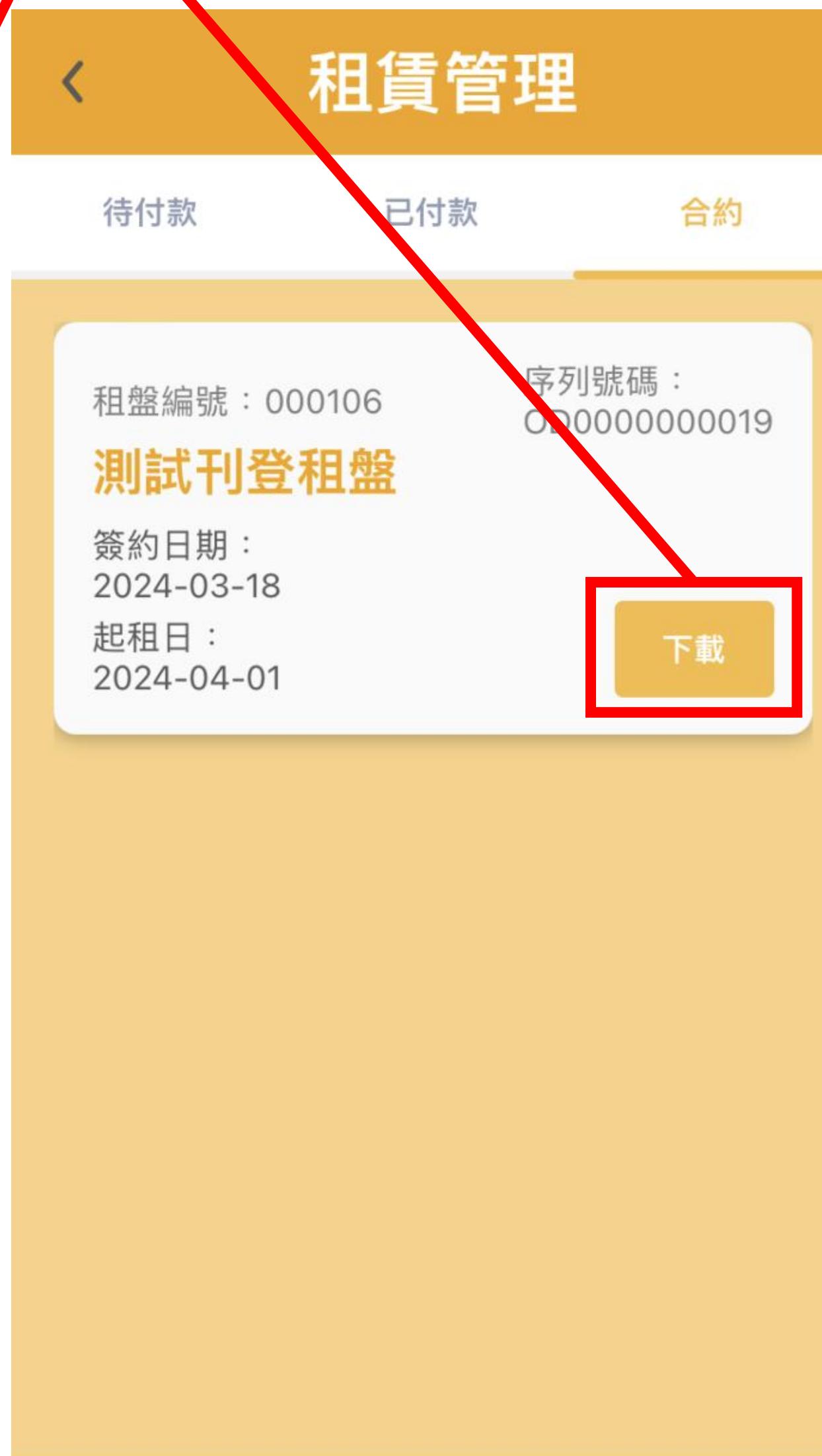
Upload the Signed Contract.

Click to download the signed contract

Contract Review



Landlord's view



Tenant's view



The signed contract

Rent Payment

The image illustrates a rent payment system with three main components:

- Landlord's View:** Shows a list of待付款 (Pending Payment) items. One item is highlighted for a unit at 八鄉翠苑 2房1廳 (8 Sheung Tsui Yuen, Unit 2B) with a rent of HK\$5,500.00 due by 2023-07-01. A red box and arrow point to this item, with the following notes:
 - Provide online payment service for tenants
 - Click to open the payment page in the browser
- Payment Page:** A screenshot of a payment interface from checkout.stripe.com. It shows a total of HK\$5,500.00 for 5,500 units. Payment methods include G Pay and bank card. The payment was successful, indicated by a green checkmark and "Payment Successful".
 - 付款 (Pay) button (highlighted with a red box)
 - G Pay button
 - 或用銀行卡支付 (Or use a bank card to pay)
 - 電郵地址 (Email Address): test@gmail.com
 - Continue with Link
 - 銀行卡資訊 (Bank Card Information):
 - 卡號 (Card Number): 4242 4242 4242 4242
 - 到期日 (Expiry Date): 12 / 34
 - CVV: 123
 - 持卡人姓名 (Cardholder Name): test
 - 國家或地區 (Country or Region): 中國香港特別行政區 (Hong Kong, China)
 - 支付 (Pay) button
- Tenant's View:** Shows a list of已付款 (Paid) items. One item is shown for the same unit and amount. The payment record includes details like 付款時間 (Payment Time): 2024-03-18 22:03:25, 起租日 (Lease Start Date): 2023-08-01, and a green checkmark indicating success.

PotPoint

GitHub:

<https://github.com/Evan-Wong-FSD/PotPoint-client>

<https://github.com/Evan-Wong-FSD/PotPoint-server>

#3

Introduction

An online data analysis platform

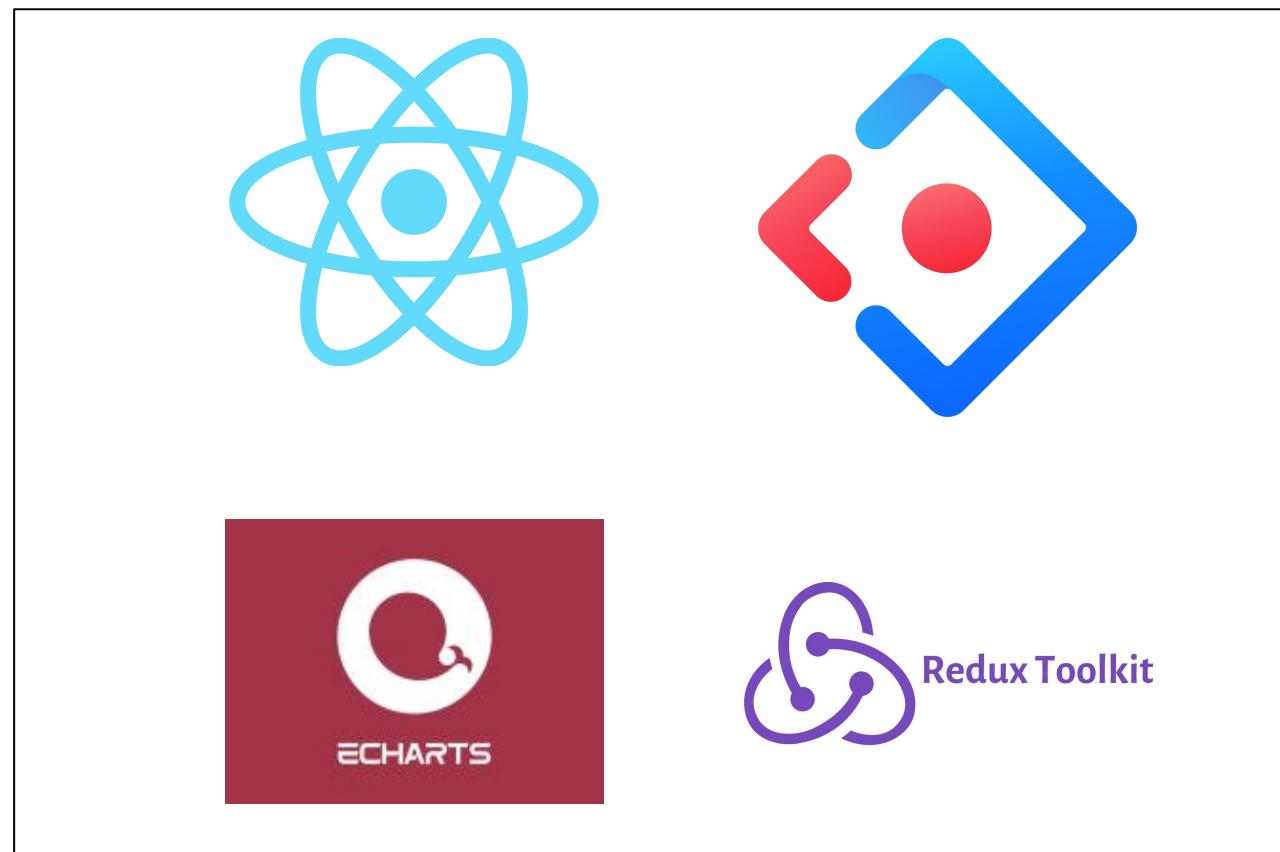
- PotPoint is an online platform dedicated to assisting restaurants with data analysis.
- By analyzing operational data and utilizing AI technology, PotPoint effectively transforms restaurant performance into easily readable and clear business reports.
- This helps restaurant managers promptly understand the operational status of their establishment and make informed business decisions.



Tech stack

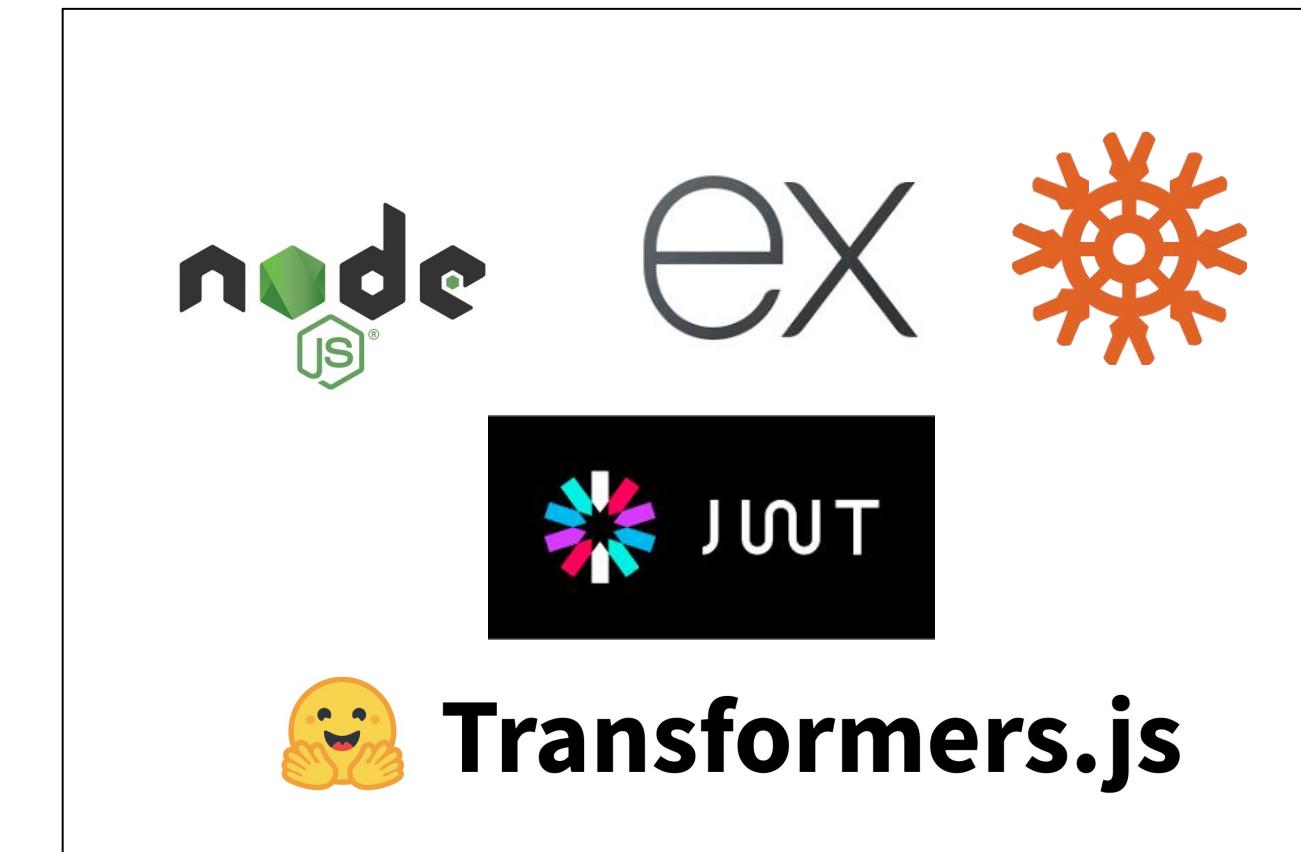
Front end

React, Ant Design, ECharts,
Redux Toolkit



Back end

Node.js, Express.js, PostgreSQL,
Knex, Transformers.js, JWT



Ajax

Axios

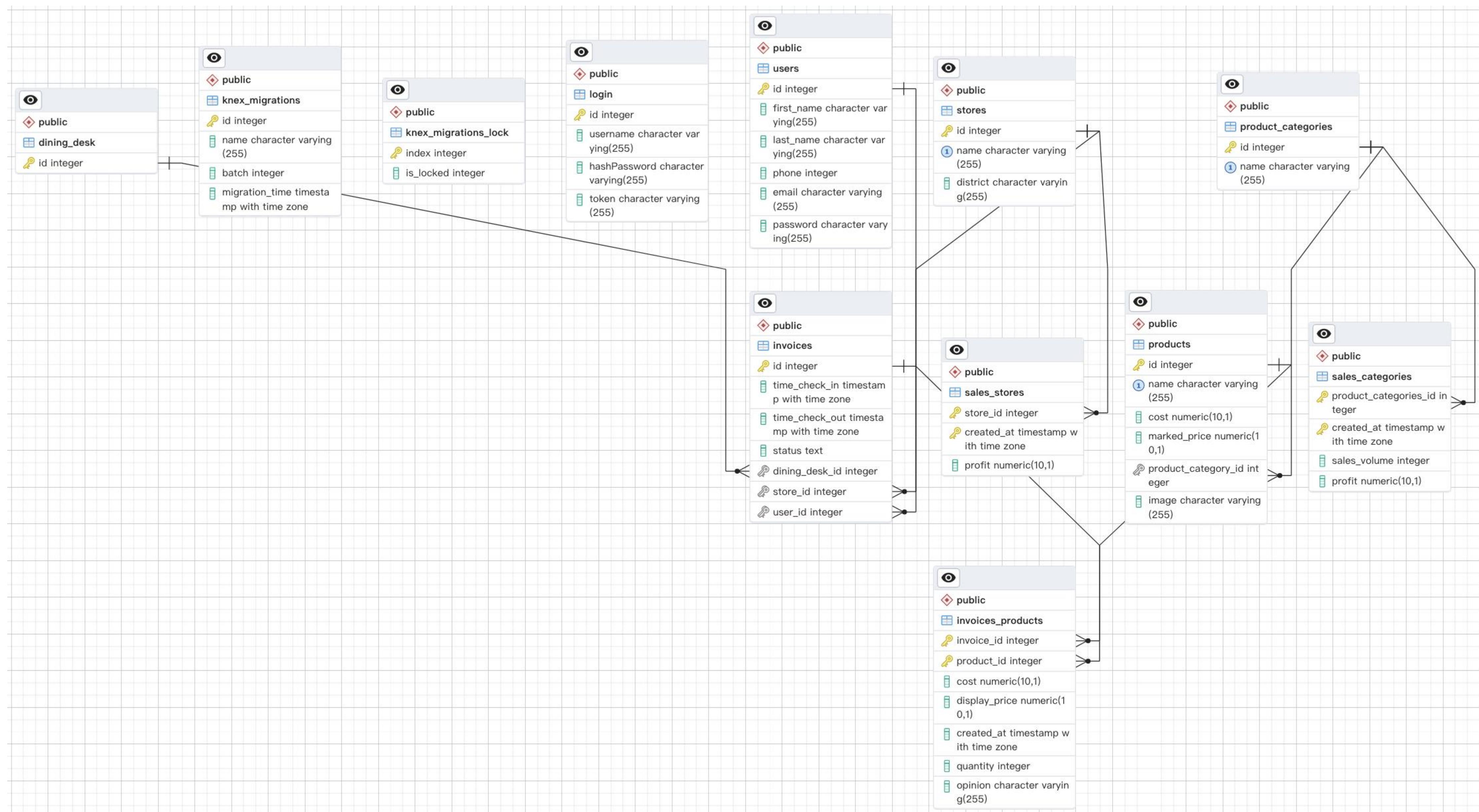


DevOps

AWS (EC2, IAM), GitHub Actions



Entity Relationship Diagram (ERD)



Login

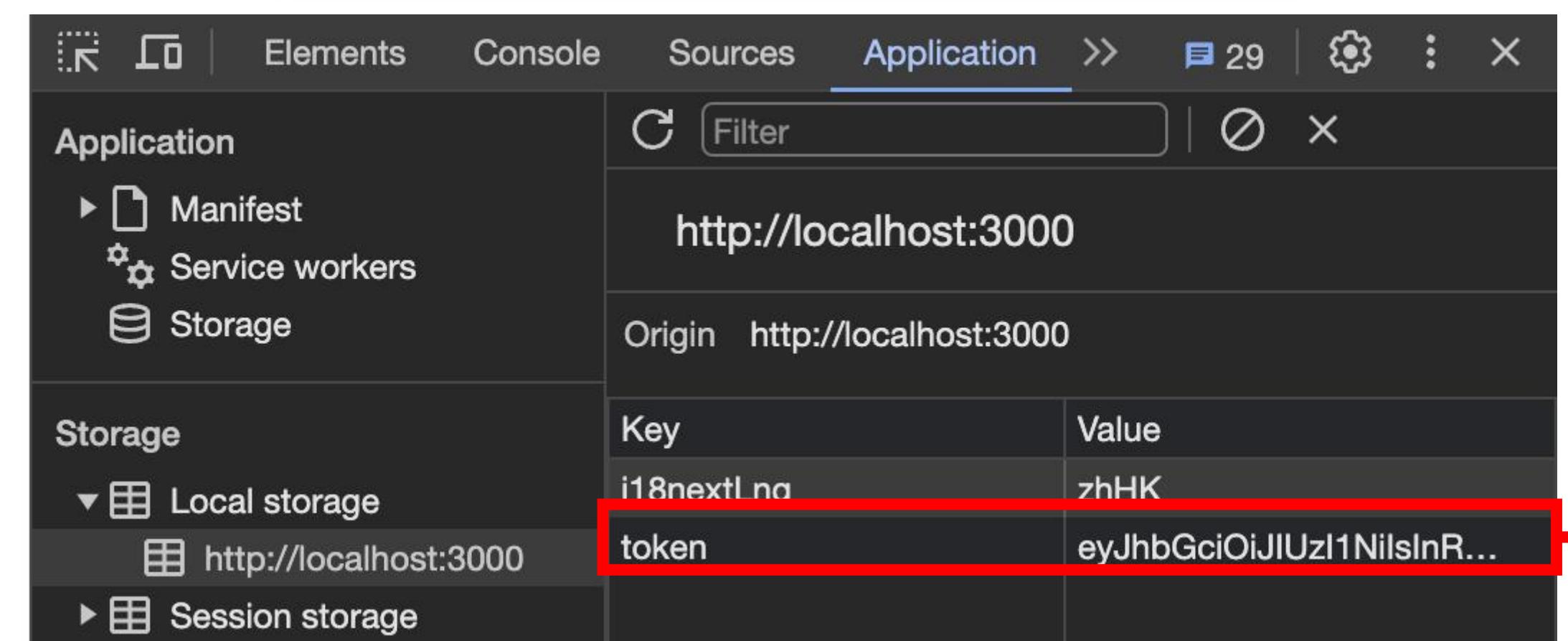
JSON Web Token (JWT)

- Apply JWT for login.
- JWT is a secure and reliable method for transmitting information between web applications, widely used for purposes such as identity verification and authorization.
- After the initial login, the server would return a token, that would be stored in the browser's local storage for identification and automatic login in subsequent sessions.



The login form for POT POINT features a logo at the top right. Below it are fields for "用户名" (User Name) containing "pot_point" and "密碼" (Password) containing a redacted value. A "Remember me" checkbox is checked. At the bottom is a blue "送出" (Submit) button.

The token for identification and automatic login



The screenshot shows the Chrome DevTools Application tab with the URL "http://localhost:3000". Under the "Storage" section, the "Local storage" table lists items for the origin "http://localhost:3000". One item, "token", is highlighted with a red border. The "Value" column for "token" contains a long string of characters: "eyJhbGciOiJIUzI1NilsInR...".

Key	Value
i18nnext.languag	zhHK
token	eyJhbGciOiJIUzI1NilsInR...

Dashboard - transaction records

Calculate the total revenue and profitability for different time periods, including: yearly, monthly, and daily

The screenshot shows a transaction record dashboard with the following features annotated:

- Customize time interval**: A red box highlights the time selection dropdown at the top left, which includes options like "近1年" (Last Year) and "請選擇月份" (Select Month).
- Click to navigate to transaction details**: A red box highlights a specific transaction row in the table below.
- Record detailed information for each transaction**: A red box highlights the transaction table itself, showing columns for Order ID, Start Time, End Time, Status, Branch, Table Number, and Income.
- Click to navigate to other tabs**: A red box highlights the tab navigation area at the top right, which includes "訂單記錄" (Order Record), "分店收入" (Branch Income), "品類別收入" (Category Income), and "產品收入" (Product Income).
- Calculate the total revenue and profitability for different time periods, including: yearly, monthly, and daily**: A red box highlights the summary statistics at the top right, including "近1年收入" (\$22,254,856), "近1年收益率" (26.36%), "近1月收入" (\$2,191,972), "近1月收益率" (-14.78%), "今日收入" (\$9,220), and "今日收益率" (\$-0.33).

訂單ID	開始時間	結束時間	狀態	分店	桌號	收入
957	2023-01-01 00:18:19	2023-01-01 01:51:51	closed	Tsuen Wan	4	\$3,489
244	2023-01-01 03:23:03	2023-01-01 05:53:07	closed	Yuen Long	26	\$3,300.2
11	2023-01-01 06:05:56	2023-01-01 12:58:24	closed	Yuen Long	26	\$4,703
871	2023-01-01 13:12:16	2023-01-01 14:17:47	closed	Tseung Kwan O	17	\$4,074
1476	2023-01-01 16:06:29	2023-01-01 19:03:20	closed	Sheung Wan	9	\$4,317.6
1749	2023-01-01 19:11:03	2023-01-01 21:13:27	closed	Tuen Mun	24	\$2,232
764	2023-01-01 21:32:20	2023-01-01 23:13:37	closed	Tsuen Wan	4	\$884.5
178	2023-01-02 00:06:16	2023-01-02 05:14:42	closed	Kowloon Bay	13	\$3,857
1199	2023-01-02 05:45:50	2023-01-02 10:04:38	closed	Yuen Long	28	\$1,746.9

Dashboard - transaction records (RWD)

財務報告 繁體中文 登出

近1年收入	近1年收益率
\$11,122,818	26.41%
近1月收入	近1月收益率
\$10,118,900	23.58%
今日收入	今日收益率
\$8,389,274	\$0.18

訂單記錄 分店收入 類別收入

訂單ID	開始時間	結束時間
957	2024-01-01 00:18:19	2024-01-01 01:51:51
244	2024-01-01 03:23:03	2024-01-01 05:53:07
11	2024-01-01 06:05:56	2024-01-01 12:58:24
871	2024-01-01 13:12:16	2024-01-01 14:17:47
1476	2024-01-01 16:06:29	2024-01-01 19:03:20
1749	2024-01-01 19:11:03	2024-01-01 21:13:27
764	2024-01-01 21:32:20	2024-01-01 23:13:37
178	2024-01-02 00:06:16	2024-01-02 05:45:50
1199	2024-01-02 05:45:50	2024-01-02 05:45:50

訂單記錄 分店收入 類別收入

近1年 請選擇月份

訂單ID	開始時間	結束時間
957	2024-01-01 00:18:19	2024-01-01 01:51:51
244	2024-01-01 03:23:03	2024-01-01 05:53:07
11	2024-01-01 06:05:56	2024-01-01 12:58:24
871	2024-01-01 13:12:16	2024-01-01 14:17:47
1476	2024-01-01 16:06:29	2024-01-01 19:03:20
1749	2024-01-01 19:11:03	2024-01-01 21:13:27
764	2024-01-01 21:32:20	2024-01-01 23:13:37
178	2024-01-02 00:06:16	2024-01-02 05:45:50
1199	2024-01-02 05:45:50	2024-01-02 05:45:50

財務報告 繁體中文 登出

近1年收入	近1年收益率
\$11,122,818	26.41%
近1月收入	近1月收益率
\$10,118,900	23.58%
今日收入	今日收益率
\$8,389,274	\$0.18

訂單記錄 分店收入 類別收入 產品收入

近1年 請選擇月份

訂單ID	開始時間	結束時間	狀態
957	2024-01-01 00:18:19	2024-01-01 01:51:51	closed
244	2024-01-01 03:23:03	2024-01-01 05:53:07	closed
11	2024-01-01 06:05:56	2024-01-01 12:58:24	closed
871	2024-01-01 13:12:16	2024-01-01 14:17:47	closed
1476	2024-01-01 16:06:29	2024-01-01 19:03:20	closed
1749	2024-01-01 19:11:03	2024-01-01 21:13:27	closed
764	2024-01-01 21:32:20	2024-01-01 23:13:37	closed

Mobile's view

Tablet's view

Transaction details



Click to show customer review of the product

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Items ordered

訂單明細

產品ID	名稱	售價	數量	總售價
+	24	\$20	3	\$61
+	7	\$108	4	\$432
+	20	\$128	10	\$1,280
+	17	\$24	10	\$240
+	4	\$192	6	\$1,152
-	2	\$135	1	\$135

意見: 三角肉有啲硬而且乾燥。

Customer review

< 1 >

Transaction details (RWD)

訂單明細					
產品ID	名稱	售價	數量	總售價	
-	2	Tri Tip	\$135	5	\$675
意見: 三角肉缺乏調味料,味道平淡。					
+	21	Sea bream slices	\$135	5	\$675
+	24	Water spinach	\$20	10	\$204
+	15	Glutinous rice cakes	\$45	3	\$135
+	1	Short rib	\$180	10	\$1,800
總收入				\$3,489	

Mobile's view



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訂單明細					
	產品ID	名稱	售價	數量	總售價
+	2	Tri Tip	\$135	5	\$675
+	21	Sea bream slices	\$135	5	\$675
+	24	Water spinach	\$20	10	\$204
+	15	Glutinous rice cakes	\$45	3	\$135
+	1	Short rib	\$180	10	\$1,800
總收入					\$3,489

Tablet's view

Dashboard - branch revenue

訂單記錄

分店收入

類別收入

產品收入

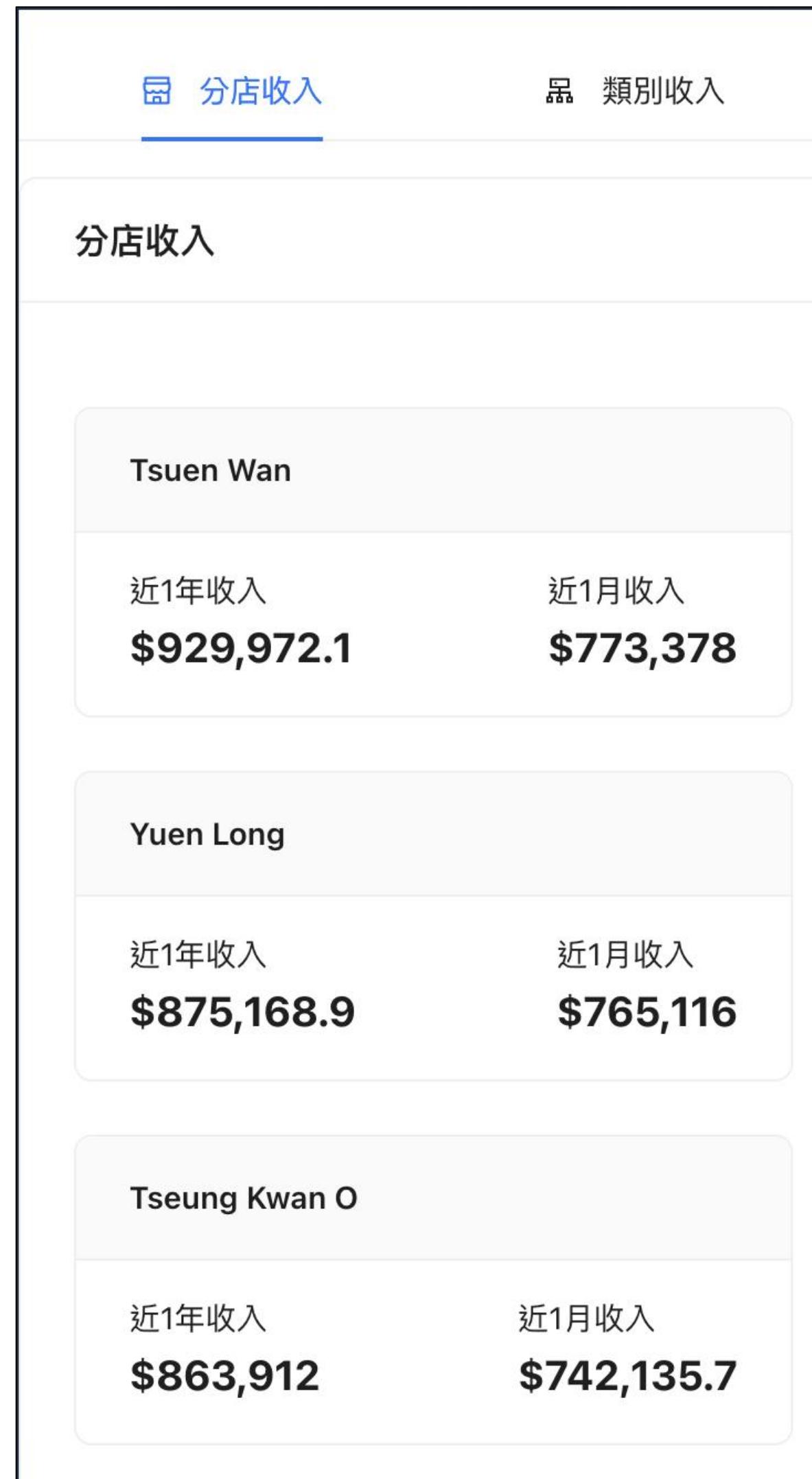
分店收入

Branch	近1年收入	近1月收入
Tsuen Wan	\$929,972.1	\$34,896.6
Yuen Long	\$875,168.9	\$41,246.2
Tseung Kwan O	\$863,912	\$40,484.8
Sheung Wan	\$1,013,610.7	\$28,883.1
Tuen Mun	\$985,278.3	\$34,903.1
Kowloon Bay	\$891,399.2	\$28,750.7

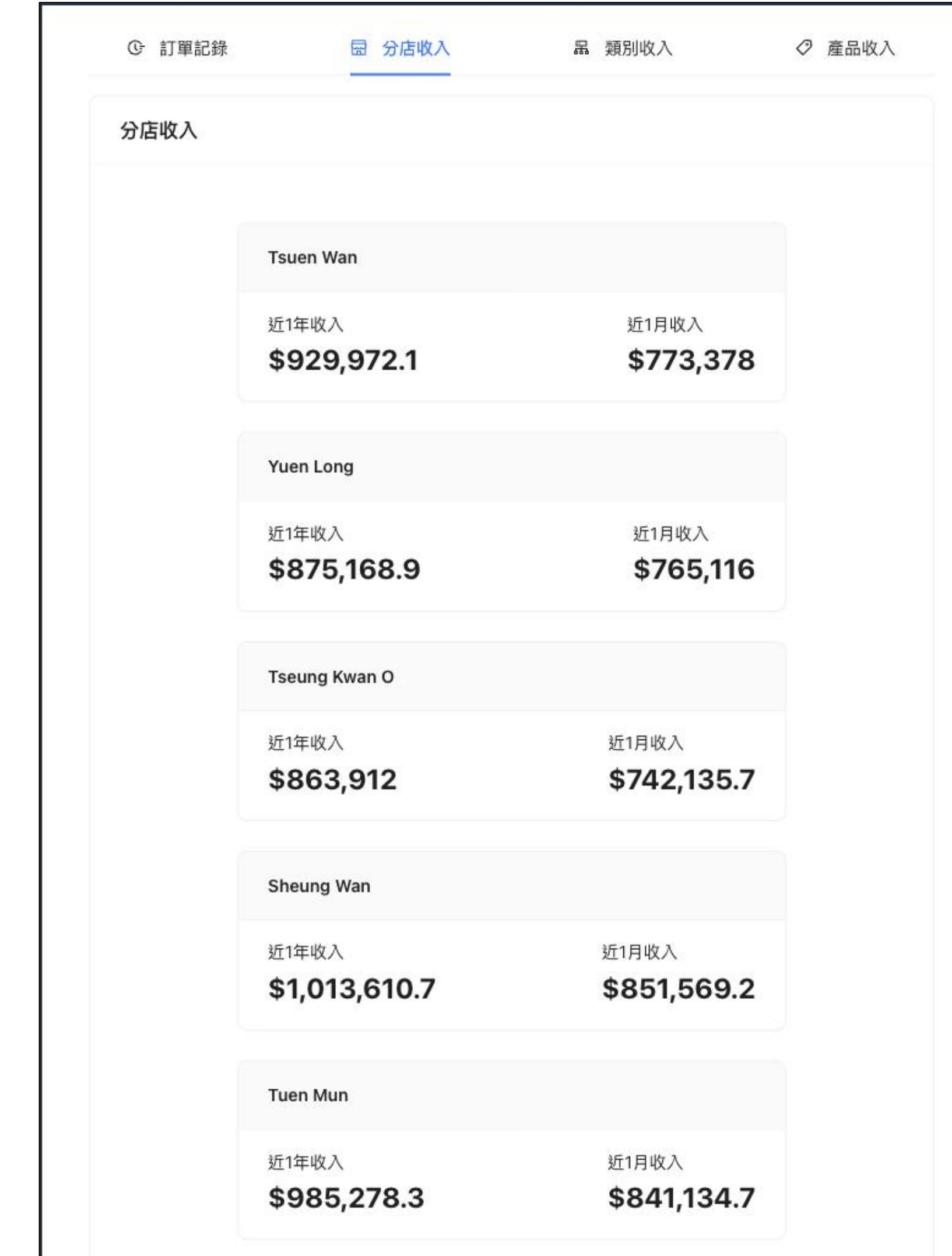
The revenue of each branch for the past year and the past month was recorded

Click to navigate to the business analysis of the branch

Dashboard - branch revenue (RWD)



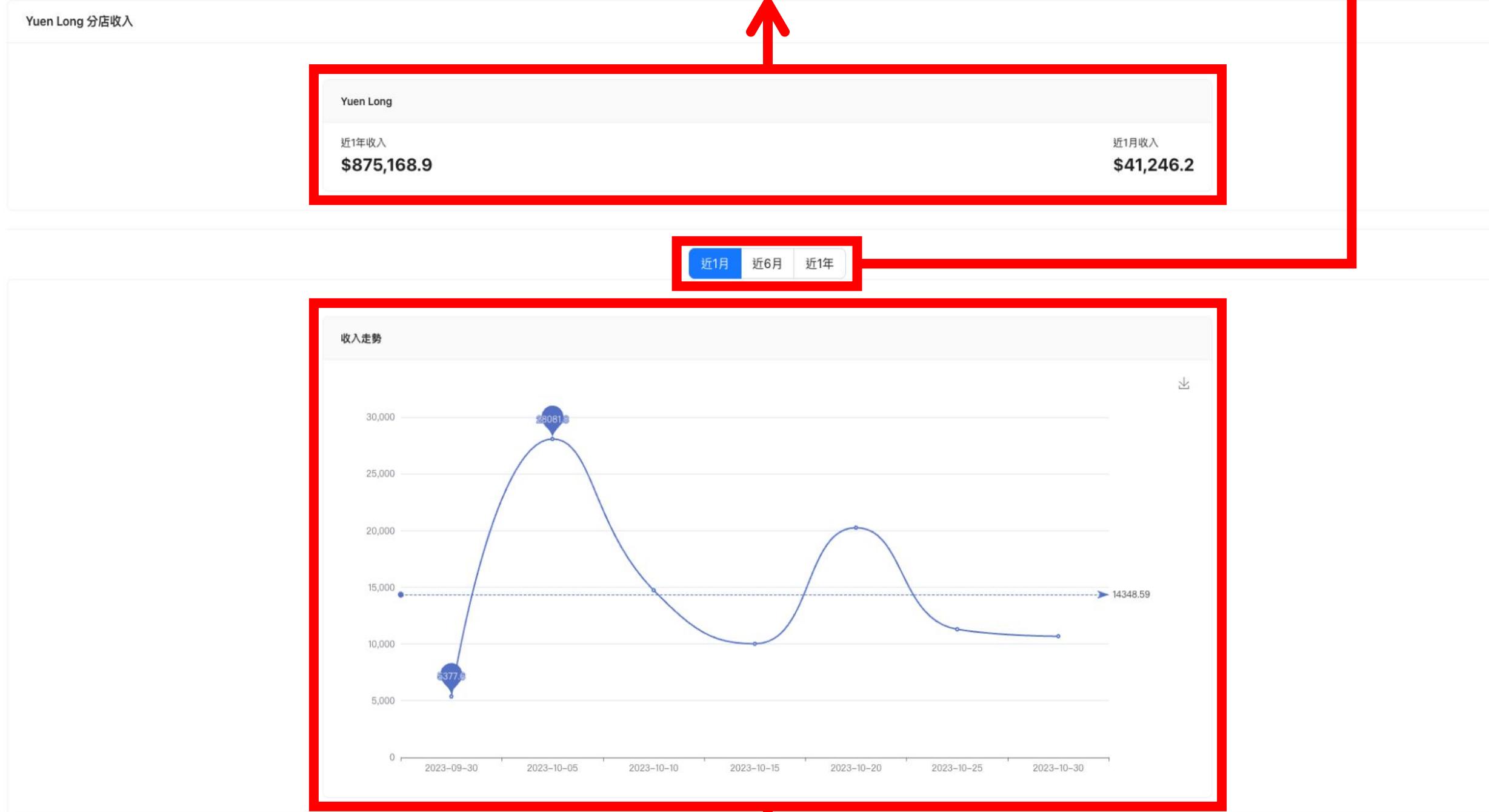
Mobile's view



Tablet's view

Business analysis of the branch

The revenue of the branch for the past year and the past month



Change the time intervals

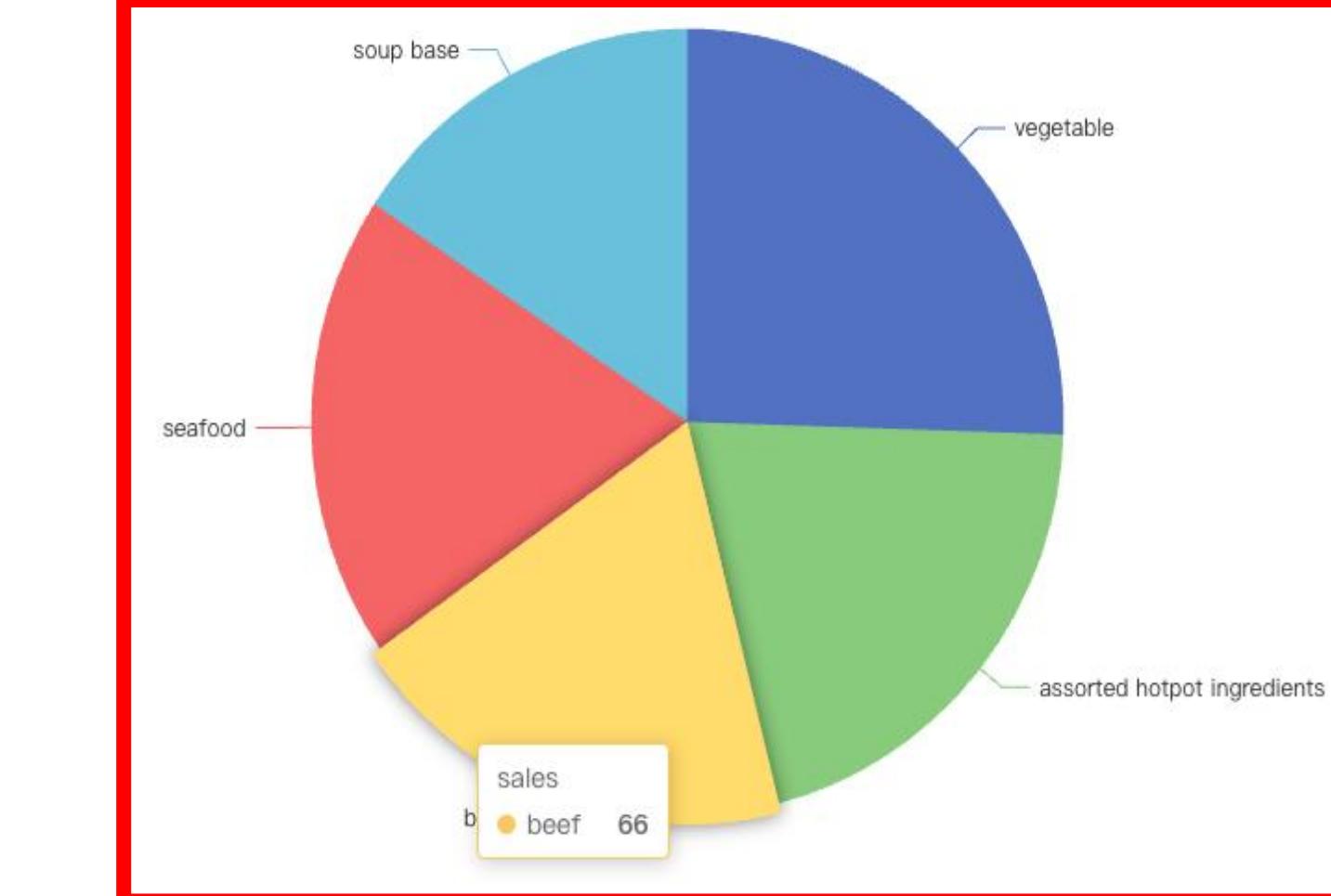
近1月 近6月 近1年

類別銷售

熱門類別 冷門類別

Switch to display popular or unpopular products

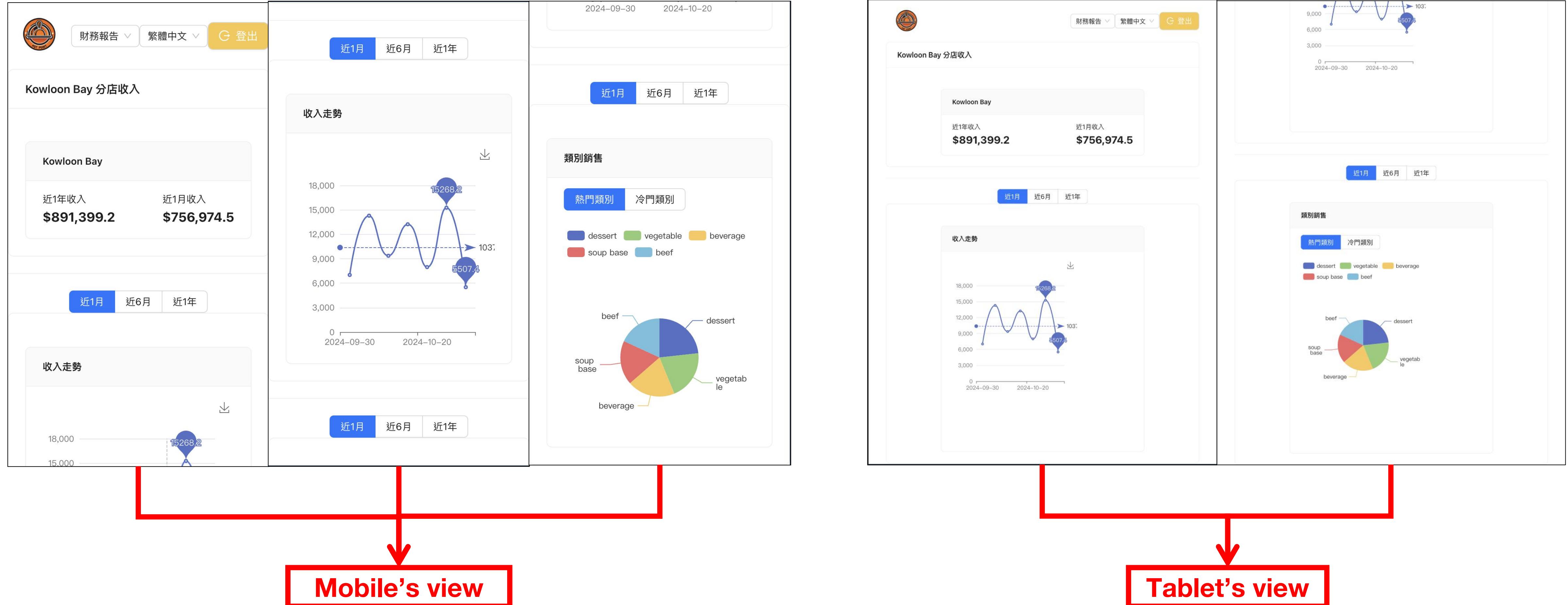
- vegetable
- assorted hotpot ingredients
- beef
- seafood
- soup base



Display the revenue changes for the specified period

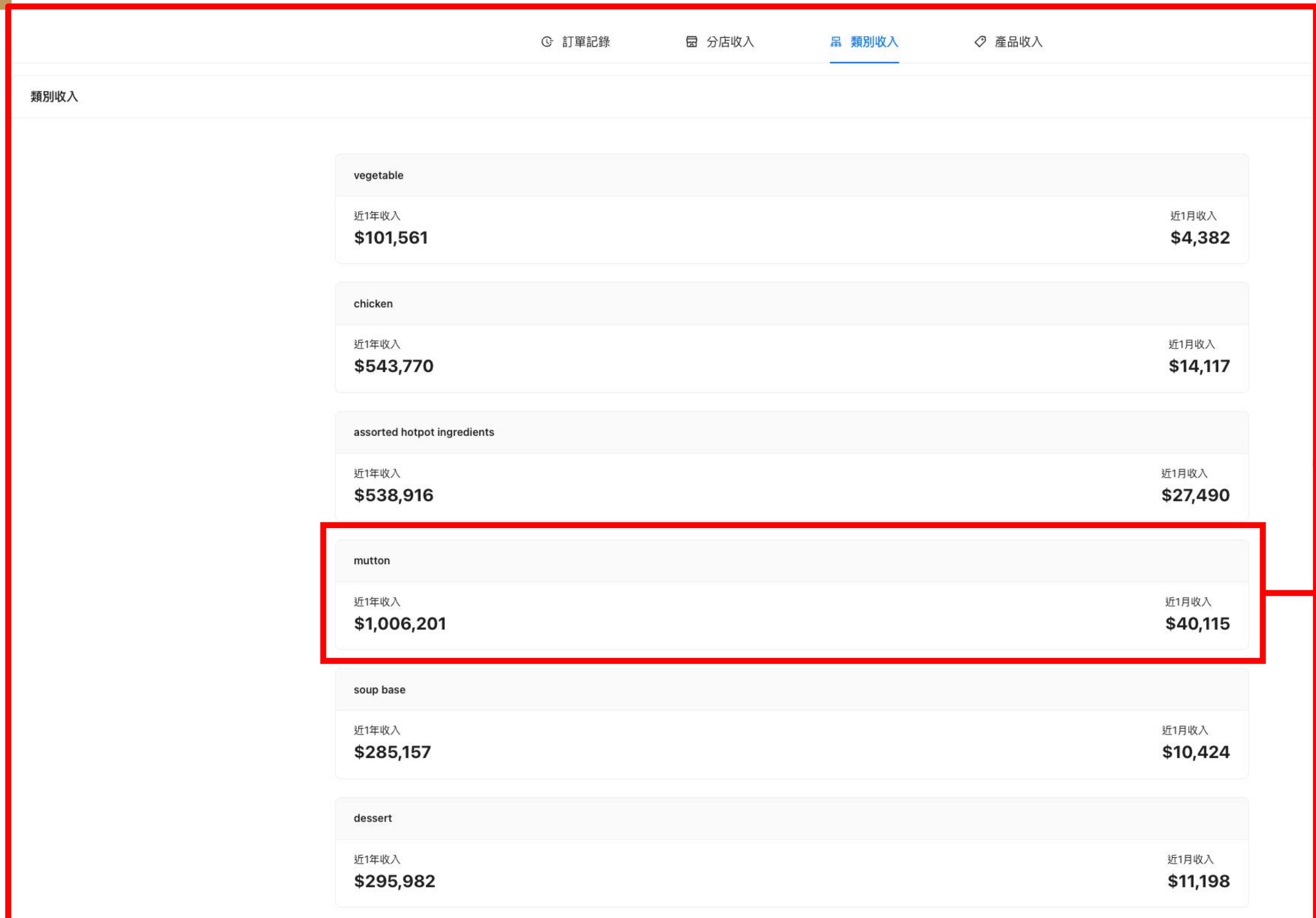
Display popular or unpopular products for the specified period

Business analysis of the branch (RWD)



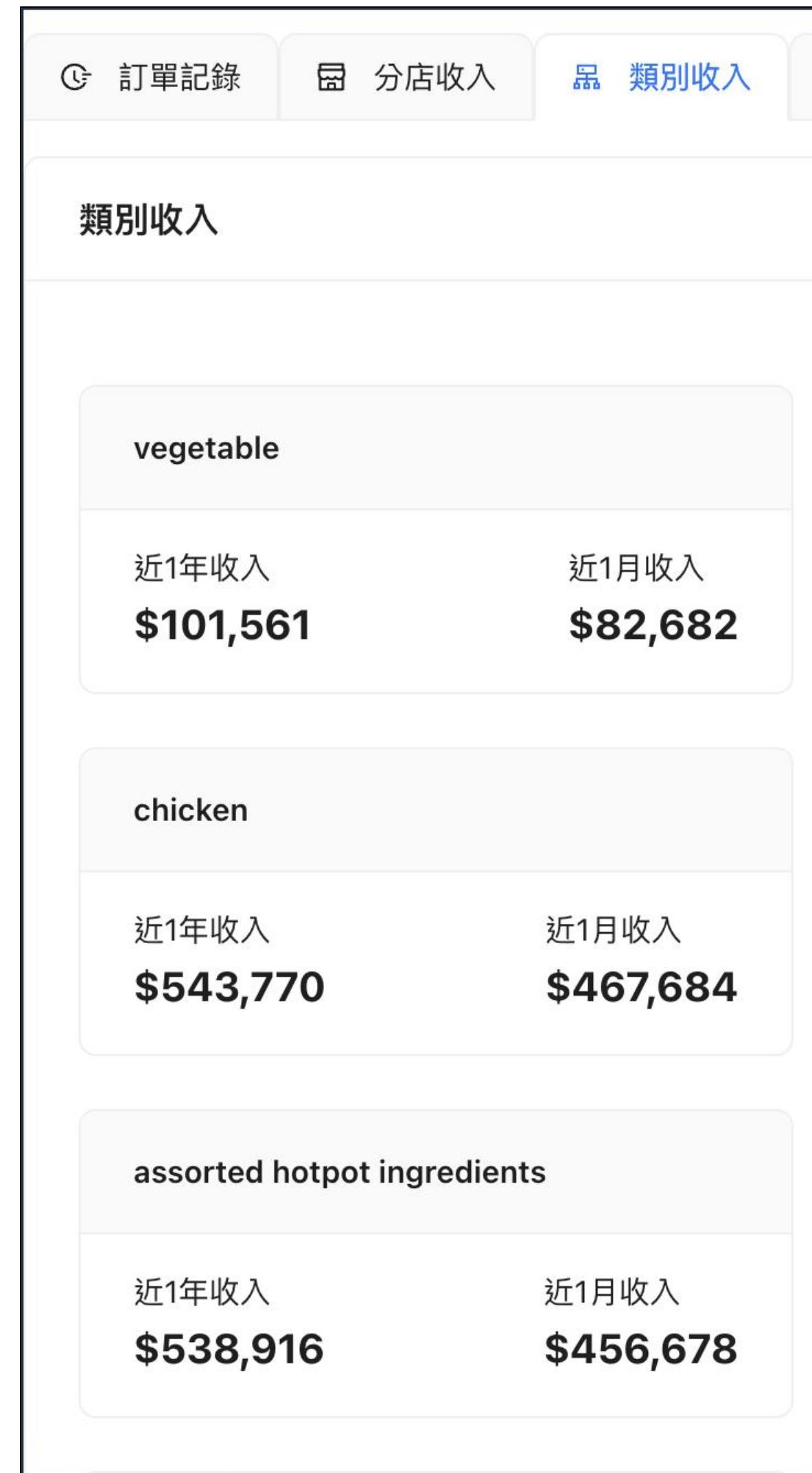
Dashboard – product category revenue

The revenue of each product category for the past year and the past month was recorded

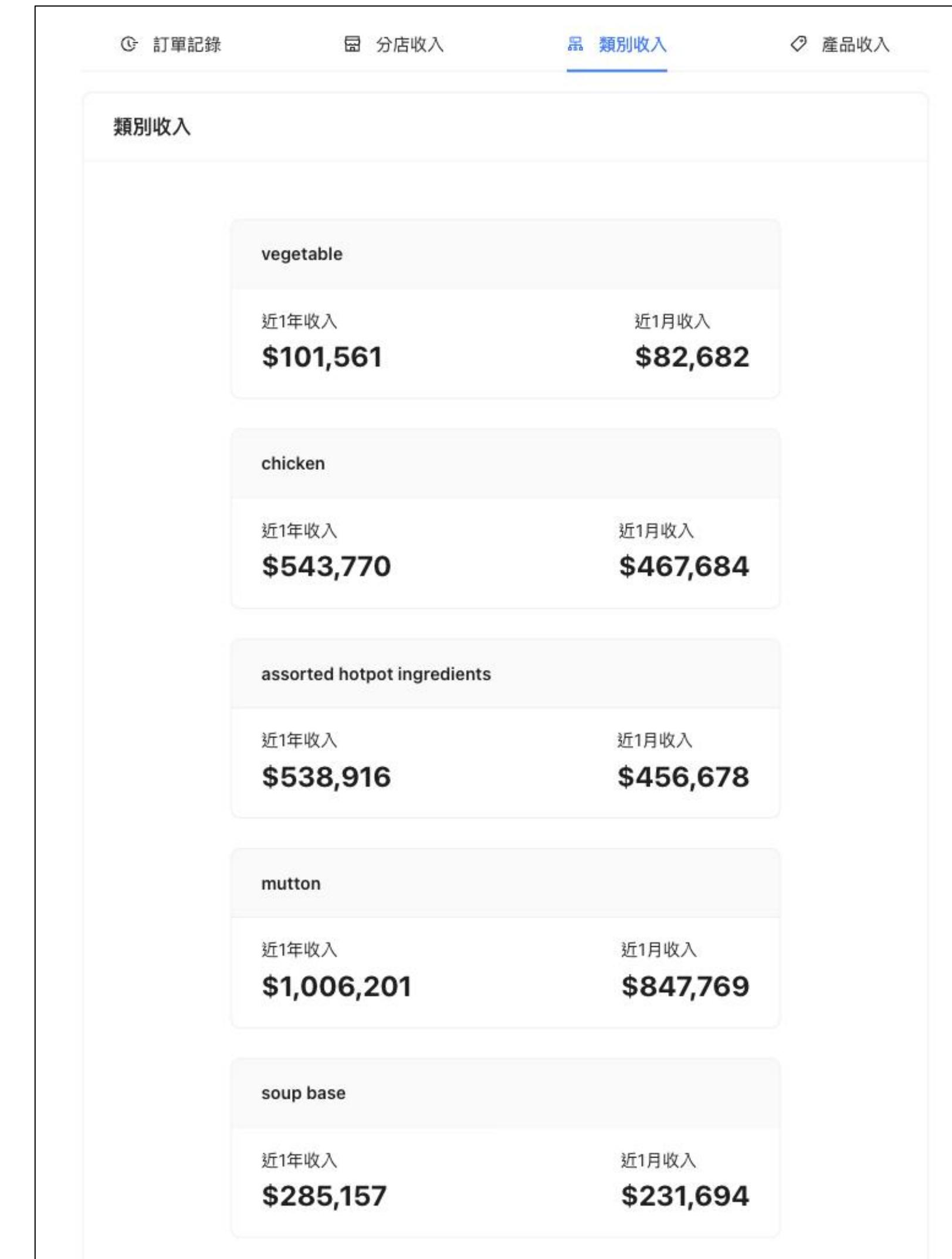


Click to navigate to the business analysis of the product category

Dashboard - product category revenue (RWD)



Mobile's view



Tablet's view

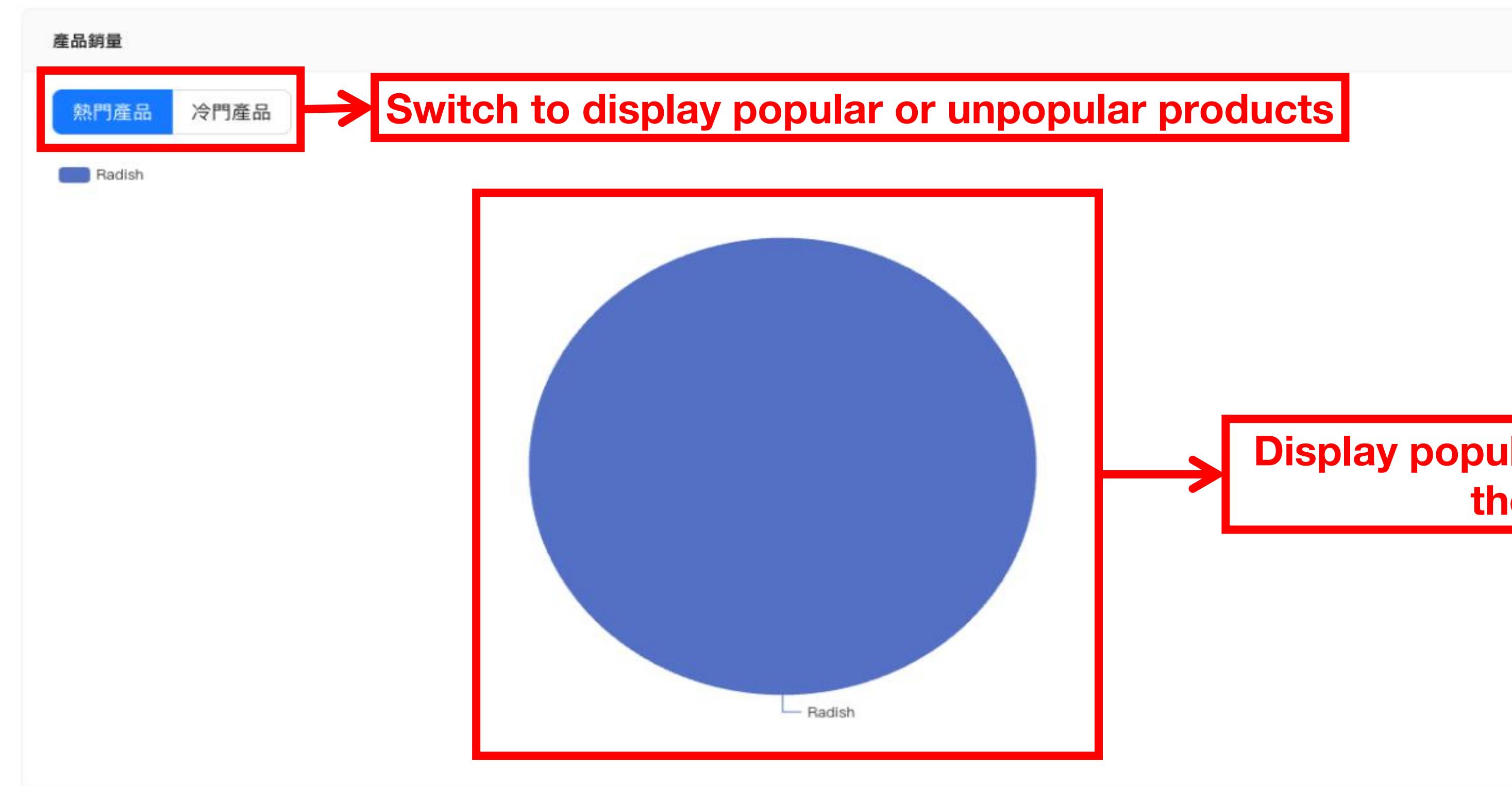
Business analysis of the product category revenue

vegetable 類別收入



The revenue of the product category
for the past year and the past month

近1月 近6月 近1年 → Change the time intervals



Business analysis of the product category revenue

顧客意見

顧客意見

Satisfied (69.2%)

The radish taste is warm and clear, and it adds up to this dish.

Neutral (5.8%)

the radish is light.

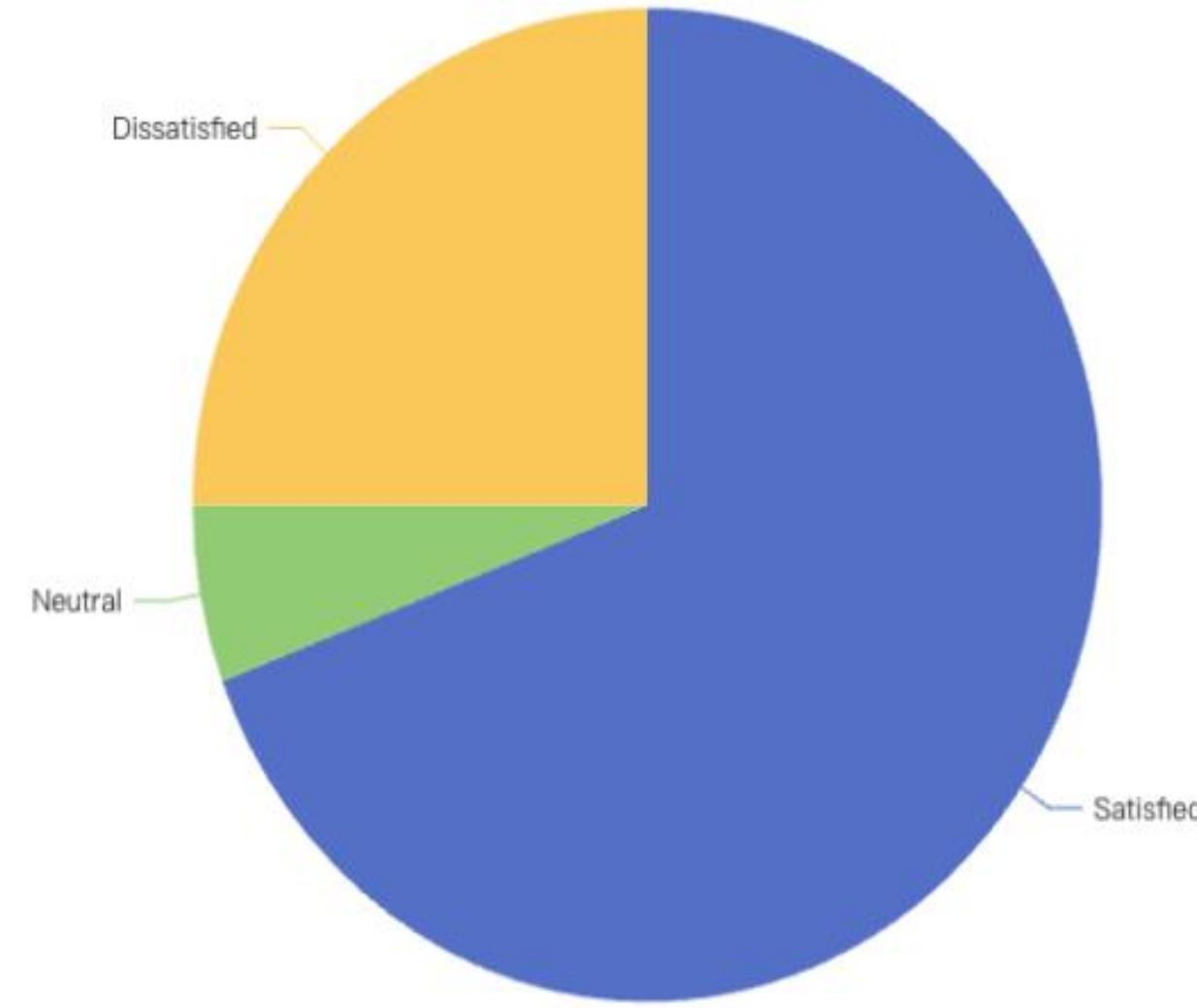
Dissatisfied (25.0%)

Hollows are good, but they're better

■ Satisfied

■ Neutral

■ Dissatisfied



- Perform sentiment analysis on customer reviews for different product categories using the pre-trained models Hugging Face's Transformers provided.
- Calculate the overall customer satisfaction level for the product category by determining the percentages of satisfied, neutral, and dissatisfied sentiments.
- Hugging Face's Transformers is an open-source natural language processing (NLP) library providing pre-trained Transformer models.
- Pre-trained model applied: facebook/bart-large-mnli (Zero-Shot Classification)

Business analysis of the product category revenue (RWD)

The figure displays three views of a mobile application interface for business analysis:

- Mobile's view (Left):** Shows the 'chicken' category revenue. It includes a summary card with '近1年收入 \$543,770' and '近1月收入 \$467,684'. Below this are two sections: '產品銷量' (Product Sales) and '顧客意見' (Customer Feedback). The '顧客意見' section contains the message: '顧客意見由AI統計，需時可能較長，請謹慎使用。' (Customer feedback is statistically derived, may take longer, please use with caution).
- Tablet's view (Right):** Shows the 'chicken' category revenue. It includes a summary card with '近1年收入 \$543,770' and '近1月收入 \$467,684'. Below this are two sections: '產品銷量' (Product Sales) and '顧客意見' (Customer Feedback). The '顧客意見' section contains the message: '顧客意見由AI統計，需時可能較長，請謹慎使用。' (Customer feedback is statistically derived, may take longer, please use with caution).

Mobile's view

Tablet's view

Deployment

AWS EC2

- Deploy application on EC2.
- OS: Ubuntu
- Public IPv4 address:
 - <http://52.194.231.248:8080/>
 - 帳號: pot_point
 - 密碼: pot_point

The screenshot shows the AWS EC2 Instances page. The main header includes the AWS logo, a search bar, and navigation links for Services, Search, Option+S, and Evan Wong. The top navigation bar has tabs for Instances (1/1), Info, and a button to Launch instances. Below the header is a table with columns for Instance ID, Name, Instance state, Instance type, Status check, and Alarm status. One instance is listed: PotPoint-BAD-project-EC2 (i-080b7dab71e182bca), which is Running, t2.micro, and has 2/2 checks passed. The left sidebar contains a navigation menu with sections like EC2 Dashboard, EC2 Global View, Events, Instances (selected), Instances Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations, Images, AMIs, AMI Catalog, Elastic Block Store, Volumes, Snapshots, Lifecycle Manager, Network & Security, Security Groups, and Elastic IPs. The bottom of the page includes CloudShell, Feedback, and footer links for 2024 Amazon Web Services, Inc. or its affiliates, Privacy, Terms, and Cookie preferences.

Instance ID	Name	Instance state	Instance type	Status check	Alarm status
i-080b7dab71e182bca	PotPoint-BAD-project-EC2	Running	t2.micro	2/2 checks passed	View alarms

Instance: i-080b7dab71e182bca (PotPoint-BAD-project-EC2)

[Details](#) | [Status and alarms](#) | [Monitoring](#) | [Security](#) | [Networking](#) | [Storage](#) | [Tags](#)

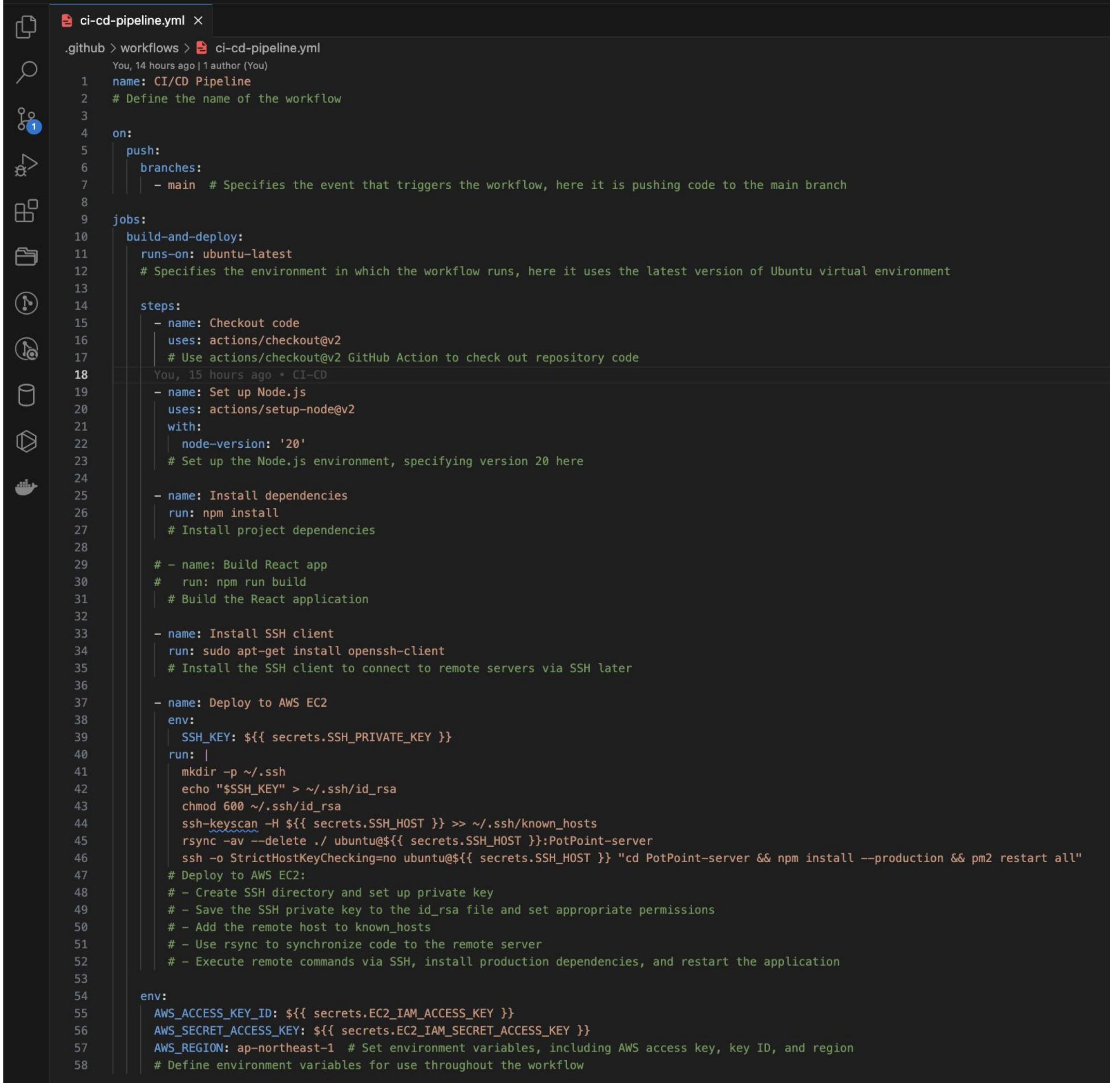
Instance summary

Instance ID	Public IPv4 address	Private IPv4 addresses
i-080b7dab71e182bca (PotPoint-BAD-project-EC2)	52.194.231.248	172.31.34.101
IPv6 address	Instance state	Public IPv4 DNS
-	Running	ec2-52-194-231-248.ap-northeast-1.compute.amazonaws.com
Hostname type	Private IP DNS name (IPv4 only)	Open address
IP name: ip-172-31-34-101.ap-northeast-1.compute.internal		

CI/CD

GitHub Actions

- Implement CI/CD, automate testing and deployments.
- Increase the speed and quality of software deliveries while maintaining the stability and reliability of the development process.
- Right image is screenshot of "ci-cd-pipeline.yml"



```
ci-cd-pipeline.yml
.github > workflows > ci-cd-pipeline.yml
You, 14 hours ago | 1 author (You)
1 name: CI/CD Pipeline
2 # Define the name of the workflow
3
4 on:
5   push:
6     branches:
7       - main # Specifies the event that triggers the workflow, here it is pushing code to the main branch
8
9 jobs:
10   build-and-deploy:
11     runs-on: ubuntu-latest
12     # Specifies the environment in which the workflow runs, here it uses the latest version of Ubuntu virtual environment
13
14     steps:
15       - name: Checkout code
16         uses: actions/checkout@v2
17         # Use actions/checkout@v2 GitHub Action to check out repository code
18
19         You, 15 hours ago • CI-CD
20       - name: Set up Node.js
21         uses: actions/setup-node@v2
22         with:
23           node-version: '20'
24         # Set up the Node.js environment, specifying version 20 here
25
26       - name: Install dependencies
27         run: npm install
28         # Install project dependencies
29
30       # - name: Build React app
31       #   run: npm run build
32       #   # Build the React application
33
34       - name: Install SSH client
35         run: sudo apt-get install openssh-client
36         # Install the SSH client to connect to remote servers via SSH later
37
38       - name: Deploy to AWS EC2
39         env:
40           SSH_KEY: ${{ secrets.SSH_PRIVATE_KEY }}
41         run:
42           mkdir -p ~/.ssh
43           echo "$SSH_KEY" > ~/.ssh/id_rsa
44           chmod 600 ~/.ssh/id_rsa
45           ssh-keyscan -H ${{ secrets.SSH_HOST }} >> ~/.ssh/known_hosts
46           rsync -av --delete ./ ubuntu@${{ secrets.SSH_HOST }}:PotPoint-server
47           ssh -o StrictHostKeyChecking=no ubuntu@${{ secrets.SSH_HOST }} "cd PotPoint-server && npm install --production && pm2 restart all"
48         # Deploy to AWS EC2:
49         # - Create SSH directory and set up private key
50         # - Save the SSH private key to the id_rsa file and set appropriate permissions
51         # - Add the remote host to known_hosts
52         # - Use rsync to synchronize code to the remote server
53         # - Execute remote commands via SSH, install production dependencies, and restart the application
54
55         env:
56           AWS_ACCESS_KEY_ID: ${{ secrets.EC2_IAM_ACCESS_KEY }}
57           AWS_SECRET_ACCESS_KEY: ${{ secrets.EC2_IAM_SECRET_ACCESS_KEY }}
58           AWS_REGION: ap-northeast-1 # Set environment variables, including AWS access key, key ID, and region
59           # Define environment variables for use throughout the workflow
```