

PotPoint

#3

# Introduction

## An online data analysis platform

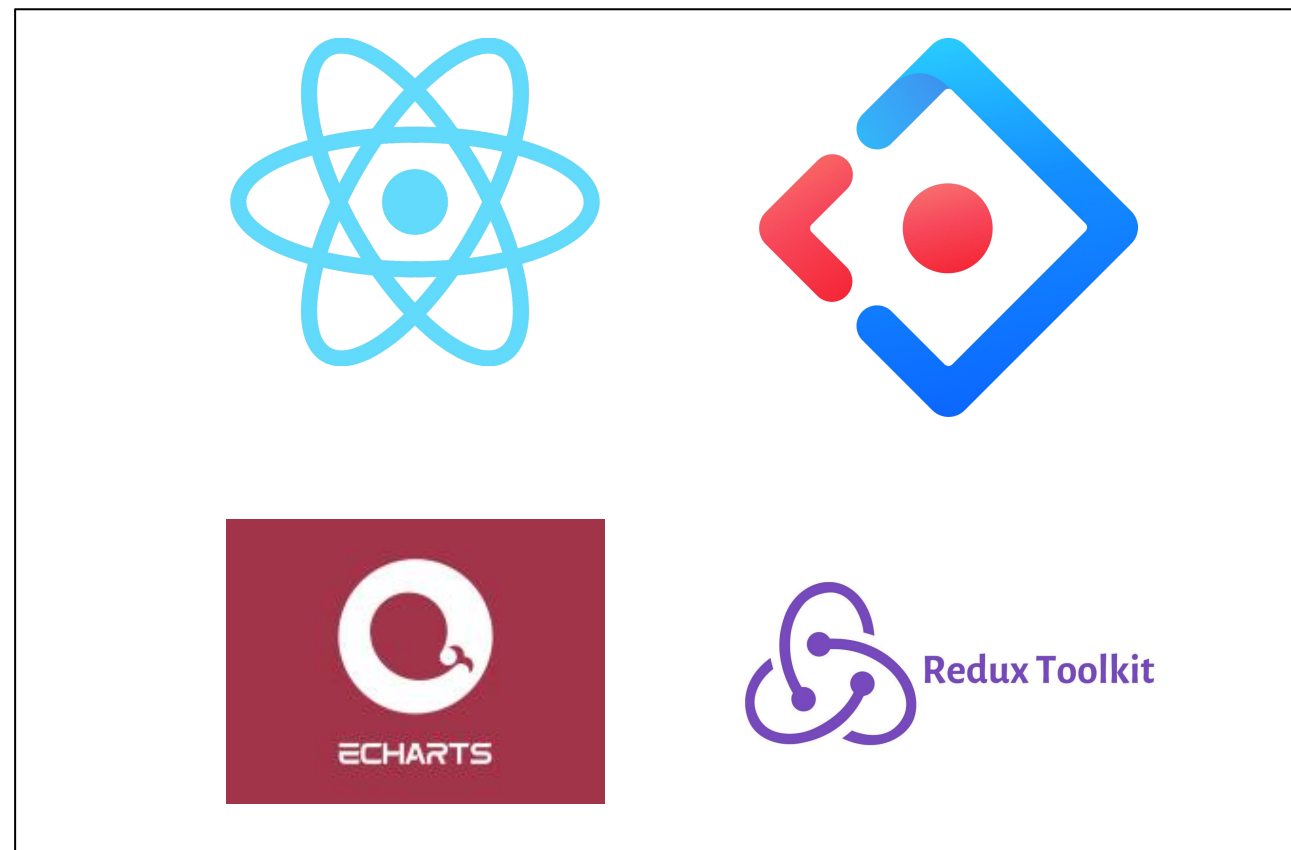
- PotPoint is an online platform dedicated to assisting restaurants with data analysis.
- By analyzing operational data and utilizing AI technology, PotPoint effectively transforms restaurant performance into easily readable and clear business reports.
- This helps restaurant managers promptly understand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



# Tech stack

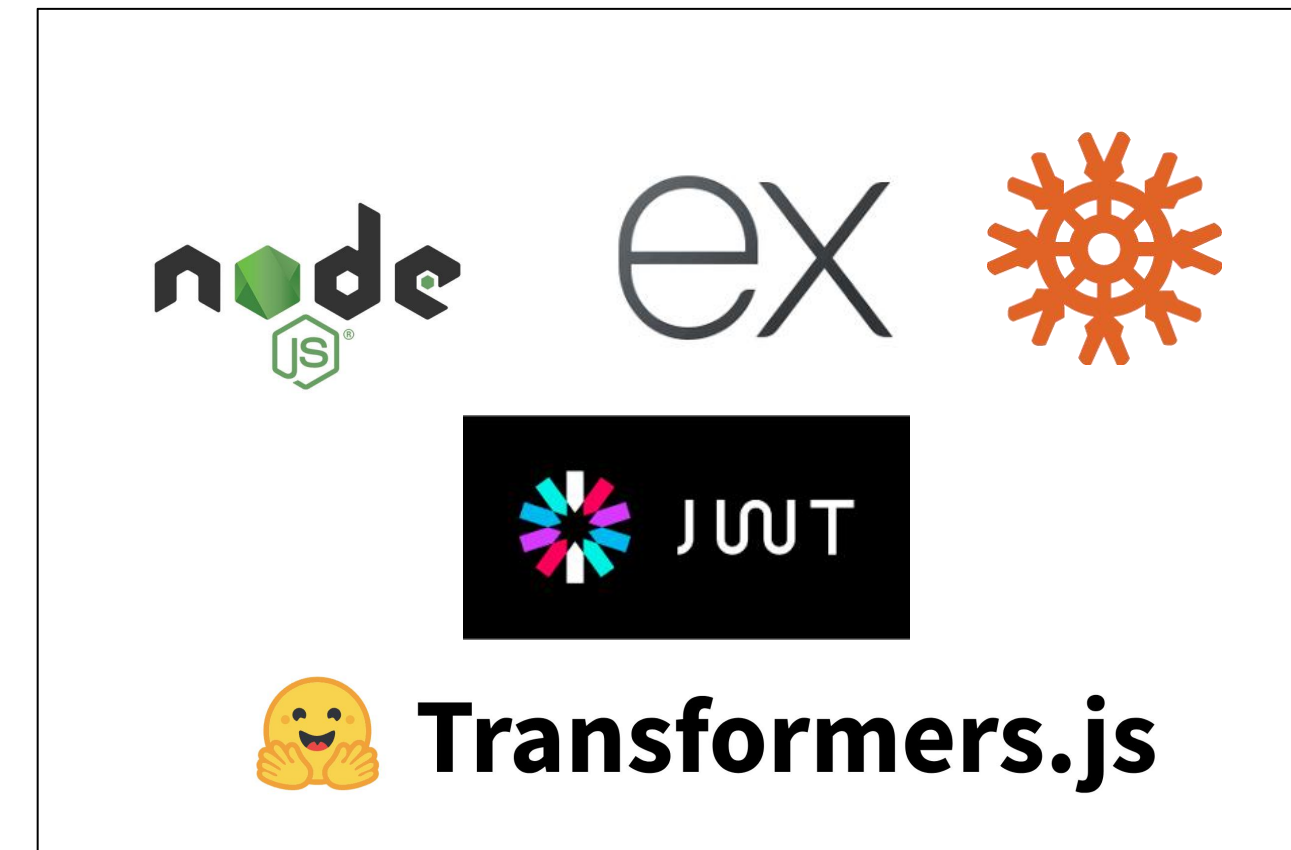
## Front end

React, Ant Design, ECharts,  
Redux Toolkit



## Back end

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



## Ajax

Axios



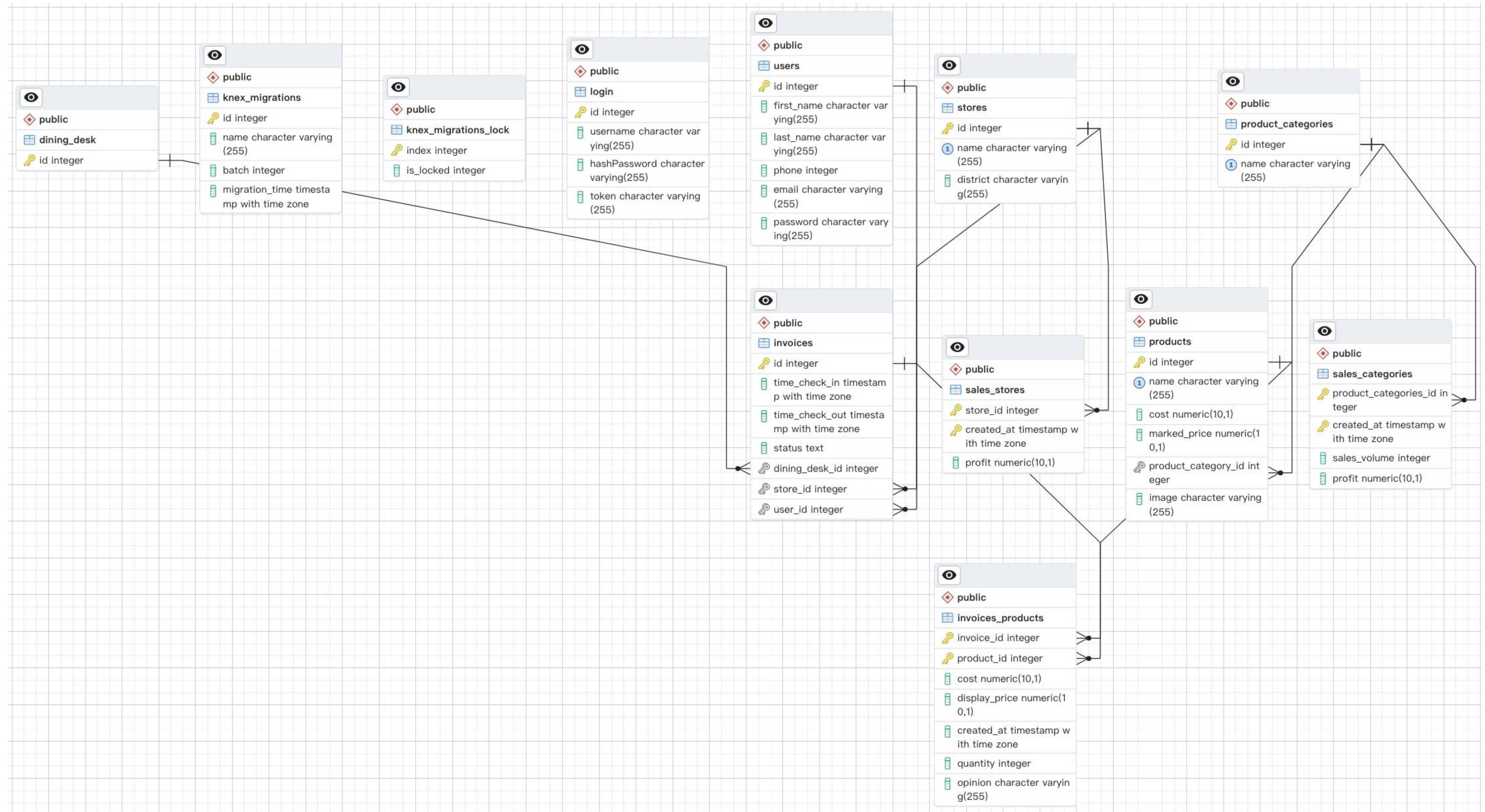
## DevOps

AWS (EC2, IAM), GitHub Actions





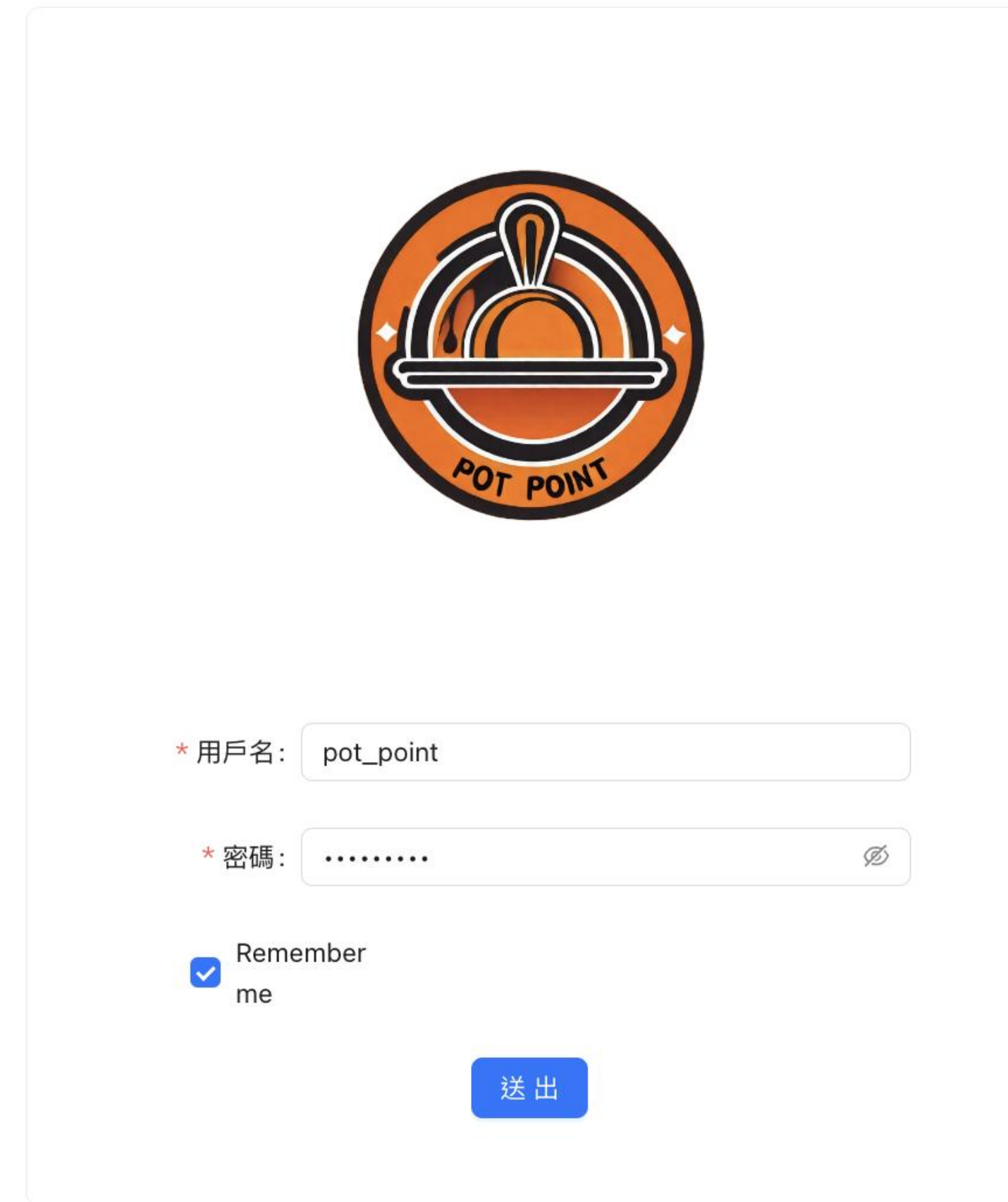
# Entity Relationship Diagram (ERD)



# Login

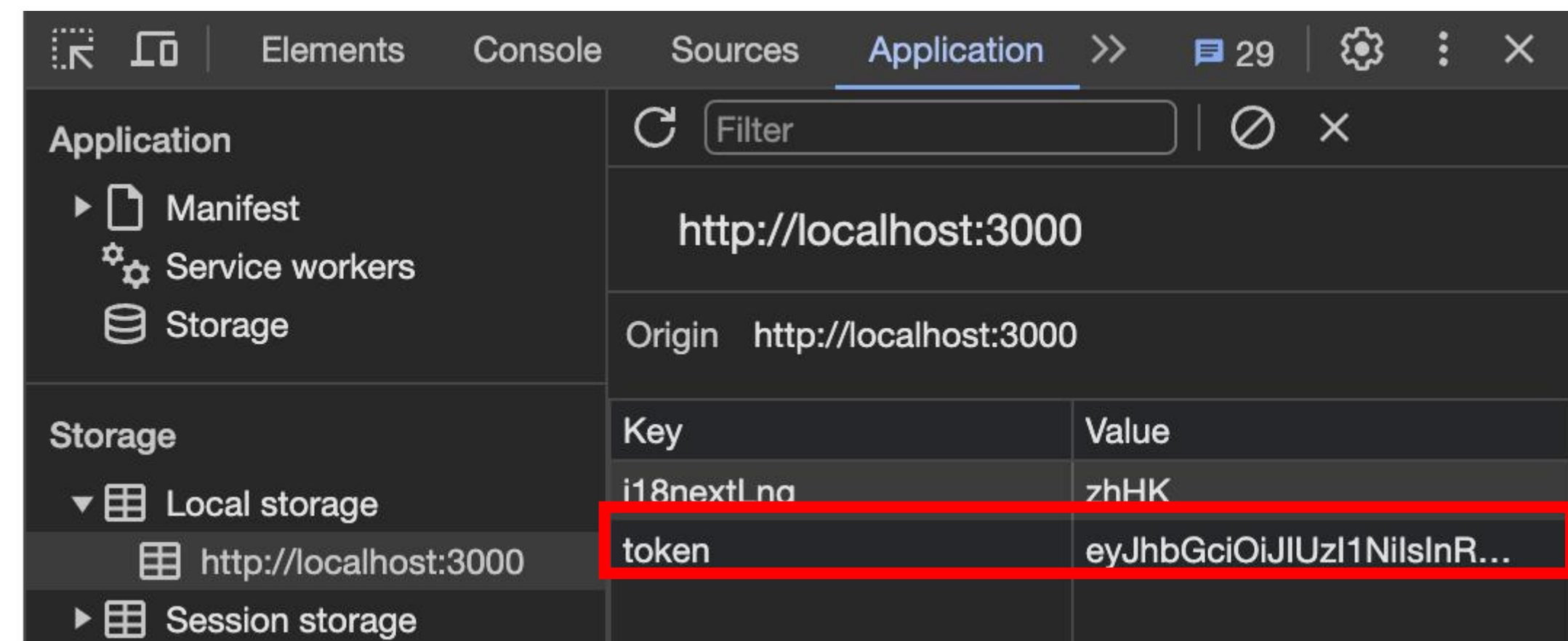
## JSON Web Token (JWT)

- 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 features a circular logo at the top with an orange background and a black border. The logo contains a stylized white pot and the text "POT POINT" in black. Below the logo, there are two input fields: the first is labeled "\* 用戶名:" and contains the text "pot\_point"; the second is labeled "\* 密碼:" and contains a series of dots. To the right of the password field is a small eye icon. Below these fields is a checkbox labeled "Remember me" which is checked. At the bottom of the form is a blue button with the text "送出".

**The token for  
identification and  
automatic login**





# Dashboard – transaction records

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



繁體中文

登出

近1年收入	近1年收益率
\$22,254,856	26.36%
近1月收入	近1月收益率
\$2,191,972	-14.78%
今日收入	今日收益率
\$9,220	\$-0.33

Customize time interval

🕒 訂單記錄

🏠 分店收入

📦 類別收入

📦 產品收入

Click to navigate to other tabs

近1年

請選擇月份



Click to navigate to transaction details

Record detailed information for each transaction

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

近1年請選擇月份

訂單ID	開始時間	結束時間
------	------	------


🕒 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 00:06:16
1199	2024-01-02 05:45:50	2024-01-02 05:45:50



財務報告 ▾繁體中文 ▾登出

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🕒 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

[財務報告](#) ▾[繁體中文](#) ▾[登出](#)

Click to show customer review of the product

Items ordered

訂單明細

產品ID

名稱

售價

數量

總售價

+

24

Water spinach

\$20

3

\$61

+

7

Chicken leg meat

\$108

4

\$432

+

20

Cod fish slices

\$128

10

\$1,280

+

17

Beer

\$24

10

\$240

+

4

Pork Belly

\$192

6

\$1,152

-

2

Tri Tip

\$135

1

\$135

意見: 三角肉有啲硬而且乾燥。

總收入

\$3,300

Customer reivew


< 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			
<div><div>&lt;</div><div>1</div><div>&gt;</div></div>					

Mobile's view



財務報告 ▾

繁體中文 ▾

登出

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			

<

1

>

Tablet's view



# Dashboard – branch revenue (RWD)

分店收入

品 類別收入

分店收入

Tsuen Wan

近1年收入

\$929,972.1

近1月收入

\$773,378

Yuen Long

近1年收入

\$875,168.9

近1月收入

\$765,116

Tseung Kwan O

近1年收入

\$863,912

近1月收入

\$742,135.7

Mobile's view

🕒 訂單記錄

🏠 分店收入

📦 類別收入

📦 產品收入

分店收入

Tsuen Wan

近1年收入

\$929,972.1

近1月收入

\$773,378

Yuen Long

近1年收入

\$875,168.9

近1月收入

\$765,116

Tseung Kwan O

近1年收入

\$863,912

近1月收入

\$742,135.7

Sheung Wan

近1年收入

\$1,013,610.7

近1月收入

\$851,569.2

Tuen Mun

近1年收入

\$985,278.3

近1月收入

\$841,134.7

Tablet's view



# Business analysis of the branch

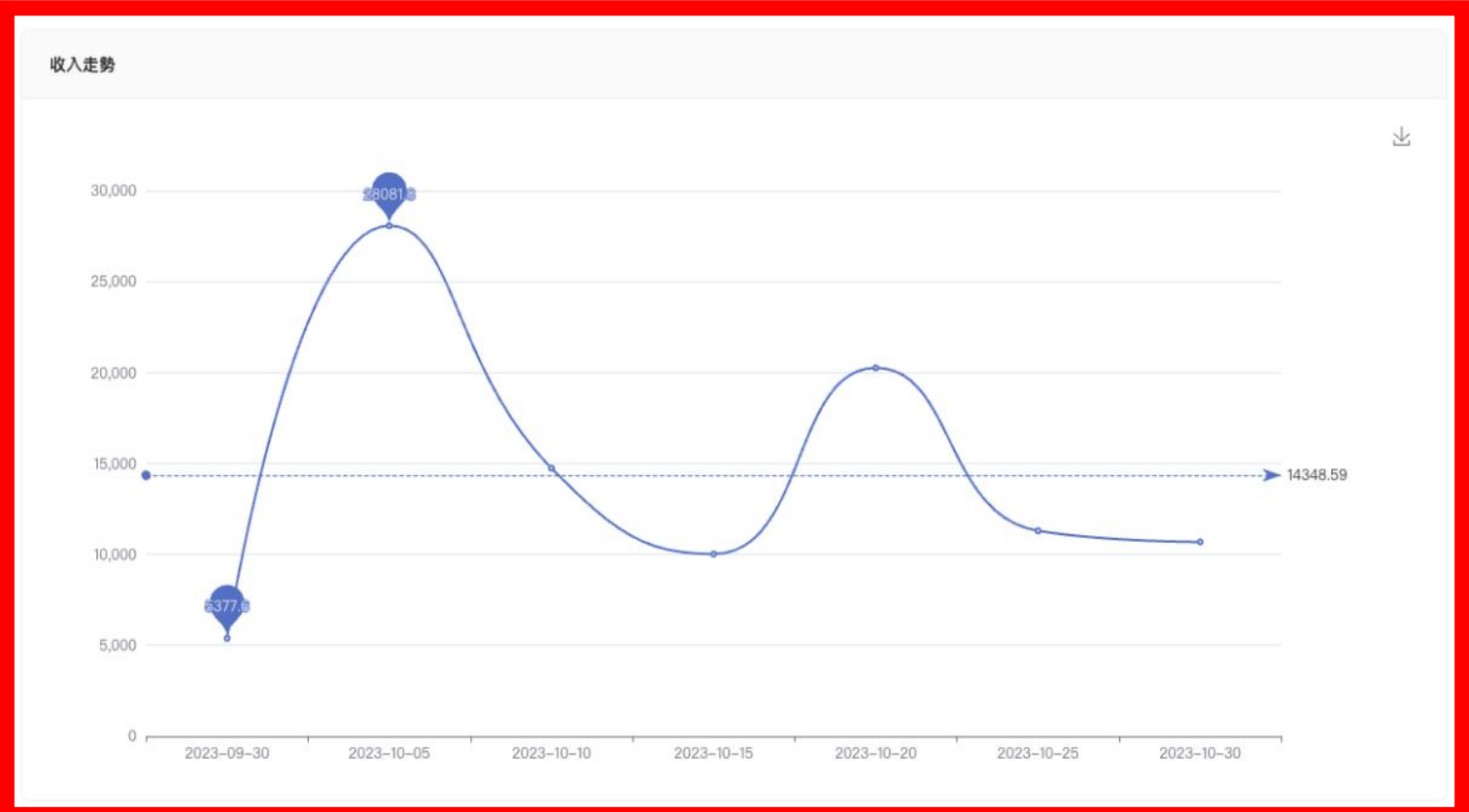
The revenue of the branch for the past year and the past month

Change the time intervals

近1月 近6月 近1年

Yuen Long	
近1年收入	近1月收入
\$875,168.9	\$41,246.2

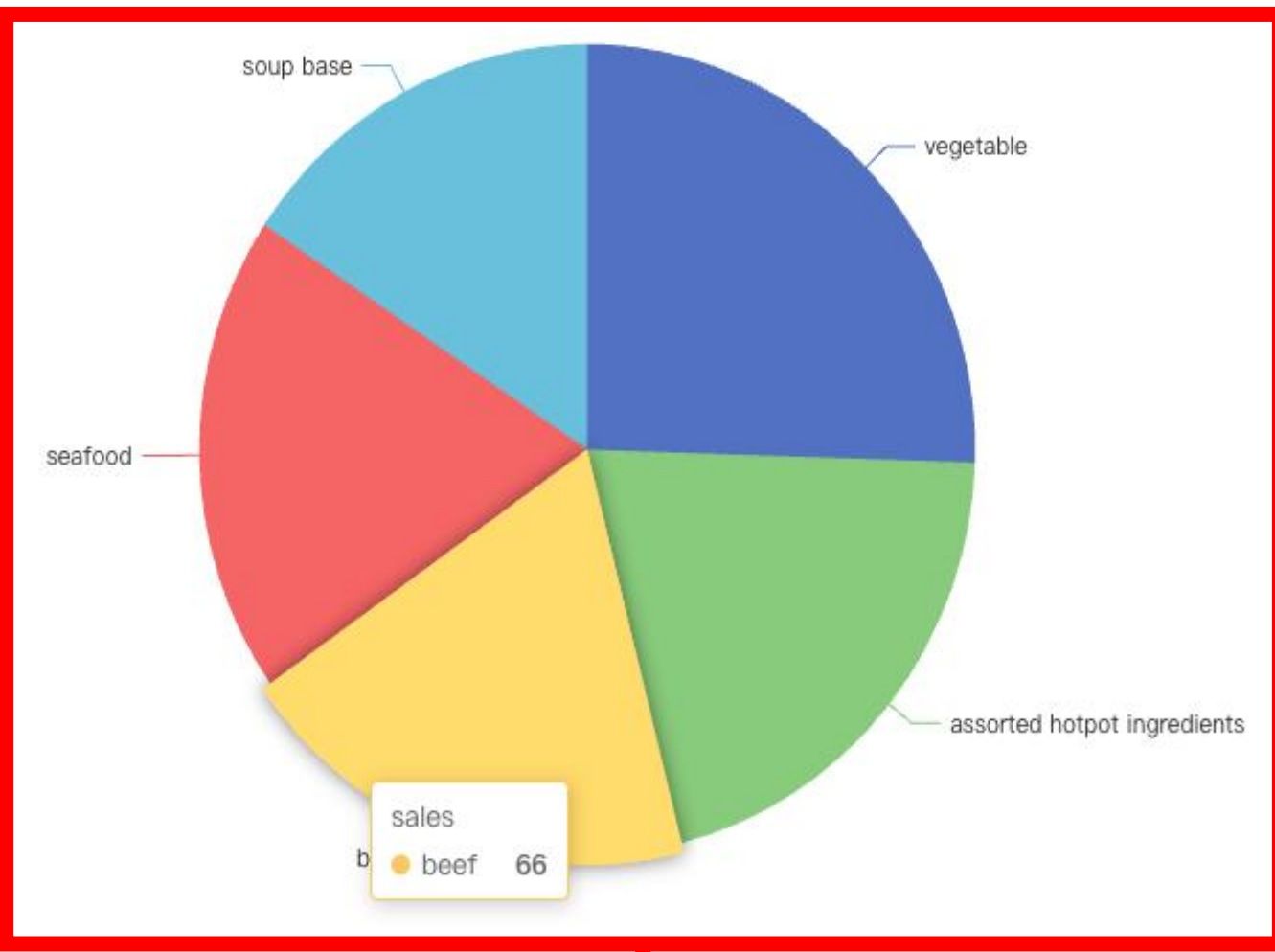
近1月 近6月 近1年



Display the revenue changes for the specified period

Switch to display popular or unpopular products

熱門類別 冷門類別

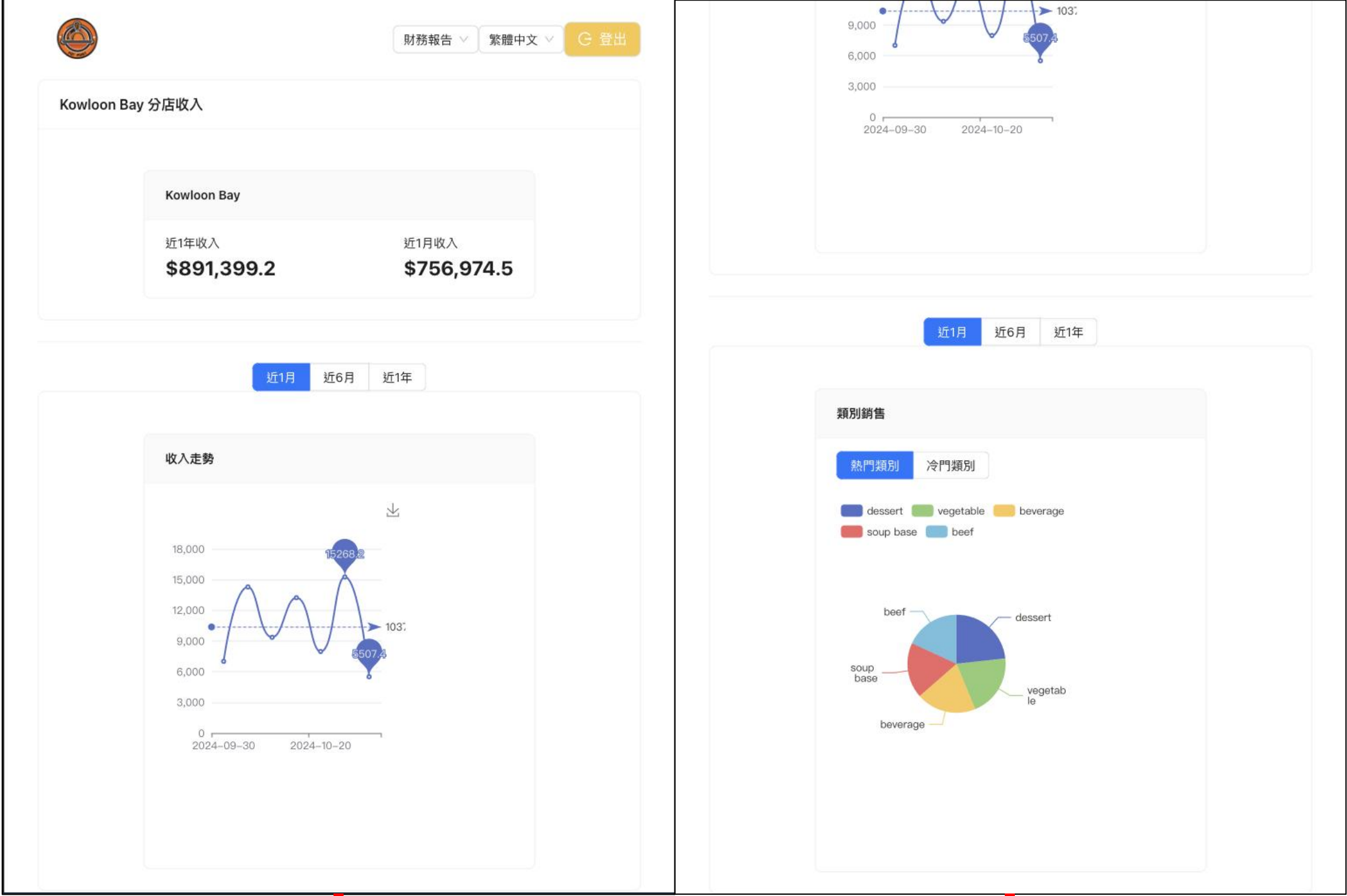


Display popular or unpopular products for the specified period

# Business analysis of the branch (RWD)



Mobile's view



Tablet's view

# Dashboard – product category revenue

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

🕒 訂單記錄

🏠 分店收入

📦 類別收入

📦 產品收入

類別收入

vegetable

近1年收入

\$101,561

近1月收入

\$4,382

chicken

近1年收入

\$543,770

近1月收入

\$14,117

assorted hotpot ingredients

近1年收入

\$538,916

近1月收入

\$27,490

mutton

近1年收入

\$1,006,201

近1月收入

\$40,115

soup base

近1年收入

\$285,157

近1月收入

\$10,424

dessert

近1年收入

\$295,982

近1月收入

\$11,198

Click to navigate to the business analysis of the product category



# Dashboard – product category revenue (RWD)

🕒 訂單記錄

🏠 分店收入

📦 類別收入

◀

類別收入

vegetable

近1年收入

\$101,561

近1月收入

\$82,682

chicken

近1年收入

\$543,770

近1月收入

\$467,684

assorted hotpot ingredients

近1年收入

\$538,916

近1月收入

\$456,678

Mobile's view

🕒 訂單記錄

🏠 分店收入

📦 類別收入

🔍 產品收入

類別收入

vegetable

近1年收入

\$101,561

近1月收入

\$82,682

chicken

近1年收入

\$543,770

近1月收入

\$467,684

assorted hotpot ingredients

近1年收入

\$538,916

近1月收入

\$456,678

mutton

近1年收入

\$1,006,201

近1月收入

\$847,769

soup base

近1年收入

\$285,157

近1月收入

\$231,694

Tablet's view

# Business analysis of the product category revenue

vegetable 類別收入

vegetable

近1年收入  
\$101,561

近1月收入  
\$4,382

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

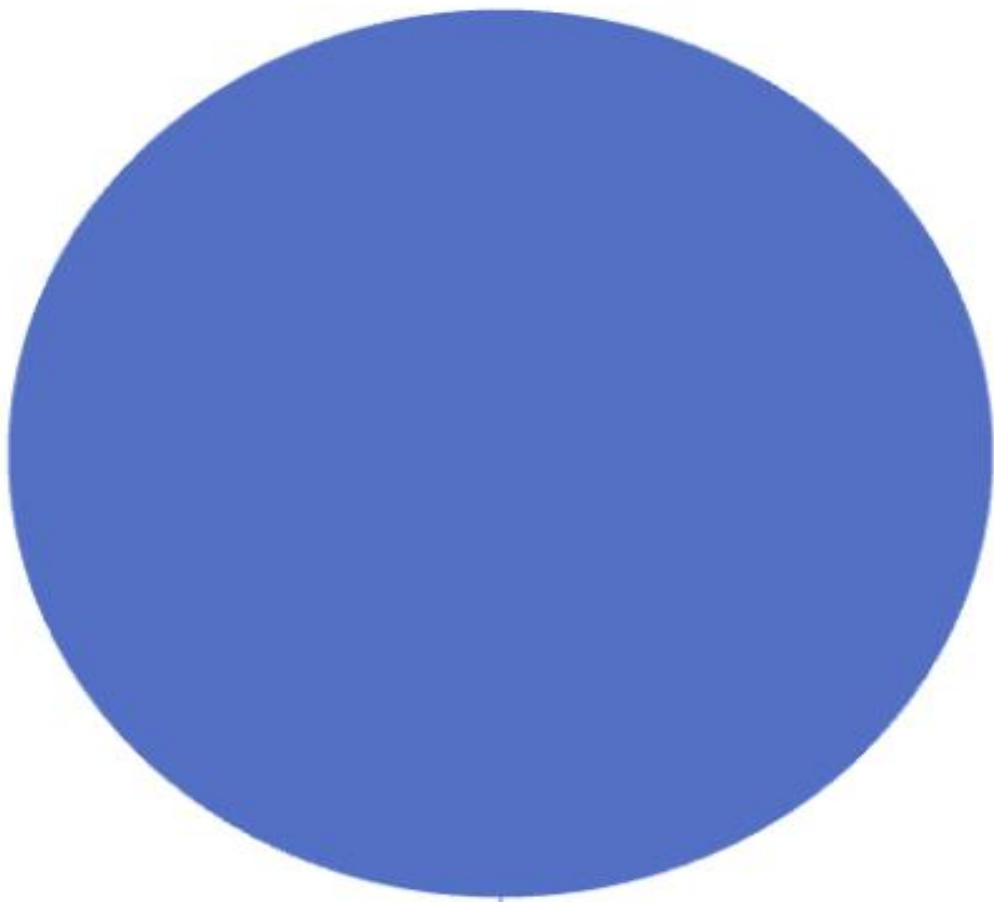
產品銷量

熱門產品

冷門產品

Switch to display popular or unpopular products

Radish



Display popular or unpopular products for the specified period

# 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.

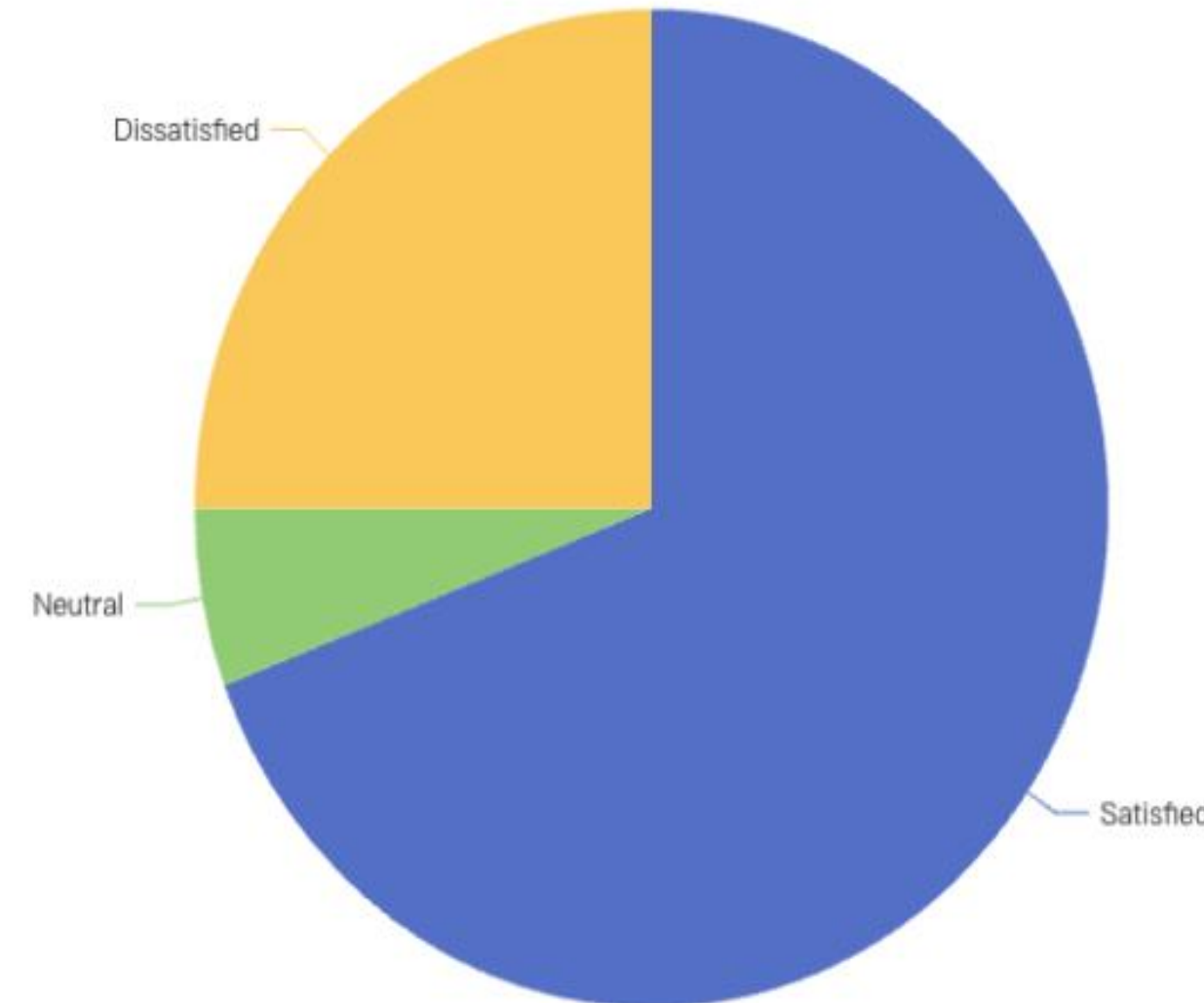
Dissatisfied (25.0%)

Hollows are good, but they're better

■ Satisfied

■ Neutral

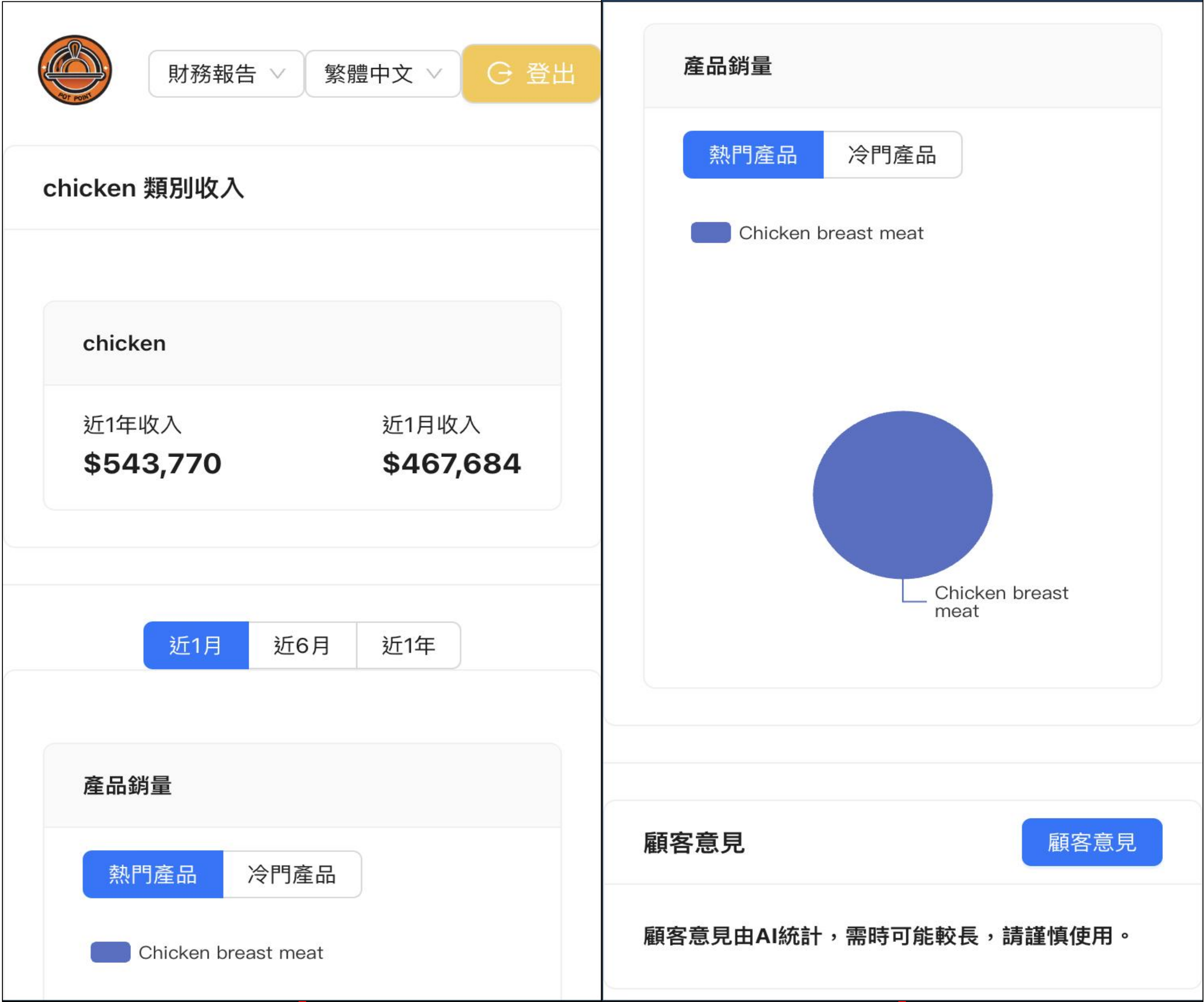
■ Dissatisfied



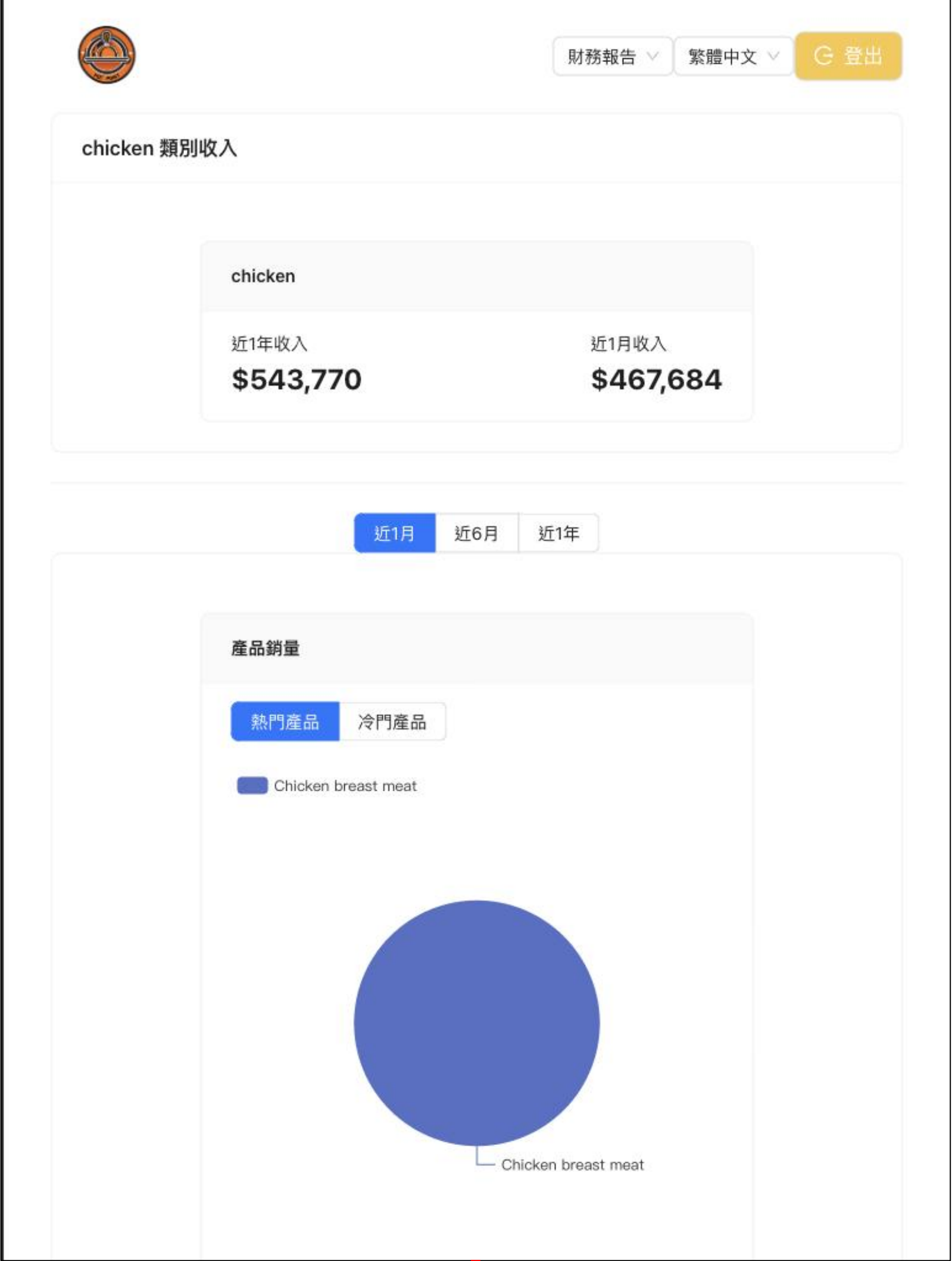
- Perform sentiment analysis on customer reviews for different product categories using the pre-trained models Hugging Face's Transformers provided.
- Calculate the overall customer satisfaction level for the product category by determining the percentages of satisfied, neutral, and dissatisfied sentiments.
- 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)



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

aws

Services

Search

[Option+S]

Tokyo

Evan Wong

EC2 Dashboard

EC2 Global View

Events

Instances

- Instances
- Instance Types
- Launch Templates
- Spot Requests
- Savings Plans
- Reserved Instances
- Dedicated Hosts
- Capacity Reservations New

Images

- AMIs
- AMI Catalog

Elastic Block Store

- Volumes
- Snapshots
- Lifecycle Manager

Network & Security

- Security Groups
- Elastic IPs

Instances (1/1) Info

Find Instance by attribute or tag (case-sensitive)

All states

< 1 >

<input checked="" type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status
<input checked="" type="checkbox"/>	PotPoint-BAD-project-EC2	i-080b7dab71e182bca	Running	t2.micro	2/2 checks passed	<a>View alarms</a>

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

Details

Status and alarms New

Monitoring

Security

Networking

Storage

Tags

▼ Instance summary Info

Instance ID

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

Public IPv4 address

52.194.231.248 open address

Private IPv4 addresses

172.31.34.101

IPv6 address

-

Instance state

Running

Public IPv4 DNS

ec2-52-194-231-248.ap-northeast-1.compute.amazonaws.com open address

Hostname type

IP name: ip-172-31-34-101.ap-northeast-1.compute.amazonaws.com

Private IP DNS name (IPv4 only)

CloudShell

Feedback

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Privacy

Terms

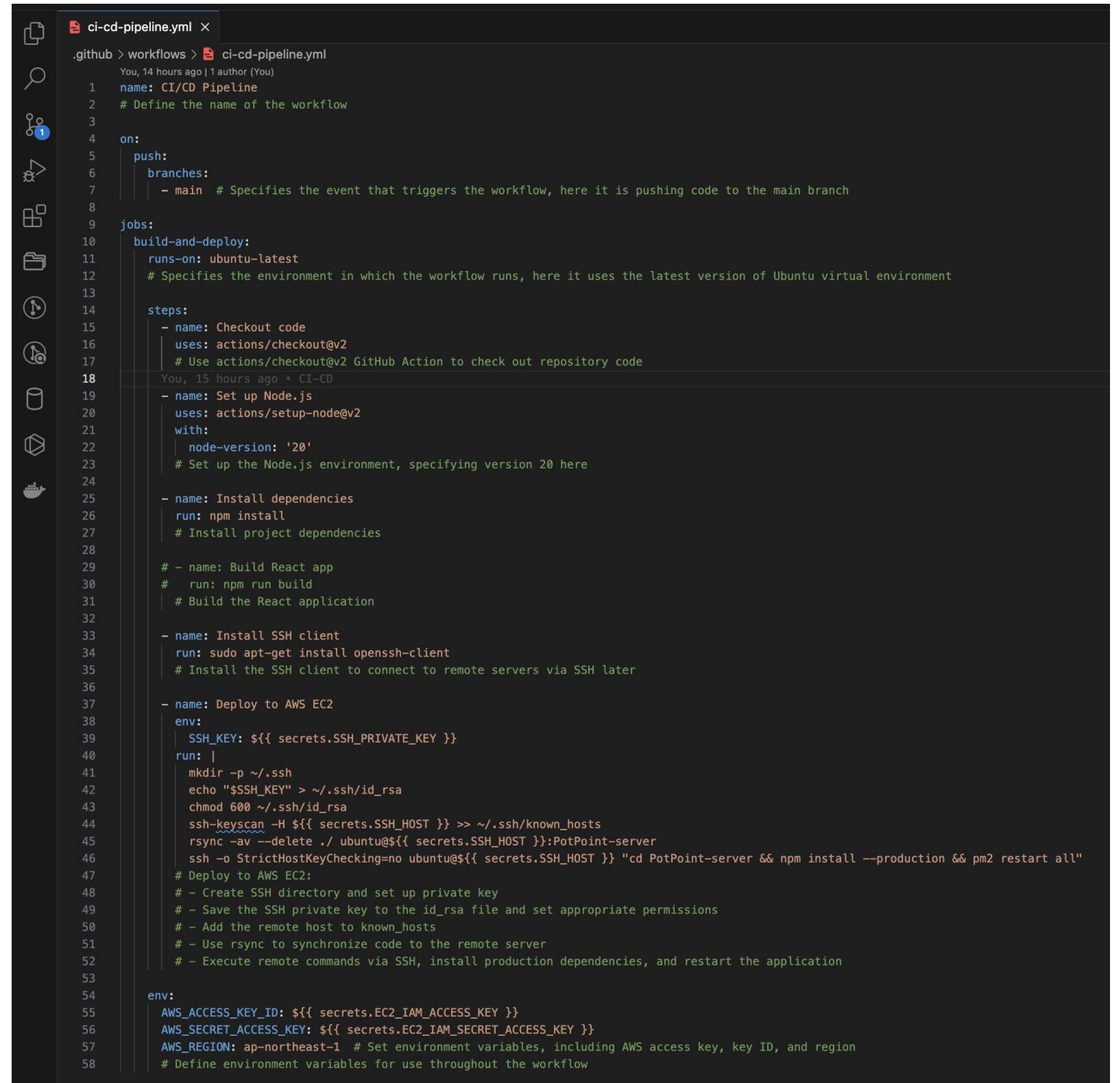
Cookie preferences



# 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       - name: Set up Node.js
20         uses: actions/setup-node@v2
21         with:
22           node-version: '20'
23         # Set up the Node.js environment, specifying version 20 here
24
25       - name: Install dependencies
26         run: npm install
27         # Install project dependencies
28
29       # - name: Build React app
30       #   run: npm run build
31       #   # Build the React application
32
33       - name: Install SSH client
34         run: sudo apt-get install openssh-client
35         # Install the SSH client to connect to remote servers via SSH later
36
37       - name: Deploy to AWS EC2
38         env:
39           SSH_KEY: ${ secrets.SSH_PRIVATE_KEY }
40         run: |
41           mkdir -p ~/.ssh
42           echo "$SSH_KEY" > ~/.ssh/id_rsa
43           chmod 600 ~/.ssh/id_rsa
44           ssh-keyscan -H ${ secrets.SSH_HOST } >> ~/.ssh/known_hosts
45           rsync -av --delete ./ ubuntu@${ secrets.SSH_HOST }:PotPoint-server
46           ssh -o StrictHostKeyChecking=no ubuntu@${ secrets.SSH_HOST } "cd PotPoint-server && npm install --production && pm2 restart all"
47         # Deploy to AWS EC2:
48         # - Create SSH directory and set up private key
49         # - Save the SSH private key to the id_rsa file and set appropriate permissions
50         # - Add the remote host to known_hosts
51         # - Use rsync to synchronize code to the remote server
52         # - Execute remote commands via SSH, install production dependencies, and restart the application
53
54     env:
55       AWS_ACCESS_KEY_ID: ${ secrets.EC2_IAM_ACCESS_KEY }
56       AWS_SECRET_ACCESS_KEY: ${ secrets.EC2_IAM_SECRET_ACCESS_KEY }
57       AWS_REGION: ap-northeast-1 # Set environment variables, including AWS access key, key ID, and region
58     # Define environment variables for use throughout the workflow
```