



Meal Provider

Group 21

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Links

Github (Frontend)



Github (Backend)



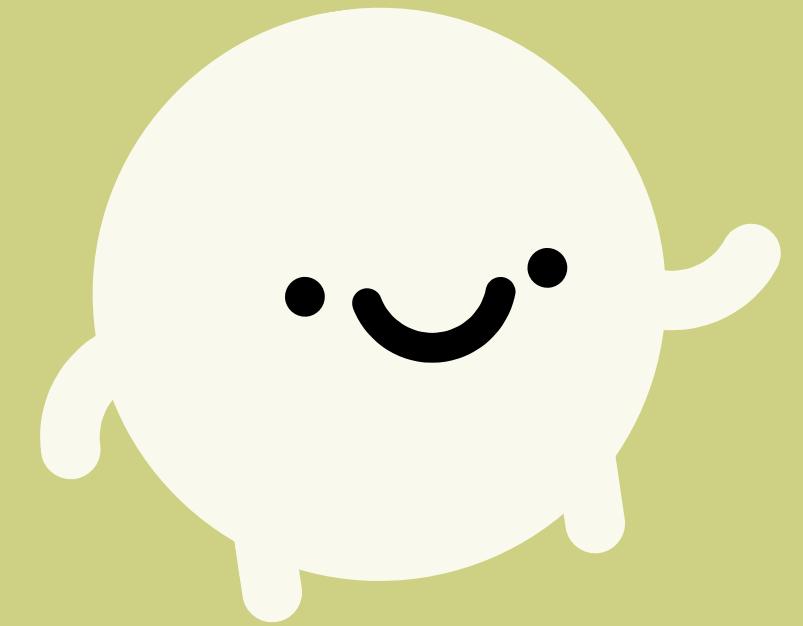
Figma (Frontend Design)



Slide Link (w/ demo)

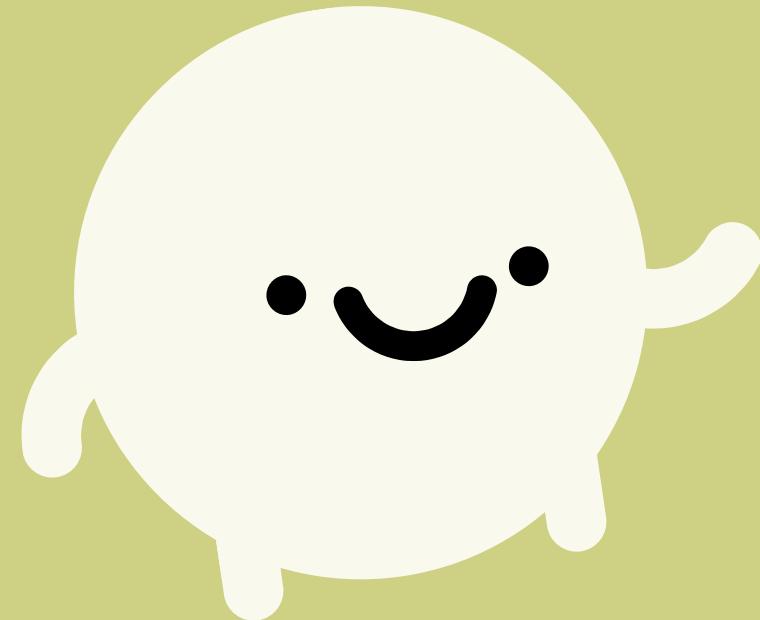


午餐時間到了!



User Story

Hello~



小美：

身高145

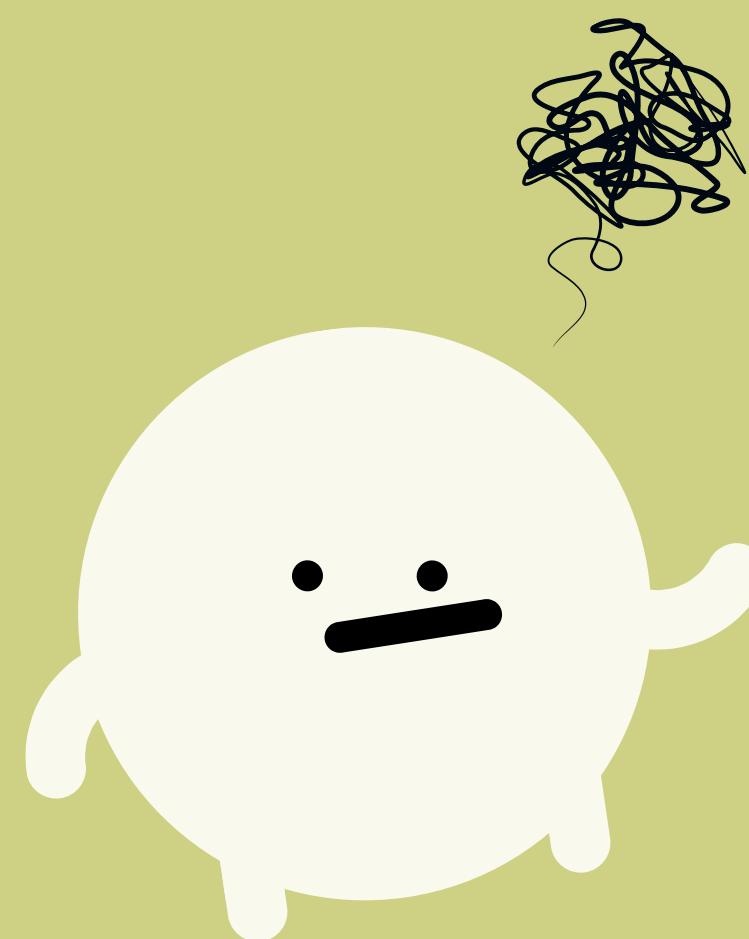
輕微近視但平常不戴眼鏡

大人 講話很小聲

有點健忘也有點懶

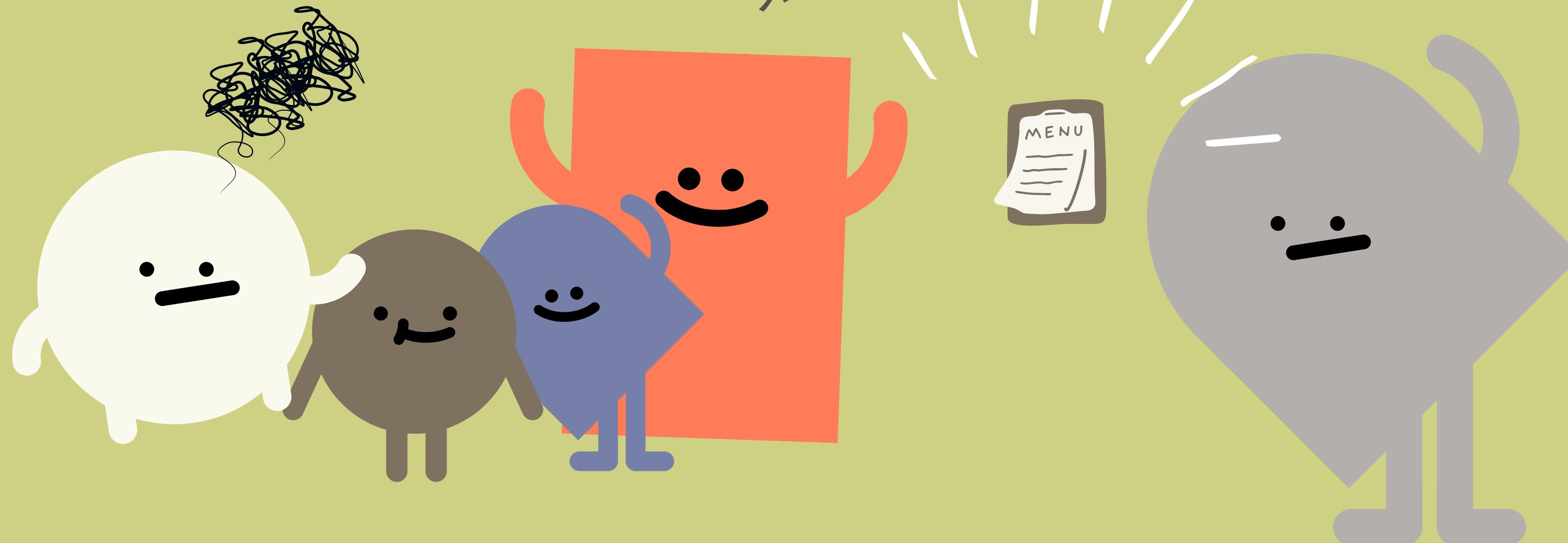
到了員工餐廳
因為要點餐跟核對身份 很耗時間難以消化隊伍

人好多 隊伍好長



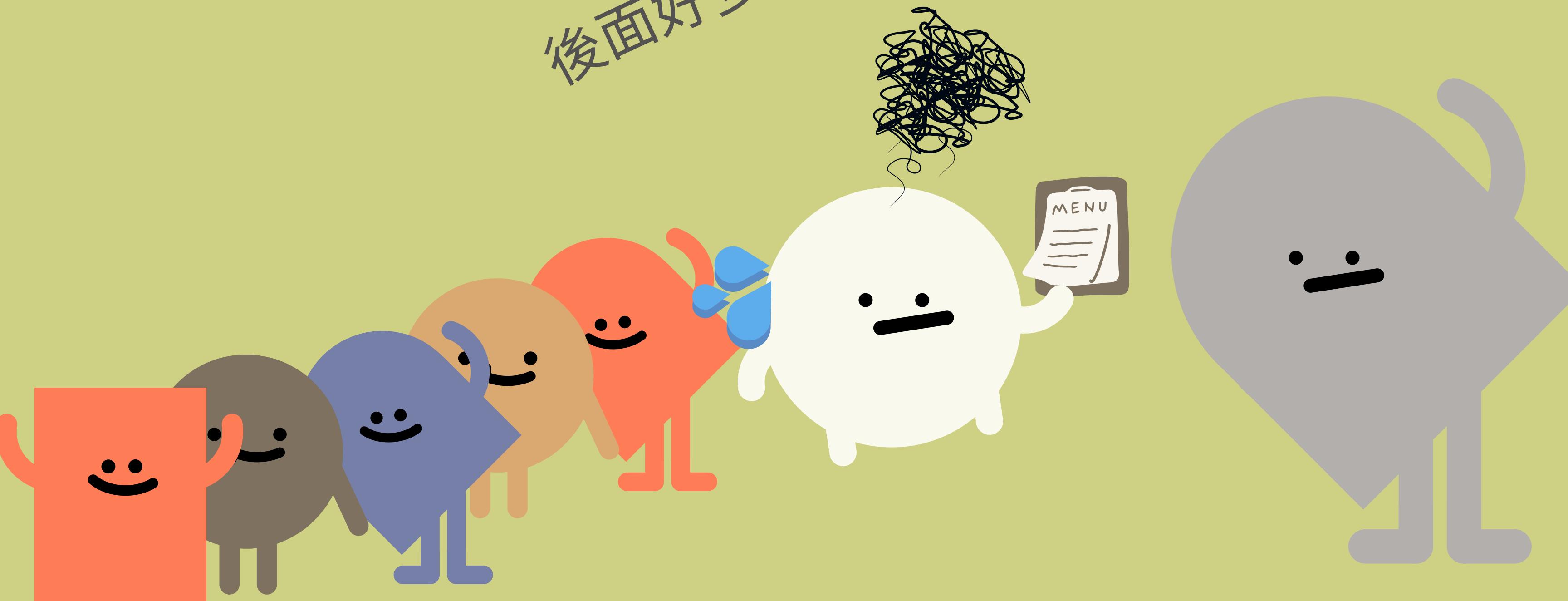
餐廳菜單不一定容易被看見
尤其是在長長隊伍裡更容易被擋住

菜單好小 根本看不到！



沒有參考指標 又有背後長長隊伍給的壓力
就只能像無頭蒼蠅一樣 在滿滿選項裡快速決定...

後面好多人 趕快隨便點 ><

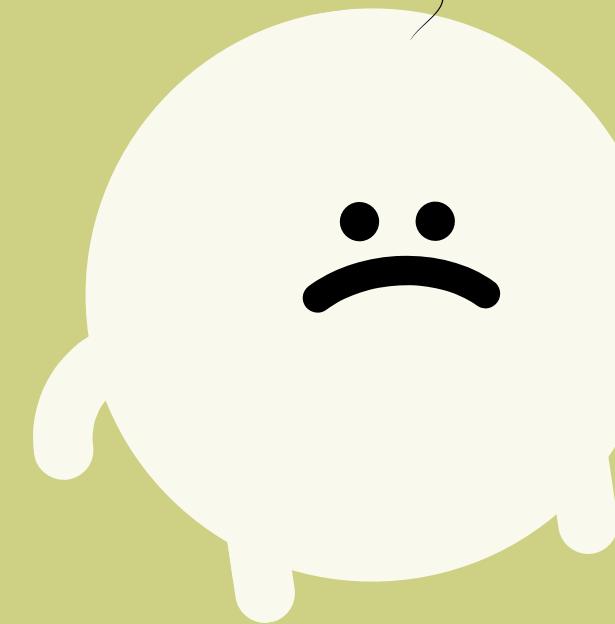
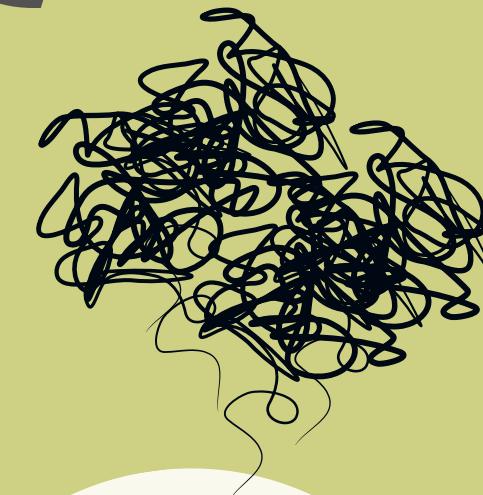


沒有參考指標容易踩雷
記帳跟紀錄訂單紀錄又很麻煩 ><

小美小美！

你上個月的餐費是
不是還沒付清？！

啊！我又忘記了

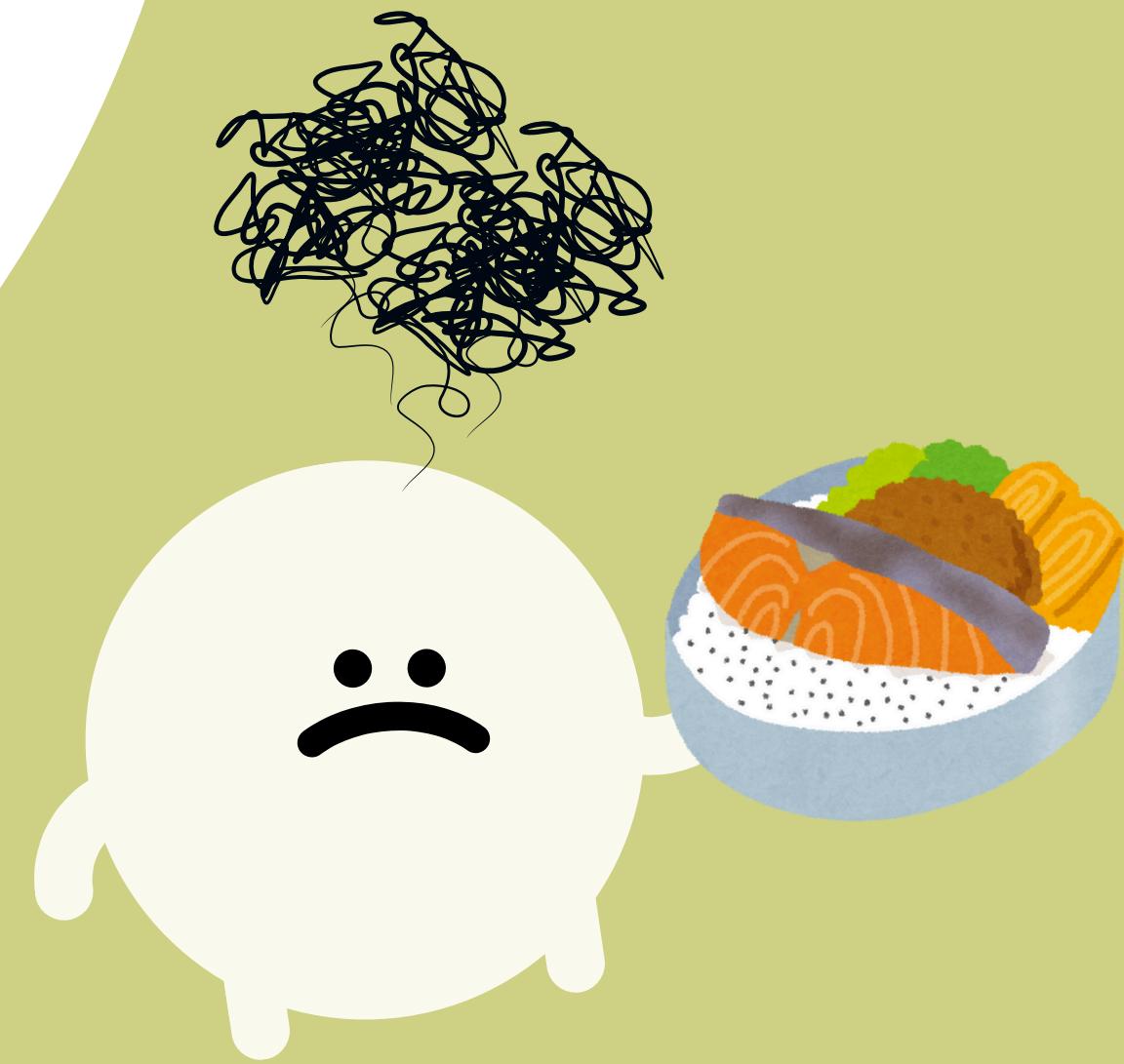


好難吃...



好希望可以...

- ✨更有效率的點餐
- ✨能放鬆緩緩地看菜單
- ✨能有個指標讓我在點餐時參考
- ✨整理我的消費紀錄
- ✨提醒自己不要再忘記繳費





Meal Provider

能有個指標讓我在點餐時參考

好希望可以整理我的消費紀錄

也能提醒自己不要再忘記繳費

你的午餐救星！

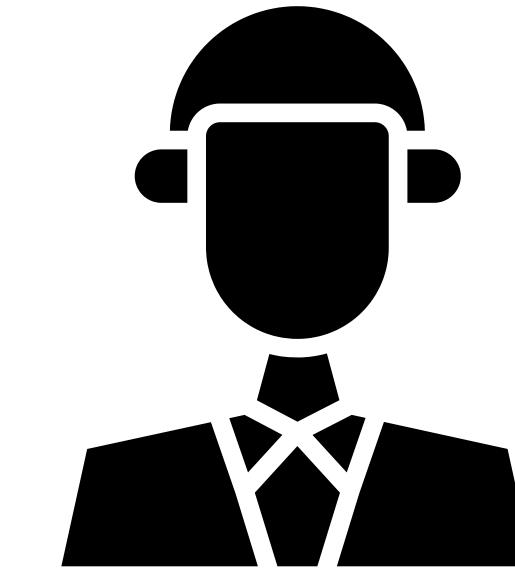


Shop



可根據餐點評分調整菜單
使用標籤分類餐點
可查看歷史訂單紀錄

Admin



具有權限可獲取所有Shop與User資料
可查看各個月賒帳狀態
一鍵寄信 通知員工結帳

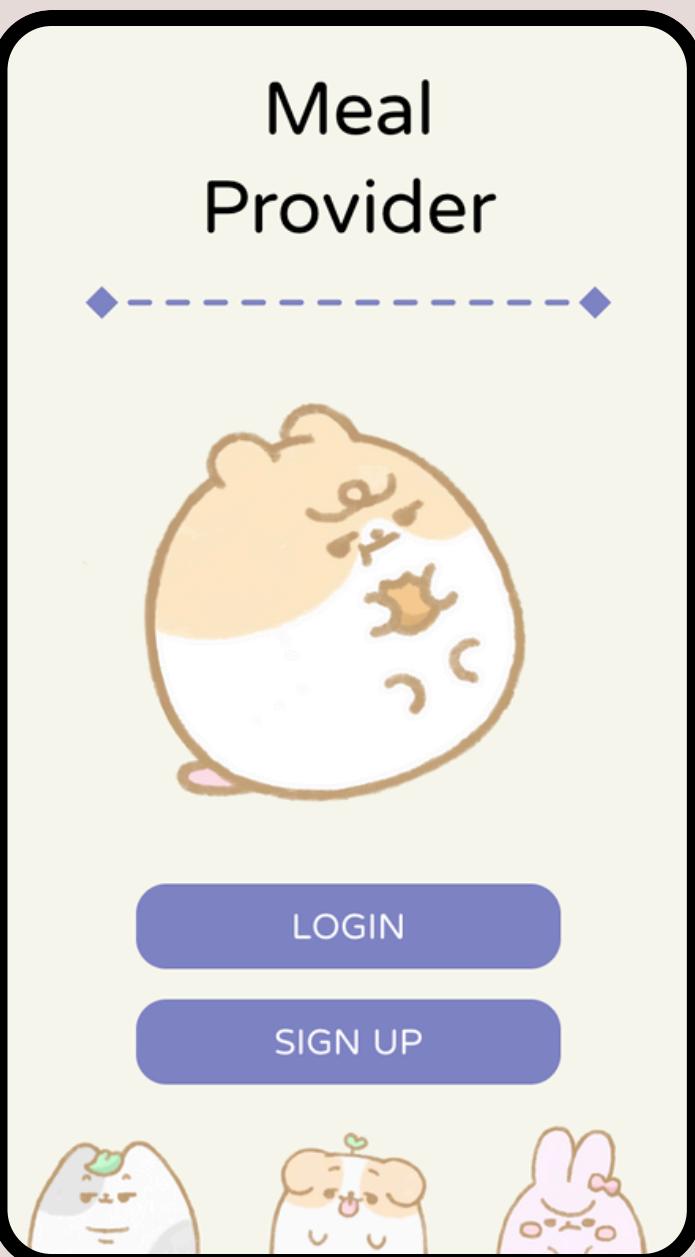


Users

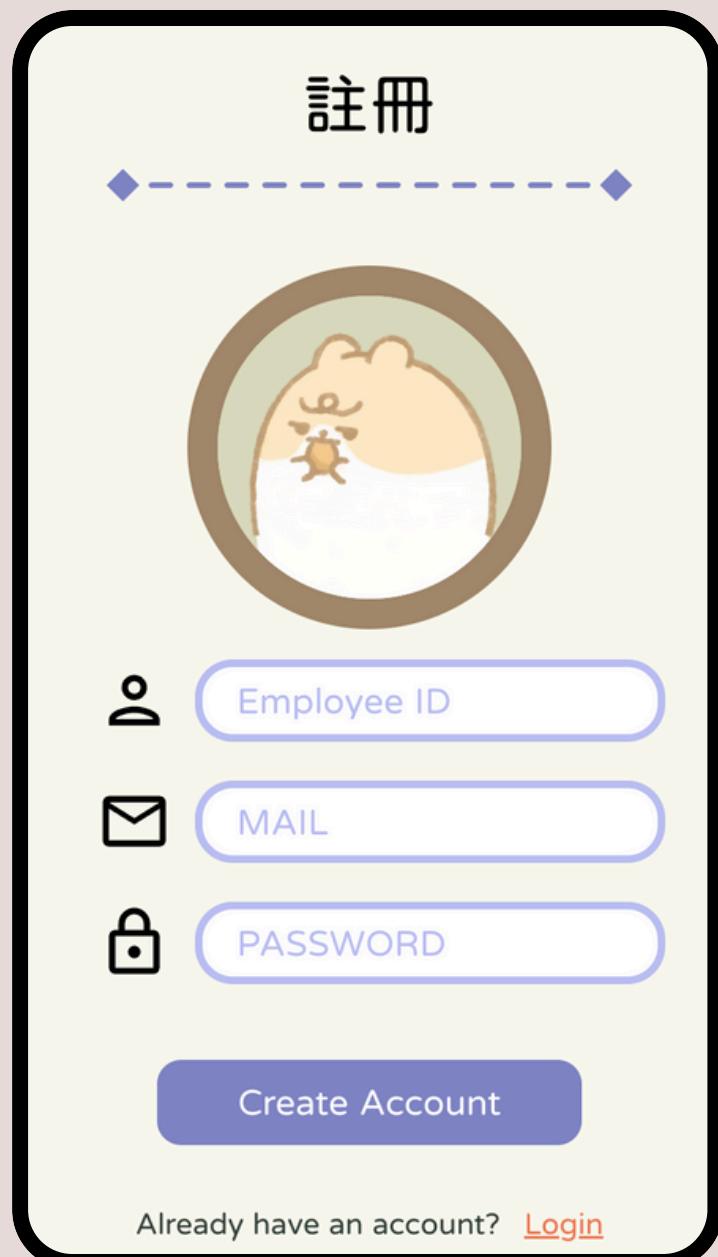
預先點餐功能 點餐更快速方便
可對餐廳與餐點評分 向店家回饋
可參考餐點評分與照片點餐
APP 顯示消費紀錄 週/月為單位
可由郵件了解上月訂單紀錄與總金額

#0 註冊與登入

初始畫面



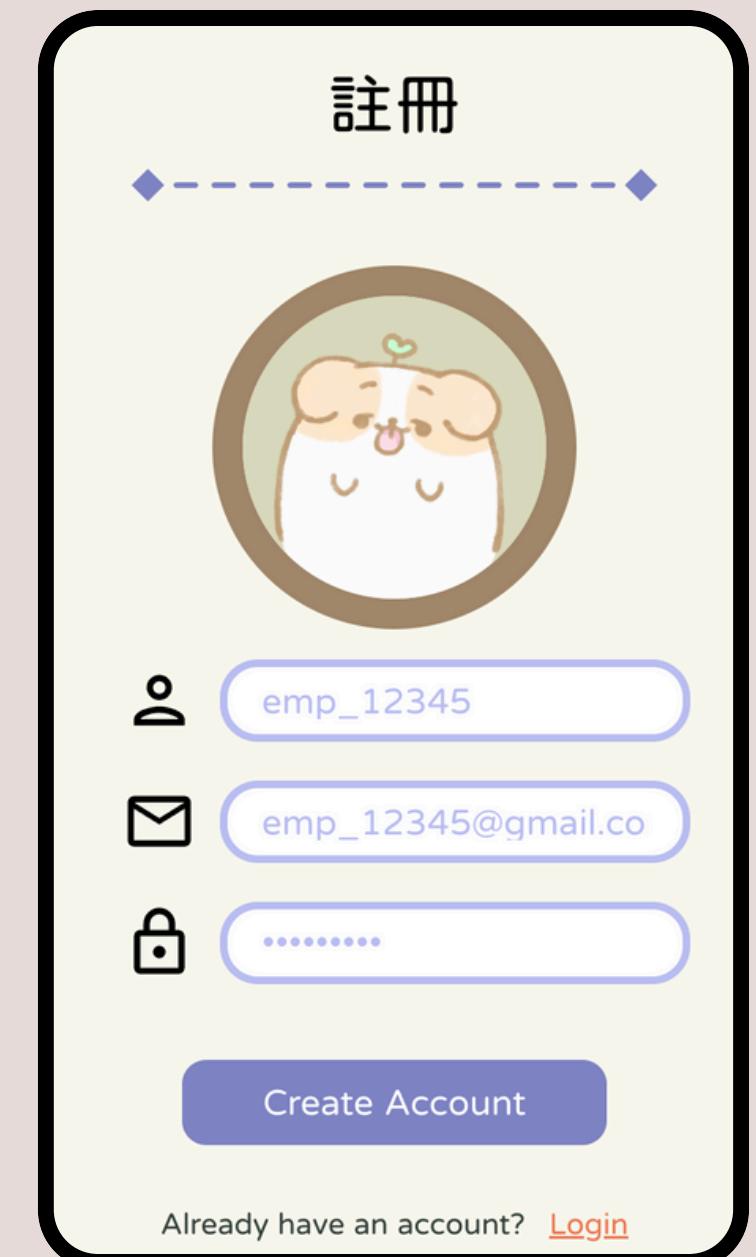
註冊



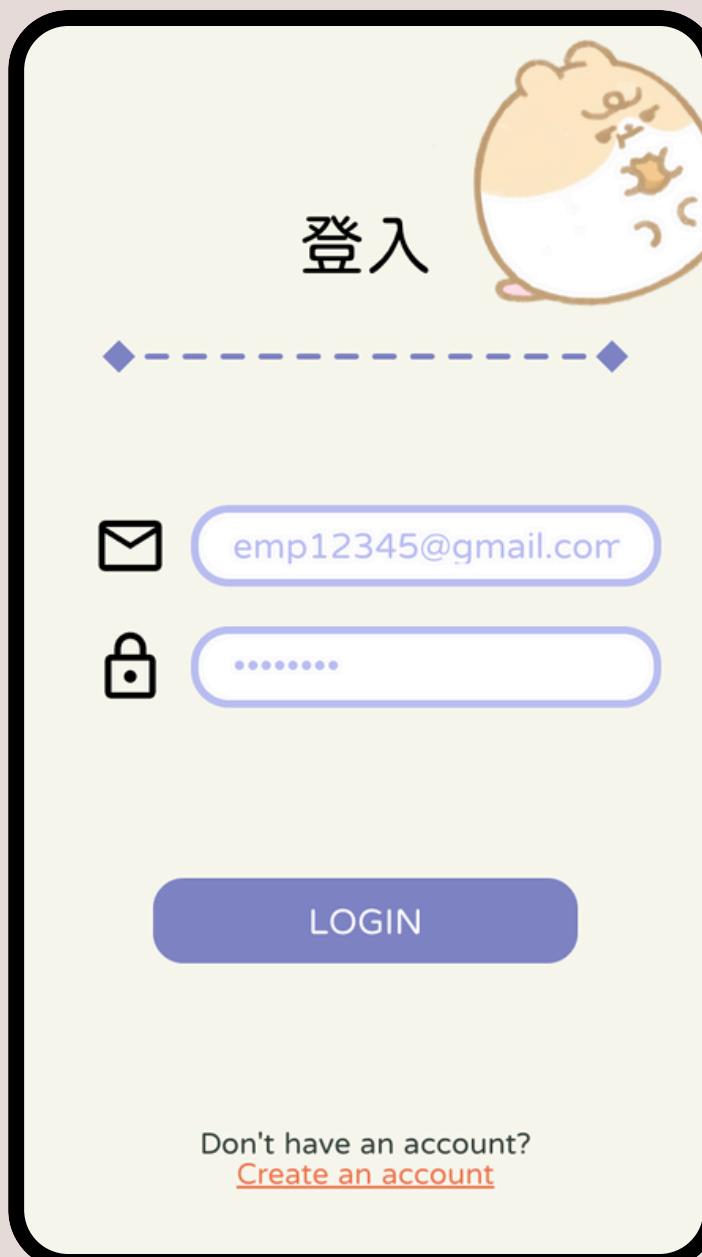
選擇頭貼



輸入註冊資訊



登入畫面



#1 點餐流程 (User)



#2 點餐流程 (Shop)



直接出示 QR code

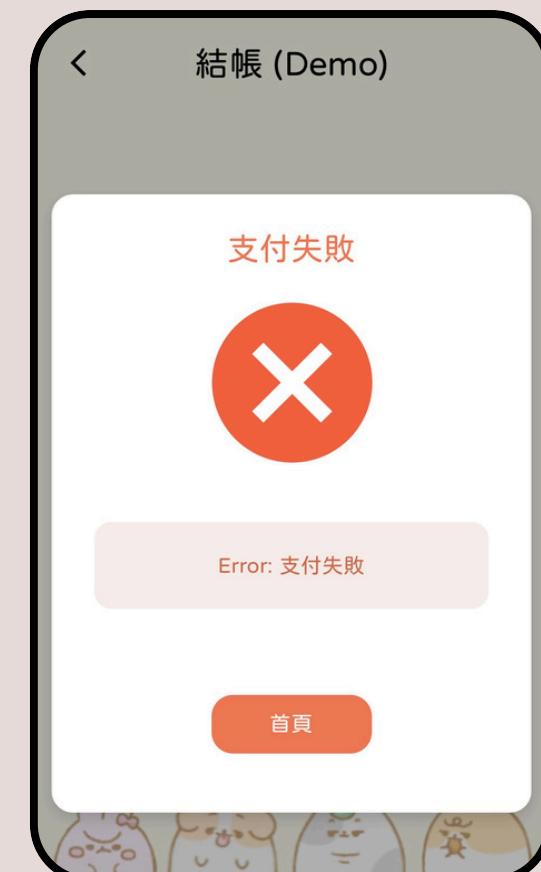


User

店家使用 Pos 機點餐



Shop



#3 餐廳&餐點評分系統

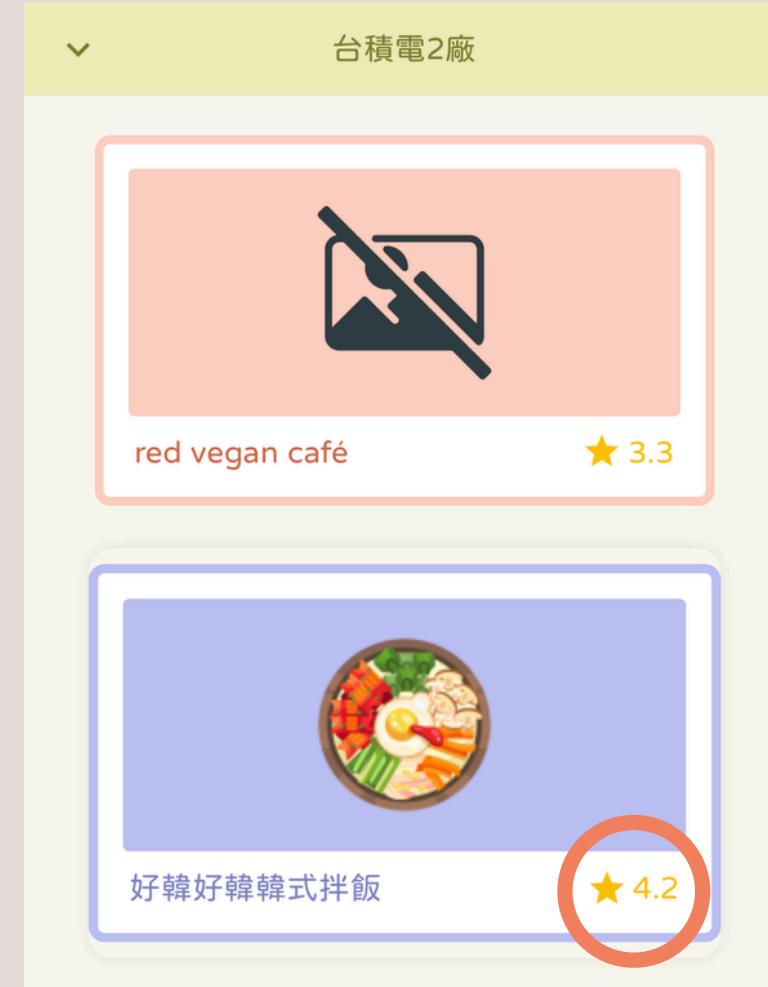
店家評分



餐點評分



即時更新評分結果



#4 介面細節介紹 (1)

使用顏色分類店家類型



切換地點



使用顏色分類訂單



主食

其他

#4 介面細節介紹 (2)

個人主頁



消費紀錄



Demo - user端點餐

User



Shop



Demo - shop端點餐

User



結帳

台積電2廠

Shop



Demo - 調整餐點



A screenshot of a food delivery app interface. At the top, it says "台積電2廠". Below that is a purple rounded rectangle containing a circular image of a colorful dish (likely bibimbap) and the text "好韓好韓韓式拌飯". To the right of the dish is a yellow star icon with the number "4.4". At the bottom of this section is a blue "退出" (Logout) button. At the very bottom of the screen is a navigation bar with three items: "訂單" (Orders), "掃描" (Scan), and "帳號" (Account). The "掃描" item is highlighted with a green background.

Shop



Demo user 帳號頁面

User

台積電3廠



emp_001

登出

6/3
\$815



日期	金額
5/28	\$815
5/29	\$815
5/30	\$815
5/31	\$815
6/1	\$815
6/2	\$815
6/3	\$815

本月累積金額

首頁 訂單 帳號



Demo - Admin 管理與信件

Admin



< 5月 >

搜尋員工 ID 🔍

未支付 已支付

emp_001	未支付
\$900	
emp_002	已支付
\$0	
emp_003	已支付
\$0	
admin	已支付
\$0	

172.20.10.3

User

2025 年 5 月 台積電員工餐廳 帳單提醒 – 員工 emp_001 ➤ 收件匣 ☆

ting0602.cs13 下午 8:07 😊 ...

👤 寄給我

員工餐廳繳費提醒

親愛的員工 emp_001 您好，
以下為您在 2025 年 5 月的訂餐賒帳資訊：
本月賒帳總金額：900 元
請您於收到此信後，儘快前往公司帳務系統完成繳費流程，謝謝您的配合！

本月訂餐消費明細如下：

- [2025/05/29 09:56] Red Vegan Café
 - Spicy Ramen x 2 (單價 120 元)
 - Black Coffee x 1 (單價 60 元)
- [2025/05/29 11:16] Red Vegan Café
 - Spicy Ramen x 2 (單價 120 元)
 - Black Coffee x 1 (單價 60 元)
- [2025/05/29 11:47] Red Vegan Café
 - Spicy Ramen x 2 (單價 120 元)
 - Black Coffee (s) x 1 (單價 40 元)

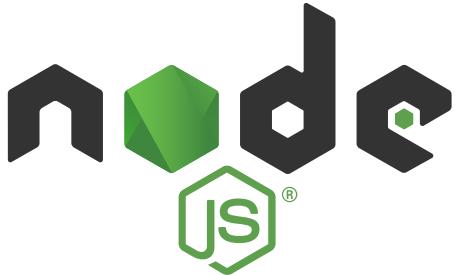
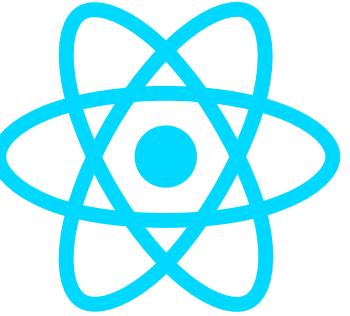
若您對金額或明細有任何疑問，請聯絡財務部。
祝工作順利，
公司財務部 敬上

* 本信件為系統自動發送，請勿直接回覆。
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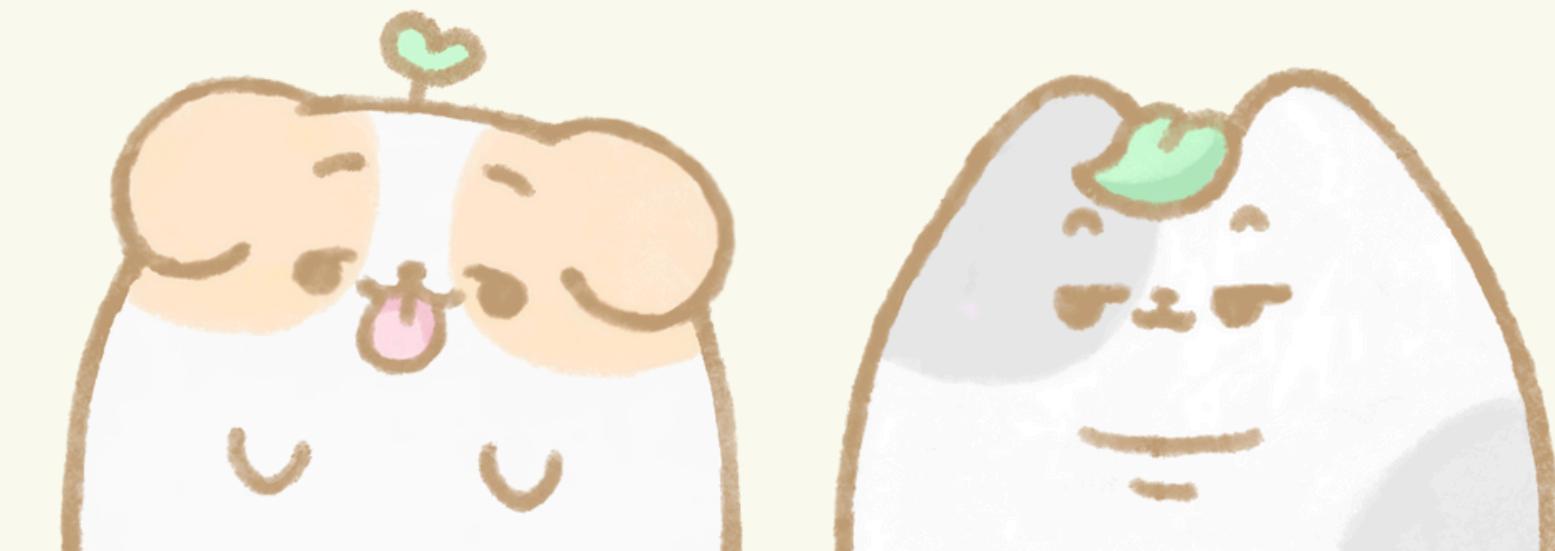
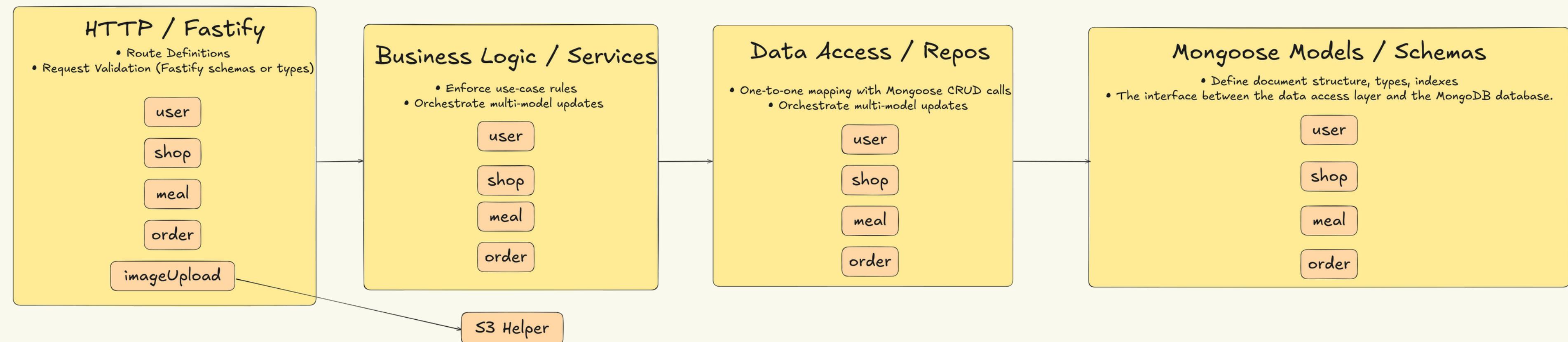
↪ 回覆 ↪ 轉寄 ✉

Architechture

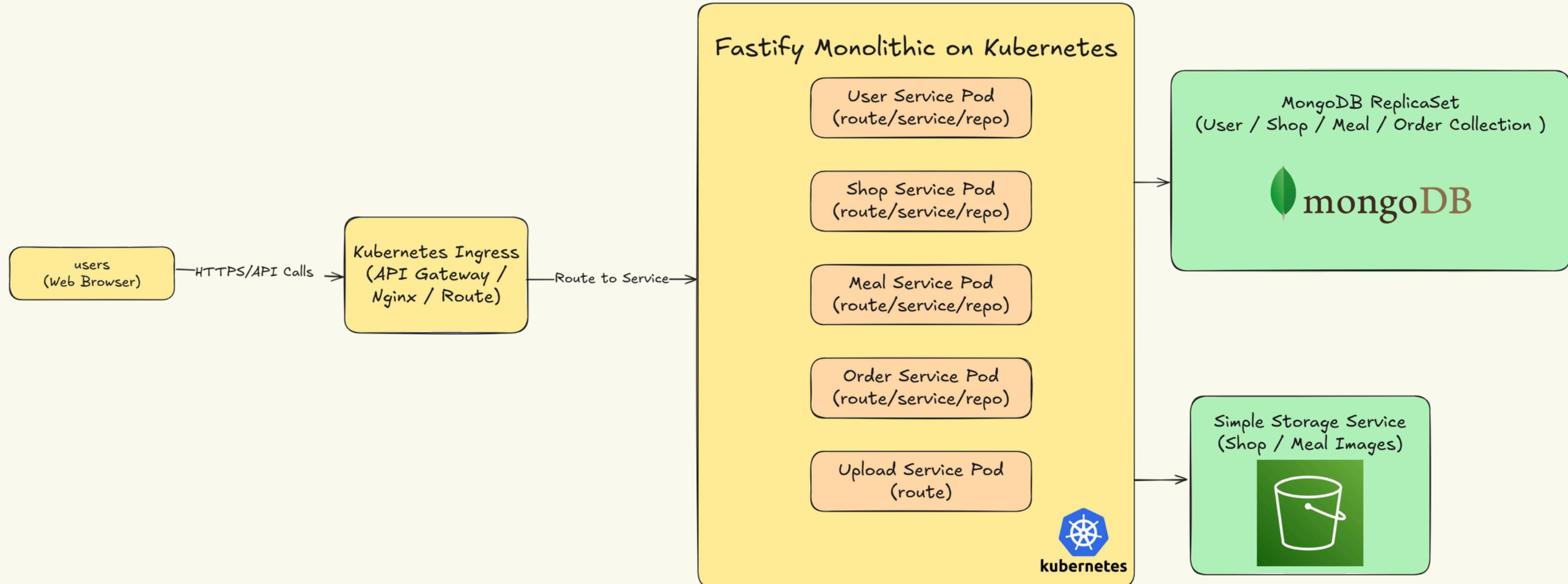
- 設計: Figma
- 前端: React + MUI
- 後端: Node.js + Fastify (含 Mongoose)
- 資料庫: MongoDB + S3
- 容器化／編排: Kubernetes
- 其他 (寄信功能): EmailJS



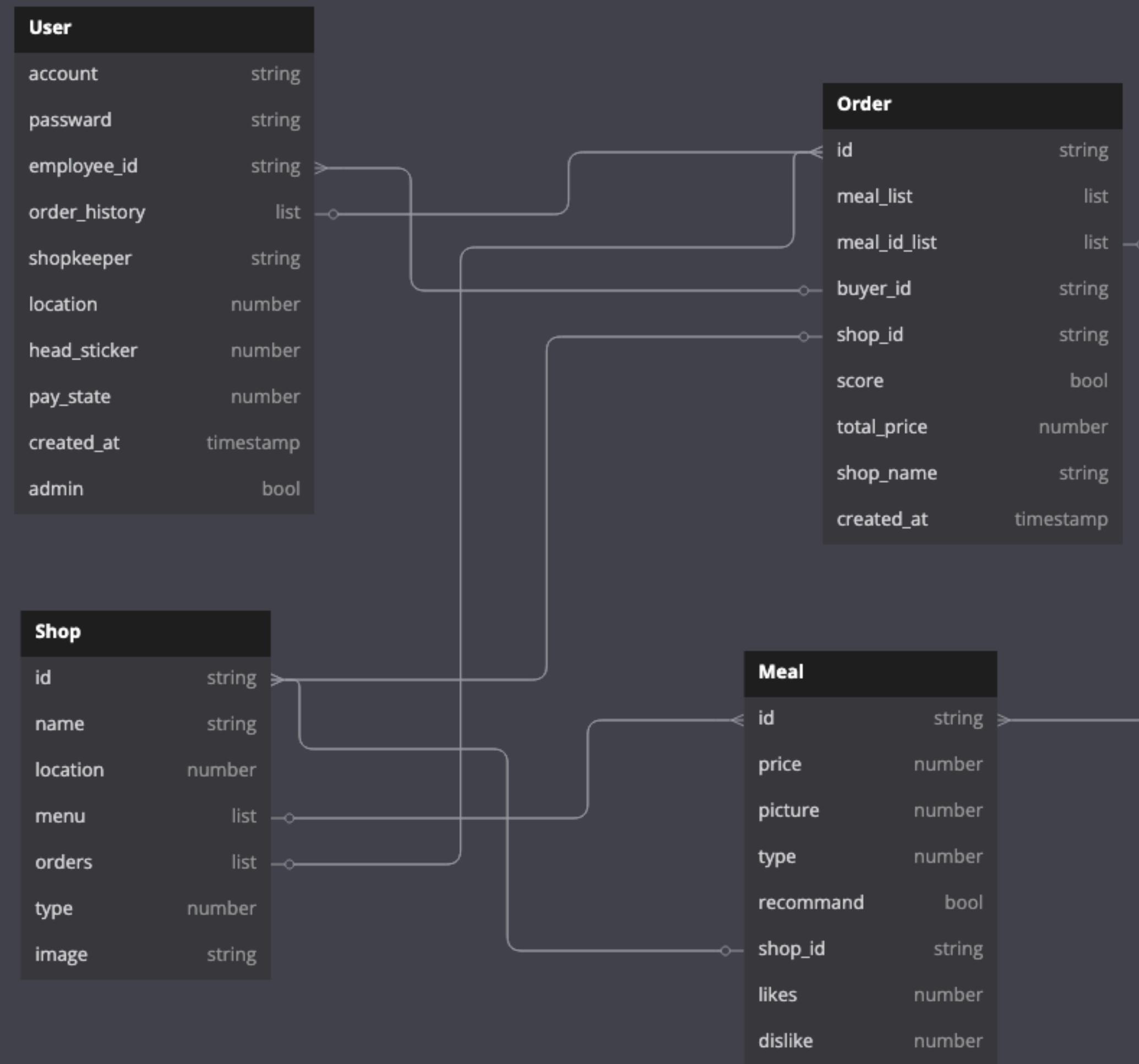
Application Architecture



System Architecture



Database Schema



K6 Loading Test - 100 Users

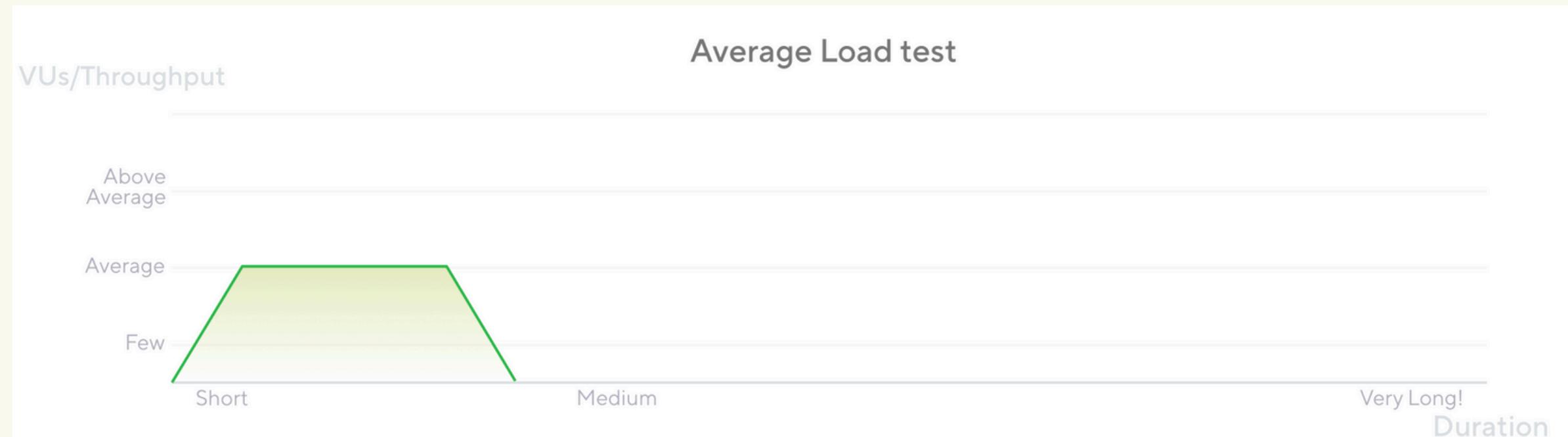
- Total Requests: 17811
- Successful Requests: 100% (17811)
- Failed Requests: 0% (0)
- Test Duration: 40 mins
- Virtual Users: Up to 1,00
- Throughput: ~7.41 requests/sec
- High Latency (Successful Req.):
 - Avg: 10.87 s
 - P95: 24.4 s
 - Max: 36.66 s
 - Min: 5 ms



K6 Loading Test - 1000 Users



- Total Requests: 1747616
- Successful Requests: **0.29%** (5,231)
- Failed Requests: **99.70%** (1,742,385)
- Test Duration: 40 mins
- Virtual Users: Up to 1,000
- Throughput: ~727 requests/sec
- High Latency (Successful Req.):
 - Avg: 15.08s
 - P95: 52.04s
 - Max: 59.97s



K6 Loading Test

Metric	Value	Interpretation
http_req_duration	avg=201.76ms, p(95)=4.3ms	Most requests complete quickly (<5ms), but some take very long (see below).
expected_response	avg=15.08s, p(95)=52.04s	When responses are successful, they take a very long time – this indicates timeouts or extremely slow backends.
http_req_waiting	avg=200.89ms	Time to first byte (TTFB) – reflects server processing delay.
http_req_connecting	avg=6.76μs	Very low – network is fast. No issues there.

Unit Tests - Backend

```
Test Files  6 passed (6)
Tests      60 passed (60)
Start at   23:41:59
Duration   3.63s (transform 96ms, setup 1.64s, collect 142ms, tests 742ms, environment 1ms, prepare 238ms)
```

% Coverage report from v8

File	% Stmt	% Branch	% Func	% Lines	Uncovered Line #s
All files	88.66	82.08	97.05	88.66	
models	100	100	100	100	
meal_shop.ts	100	100	100	100	
order.ts	100	100	100	100	
shop.ts	100	100	100	100	
user.ts	100	100	100	100	
plugins	66.66	100	0	66.66	
mongodb.ts	66.66	100	0	66.66	4
repo	93.33	81.57	100	93.33	
meal_shop.ts	100	100	100	100	
order.ts	93.54	87.5	100	93.54	29-30
shop.ts	100	100	100	100	
user.ts	91.72	64.7	100	91.72	37-38,71-72,118-119,137-138,151-153
routes	80.43	75.75	100	80.43	
meal_shop.ts	100	100	100	100	
order.ts	78.4	54.54	100	78.4	58-59,61-63,81-83,96-97,99-102,105-107,121-122,124-126,142-143,145-147
shop.ts	100	100	100	100	
upload.ts	40	100	100	40	10-25
user.ts	75.86	64.1	100	75.86	34-36,55-57,68-70,82-84,106-108,127-129,147-149,163-166,168-170,191-194,197-201,230-236,257-261,276-282
services	98.75	100	96.42	98.75	
meal_shop.ts	100	100	100	100	
order.ts	100	100	100	100	
shop.ts	100	100	100	100	
user.ts	97.29	100	91.66	97.29	17-18

Unit Tests - Frontend

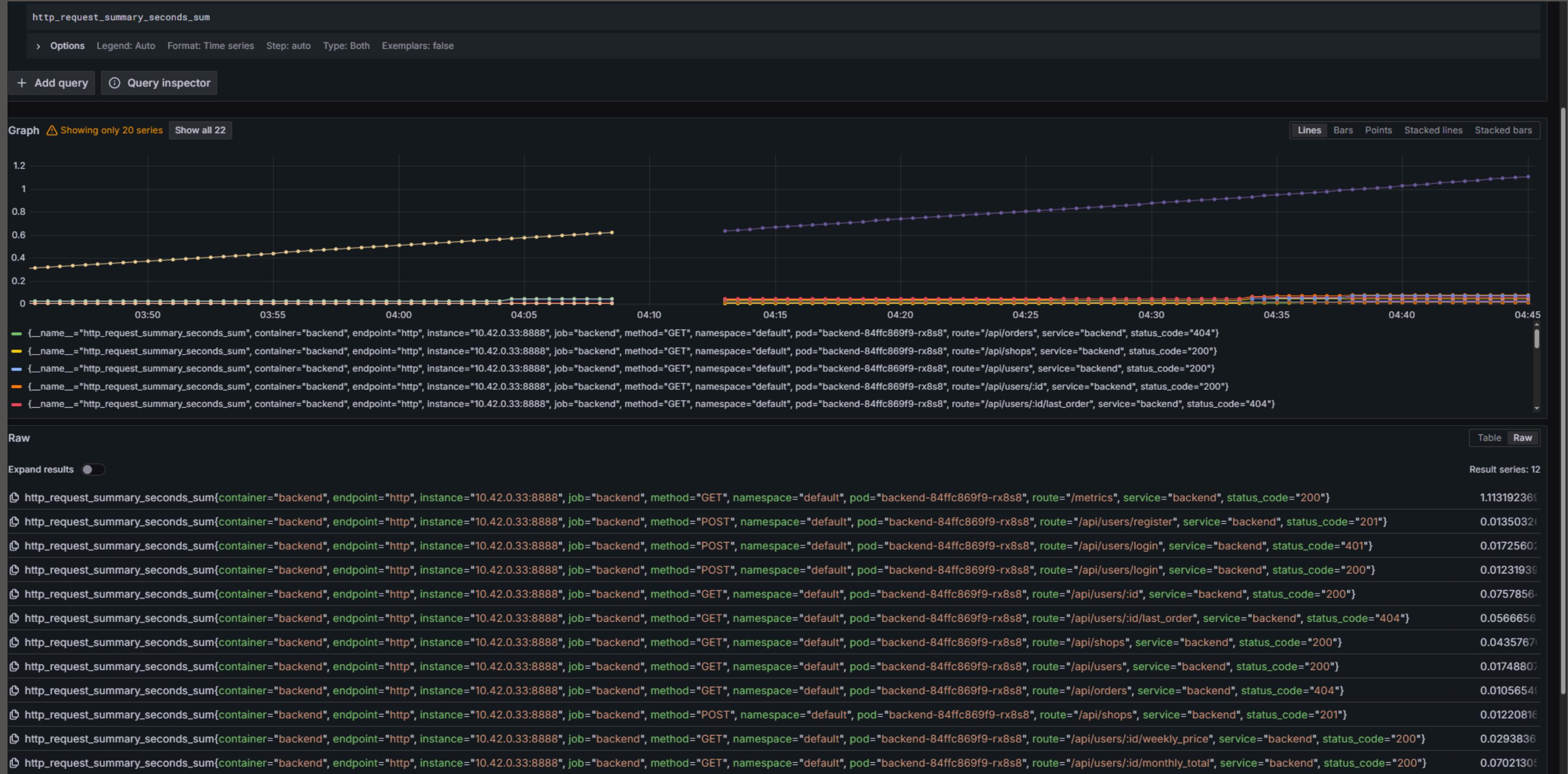
使用 Vitest (api / hooks / components)

```
✓ src/components/AdminPage/AdminPage.test.tsx (8 tests) 192ms
✓ src/hooks/useUser.test.tsx (4 tests) 228ms
✓ src/components/CommonComponents/InputField/InputField.test.tsx (5 tests) 63ms
✓ src/components/CommonComponents/ShopInfoCard/ShopInfoCard.test.tsx (5 tests) 50ms
✓ src/api/index.test.ts (4 tests) 2ms
✓ src/components/CommonComponents/BackHeader/BackHeader.test.tsx (2 tests) 61ms
✓ src/utils.test.ts (3 tests) 28ms
✓ src/components/CommonComponents/Header/Header.test.tsx (4 tests) 156ms

Test Files 19 passed (19)
Tests 100 passed (100)
Start at 00:11:41
Duration 4.91s (transform 347ms, setup 1.61s, collect 7.03s, tests 2.47s, environment 4.45s, prepare 887ms)

PASS Waiting for file changes...
press h to show help, press q to quit
```

Monitoring





Q & A

Group 21

