

(12.5%) Web Programming 2N 期中上機考 1 -- 開放網路

2023-11-08, at E201

Note:

1. 請不要發揮同學愛，作弊雙方除了本次考試 0 分外，平常分數另扣 20 分。
2. iClass 上請繳交 mid1_xx.md, mid1_xx.pdf，還有 client_mid1_xx.zip, server_mid1_xx.zip, w09_mid1_xx.zip (node_module 請移除，如有需要，移除 /public/img 下所有圖片)
3. 老師將題目提供在 w09_mid1_xx.md 檔上，要實作的部分放在 mid1_htc.pdf 上，請依照老師實作的圖片在你自己的 Github repo, Supabase, Vercel 上實作
4. 每一張圖片要有機房左側背景，要有你的學號，圖片標註要跟老師所標註的類似。違者會依情節扣分。
5. 請自評分數，將每一題的 ? 填入分數，沒有填者，不會批改，以 0 分計算。

Your (Name, ID): (何書維, 209410124)

P1 (30%) -- 基本題

- P1-1 (6%): 6 分
- P1-2 (6%): 6 分
- P1-3 (6%): 6 分
- P1-4 (6%): 6 分
- P1-5 (6%): 6 分

P2(40%) -- Backend: Supabase, pgAdmin

- P2-1 (6%): 6 分
- P2-2 (6%): 6 分
- P2-3 (10%): 6 分
- P2-4 (6%): 6 分
- P2-5 (6%): 6 分
- P2-6 (6%): 6 分

P3 (30%) -- Frontend: React

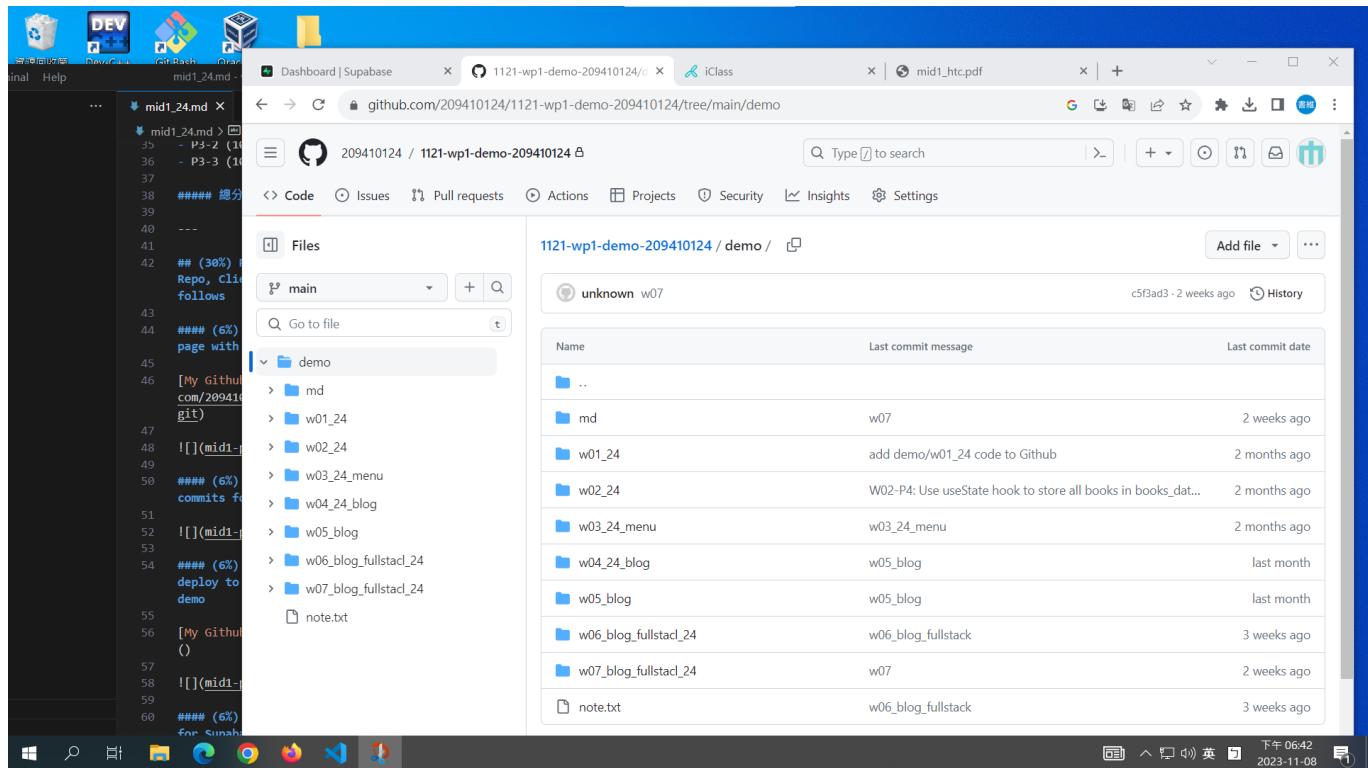
- P3-1 (10%): 10 分
- P3-2 (10%): ? 分
- P3-3 (10%): ? 分

總分: 86 分

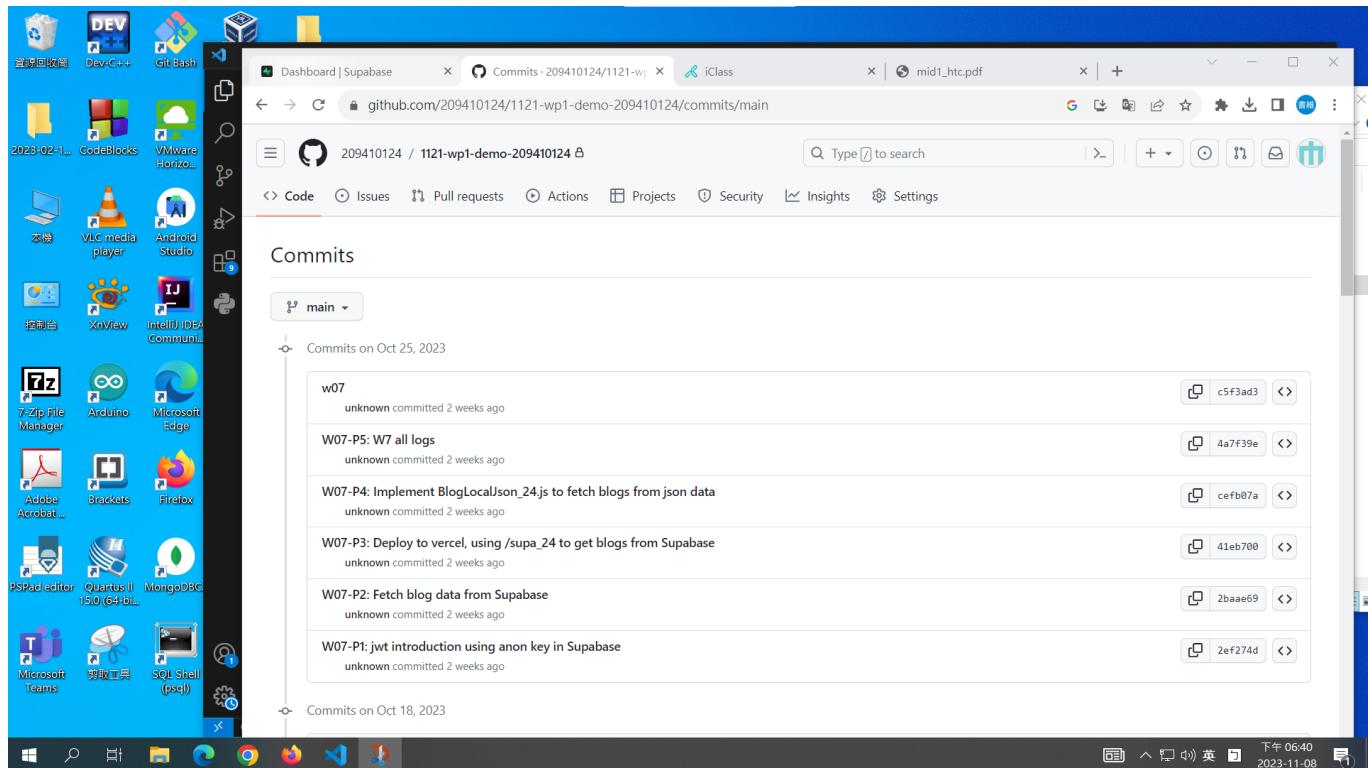
(30%) P1: Show Info of Your Github Repo, Client Supa Github, Vercel as follows

(6%) P1-1: Show Your Github Repo page with all class demos

My Github Repo URL

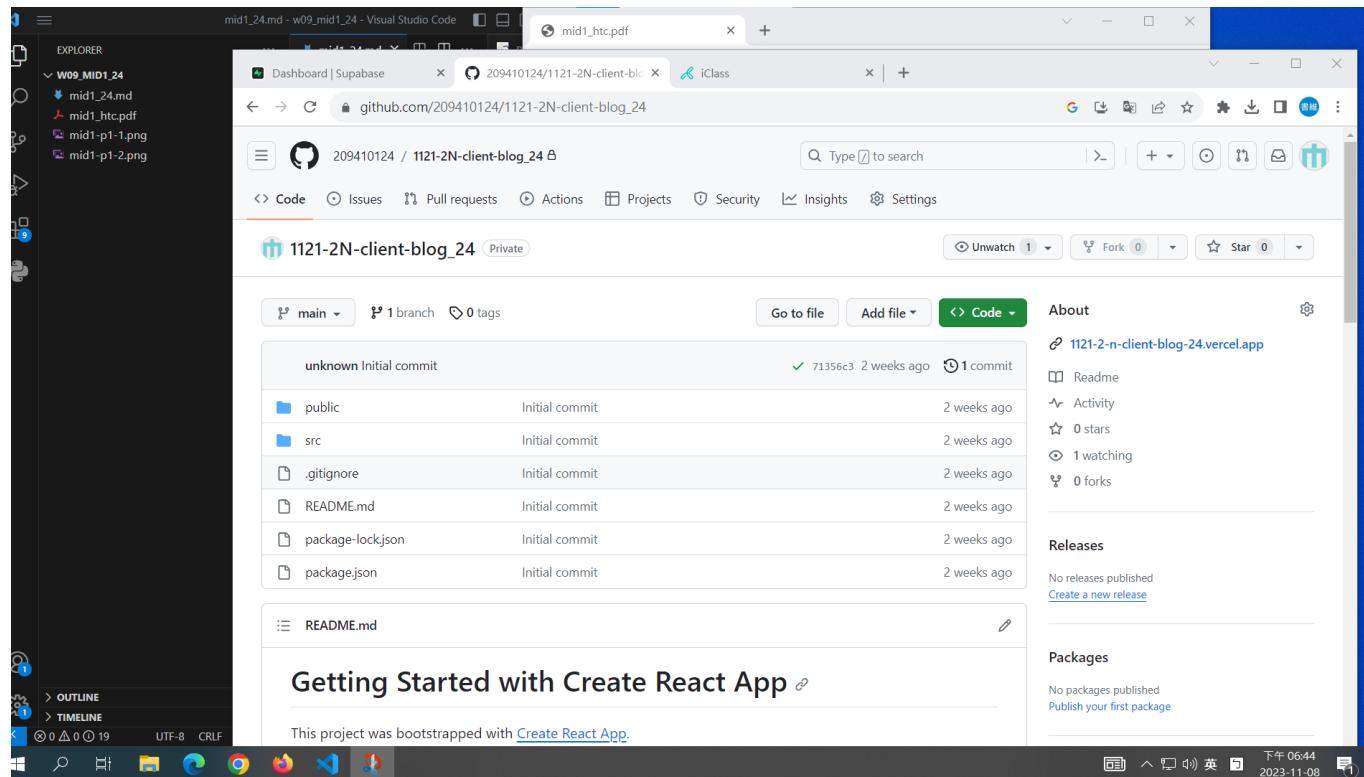


(6%) P1-2: Show Your Github commits for week 7



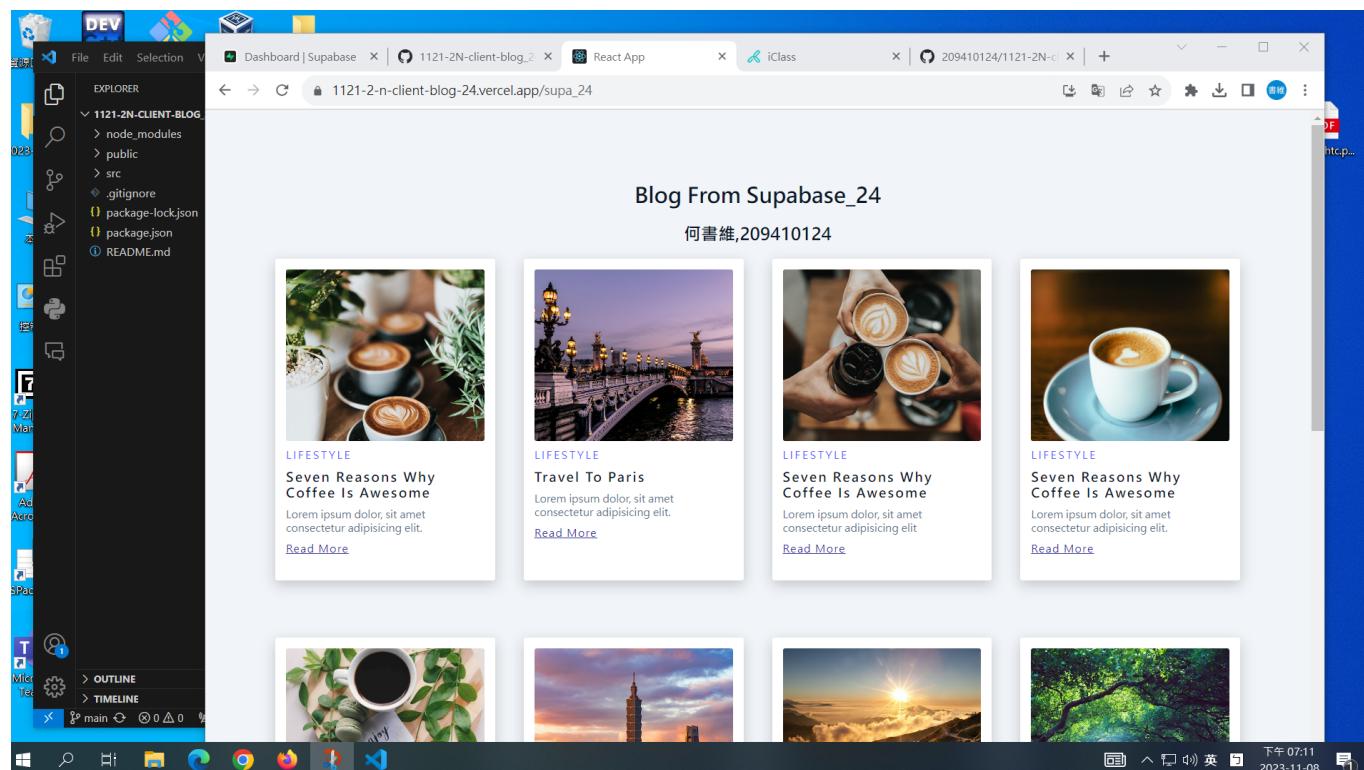
(6%) P1-3: Show Your Github URL, deploy to Vercel for Supabase blog demo

My Github URL for Supabase blog demo

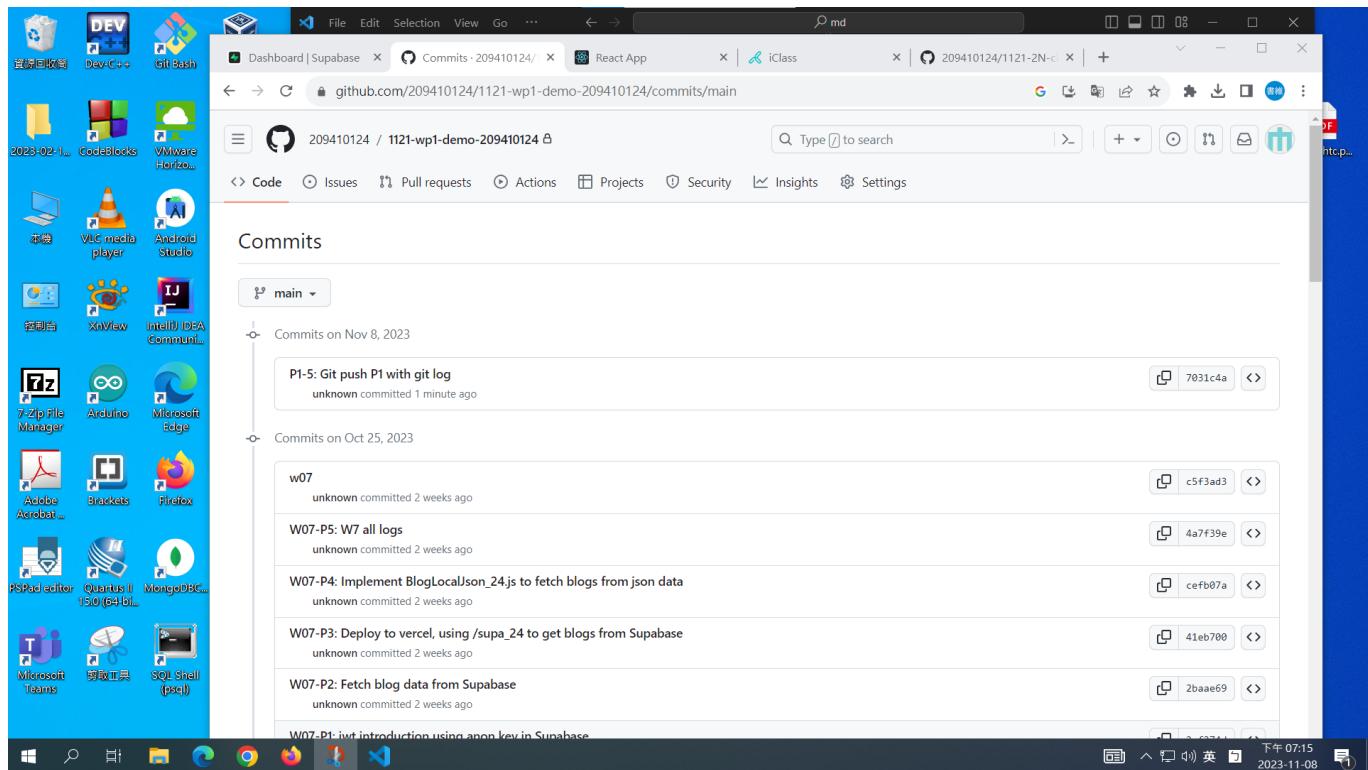


(6%) P1-4: Show Your Vercel page for Supabase blog demo, with route /supa_24

My Vercel URL for Supabase blog demo



(6%) P1-5: Git push P1 with git log



```
git log --pretty=format:"%h%x09%an%x09%ad%x09%s" --after="2023-11-07"
```

```
7031c4a unknown Wed Nov 8 19:13:27 2023 +0800 P1-5: Git push P1 with git log
```

(40%) P2: Backend: Node using Supabase & pgAdmin

(6%) P2-1: Show connection info in Supabase, and use pgAdmin to connect to Supabase

=> show connection info from Supabase

The screenshot shows the Supabase dashboard under the 'Database' tab. On the left sidebar, 'Database' is selected. The main area displays 'Database Settings' with 'Connection info' fields: Host (db.hsexmvemzjlqjqnfwob.supabase.co), Database name (postgres), Port (5432), User (postgres), and Password (The password you provided when you created this project). Below these are sections for 'Database password' (with a 'Reset database password' button) and a note about analytics collection. At the bottom, there's a 'Connection string' section with 'Accept', 'Opt out', and 'Learn more' buttons.

=> show how to connect to Supabase in pgAdmin

The screenshot shows the pgAdmin 4 interface. In the Object Explorer, 'Servers (1)' is expanded, and 'PostgreSQL 15' is selected. A configuration dialog for 'PostgreSQL 15' is open, showing the 'Connection' tab with the following details:

- Host name/address: db.hsexmvemzjlqjqnfwob.supabase.co
- Port: 5432
- Maintenance database: postgres
- Username: postgres
- Kerberos authentication?: Off
- Role: (empty)
- Service: (empty)

At the bottom of the dialog are 'Close', 'Reset', and 'Save' buttons.

(6%) P2-2: 在 pgAdmin 中下 SQL 指令建立 product_xx 資料

=> 在 local pgAdmin 檢視

(6%) P2-2: 在 pgAdmin 中下 SQL 指令建立 product_xx 資料

=> 在 local pgAdmin 檢視

```

CREATE TABLE product_xx (
    pid int NOT NULL PRIMARY KEY,
    name varchar(255),
    category_id int,
    price real,
    local_img_url varchar(255),
    remote_img_url varchar(255)
);

```

=> 在 Supabase 檢視

=> 在 Supabase 檢視

(10%) P2-3:

請以學號最後一碼除以 5 取餘數取得一個 category，對應到 category id 如下：

Category	category_id
1(hats)	1
2(jackets)	2
3(sneakers)	3
4(womens)	4
5(mens)	5

請實作對應 html theme 中該類的產品。舉例，如果是 4(womens)，要實作 womens.html，如果是 0，要實作 mens.html。

(10%) P2-3: 在 Supabase 下用 SQL 指令建立 product_24 資料

請以學號最後一碼除以 5 取餘數取得一個 category，對應到 category id 如下：

Category: 1(hats), 2(jackets), 3(sneakers), 4(womens), 5(mens)

請實作對應 html theme 中該類的產品。舉例，如果是 4(womens)，要實作 womens.html，如果是 0，要實作 mens.html。

以下以 hat.html 來做說明。

=> hat.html



=> 在 Supabase 下用 SQL Editor 下 SQL 指令

SQL | Supabase Commits · 209410124/11... | iClass 209410124/1121-2N-client | 新分頁 | Crown Clothing + | - | X

[+ New query](#)

Ask Supabase AI to modify your query

```

7   remote_img_url varchar(255)
8 )
9
10 INSERT INTO product_24(pid ,name,category_id,price,local_img_url,remote_img_url)
11 VALUES
12 (1,'Brown Brim',1,25,'/img/hats/brown-brim.png','https://i.ibb.co/ZYw3VTP/brown-brim.png'),
13 (2,'Blue Beanie',1,18,'/img/hats/Blue Beanie','https://i.ibb.co/ypkgK0X/blue-beanie.png'),
14 (3,'Brown Cowboy',1,35,'/img/hats/Brown Cowboy','https://i.ibb.co/qdJwmp/brown-cowboy.png'),
15 (4,'Grey Brim',1,25,'/img/hats/Grey-Brim','https://i.ibb.co/RjBLWx8/grey-brim.png'),
16 (5,'Green Beanie',1,18,'/img/hats/Green-Beanie','https://i.ibb.co/YTjw3vf/green-beanie.png'),
17 (6,'Palm Tree',1,14,'/img/hats/Palm-Tree','https://i.ibb.co/rKBvJX/palm-tree-cap.png'),
18 (7,'Red Beanie',1,18,'/img/hats/Red-Beanie','https://i.ibb.co/bLBB46Z/red-beanie.png'),
19 (8,'Wolf Cap',1,14,'/img/hats/Wolf-Cap','https://i.ibb.co/1F2nWMM/wolf-cap.png'),
20 (9,'Blue Snapback',1,16,'/img/hats/Blue-Snapback','https://i.ibb.co/X2VJP2W/blue-snapback.png')

```

Results

Success. No rows returned

=> 要能顯示 pid, category_id, price, local_img_url, remote_img_url

The screenshot shows the Supabase Table Editor interface. On the left, there's a sidebar with icons for Home, New table, Search tables, Tables (2), card_24, and product_24. The main area is titled "Table Editor" and shows a table with 9 records. The columns are: id, pid, name, category_id, price, local_img_url, and remote_img_url. The data includes various hat types like Brim, Beanie, Cowboy, and Cap, along with their prices and image URLs.

	id	pid	name	category_id	price	local_img_url	remote_img_url
1		1	Brown Brim	1	25	/img/hats/brown-brim.png	https://i.ibb.co/ZYW3VTp/brown-brim.pr
2		2	Blue Beanie	1	18	/img/hats/Blue Beanie	https://i.ibb.co/ypkgKOX/blue-beanie.pr
3		3	Brown Cowboy	1	35	/img/hats/Brown Cowboy	https://i.ibb.co/QdJwgmp/brown-cowbo
4		4	Grey Brim	1	25	/img/hats/Grey-Brim	https://i.ibb.co/RjBLWxB/grey-brim.png
5		5	Green Beanie	1	18	/img/hats/Green-Beanie	https://i.ibb.co/YTjW3vF/green-beanie.pr
6		6	Palm Tree	1	14	/img/hats/Palm-Tree	https://i.ibb.co/kBDvJX/palm-tree-cap.p
7		7	Red Beanie	1	18	/img/hats/Red-Beanie	https://i.ibb.co/bLB646Z/red-beanie.png
8		8	Wolf Cap	1	14	/img/hats/Wolf-Cap	https://i.ibb.co/tf2nWMM/wolf-cap.png
9		9	Blue Snapback	1	16	/img/hats/Blue-Snapback	https://i.ibb.co/X2VJP2W/blue-snapback

(6%) P2-4: 透過 Supabase，取得 Project URL 和 anon key

The screenshot shows the Supabase API Settings page. On the left, there's a sidebar with icons for General, Infrastructure, Integrations, Add Ons, Vault (BETA), Database, API (selected), Authentication, Storage, Edge Functions, Billing, Subscription, and Usage. The main area is titled "API Settings". It shows the "Project URL" as <https://hsexmvemzjlqjqnfwwob.supabase.co>. Below it, the "Project API keys" section shows two keys: "anon" (public) and "service_role" (secret). The "anon" key is described as safe to use in a browser if Row Level Security is enabled. The "service_role" key is described as bypassing Row Level Security.

(6%) P2-5: 解析 anon key，用 JWT secret 來確認 anon key 是正確的

eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJpc3MioiJzdXBhYmFzZSIsInJlZiI6Imhz7XhtdmVtempscWpxbmZ3d29iLiwicm9sZSI6ImFuD241LCJpYQojojE20DYyMjM5MzMzMlsImV4cCI6MjAwMTc5OTkzM30.FWyxmmVV6hxYRXFuA2AMrGFcJyWG561IQ9Sp_R5t9kc

HEADER: ALGORITHM & TOKEN TYPE

```
{
  "alg": "HS256",
  "typ": "JWT"
}
```

PAYOUT: DATA

```
{
  "iss": "supabase",
  "ref": "hexxmvemzjlqjqnfwob",
  "role": "anon",
  "iat": 1686223933,
  "exp": 2001799933
}
```

VERIFY SIGNATURE

```
HMACSHA256(
  base64UrlEncode(header) + "." +
  base64UrlEncode(payload),
  your-256-bit-eyJhbGciOiJld
) □ secret base64 encoded
```



(6%) P2-6: 透過 Supabase，取得如何呼叫讀取 product_xx 所有資料的方法

Table Editor

Tables (2)

product_24

Read rows

```
let { data: product_24, error } = await supabase
  .from('product_24')
  .select('*')
```

Read specific columns

```
let { data: product_24, error } = await supabase
  .from('product_24')
  .select('some_column,other_column')
```

Read foreign tables

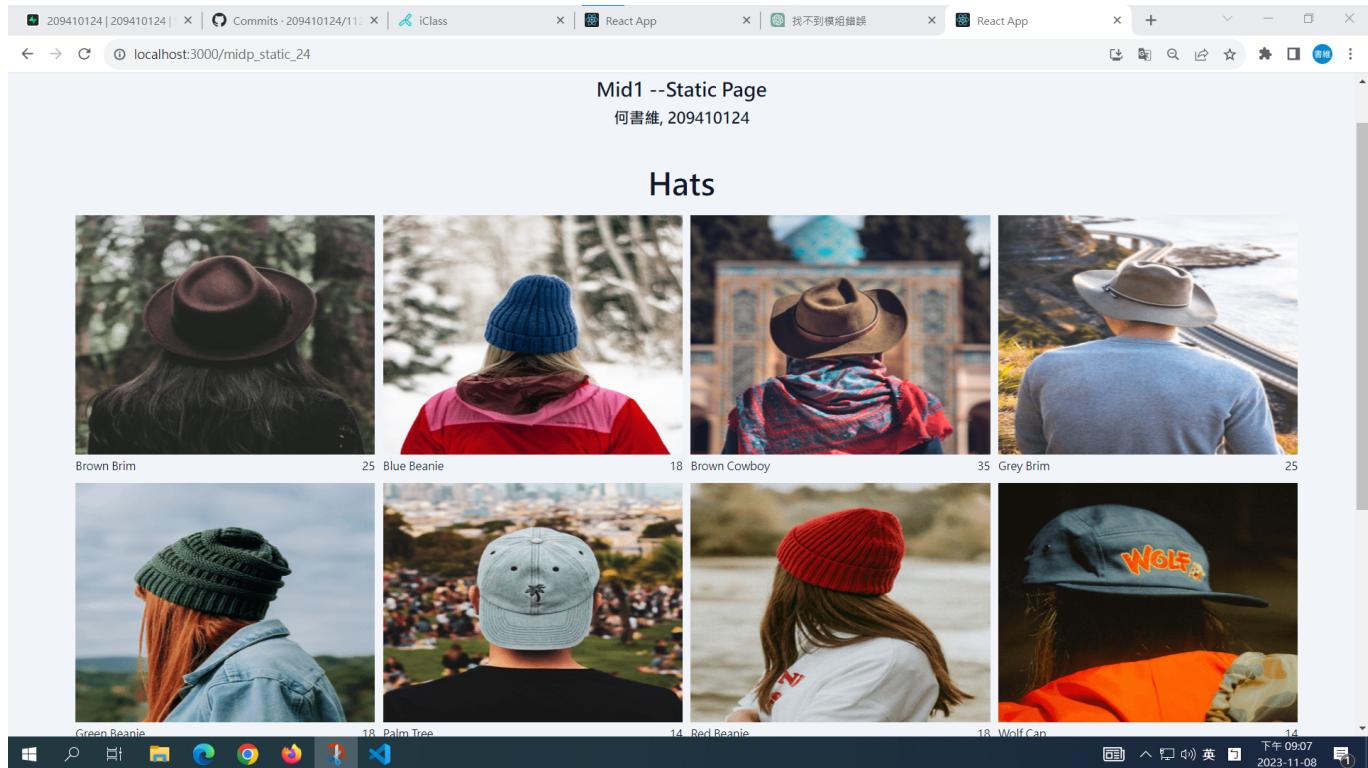
```
let { data: product_24, error } = await supabase
  .from('product_24')
  .select(`
    some_column,
    other_table (
      foreign_key
    )
  `)
```

With pagination

```
let { data: product_24, error } = await supabase
  .from('product_24')
  .select('*')
  .range(0, 9)
```

(30%) P3: React Using Supabase

(10%) P3-1: 將 P2-3 靜態頁面轉成 React 頁面，放在 `pages/mid1_xx/Mid1StaticPage_xx.js`，透過路由 `/mid1_static_xx` 可以顯示。



=> 顯示程式碼，可以看到有多少筆 product 資料 (某些 code 要內收)

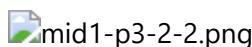
```

File Edit Selection View Go Run Terminal Help < > client_midp_24
EXPLORER JS App_xxjs JS BlogStaticPage_xxjs JS ShopStaticPage_24.js
src > pages > midp_24 > JS ShopStaticPage_24.js > JS ShopStaticPage_24.js
4   <div class="section-title">
5     <h2>Mid1 --Static Page</h2>
6     <h3>何書維, 209410124</h3>
7   </div>
8   <div class="shop-page">
9     <div class="collection-page">
10       <h1 class="title">Hats</h1>
11       <div class="items">
12         <div class="collection-item">
13           
14           <div class="collection-footer">...
15           <button class="custom-button">Add to Cart</button>
16         </div>
17         <div class="collection-item">...
18       </div>
19       <div class="collection-item">...
20     </div>
21     <div class="collection-item">...
22   </div>
23   <div class="collection-item">...
24   </div>
25   <div class="collection-item">...
26   </div>
27   <div class="collection-item">...
28   </div>
29   <div class="collection-item">...
30   </div>
31   <div class="collection-item">...
32   </div>
33   <div class="collection-item">...
34   </div>
35   <div class="collection-item">...
36   </div>
37   <div class="collection-item">...
38   </div>
39   <div class="collection-item">...
40   </div>
41   <div class="collection-item">...
42   </div>
43   <div class="collection-item">...
44   </div>
45   <div class="collection-item">...
46   </div>
47   <div class="collection-item">...
48   </div>
49   <div class="collection-item">...
50   </div>
51   <div class="collection-item">...
52   </div>
53   <div class="collection-item">...
54   </div>
55   <div class="collection-item">...
56   </div>
57   <div class="collection-item">...
58   </div>
59   <div class="collection-item">...
60   </div>
61   <div class="collection-item">...
62   </div>
63   <div class="collection-item">...
64   </div>
65   <div class="collection-item">...
66   </div>
67   <div class="collection-item">...
68   </div>
69   <div class="collection-item">...
70   </div>
71   <div class="collection-item">...
72   </div>
73   <div class="collection-item">...
74   </div>
75   <div class="collection-item">...
76   </div>
77   <div class="collection-item">...
78   </div>
79   <div class="collection-item">...
80   </div>
81   <div class="collection-item">...
82   </div>
83   <div class="collection-item">...
84   </div>
85   <div class="collection-item">...
86   </div>
87   <div class="collection-item">...
88   </div>
89   <div class="collection-item">...
90   </div>
91   <div class="collection-item">...
92   </div>
93   <div class="collection-item">...
94   </div>
95   </div>
96   </div>
97   </div>
98 </div>
PROBLEMS 19 OUTPUT DEBUG CONSOLE TERMINAL PORTS
One of your dependencies, babel/preset-react-app, is importing the "@babel/plugin-proposal-private-property-in-object" package without declaring it in its dependencies. This is currently working because "@babel/plugin-proposal-private-property-in-object" is already in your node_modules folder for unrelated reasons, but it may break at any time.
babel/preset-react-app is part of the create-react-app project, which is not maintained anymore. It is thus unlikely that this bug will ever be fixed. Add "@babel/plugin-proposal-private-property-in-object" to your devDependencies to work around this error. This will make this message go away.
powershell
bash
Ln 8, Col 28 Spaces: 2 UTF-8 CR/LF ↴ JavaScript ⚡ Go Live ⌂ Kite: ready ✅ Spell ✅ Prettier
下午 09:09 2023-11-08

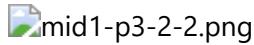
```

(10%) P3-2: 藉由 P2-6 Supabase 之存取方式，取得 product_xx 中所有資料，並透過路由 /mid1_supaproduct_xx 顯示在 pages/mid1_xx/Mid1SupaPage_xx.js 中。

=> code for fetching products data



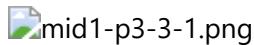
=> code for rendering products data



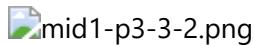
(10%) P3-3: 透過路由 /mid1_supabase_xx 到 Supabase 讀取 card_xx 中某個 category 的資料，以你的學號最後一碼對應到 card_xx 之 id，取得該筆資料的 category，如果是 0，則選 id = 1。顯示頁面是 pages/mid1_xx/Mid1Supa2Page_xx.js。

Hint: 請自行查 Supabase API doc，要如何存取符合某些欄位的資料

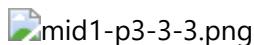
=> Supabase API doc



=> Supabase 上該 category 資料



=> 瀏覽器顯示 category 資料，要用 React DevTools Components 來顯示讀到的資料



=> code for fetching category data

