

# (10%) Web Programming 2N 期末上機考 1 - - 開放網路

2023-06-07, 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 w17\_xx.md, w17\_xx.pdf, 還有 1112-client-supabase-1234567.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 w17\_xx.md 檔案上，要實作的部分放在 w17\_xx.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): (name, id)

- 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
- P2-1 (10%): 10 分
- P2-2 (10%): 10 分
- P2-3 (10%): 10 分
- P2-4 (5%): 5 分
- P3-1 (10%): 10 分
- P3-2 (10%): 10 分
- P3-3 (10%): 10 分
- P3-4 (5%): 5 分
- 總分: ? 分

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

## (6%) P1-1: Show Your Github Repo

My Github Repo URL

The screenshot shows a GitHub repository page for 'git-billy/1112-wp2-demo-210410196'. The page includes a navigation bar with links for Pull requests, Issues, Codespaces, Marketplace, and Explore. Below the navigation is a search bar and a red box highlighting the repository name 'git-billy / 1112-wp2-demo-210410196' and its status 'Public'. The main content area displays a list of commits under the heading 'Billy w16 source'. A red box highlights the '60 commits' link. On the right side, there's an 'About' section with details like '1112-wp2-demo-210410196.vercel.app', 'Activity' (0 stars, 2 watching, 0 forks), 'Releases' (none published), 'Packages' (none published), and 'Environments' (Production environment). At the bottom, a Windows taskbar shows various open applications, and the system tray indicates the date as '2023-06-07' and time as '下午 08:14'.

## (6%) P1-2: Show Your Github commits for week 15 and 16

The screenshot shows a browser window with multiple tabs open. The active tab is a GitHub repository page for 'git-billy / 1112-wp2-demo-210410196'. A red box highlights the commit list under the 'main' branch. The commits are dated May 31, 2023, and include:

- wf6 source
- All logs of W15
- W16-P4: Display the <SingleCocktail\_xx /> page
- W16-P3: implement <SearchForm\_xx />
- Display <Home /> with searchTerm = 'a'
- W16-P1: Display the <Home /> page with 3 static cocktails

Below this, another red box highlights the commit list for 'Commits on May 25, 2023'.

## (6%) P1-3: Show Your Github SupaDemo URL

My Github SupaDemo URL

The screenshot shows a browser window with multiple tabs open. The active tab is a GitHub repository page for 'git-billy / 1112-client-sup-a-210410196'. A red box highlights the project URL in the top bar: <https://github.com/git-billy/1112-client-sup-a-210410196>. The page displays the repository's contents, including files like 'public', 'src', '.gitignore', 'README.md', 'package-lock.json', and 'package.json'. On the right side, there is an 'About' section with a red box highlighting the URL: [1112-client-sup-a-210410196.vercel.app](https://1112-client-sup-a-210410196.vercel.app). Other sections shown include 'Readme', 'Activity', 'Stars', 'Watching', 'Forks', 'Releases', 'Packages', and 'Environments'.

## (6%) P1-4: Show Your Vercel page for SupaDemo, with route /supa\_menu\_xx

My Vercel SupaDemo URL

1112-client-supabase-210410196.vercel.app/supa\_menu\_96

### Menu From Supabase Menu Table

#### Billy, 210410196

All Breakfast Lunch Dessert Shakes

<b>Buttermilk Pancakes</b> <b>15.59</b> Lorem ipsum dolor sit amet consectetur adipisicing elit. Quam dolores ut iusto quas quia dignissimos ullam.	<b>Diner Double</b> <b>13.99</b> Lorem ipsum dolor sit amet consectetur adipisicing elit. Quam dolores ut iusto quas quia dignissimos ullam. Enim voluptas, expedita
<b>Godzilla Milkshake</b> <b>6.99</b> Lorem ipsum dolor sit amet consectetur adipisicing elit. Quam dolores ut iusto quas quia dignissimos ullam. Enim voluptas, expedita	<b>Country Delight</b> <b>20.99</b> Lorem ipsum dolor sit amet consectetur adipisicing elit. Quam dolores ut iusto quas quia dignissimos ullam. Enim voluptas, expedita
<b>Egg Attack</b> <b>2.99</b>	<b>Oreo Dream</b> <b>18.99</b>

## (6%) P1-5: Git log for P1

06eb020 210410196	Wed Jun 7 20:39:01 2023 +0800	P1-4: Show Your Vercel page for SupaDemo, with route /supa_menu_xx
30af004 210410196	Wed Jun 7 20:38:38 2023 +0800	P1-3: Show Your Github SupaDemo URL
a6940af 210410196	Wed Jun 7 20:38:08 2023 +0800	P1-2: Show Your Github commits for week 15 and 16
8058ec8 210410196	Wed Jun 7 20:18:25 2023 +0800	P1: Show Info of Your Github Repo, Client Supa Github, Vercel as follows

git-billy / 1112-wp2-demo-210410196 Public

### Commits

main

Commits on Jun 7, 2023

P1: Show Info of Your Github Repo, Client Supa Github, Vercel as follows  
git-billy committed now

Commits on May 31, 2023

# (35%) P2: Supabase & Postman API testing

## (10%) P2-1: show old anon key, and new anon key

old anon key

The screenshot shows the jwt.io website interface. On the left, under 'Encoded', a red box highlights the token string: `eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJpc3M10iJzdXBhYmFzZSIsInJ1ZiI6Imh6bGx3a214aWp1b3Ficm9wbmF0Iiwicm9sZSI6ImFub24iLCJpYXQiOjE2NzY0NTg2ODYsImV4cCI6MTk5MjAzNDY4Nn0.gasAx7BiiJEZsSK1Ct2WjivgUhzFBD1CjJSDU08k2WY`. On the right, under 'Decoded', the token structure is shown:

```
HEADER: ALGORITHM & TOKEN TYPE
{
  "alg": "HS256",
  "typ": "JWT"
}

PAYLOAD: DATA
{
  "iss": "supabase",
  "ref": "hllwkixijuqbropnat",
  "role": "anon",
  "iat": 1676458686,
  "exp": 1992034686
}

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

A red box also highlights the error message '⊗ Invalid Signature' at the bottom left. A blue button labeled 'SHARE JWT' is at the bottom right.

## new anon key by generating a new JWT secret

The screenshot shows the jwt.io interface. On the left, under 'Encoded', a long string of characters is pasted into a red-bordered input field. On the right, under 'Decoded', the token's structure is shown in JSON format. The 'VERIFY SIGNATURE' section contains the HMACSHA256 formula and the base64-encoded signature, also highlighted with a red box. A large red box surrounds the entire 'Signature Verified' message at the bottom.

Encoded PASTE A TOKEN HERE

```
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJpc3Mi0iJzdXBhYmFzZSIssInJlZiI6Imh6bGx3a214awP1b3Ficm9wbnF0iwiwcm9sZSI6ImFu24iLCJpYXQiOjE2NzY0NTg20DysImV4cCI6MTk5MjAzNDY4Nn0.1cFPE_cZ8zbsncXqkRLfvCL9Ah-VU6Xwv7vZGTHbaRA
```

Decoded EDIT THE PAYLOAD AND SECRET

```
{ "alg": "HS256", "typ": "JWT" }  
{ "iss": "supabase", "ref": "hzllwkixijuoqbropnat", "role": "anon", "iat": 1676458686, "exp": 1992834686 }
```

HEADER: ALGORITHM & TOKEN TYPE  
PAYLOAD: DATA  
VERIFY SIGNATURE  
HMACSHA256(  
base64UrlEncode(header) + . +  
base64UrlEncode(payload),  
eyJhbGciOiJIUzI1NiIsI  
secret base64 encoded

Signature Verified

SHARE JWT

The screenshot shows the Supabase dashboard under the 'Settings' tab. The 'API' section is selected. A red box highlights the URL in the browser's address bar: 'supabase.com/dashboard/project/hzllwkixijuoqbropnat/settings/api'. In the 'Project API keys' section, two keys are listed: 'anon' (public) and 'service\_role' (secret). The 'service\_role' key is copied to the clipboard. In the 'JWT Settings' section, a 'JWT Secret' input field contains a random secret: 'VQNAHaUiWN0wjk1HLR15Dja7iGeHufdMiq'. A red box highlights the 'Generate a random secret' button. Below it, a note says 'Used to decode your JWTs. You can also use this...'. A warning message at the bottom states '⚠️ This will invalidate all existing API keys!'.

Settings / tku\_210410196

A RESTful endpoint for querying and managing your database.

Project API keys

Your API is secured behind an API gateway which requires an API Key for every request. You can use the keys below to use Supabase client libraries.

anon public eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJpc3Mi0iJzdXBhYmFzZSI

This key is safe to use in a browser if you have enabled Row Level Security for your tables and configured policies.

service\_role secret \*\*\*\* \* \*\*\*\* \* \*\*\*\*

This key has the ability to bypass Row Level Security. Never share it publicly.

JWT Settings

JWT Secret VQNAHaUiWN0wjk1HLR15Dja7iGeHufdMiq

Generate a random secret

Used to decode your JWTs. You can also use this...

Create my own secret

Generate a new secret

⚠️ This will invalidate all existing API keys!

## (10%) P2-2: Use Postman to get all menu\_xx products

Postman, old anon key, fail to get all menu\_xx products

The screenshot shows the Postman interface with a red box highlighting the request URL and method. The URL is `https://hzllwkixjuoqbropnat.supabase.co/rest/v1/menu_96?select=*`. The method is GET. Below the URL, the Headers tab is selected, showing two entries: 'apikey' and 'Authorization'. The 'apikey' value is `eyJhbGciOiJIUzI1NiIsInR5cCI6IkpxXVCJ9.eyJpc3MiOiJzdXBhYmFzZSIsInJlZi` and the 'Authorization' value is `Bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpxXVCJ9.eyJpc3MiOiJzdXBhYmFzZS|`. The response body is highlighted with a red box and contains the following JSON:

```
1 "message": "Invalid API key",
2 "hint": "Double check your Supabase 'anon' or 'service_role' API key."
3
4
```

The status bar at the bottom indicates an Unauthorized error (Status: 401 Unauthorized).

Postman, new anon key, successfully get all menu\_xx products

The screenshot shows the Postman interface with a red box highlighting the request URL and method. The URL is `https://hzllwkixjuoqbropnat.supabase.co/rest/v1/menu_96?select=*`. The method is GET. Below the URL, the Headers tab is selected, showing two entries: 'apikey' and 'Authorization'. The 'apikey' value is `eyJhbGciOiJIUzI1NiIsInR5cCI6IkpxXVCJ9.eyJpc3MiOiJzdXBhYmFzZSIsInJlZi` and the 'Authorization' value is `Bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpxXVCJ9.eyJpc3MiOiJzdXBhYmFzZS|`. The response body is highlighted with a red box and contains a list of menu items in JSON format:

```
00 {
69   "title": "Quarterline Duddy",
70   "category": "lunch",
71   "price": 13.99,
72   "img": "/menu/images/item-9.jpeg",
73   "descrip": "Lorem ipsum dolor sit amet consectetur adipisicing elit. Quam dolores ut iusto quas quia dignissimos ullam. Enim voluptas, expedita"
74 }
75 {
76   "id": 10,
77   "title": "資料狗",
78   "category": "breakfast",
79   "price": 100.25,
80   "img": "https://upload.wikimedia.org/wikipedia/en/thumb/7/7e/Datadog_logo.svg/1200px-Datadog_logo.svg.png",
81   "descrip": "datadog"
82 }
```

The status bar at the bottom indicates a successful response (Status: 200 OK).

## (10%) P2-3: Use pgAdmin to connect to Supabase, and restore category2\_xx, shop2\_xx table (no RLS)

show category2\_xx, shop2\_xx in pgAdmin

The screenshot shows the pgAdmin 4 interface. On the left, the database browser tree is visible, with two sections highlighted by red boxes: 'category2\_96' under 'Tables (8)' and 'shop2\_96' under 'Tables (8)'. In the center, a query editor window displays the following SQL code:

```
1 SELECT * FROM public.category2_96
2 ORDER BY id ASC
```

Below the query editor, a table titled 'Data Output' shows the results of the query. The table has columns: id, name, size, remote\_url, local\_url, and link\_url. The data is as follows:

id	name	size	remote_url	local_url	link_url
1	hats	[null]	https://i.ibb.co/cvpnL1/hats.png	/img/homepage/hats.png	/crown2_xx/shop_xx/hats
2	jackets	[null]	https://i.ibb.co/px2tCc3/jackets.png	/img/homepage/jackets.png	/crown2_xx/shop_xx/jackets
3	sneakers	[null]	https://i.ibb.co/0jqHpn/sneakers.png	/img/homepage/sneakers.png	/crown2_xx/shop_xx/sneakers
4	womens	large	https://i.ibb.co/GCCdy8t/womens.png	/img/homepage/womens.png	/crown2_xx/shop_xx/womens
5	mens	large	https://i.ibb.co/R70vBrQ/men.png	/img/homepage/mens.png	/crown2_xx/shop_xx/mens

At the bottom of the pgAdmin window, a status bar indicates 'Total rows: 5 of 5' and 'Query complete 00:00:144'. To the right of the status bar, a message says 'Successfully run. Total query runtime: 1 secs 144 msec. 5 rows affected.'

In Postman, create a new request, and get five categories successfully

The screenshot shows the Postman application interface. A GET request is being made to the URL [https://hzllwkixjiuoqbropnat.supabase.co/rest/v1/category2\\_96?select=\\*](https://hzllwkixjiuoqbropnat.supabase.co/rest/v1/category2_96?select=*). The request is shown in the main panel, and the response body is displayed below.

The response body is a JSON array containing five objects, each representing a category:

```
[{"id": 1, "name": "hats", "size": null, "remote_url": "https://i.ibb.co/cvpnL1/hats.png", "local_url": "/img/homepage/hats.png", "link_url": "/crown2_xx/shop_xx/hats"}, {"id": 2, "name": "jackets", "size": null, "remote_url": "https://i.ibb.co/px2tCc3/jackets.png", "local_url": "/img/homepage/jackets.png", "link_url": "/crown2_xx/shop_xx/jackets"}, {"id": 3, "name": "sneakers", "size": null, "remote_url": "https://i.ibb.co/0jqHpn/sneakers.png", "local_url": "/img/homepage/sneakers.png", "link_url": "/crown2_xx/shop_xx/sneakers"}, {"id": 4, "name": "womens", "size": "large", "remote_url": "https://i.ibb.co/GCCdy8t/womens.png", "local_url": "/img/homepage/womens.png", "link_url": "/crown2_xx/shop_xx/womens"}, {"id": 5, "name": "mens", "size": "large", "remote_url": "https://i.ibb.co/R70vBrQ/men.png", "local_url": "/img/homepage/mens.png", "link_url": "/crown2_xx/shop_xx/mens"}]
```

The Postman interface includes tabs for Body, Cookies, Headers, and Test Results. The Headers tab shows 'apikey' and 'Authorization' headers with their respective values. The Body tab shows the raw JSON response. The status bar at the bottom of the screen indicates 'Status: 200 OK' and 'Time: 792 ms'.

## (5%) P2-4: In Postman, get shop2\_xx table (no RLS) with cat\_id=x (last digit of your ID % 5)

show all shop2\_xx products with cat\_id = 4 (in my case)

The screenshot shows the Postman interface with a red box highlighting the request details and the response body.

**Request Details:**

- Method: GET
- URL: https://hzllwkixjiuoqbrc.supabase.co/rest/v1/shop2\_96?select=\*
- Headers:
  - apikey: eyJhbGciOiJIUzI1NiIsInR5cCI6IkpxVCJ9.eyJpc3MiOiJzdXBhYmFzZSIsInJiIi
  - Authorization: Bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpxVCJ9.eyJpc3MiOiJzdXBhYmFzZSIsInJiIi

**Response Body:**

```
1:   "id": 14,
2:   "name": "Blue Snapback",
3:   "cat_id": 1,
4:   "price": 16,
5:   "remote_url": "https://i.ibb.co/X2VJP2W/blue-snapback.png",
6:   "local_url": "/img/hats/blue-snapback.png"
7:
8:   {
9:     "id": 15,
10:    "name": "Black Jean Shearling",
11:    "cat_id": 2,
12:    "price": 125,
13:    "remote_url": "https://i.ibb.co/XzcwL5s/black-shearling.png",
14:    "local_url": "/img/hats/black-shearling.png"
15:  }
```

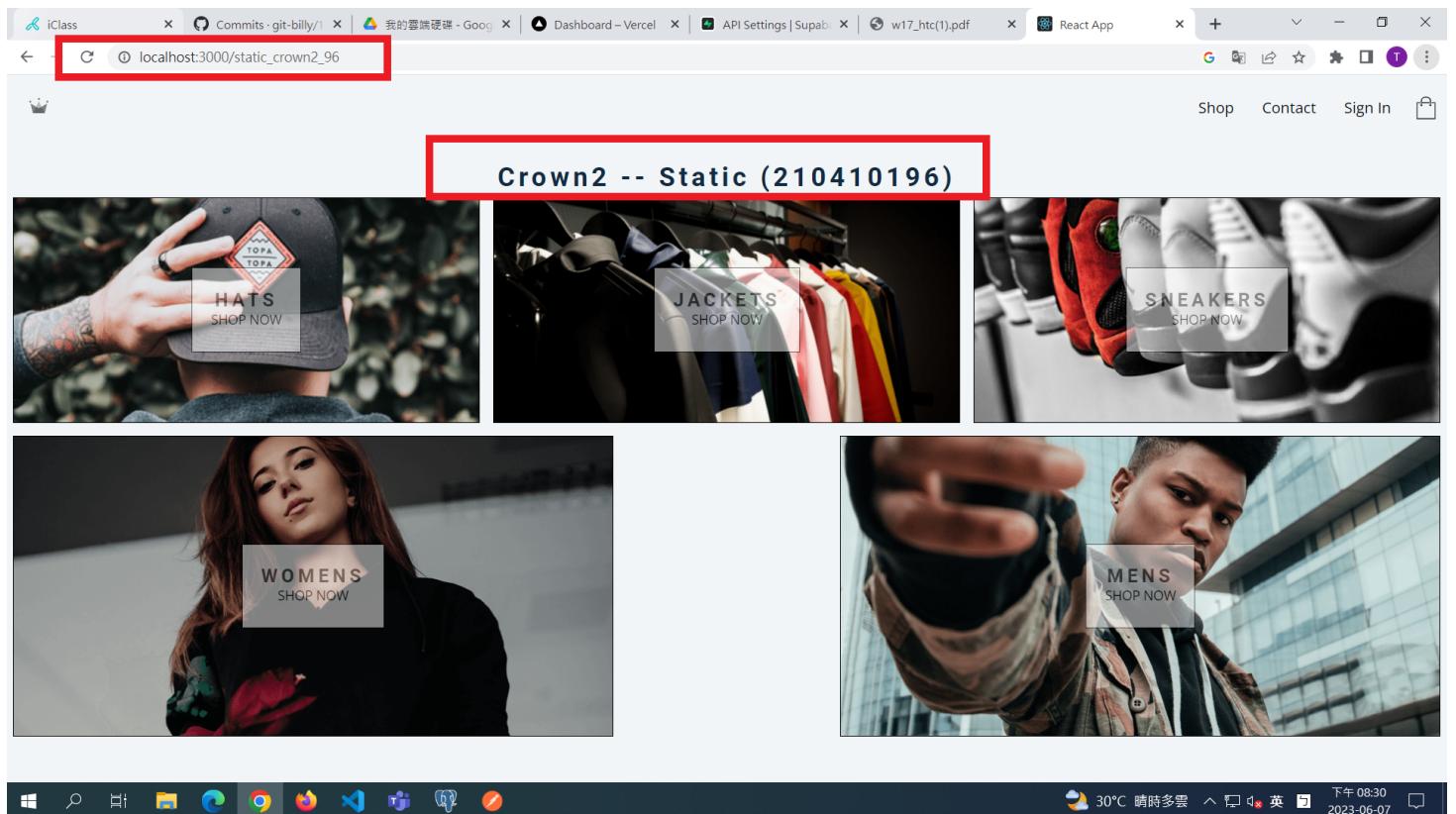
## (5%) Git log for P2

remember to git log for P2

d8240da 210410196	Wed Jun 7 20:44:13 2023 +0800	P2-4: In Postman, get shop2_xx table (no RLS) with cat_id=x (last digit of your ID % 5)
c461ff5 210410196	Wed Jun 7 20:43:14 2023 +0800	P2-3: Use pgAdmin to connect to Supabase, and restore cat
6649e7d 210410196	Wed Jun 7 20:42:52 2023 +0800	P2-2: Use Postman to get all menu_xx products
ef6ca2e 210410196	Wed Jun 7 20:42:24 2023 +0800	P2-1: show old anon key, and new anon key01~

# (35%) P3: React Using Supabase

(10%) P3-1: Show Crown2 homepage with route /static\_crown2\_xx, by converting index.html directly to CrownStaticPage\_xx.js



# Wrapper code

The screenshot shows the Visual Studio Code interface with two files open:

- Crown\_96.js**: A styled component for the main page. It includes CSS rules for the body, a header, and various links. It also contains a section for a logo container.
- CrownStaticPage\_96.js**: A static page component. It includes a navigation bar with links to 'Shop', 'Contact', and 'Sign In'. Below the navigation, there's a section for a shopping cart icon, a dropdown menu, and a list of items with details like 'Brown Cowboy' and '\$35'.

(10%) P3-2: Show Crown2 homepage with route /supa\_crown2\_xx, by fetching category data from Supabase and put them into Crown2SupaPage\_xx.js

The screenshot shows a browser window displaying the Crown2 homepage at [localhost:3000/supa\\_crown2\\_96](http://localhost:3000/supa_crown2_96). The page features a header with the text "Crown2 -- Supabase Shop2 (210410196)" and several product categories: Hats, Jackets, Sneakers, Women's, and Mens. To the right, the Chrome DevTools Components tab is open, showing the component tree for the current page. The 'Crown2SupaPage\_96' component has five children, each representing a category with a 'link\_url' prop. The DevTools also displays the 'hooks' state, which contains five entries corresponding to the categories shown on the page.

## code for fetching category data

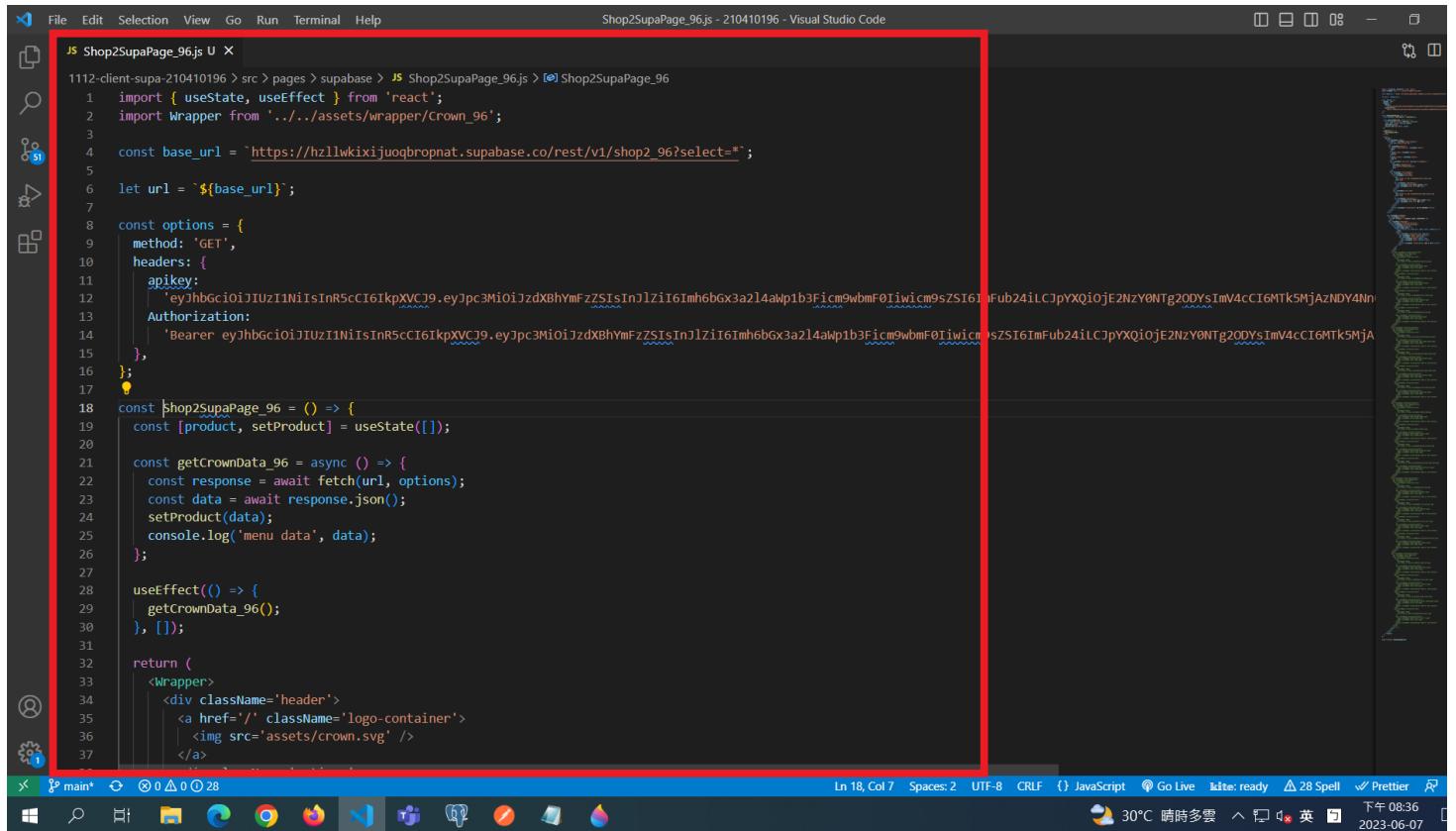
A screenshot of Visual Studio Code showing a file named 'Crown2SupaPage\_96.js'. The code uses the `useEffect` hook to fetch data from a Supabase URL. A red box highlights the fetch request line:

```
const getcrownData_96 = async () => {
  const response = await fetch(url, options);
  const data = await response.json();
  setProduct(data);
  console.log('menu data', data);
};
```

(10%) P3-3: Show shop2 products with route /supa\_shop2\_xx, by fetching shop2 products from Supabase and put them into Shop2SupaPage\_xx.js

A screenshot of a browser window showing a grid of hats. The top bar shows multiple tabs, including 'iClass', 'Commits · git-billy/...', '我的云端硬盘 - Google Drive', 'Dashboard – Vercel', 'API Settings | Supabase', 'w17\_htc(1).pdf', and 'React App'. The main content area displays a grid of hats with labels like 'Brown Brim', 'Blue Beanie', 'Brown Cowboy', etc. To the right, the Chrome DevTools 'Components' tab is open, showing a tree view of the application's component hierarchy. A red box highlights the 'routes' section under 'App\_96'. The bottom status bar shows '30°C 晴天多云' and the date '2023-06-07'.

## code for fetching category data



```
JS Shop2SupaPage_96.js X
1112-client-supabase-210410196 > src > pages > supabase > JS Shop2SupaPage_96.js > Shop2SupaPage_96
1 import { useState, useEffect } from 'react';
2 import Wrapper from '../assets/wrapper/Crown_96';
3
4 const base_url = `https://hzllwkixjuoqbropnat.supabase.co/rest/v1/shop2_96?select=*`;
5
6 let url = `${base_url}`;
7
8 const options = {
9   method: 'GET',
10  headers: {
11    apikey: 'eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJpc3MiOiJzdXBhYmFzZSIsInJlZiI6Imh6bgx3a2l4awp1b3Ficm9wbnF0Iiwicm9sZSI6Imlub24iLCJpYXQiOjE2NzY0NTg2ODYsImV4cCI6MTk5MjA2NDY4NnA',
12    Authorization: 'Bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJpc3MiOiJzdXBhYmFzZSIsInJlZiI6Imh6bgx3a2l4awp1b3Ficm9wbnF0Iiwicm9sZSI6ImFub24iLCJpYXQiOjE2NzY0NTg2ODYsImV4cCI6MTk5MjA2NDY4NnA',
13  },
14 };
15
16 };
17
18 const Shop2SupaPage_96 = () => {
19  const [product, setProduct] = useState([]);
20
21  const getCrownData_96 = async () => {
22    const response = await fetch(url, options);
23    const data = await response.json();
24    setProduct(data);
25    console.log('menu data', data);
26  };
27
28  useEffect(() => {
29    getCrownData_96();
30  }, []);
31
32  return (
33    <Wrapper>
34      <div className='header'>
35        <a href='/' className='logo-container'>
36          <img src='assets/crown.svg' />
37        </a>
38      </div>
39    </Wrapper>
40  );
41}
42
43
```

## (5%) P3-4: All logs for P1, P2, P3

```
$ git log --pretty=format:"%h%x09%an%x09%ad%x09%s" --after="2023-6-6"
```

Commits

main

Commits on Jun 7, 2023

P3-3: Show shop2 products with route /supa\_shop2\_xx, by fetching shop... git-billy committed 3 minutes ago ✓

P3-2: Show Crown2 homepage with route /supa\_crown2\_xx, by fetching ca... git-billy committed 4 minutes ago ✘

P3-1: Show Crown2 homepage with route /static\_crown2\_xx, by convertin... git-billy committed 4 minutes ago ✘

Git log for P2  
git-billy committed 5 minutes ago ✘

P2-4: In Postman, get shop2\_xx table (no RLS) with cat\_id=x (last dig... git-billy committed 5 minutes ago ✘

P2-3: Use pgAdmin to connect to Supabase, and restore category2\_xx, s... git-billy committed 6 minutes ago ✓

P2-2: Use Postman to get all menu\_xx products git-billy committed 6 minutes ago ✘

P2-1: show old anon key, and new anon key01~ git-billy committed 7 minutes ago ✘

P1-4: Show Your Vercel page for SupaDemo, with route /supa\_menu\_xx  
git-billy committed 10 minutes ago ✓

P1-3: Show Your Github SupaDemo URL  
git-billy committed 11 minutes ago ✘

P1-2: Show Your Github commits for week 15 and 16  
git-billy committed 11 minutes ago ✓

P1: Show Info of Your Github Repo, Client Supa Github, Vercel as follows  
git-billy committed 31 minutes ago ✓



30°C 晴時多雲 下午 08:49  
2023-06-07