

WP Lightning Talk

想在你的網頁中加入 Google 登入嗎?

Google OAuth 2.0

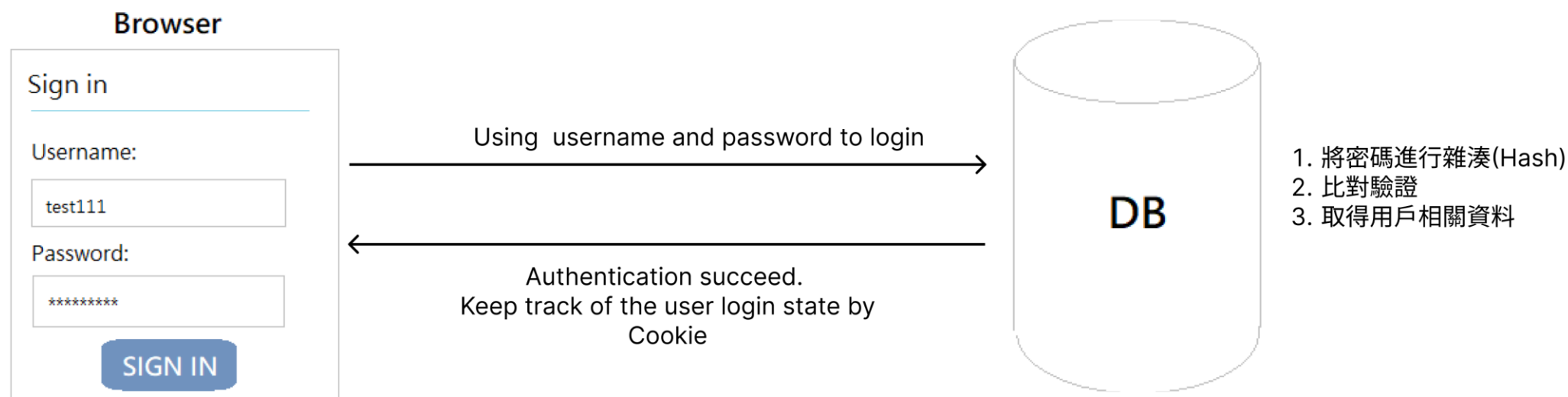
109403019 鄒翔宇

2022-05-30

Outline

1. Delegated Authorization
2. What is OAuth 2.0?
3. Implementation – A simple personal website

自己設計的登入驗證系統 (陽春版)



Security 、 Maintenance...



The delegated authorization problem



HOW CAN I LET A WEBSITE ACCESS MY DATA
(WITHOUT GIVING IT MY PASSWORD)?

Don't do this way!

Are your friends already on Yelp?

Many of your friends may already be here, now you can find out. Just log in and we'll display all your contacts, and you can select which ones to invite! And don't worry, we don't keep your email password or your friends' addresses. We loathe spam, too.

Your Email Service



Your Email Address

(e.g. bob@gmail.com)

Your Gmail Password

(The password you use to log into your Gmail email)

[Skip this step](#)

Check Contacts

WTF..

Don't do this way!

Step 1
Find Friends

Step 2
Profile Information

Step 3
Profile Picture

Are your friends already on Facebook?

Many of your friends may already be here. Searching your email account is the fastest way to find your friends on Facebook.

 **Gmail**

Your Email:

Email Password:

[Find Friends](#)

 Facebook will not store your password.

 **Yahoo!**

[Find Friends](#)

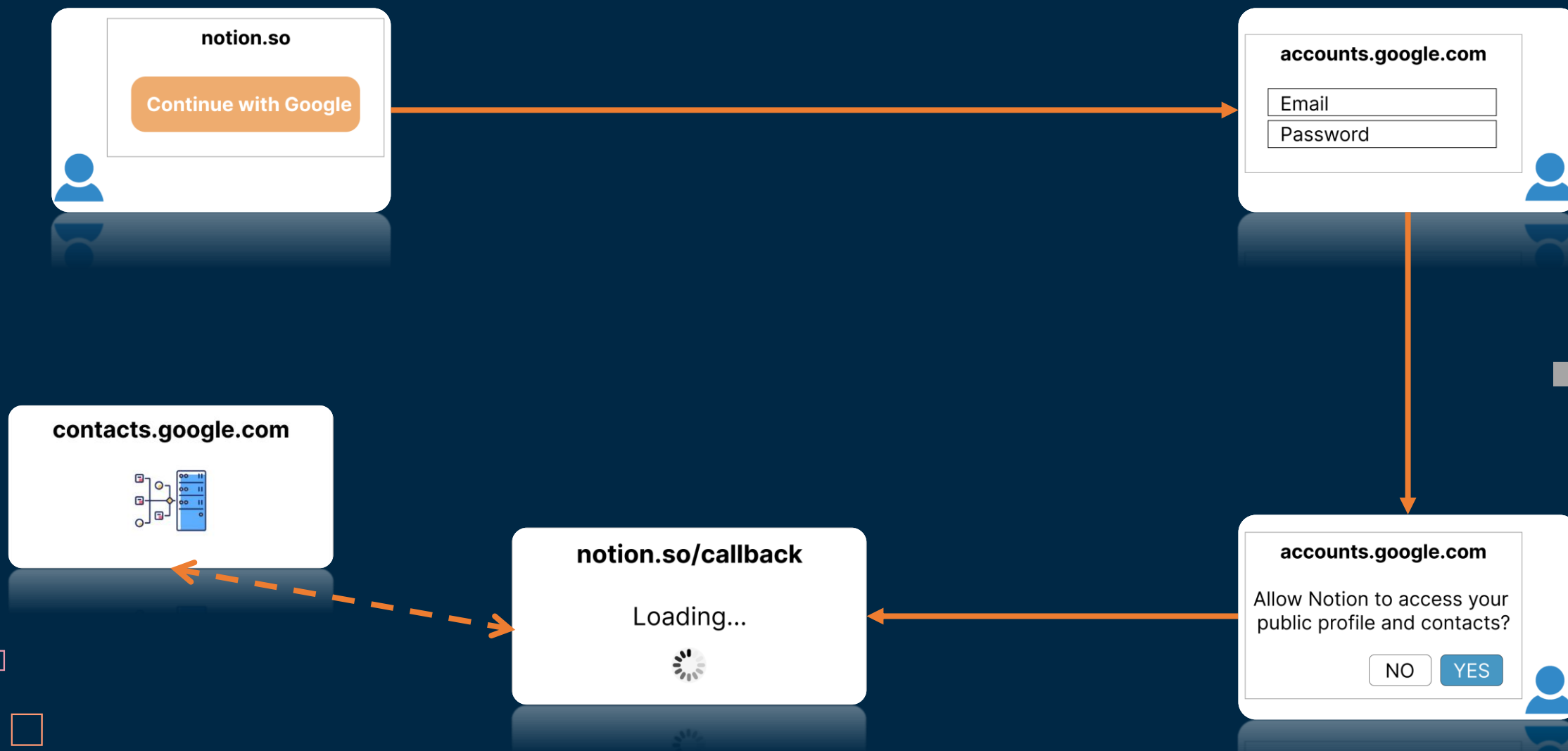
 **Windows Live Hotmail**

[Find Friends](#)

 **Other Email Service**

[Find Friends](#)

Delegated authorization with OAuth 2.0



What is OAuth 2.0?

OAuth 2.0 是一個**開源標準 (Open Standard)** 用來處理有關**授權 (Authorization)** 的行為。

能讓使用者能允許第三方應用程式 (client)，取得其在另一個平台的資料，而**不需要提供該平台的驗證資訊 (user credentials)** 給該第三方應用程式。

OAuth 2.0 Terminology – 4 Roles

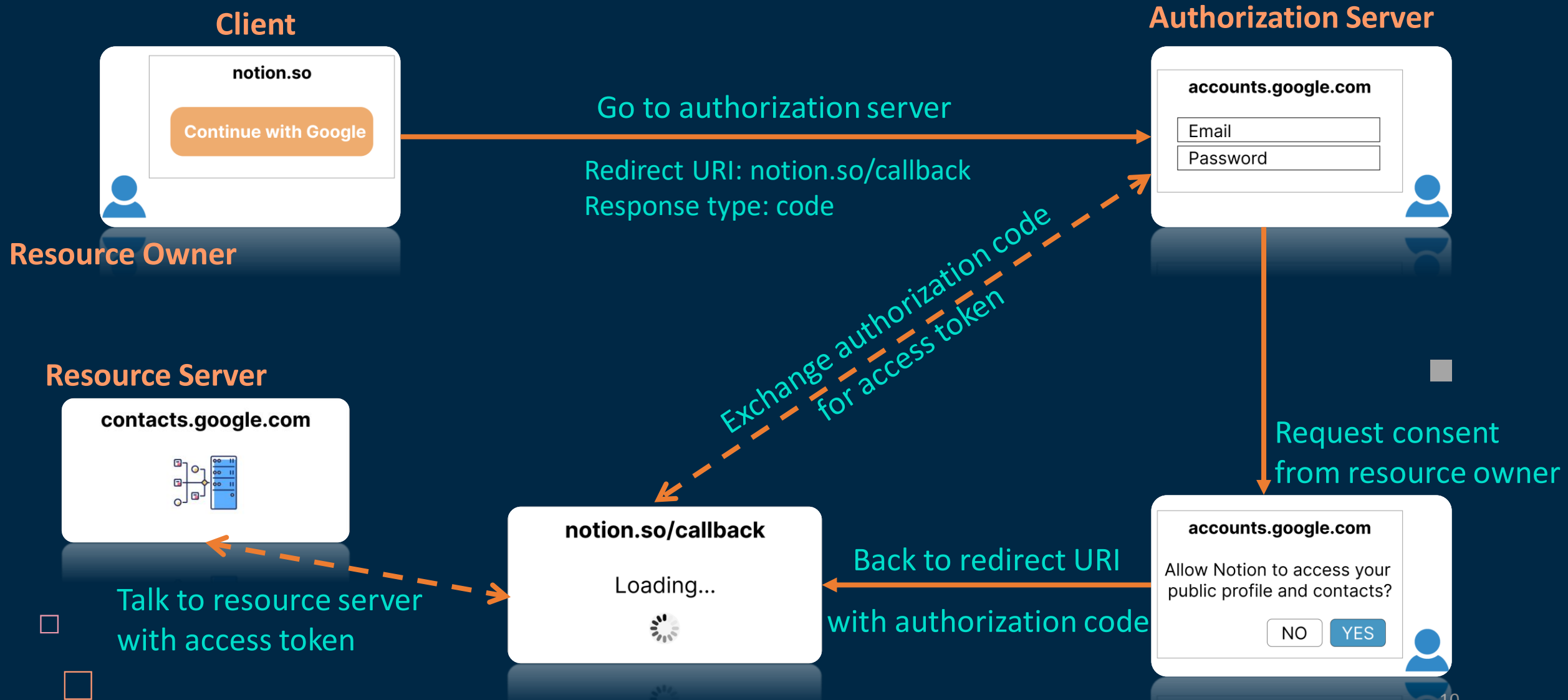
- Resource Owner
- Client (Application)
- Authorization Server
- Resource Server

More OAuth 2.0 Terminology

- Authorization Grant
- Access Token
- Redirect URI (Callback URL)
- Scope
- Consent

REF: <https://www.tutorialspoint.com/oauth2.0/terminology.htm>

OAuth 2.0 Authorization Code Flow



OAuth 2.0 REFERENCES:

- OAuth 2.0 Tutorial
- OAuth 2.0 and OpenID Connect (in plain English)
- [筆記] 認識 OAuth 2.0：一次了解各角色、各類型
流程的差異



Implementation

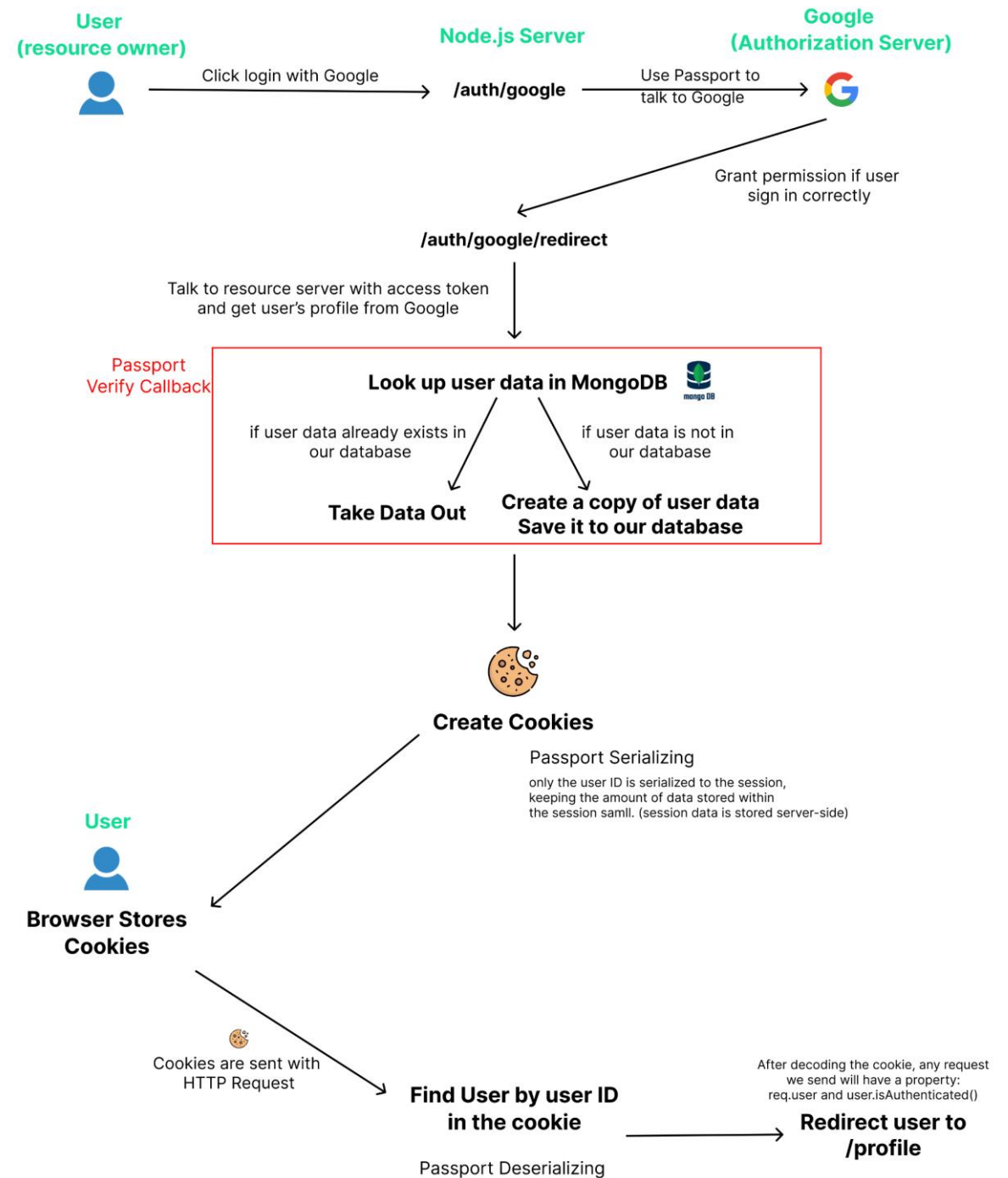
A Simple Personal Website with Google Login



TECHNIQUES & APPLICATIONS

- Google OAuth 2.0
- MongoDB Atlas
- Node.js
- EJS (Embedded JavaScript)
- Passport.js

LOGIC DIAGRAM



How to Use Google OAuth 2.0 ?

1. 從 Google API Console 取得 OAuth 2.0 憑證
2. 從 Google 授權伺服器取得存取憑證 (access token)
3. 檢查使用者授予的存取權範圍 (scope)
4. 將存取憑證傳送至 API
5. 視需要重新整理存取憑證

REF: <https://developers.google.com/identity/protocols/oauth2>

How to Use Google OAuth 2.0 ?

Google Cloud Platform Login-System

Search Products, resources, docs (/)

APIs & Services

Client ID for Web application

DOWNLOAD JSON RESET SECRET DELETE

Name *
網路用戶端 1

The name of your OAuth 2.0 client. This name is only used to identify the client in the console and will not be shown to end users.

Client ID
[REDACTED]5enfcqtaj6r21116mu.apps.googleusercontent.com

Client secret
GOCSPX-TIM [REDACTED]

Creation date
February 14, 2022 at 10:51:16 AM GMT+8

Authorized JavaScript origins ⓘ

For use with requests from a browser

+ ADD URI

Authorized redirect URIs ⓘ

For use with requests from a web server

URIs 1 *
http://localhost:8080/auth/google/redirect

+ ADD URI

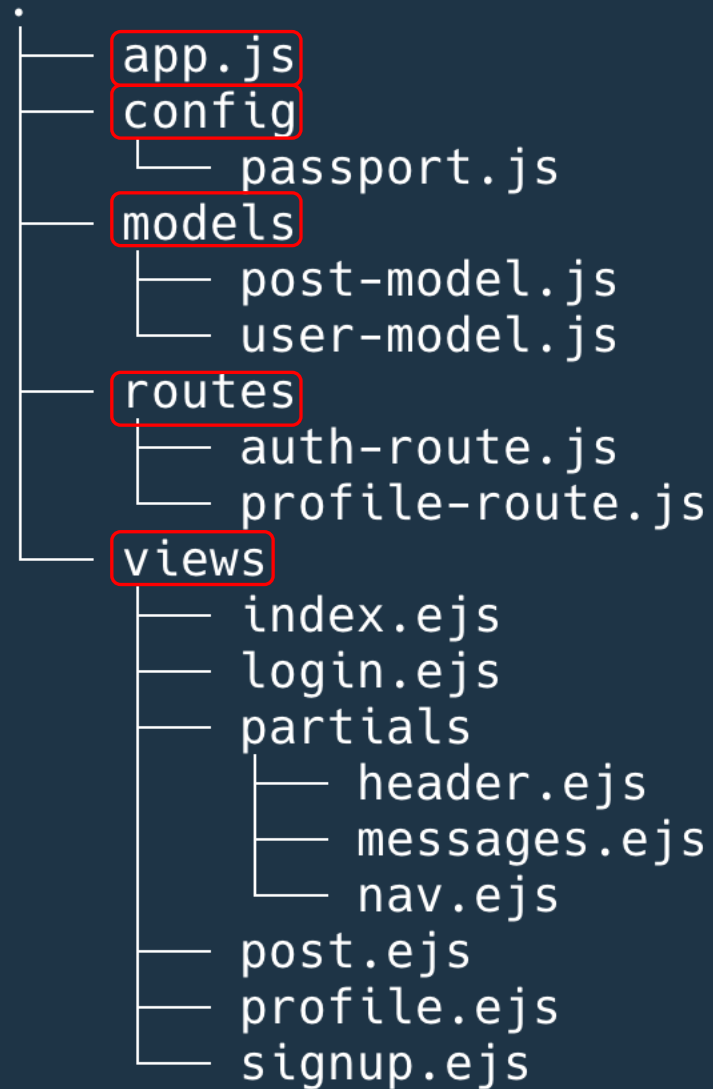
Note: It may take 5 minutes to a few hours for settings to take effect.



PROJECT CODE (GITHUB) ■

<https://github.com/xxrjun/google-login-oauth>

PROJECT TREE




Environment Variable ?

重要資訊 (如 token) 都不應該直接放在程式碼中，
應設為**環境變數 (environment variable)** 並妥善保管

```
⚙ .env
1 DB_CONNECT="mongodb+srv://109403019:Database password@cluster0.s19aj62.mongodb.net/?retryWrites=true&w=majority"
2 GOOGLE_CLIENT_ID="bcgd5enfcqtaj6r21116mu.apps.googleusercontent.com"
3 GOOGLE_CLIENT_SECRET="GOCSPX--tIM1fsWN8Google client secret"
4 SECRET="THIS IS MY SECRET."
```

DEMO

System in EJS [Home](#) [Login](#) [Sign up](#)

 Login with Google

Or... you have an account. Login here:

Email address

Enter email


We'll never share your email with anyone else.

Password

Password

Submit

DEMO

 Sign in with Google

```
_id: ObjectId('66488acc9f3c15aee6768c6e')
name : "鄒翔宇"
googleID : 
thumbnail : "https://lh3.googleusercontent.com/a/ACg8ocK3kXF_yahubIqM47-5HLByLaafd2..."
date : 2024-05-18T11:02:36.932+00:00
__v : 0
```

[Create account](#)

[Next](#)

English (United St... ▾

[Help](#)

[Privacy](#)

[Terms](#)

DEMO

System in EJS Home Logout Profile Post

This is 鄒翔宇's Page.



.097

Sat May 18 2024 19:02:36 GMT+0800 (台北標準時間)

This is 鄒翔宇's Page.



097

Sat May 18 2024 19:02:36 GMT+0800 (台北標準時間)

OS GOODGOOD

OS GOODGOOD!

Sat May 18 2024 19:08:00
GMT+0800 (台北標準時間)

Q & A

Thanks for your time and attention ■

