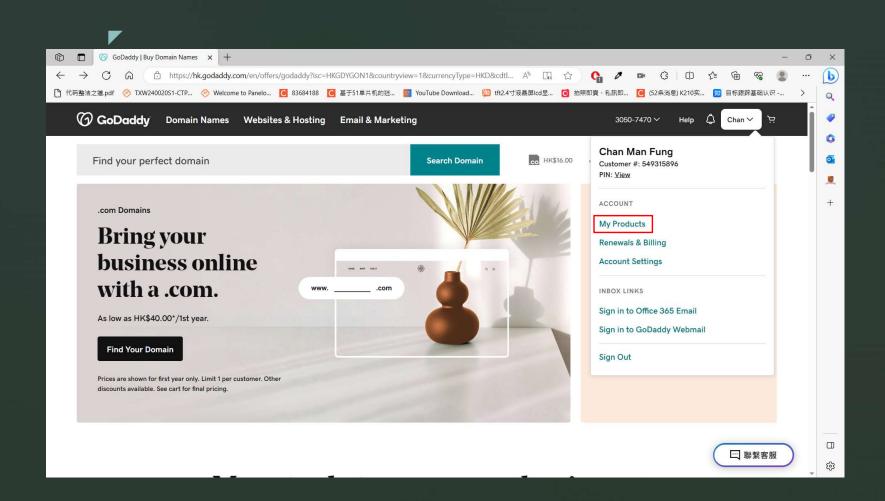
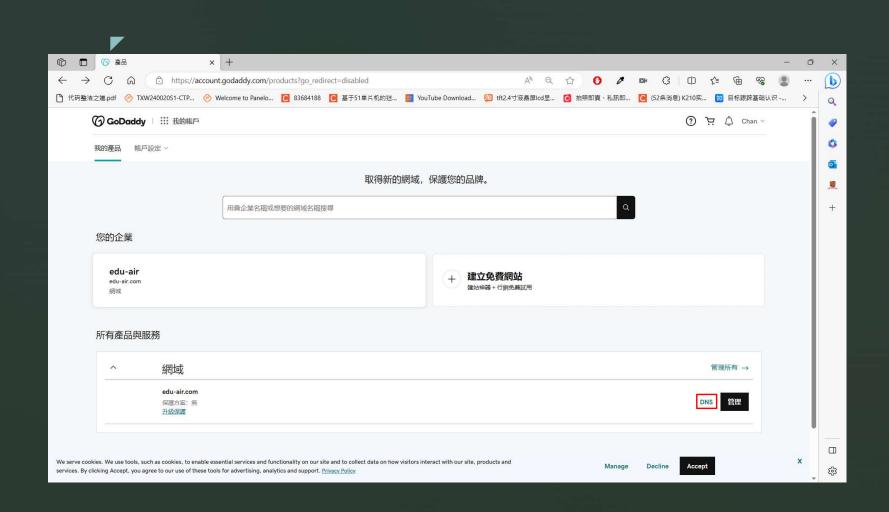
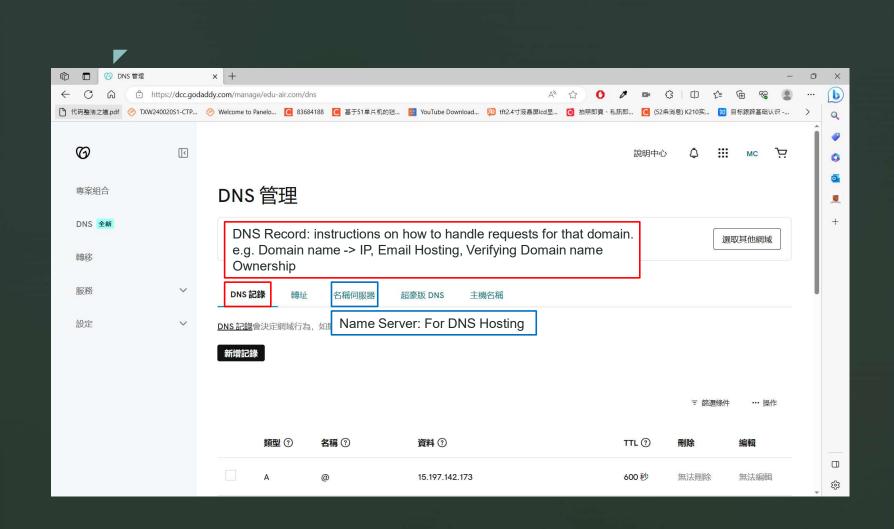


Domain Name

- eduairhk.com is bought at GoDaddy
 - Name Server Setting is forwarded to Cloudflare
 - Mail Server Setting is set to Outlook
 - Cloudflare: Name Server and Reverse Proxy
- edu-air.com is bought at GoDaddy
 - Forwarding to eduairhk.com



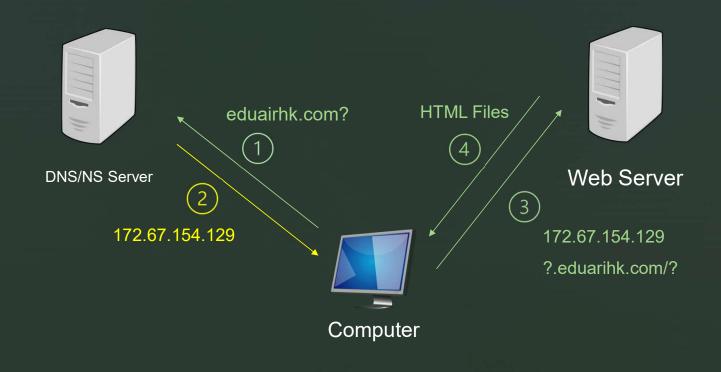


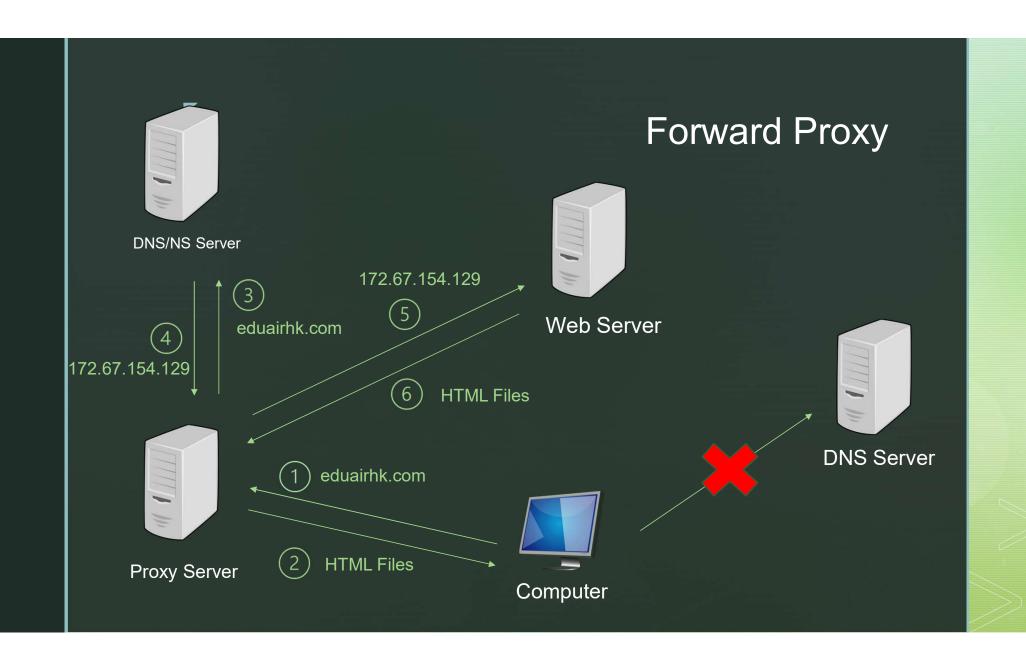


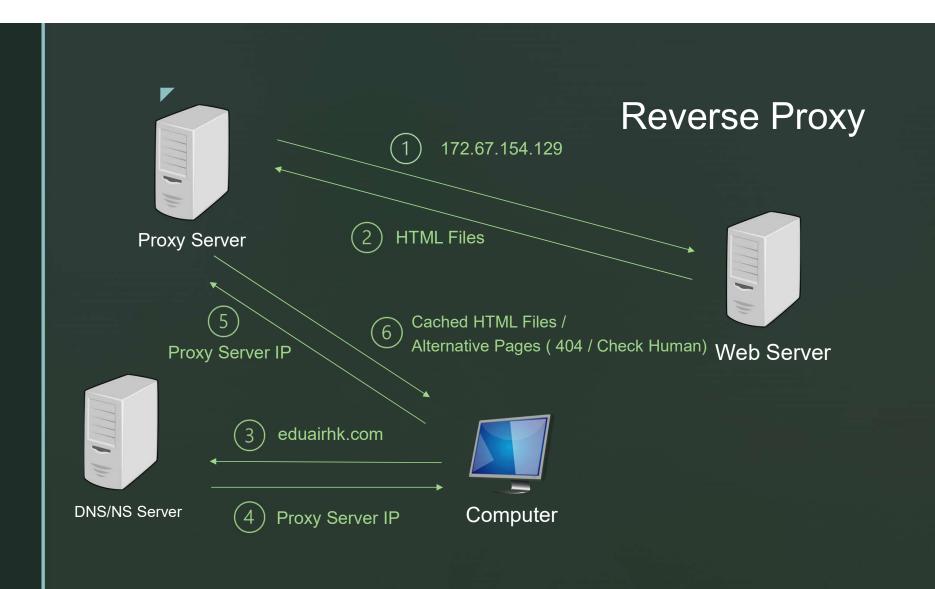
DNS Record

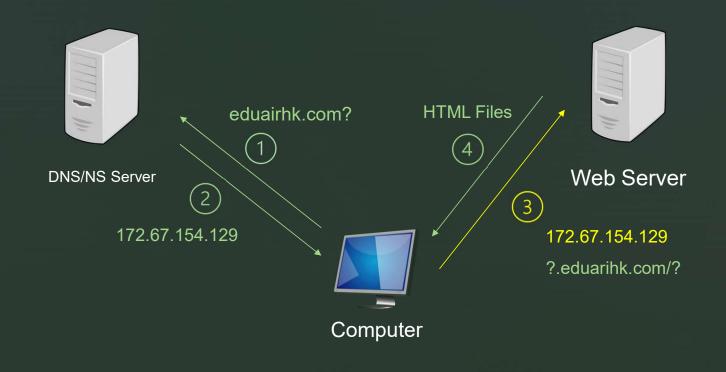
A: IPv4 IP位址 CNAME: Canonical Name 別名 MX: Mail Exchanger 郵件伺服器 TXT: Text 多用於驗證網域擁有權

類型 ▲	名稱	內容	Proxy 狀態	TTL	動作
A	admin		→ 通過 Proxy 處理	自動	編輯▶
Α	beta		→ 通過 Proxy 處理	自動	編輯▶
Α	eduairhk.com		→ 通過 Proxy 處理	自動	編輯▶
Α	е		→ 通過 Proxy 處理	自動	編輯▶
A	storage		→ 通過 Proxy 處理	自動	編輯▶
CNAME	autodiscover	autodiscover.outlook.com	→ 通過 Proxy 處理	自動	編輯▶
R2	download.eduairhk.com	download	→ 通過 Proxy 處理	自動	編輯▶
CNAME	www	eduairhk.com	→ 通過 Proxy 處理	自動	編輯▶
MX	eduairhk.com		僅 DNS	自動	編輯▶
TXT	_acme-challenge		僅 DNS	自動	編輯
TXT	_acme-challenge		僅 DNS	自動	編輯▶
TXT	eduairhk.com		僅 DNS	自動	編輯▶
TXT	eduairhk.com		僅 DNS	自動	編輯▶



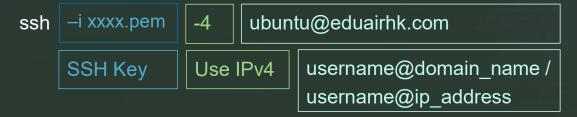






Server

- Currently, Server is hosted on AWS EC2
- How to connect to server?



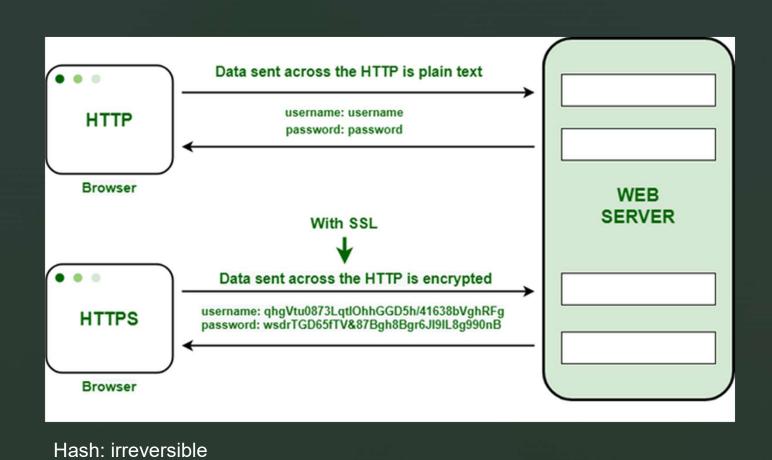
Use nginx as webserver (/etc/nginx/enabled_sites)

Nginx

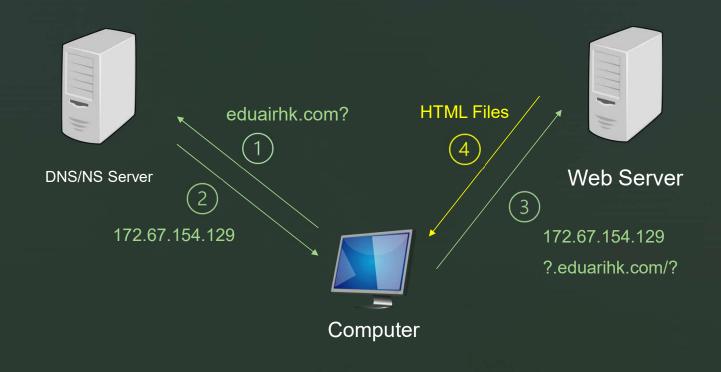
- Reverse Proxy
 - a.eduairhk.com -> eduairhk.com:3000
 - eduairhk.com/a/c -> a.eduairhk.com/c
 - b.eduairhk.com -> edu-air.com
 - http://eduairhk.com -> https://eduairhk.com
- Web Server
 - d.eduairhk.com -> /http/html/d/index.html
 - e.eduairhk.com -> /http/html/e/index.html
- SSL Setting

SSL/TLS and HTTPS

- Secure Sockets Layer/ Transport Layer Security
- SSL ≈ TLS (safer)
- Simplify, HTTP with SSL = HTTPS
- Advantage
 - Secure connection
 - Encrypt personal information
 - BLE/ Serial/ Webcam... need HTTPS
- Currently using Cloudflare SSL (15 years)

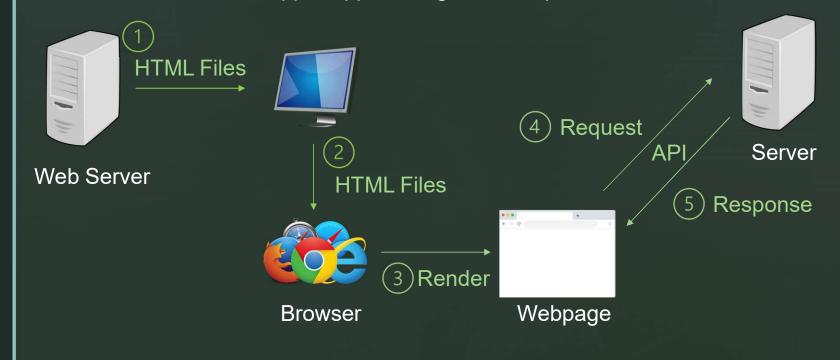


Encryption: revertible





- Server = Computer running apps and response to request
- Web App = App running on a computer that return html



Web Application Back-end Front-end **HTML Files** Request Server **API** Web Server **HTML Files** Response 3 Render Webpage Browser

Basic Website Structure

- HTML (骨架)
 <html> </html>
- CSS (皮膚)<style> </style>
- JavaScript (肌肉)<script> </script>



Browser default button style



CSS styled button

Front-end

- Framework: Vue.js SPA (Single-Page Application)
- Why Framework? Reduce Code Repetition, Simplify, Scalability
- SPA Advantage:
 - Quick Loading Time
- Disadvantage:
 - SEO
- Other Frameworks: React.js, Angular.js

Web Application Back-end Front-end **HTML Files** Request Server API Web Server **HTML Files** Response (3) Render Webpage Browser

Back-end

- Provide Public / Private API
- API: Application Programming Interface. Interface that allow different applications(software) to communicate Example: Google Map, PayPal, ChatGPT
- Currently using Express.js for temp file storage
- Download File stored in Cloudflare
- New: Can use WordPress account to login

Payment

- AWS EC2 & Instance Storage: 3.9USD per month (lowest spec)
 @AWS
- Domain Name: 160HKD for Second Year @GoDaddy
- Domain Name2 (edu-air.com): canceled
- Security and Reverse Proxy: 20USD per month @Cloudflare
- Outlook Business: ? @Outlook

Server Spec Selection

	Name	Price	CPU	Memory	Month
٠	t3.nano	0.0052 USD	2	0.5 GiB	3.9USD
	t3.micro	0.0104 USD	2	1 GiB	7.8USD
	t3.small	0.0208 USD	2	2 GiB	15.6USD
	t3.medium	0.0416 USD	2	4 GiB	31.2USD
	t3.large	0.0832 USD	2	8 GiB	62.4USD
	t3.xlarge	0.1664 USD	4	16 GiB	122.8USD
	t3.2xlarge	0.3328 USD	8	32 GiB	249.6USD