

IFB-452 KOMPUTASI AWAN AA

MENGAMANKAN APLIKASI DENGAN HTTPS



Disusun Oleh:

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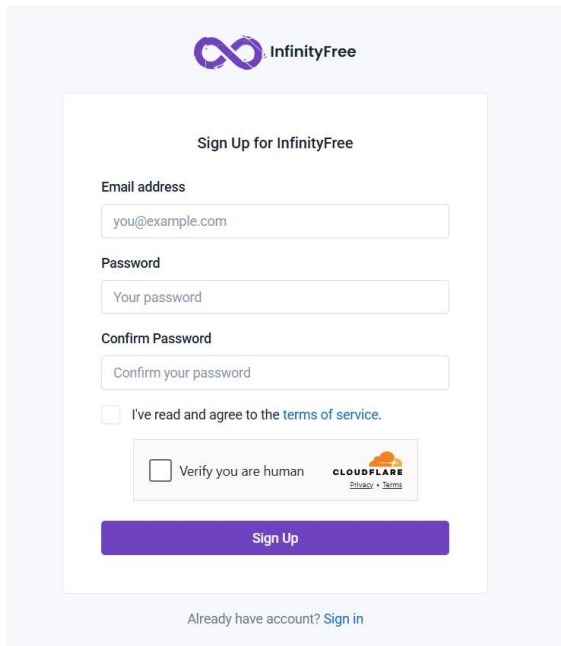
INFORMATIKA

2025

Dapatkan free domain dengan infinityfree.com

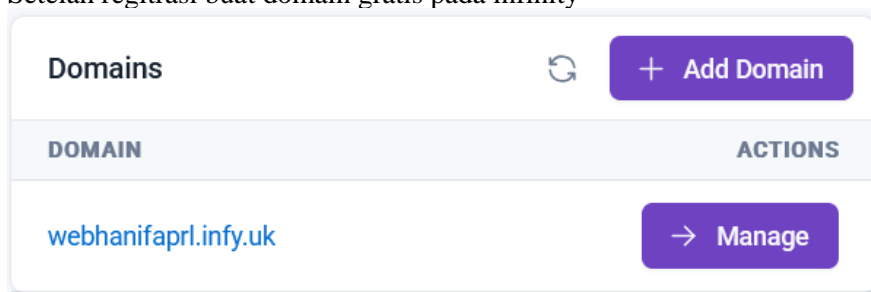
1. Buka Website berikut : <https://www.infinityfree.com/>

2. Lakukan Registrasi akun



The image shows the 'Sign Up for InfinityFree' form. It includes fields for 'Email address' (with placeholder 'you@example.com'), 'Password' (with placeholder 'Your password'), and 'Confirm Password' (with placeholder 'Confirm your password'). Below these is a checkbox for 'I've read and agree to the terms of service.' and a 'Verify you are human' checkbox with a Cloudflare logo. A purple 'Sign Up' button is at the bottom. A link 'Already have account? Sign in' is at the very bottom.

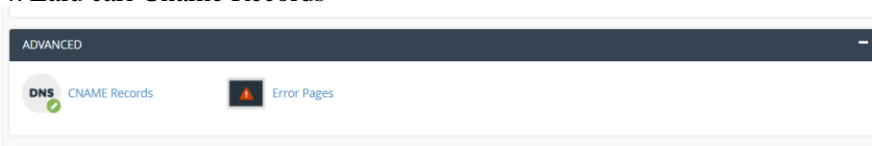
3. Setelah registrasi buat domain gratis pada infinity



The image shows the 'Domains' management interface. It has a '+ Add Domain' button and a table with one domain: 'webhanifaprl.infy.uk'. The table has columns 'DOMAIN' and 'ACTIONS'. The 'ACTIONS' column for the domain has a '→ Manage' button.

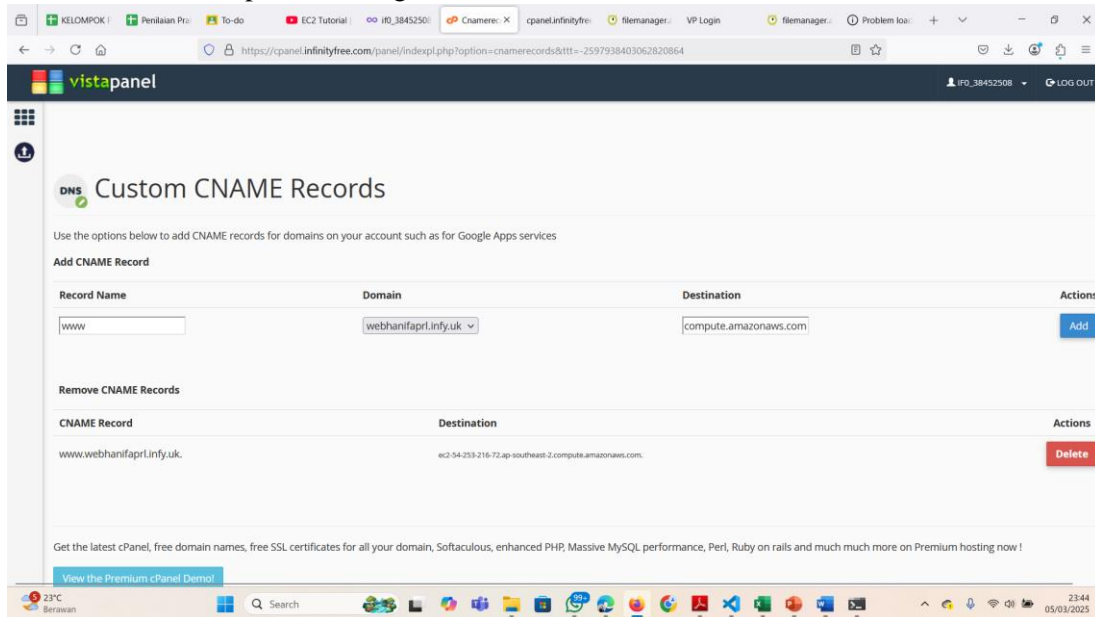
DOMAIN	ACTIONS
webhanifaprl.infy.uk	→ Manage

4. Lalu cari Cname Records



The image shows the 'DNS CNAME Records' interface. It has a 'DNS' icon with a green checkmark and a 'CNAME Records' label. There is also an 'Error Pages' icon with a red warning triangle.

5. Masukan data seperti ini, dengan destination adalah Public DNS AWS EC2 dan klik add



6. lalu, coba jalankan domain yang dimiliki. Disini contohnya, www.webhanifaprl.infy.uk.

Disini alamat domain masih http saja (masih gembok)



Konfigurasi instans EC2 Anda untuk mendukung HTTPS menggunakan Let's Encrypt dan Certbot.

Tahapan untuk mendukung HTTPS :

1. **Buka Terminal** (CMD, Git Bash, atau Terminal Linux/Mac).
2. Masukkan **SSH ke instance EC2** dengan key pair yang dimiliki

```
ssh -i your-key.pem ec2-user@your-ec2-ip
```

3. Update dan install apache

```
sudo yum update -y
```

```
sudo yum install -y
```

```
httpd
```

4. Setelah itu, **start dan enable**

```
Apache: sudo systemctl start
```

```
httpd sudo systemctl enable
```

```
httpd
```

5. Cek apakah Apache berjalan:

```
sudo systemctl status httpd
```

6. Install Certbot dan plugin untuk Apache:

```
sudo yum install -y certbot python3-certbot-apache
```

cek sudah terinstall apa belum :

```
certbot --version
```

7. Konfigurasi Virtual Host

(Apache) Buka file konfigurasi

Apache:

```
sudo nano /etc/httpd/conf/httpd.conf
```

Lalu tambahkan konfigurasi berikut dan simpan dibagian paling bawah :

```
<VirtualHost *:80>
```

```
    ServerName
```

```
    www.webhanifaprl.info
```

```
    DocumentRoot /var/www/html
```

```
    ErrorLog /var/log/httpd/error.log
```

```
    CustomLog /var/log/httpd/access.log combined
```

```
</VirtualHost>
```

Simpan dengan CTRL + O, lalu tekan **Enter**.
Keluar dengan CTRL + X.

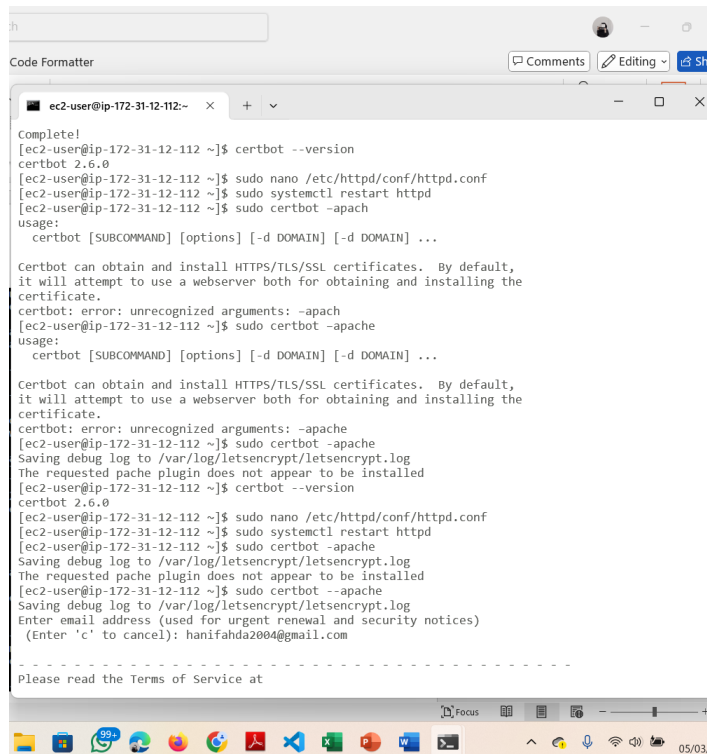
Restart Apache

sudo systemctl restart httpd

8. Jalankan Certbot untuk Mendapatkan SSL

sudo certbot --apache

- Masukkan **domain** yang ingin digunakan (www.webhanifaprl.infy.uk)



```
Complete!
[ec2-user@ip-172-31-12-112 ~]$ sudo certbot --version
certbot 2.6.0
[ec2-user@ip-172-31-12-112 ~]$ sudo nano /etc/httpd/conf/httpd.conf
[ec2-user@ip-172-31-12-112 ~]$ sudo systemctl restart httpd
[ec2-user@ip-172-31-12-112 ~]$ sudo certbot --apache
usage:
  certbot [SUBCOMMAND] [options] [-d DOMAIN] [-d DOMAIN] ...

Certbot can obtain and install HTTPS/TLS/SSL certificates.  By default,
it will attempt to use a webserver both for obtaining and installing the
certificate.
certbot: error: unrecognized arguments: -apache
[ec2-user@ip-172-31-12-112 ~]$ sudo certbot --apache
usage:
  certbot [SUBCOMMAND] [options] [-d DOMAIN] [-d DOMAIN] ...

Certbot can obtain and install HTTPS/TLS/SSL certificates.  By default,
it will attempt to use a webserver both for obtaining and installing the
certificate.
certbot: error: unrecognized arguments: -apache
[ec2-user@ip-172-31-12-112 ~]$ sudo certbot --apache
Saving debug log to /var/log/letsencrypt/letsencrypt.log
The requested pache plugin does not appear to be installed
[ec2-user@ip-172-31-12-112 ~]$ sudo certbot --version
certbot 2.6.0
[ec2-user@ip-172-31-12-112 ~]$ sudo nano /etc/httpd/conf/httpd.conf
[ec2-user@ip-172-31-12-112 ~]$ sudo systemctl restart httpd
[ec2-user@ip-172-31-12-112 ~]$ sudo certbot --apache
Saving debug log to /var/log/letsencrypt/letsencrypt.log
The requested pache plugin does not appear to be installed
[ec2-user@ip-172-31-12-112 ~]$ sudo certbot --apache
Saving debug log to /var/log/letsencrypt/letsencrypt.log
Enter email address (used for urgent renewal and security notices)
(Enter 'c' to cancel): hanifahda2004@gmail.com

-----
Please read the Terms of Service at
```

Jika berhasil akan muncul tampilan seperti gambar ini.

Lalu kemudian cek url atau link dengan protokol https <https://www.webhanifaprl.infy.uk>

Pada gambar ini sudah secure dengan https



Jika berhasil langsung menuju halaman tanpa mengalami gangguan, maka dapat dikatakan bahwa penerapan SSL pada link atau protokol telah berhasil.