

BWA DEPLOY + CI/CD

bit.ly/bwa-deploy

1. Persiapan Akun & Server

Untuk mengikuti chapter deployment, usahakan kalian sudah mempunyai akun di penyedia server / vps. Berikut saya sertakan pilihannya.

1. Vultr.com (**Recommended**)
2. Digitalocean.com
3. Aws.amazon.com
4. Cloud.google.com

Pada chapter kali ini saya akan menggunakan vultr untuk deployment. Kalian bisa mendaftar di vultr dengan menggunakan [link ini](#) agar mendapatkan **Free \$100**.

* Note: Semua server yang kita gunakan akan menggunakan [Linux Ubuntu](#) v18.04

2. Install Aplikasi

A. NVM (Node Version Manager)

- Install NVM

```
curl -o- https://raw.githubusercontent.com/nvm-sh/nvm/v0.36.0/install.sh | bash
```
- Jalankan `source ~/.bashrc`
- Install nodejs & npm menggunakan nvm

```
nvm install v12.19.0
```
- Cek nodejs & npm version

```
node -v && npm -v
```

B. PM2 (Process Manager)

- Install pm2
`npm install pm2 -g`
- Cek instalasi dengan command
`pm2`

C. MySQL

- Install MySQL
`sudo apt update`
`sudo apt install mysql-server`
`sudo mysql_secure_installation`
- Buat user baru di MySql
 1. `mysql`
 2. `CREATE USER 'nama_user'@'localhost' IDENTIFIED BY 'passwordmu';`
 3. `GRANT ALL PRIVILEGES ON *.* TO 'nama_user'@'localhost' WITH GRANT OPTION;`
 4. `Exit`

D. Nginx

- Install nginx
`sudo apt update`
`sudo apt install nginx`

E. PHP

- Install php
`sudo apt install software-properties-common`
`sudo add-apt-repository ppa:ondrej/php`
`sudo apt update`
`sudo apt install php7.4-fpm`
`sudo php-fpm7.4 -v`
- Install dependencies yang dibutuhkan (*copy semua sampai -y*)
`sudo apt install php7.4-common php7.4-mysql php7.4-xml php7.4-xmlrpc php7.4-curl php7.4-gd php7.4-imagick php7.4-cli php7.4-dev php7.4-imap php7.4-mbstring php7.4-opcache php7.4-soap php7.4-zip php7.4-intl php7.4-bcmath -y`

F. Composer

- Download composer

wget <https://getcomposer.org/composer-stable.phar>

- Install composer

```
chmod 755 composer-stable.phar
```

```
mv composer-stable.phar /usr/local/bin/composer
```

- Cek instalasi dengan command

```
Composer
```

3. Kumpulan Script Konfigurasi

A. Nginx for PHP

```
server {  
    listen 80;  
    root /var/www/nama-directory;  
    index index.php index.html index.htm;  
    server_name domain_atau_ip;  
  
    location ~ /\.php$ {  
        include snippets/fastcgi-php.conf;  
        fastcgi_pass unix:/var/run/php/php7.4-fpm.sock;  
    }  
  
    location ~ /\.ht {  
        deny all;  
    }  
}
```

B. Nginx Reverse Proxy

```
server {  
    listen 80;  
    listen [::]:80;  
  
    location / {  
        proxy_pass http://localhost:3000/;  
    }  
}
```

C. Nginx Load Balancer

```
upstream servers {  
    server localhost:3001;  
    server localhost:3002;  
    server localhost:3003;  
}  
  
server {  
    listen 80;  
    listen [::]:80;  
  
    location / {  
        proxy_pass http://servers;  
    }  
}
```

3. Kumpulan Script Deploy

A. Memberi akses web server ke directory

```
sudo chown -R www-data:www-data /var/www/direktori-project/storage  
sudo chown -R www-data:www-data  
/var/www/direktori-project/bootstrap/cache
```

B. Nginx configuration for laravel

```
server {  
    listen 80;  
    root /var/www/nama-directory/public;  
    index index.php index.html index.htm;  
    server_name domain_atau_ip;  
  
    location / {  
        try_files $uri $uri/ /index.php$is_args$args;  
    }  
  
    location ~ \.php$ {  
        include snippets/fastcgi-php.conf;  
        fastcgi_pass unix:/var/run/php/php7.4-fpm.sock;  
    }  
  
    location ~ /\.ht {  
        deny all;  
    }  
}
```

C. Membuat rsa key

```
ssh-keygen -t rsa  
cat ~/.ssh/id_rsa.pub
```

D. Membuat symbolic link dari **sites-available** ke **site-enabled**

```
ln -s /etc/nginx/sites-available/example.com  
/etc/nginx/sites-enabled/
```

E. Install Certbot (Let's Encrypt)

```
sudo add-apt-repository ppa:certbot/certbot  
sudo apt update  
sudo apt install python-certbot-nginx  
  
certbot --nginx
```

F. Deploy Nodejs Script

```
cd ~/apps/calculate-bwa  
git pull origin master  
~/.nvm/versions/node/v12.19.0/bin/npm install  
~/.nvm/versions/node/v12.19.0/bin/pm2 restart all
```

G. Error 'node' not found

```
nodepath=$(which node); sudo ln -s $nodepath /usr/bin/node
```