

A photograph of a server room with blue ambient lighting. Several server racks are visible, with some doors open, revealing internal components. Cables are organized on overhead trays.

Small Project 1

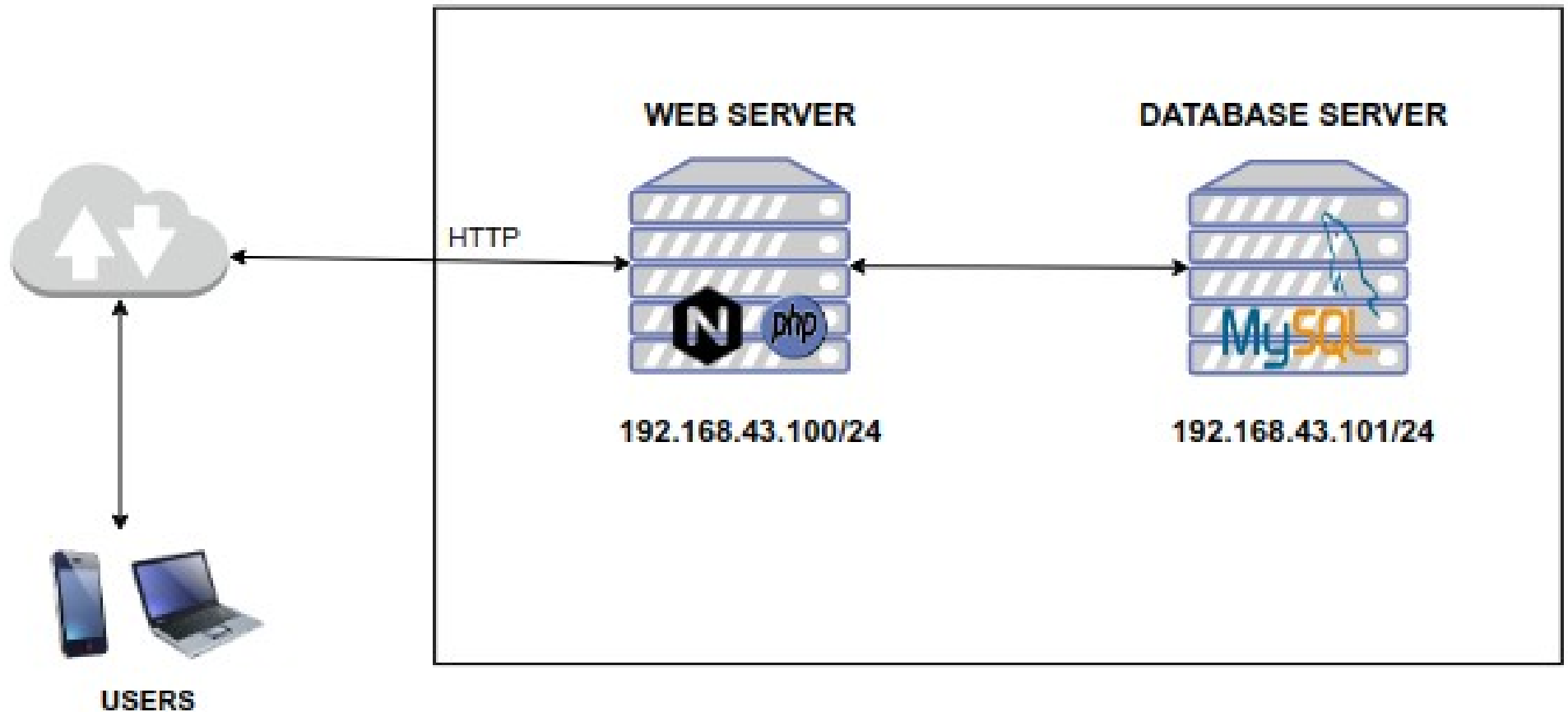
“Membangun Infrastruktur On Premises untuk Web Apps”

By Faisal

LATAR BELAKANG

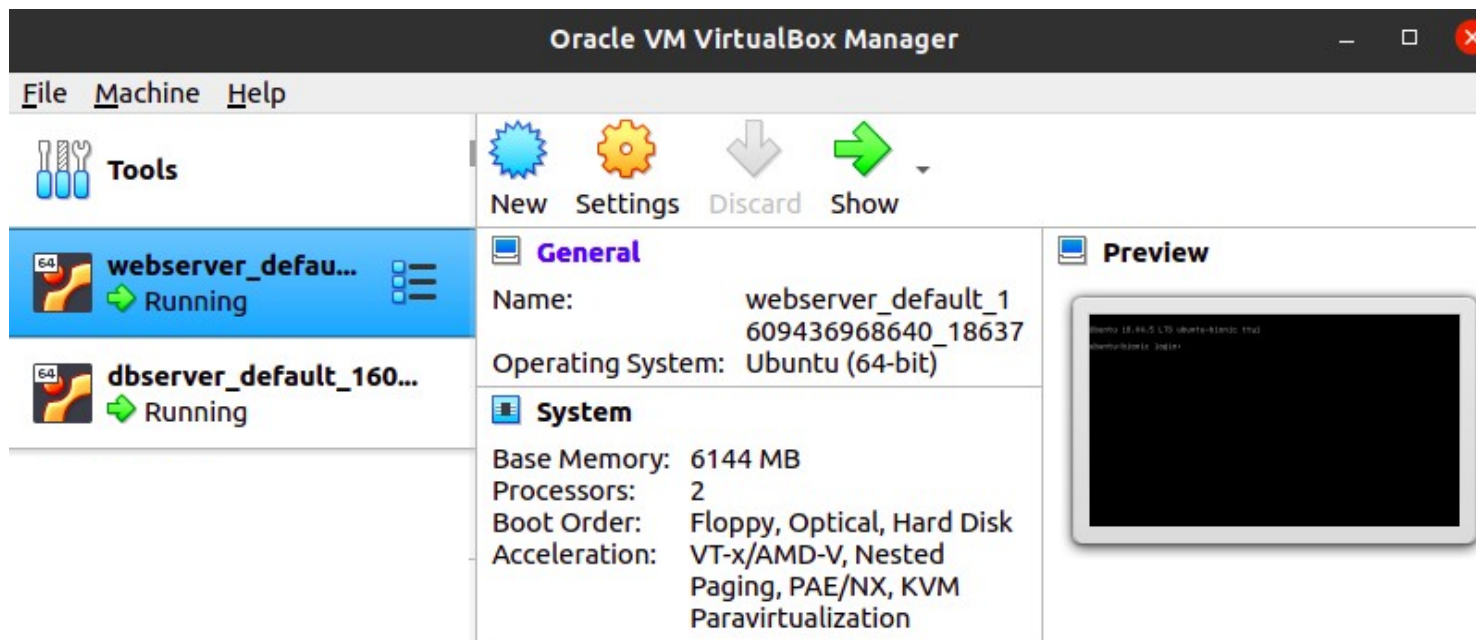
Sebuah perusahaan startup bernama PT. Samehada, merupakan perusahaan software host yang menjual aplikasi web dan infrastrukturnya. Perusahaan tersebut berencana membuat sebuah infrastruktur server on premises sederhana, yaitu layanan webserver dan database server untuk Web Aplikasi Sosial Media. Infrastruktur yang dibuat harus dibangun secara automasi dengan script bash, agar ketika nanti membuat infrastruktur yang sama hanya cukup menjalankan sebuah script dan web aplikasi disimpan di repository Github.

TOPOLOGI INFRASTRUKTUR



VAGRANT

```
:~$ mkdir webserver
:~$ cd webserver/
:~/webserver$ vagrant init ubuntu/bionic64
A `Vagrantfile` has been placed in this directory. You are now
ready to `vagrant up` your first virtual environment! Please read
the comments in the Vagrantfile as well as documentation on
`vagrantup.com` for more information on using Vagrant.
:~/webserver$ vagrant up
Bringing machine 'default' up with 'virtualbox' provider...
==> default: Importing base box 'ubuntu/bionic64'...
==> default: Matching MAC address for NAT networking...
==> default: Checking if box 'ubuntu/bionic64' version '20201211.1.0' is up to date...
==> default: Setting the name of the VM: webserver_default_1609436968640_18637
==> default: Clearing any previously set network interfaces...
==> default: Preparing network interfaces based on configuration...
default: Adapter 1: nat
==> default: Forwarding ports...
default: 22 (guest) => 2222 (host) (adapter 1)
==> default: Running 'pre-boot' VM customizations...
==> default: Booting VM...
==> default: Waiting for machine to boot. This may take a few minutes...
default: SSH address: 127.0.0.1:2222
default: SSH username: vagrant
default: SSH auth method: private key
```



REPOSITORY (GITHUB)

Source code aplikasi web dan script automation disimpan di github

The screenshot shows a GitHub repository page for 'faisal1210/sosial-media'. The repository is forked from 'sdcilsy/sosial-media'. The page displays the repository's structure, including folders like 'css', 'img', and 'js', and files like '.htaccess', 'auth.php', 'config.php', and 'dbsosmed.sql'. The repository has 19 commits and is 9 commits ahead of the upstream master branch. The right sidebar shows sections for 'About', 'Releases', 'Packages', and 'Languages'.

Repository: faisal1210 / sosial-media
forked from sdcilsy/sosial-media

Watch 0 Star 0 Fork 38

Code Pull requests Actions Projects Wiki Security Insights Settings

master 1 branch 0 tags

This branch is 9 commits ahead of sdcilsy:master. Pull request Compare

Commit: faisal1210 [faisal] modify timeline.php 220aac9 12 hours ago 19 commits

File	Commit	Time
css	sosial-media	2 years ago
img	sosial-media	2 years ago
js	sosial-media	2 years ago
.htaccess	sosial-media	2 years ago
auth.php	sosial-media	2 years ago
config.php	[faisal] modify config.php	yesterday
dbsosmed.sql	[faisal] modifv dbsosmed.sql	vesterdav

About
No description, website, or topics provided.

Releases
No releases published
[Create a new release](#)

Packages
No packages published
[Publish your first package](#)

Languages

AUTOMATION SCRIPT (1)

deploy-webserver.sh

```
1 #!/bin/bash
2 ##### INSTALL NGINX, PHP MODULE & GIT #####
3 sudo apt update -y
4 sudo apt install -y nginx php-fpm php-mysqli git
5 ##### CONFIGURE NGINX #####
6 sudo tee /etc/nginx/sites-available/sosmed <<EOF
7 server {
8     listen 80;
9     root /var/www/html;
10    # Add index.php to the list if you are using PHP
11    index index.php index.html index.htm index.nginx-debian.html;
12    server_name localhost;
13    location / {
14        index index.php index.html index.htm;
15        # First attempt to serve request as file, then
16        # as directory, then fall back to displaying a 404.
17        try_files $uri $uri/ =404;
18    }
19    location ~ \.php$ {
20        include snippets/fastcgi-php.conf;
21        fastcgi_pass unix:/run/php/php7.2-fpm.sock;
22    }
23 }
24 EOF
25 sudo unlink /etc/nginx/sites-enabled/default
26 sudo ln -s /etc/nginx/sites-available/sosmed /etc/nginx/sites-enabled/default
27 sudo nginx -t
28 sudo systemctl restart nginx
29 sudo systemctl restart php7.2-fpm
30 ##### CLONE WEB APPS DATA FROM GITHUB #####
31 cd /var/www/html/
32 sudo git clone https://github.com/faisal1210/sosial-media.git
33 sudo mv sosial-media/* . && sudo mv sosial-media/.git . && sudo rm -rf sosial-media/
34 sudo sed -i 's/$db_host = "localhost";/$db_host = "192.168.43.232";/g' config.php
```


AUTOMATION SCRIPT (2)

deploy-dbserver.sh

```
1 #!/bin/bash
2 ##### INSTALL MYSQL SERVER & GIT #####
3 sudo apt update -y
4 sudo apt install -y mysql-server git
5 ##### note: give comment bind-address at file /etc/mysql/mysql.conf.d/mysqld.cnf #####
6 ##### CREATE DATABASE & USER #####
7 sudo mysql << EOF
8 CREATE DATABASE IF NOT EXISTS dbsosmed;
9 CREATE USER IF NOT EXISTS 'faisal'@'%' IDENTIFIED BY '7654321';
10 GRANT ALL PRIVILEGES ON * . * TO 'faisal'@'%';
11 FLUSH PRIVILEGES;
12 EOF
13 ##### IMPORT DATABASE #####
14 git clone https://github.com/faisal1210/sosial-media.git
15 cd sosial-media/
16 sudo mysql dbsosmed < dbsosmed.sql
```

RESULT



A photograph of a server room with blue ambient lighting. Rows of server racks are visible, with some racks having glass doors that show internal components. The room has a high ceiling with exposed metal beams and cables.

Thank You!

Faisal
<https://github.com/faisal1210>