Cilsy: Small Project 01

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Overview

Peserta diposisikan sekarang sebagai seorang sysadmin baru di perusahaan startup bernama PT. Samehada. Perusahaan tersebut merupakan perusahaan software host yang **menjual aplikasi web dan infrastrukturnya**, Peserta diberi tugas untuk membuat topologi beserta infrastructure server on-premises yang sudah siap dengan cepat untuk aplikasi web yang sudah selesai dikerjakan oleh programmer sebelumnya.

Requirement

1. Topologi infrastruktur server
2. Script install WB, DB server, deploy web apps sosial media
3. Uji topologi infra dan web apps sosial media tersebut

Alur Proses Kerja

1. Di OS host CentOS, install VirtualBox 5.2.36 dan Vagrant 2.2.6 referensi: https://phoenixnap.com/kb/how-to-install-vagrant-on-centos-7 (bash script otomasi disiapkan)
2. Persiapan bash script otomasi
   a. Install web server Apache,
   b. DB server mySQL,
   c. Deploy web apps sosial-media
3. Buat semua script otomasi tersedia di github https://github.com/cordiaz/sp1-cilsy.git
4. Lakukan instalasi
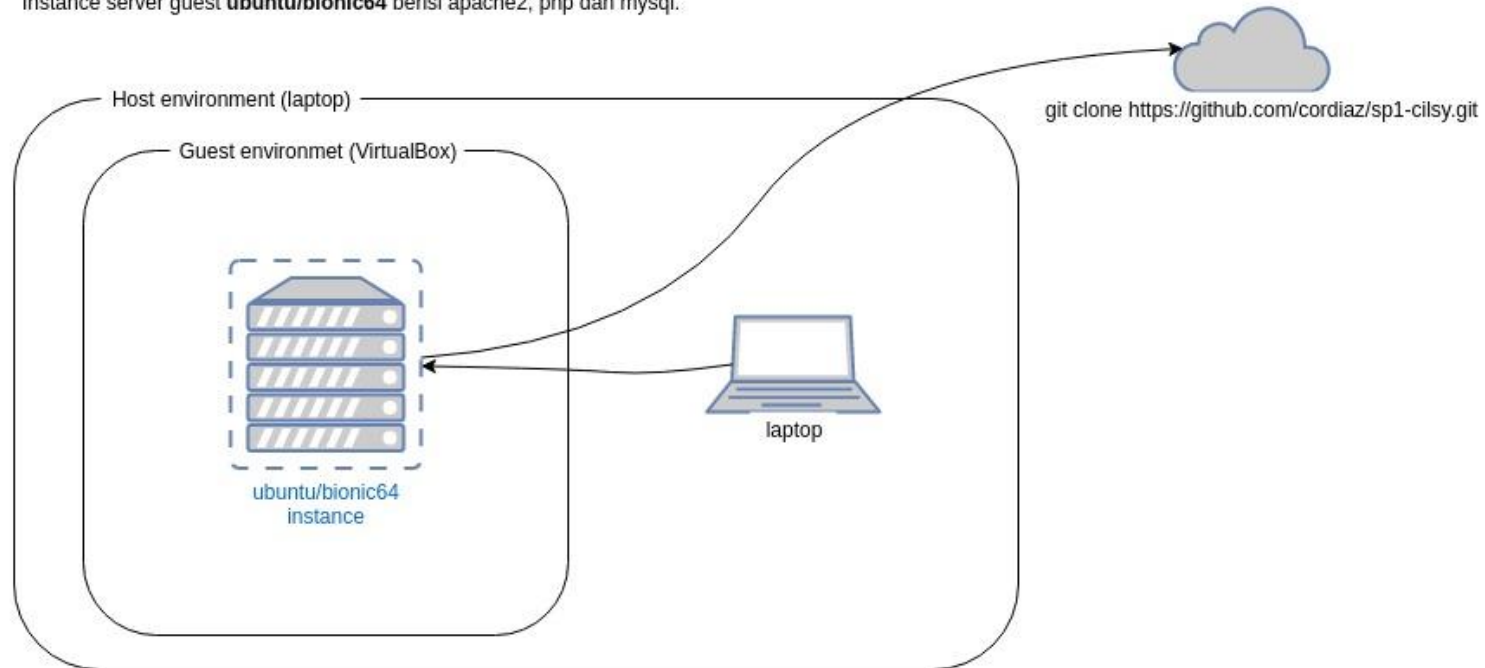
Topologi Maksimal
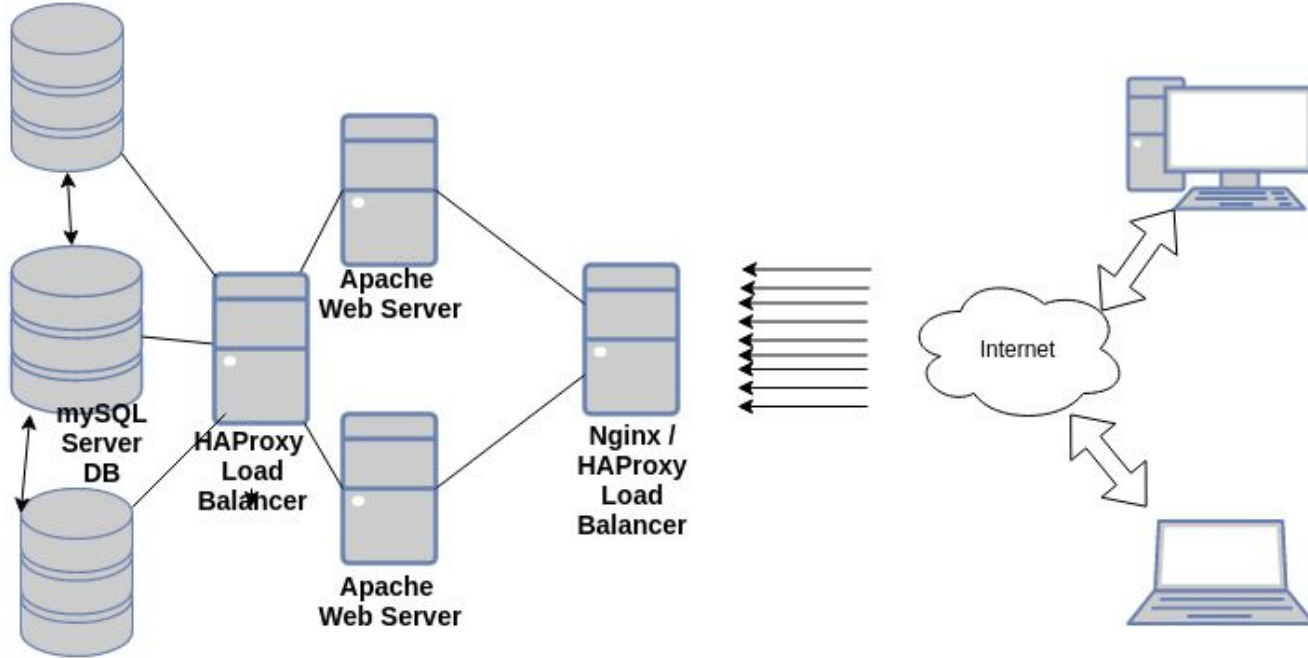
Small Project 1 (Cilsy)

Membuat web aplikasi dengan otomasi bash script yang terdapat di Github. Setting web app menggunakan php scripting, mysql, apache web server dan HAProxy / Nginx load balancer.

Topologi Dibangun

Install Web Apps Sosial Media Cilsy di Infra on-premises Menggunakan Vagrant

Instance server guest **ubuntu/bionic64** berisi apache2, php dan mysql.

Host environment (laptop)

Guest environmet (VirtualBox)

ubuntu/bionic64 instance

laptop

git clone https://github.com/cordiaz/sp1-cilsy.git

Membuat Script Infrastruktur Web App Sosial Media

```bash
#!/bin/bash
echo "check update"
sudo apt-get update -y
echo "Install web server"
sudo apt-get install -y apache2 php php-mysql
sudo apache 2 service apache2 start
echo "Install Database Server"
sudo apt-get install -y mysql-server
sudo service mysql start
```

Simpan dalam file **startup.sh**
Ubah agar dapat di-eksekusi **chmod +x startup.sh**

Script Vagrantfile

```
Vagrant.configure("2") do |config|
  config.vm.provider "virtualbox" do |v1|
      v1.memory = 1024
      v1.cpus = 1
  end
   config.vm.define "master" do |master|
    master.vm.provision "shell", inline: "git clone https://github.com/cordiaz/sp1-cilsy.git"
    master.vm.provision "shell", inline: "chmod 644 /home/vagrant/sp1-cilsy/startup.sh"
    master.vm.provision "shell", inline: "/bin/sh /home/vagrant/sp1-cilsy/startup.sh"
    master.vm.network "public_network", bridge: "wlp3s0",
       use_dhcp_assigned_default_route: true
    master.vm.box = "ubuntu/bionic64"
    master.vm.network "private_network",ip: "192.168.1.212"
   end
end
```

Instance ubuntu/bionic64

```
* Documentation:   https://help.ubuntu.com
* Management:      https://landscape.canonical.com
* Support:         https://ubuntu.com/advantage

  System information as of Thu Jan 30 04:36:09 UTC 2020

  System load:   0.02               Users logged in:          0
  Usage of /:    14.9% of 9.63GB    IP address for enp0s3: 10.0.2.15
  Memory usage:  30%                IP address for enp0s8: 192.168.1.113
  Swap usage:    0%                 IP address for enp0s9: 192.168.100.212
  Processes:     94


12 packages can be updated.
12 updates are security updates.


vagrant@ubuntu-bionic:~$
```

Run Script Infrastruktur Web App Sosial Media

Run file **./startup.sh**

Setting DB Web App Sosial Media

```
$ sudo mysql -u root

mysql> CREATE USER 'devopscilsy'@'localhost' IDENTIFIED BY '1234567890';
mysql> grant all privileges on *.* to 'devopscilsy'@'localhost';
mysql> \q
```

Masuk dalam mysql dengan user **devopscilsy**

```
mysql> sudo mysql -u devopscilsy -p
Password: 1234567890
mysql> create database dbsosmed;
mysql> show databases;
mysql> \q
```

Deploy script php Web App Sosial Media

```
$ sudo wget https://github.com/sdcilsy/sosial-media/archive/master.zip
$ sudo apt-get install unzip -y
$ sudo unzip master.zip
$ sudo rm /var/www/html/index.html
$ sudo mv sosial-media-master/* /var/www/html
$ cd /var/www/html/
```

Masuk dalam mysql dengan user **devopscilsy**

```
$ sudo mysql -u devopscilsy -p dbsosmed < dump.sql
Enter password:
```

Hasil Uji Halaman Sosial Media Pesbuk

```
vagrant@ubuntu-bionic:/var/www/html$ curl http://localhost/
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <meta http-equiv="X-UA-Compatible" content="ie=edge">
    <title>Pesbuk</title>

    <link rel="stylesheet" href="css/bootstrap.min.css" />
</head>
<body class="bg-light">
    <header>
        <div class="jumbotron jumbotron-fluid">
            <div class="container">
                <div class="row">
                    <div class="col-md-8">
                        <h1>Selamat datang di Pesbuk</h1>
```

Sumber

- https://github.com/sdcilsy/sosial-media/archive/master.zip
- https://github.com/cordiaz/sp1-cilsy.git