LAPORAN TUGAS AKHIR SISTEM TERDISTRIBUSI

KELOMPOK 11

Anggota kelompok:

Ade Dian Sukmana   1203210104

Enggar Abimanyu   1203210025

1. Membuat LXC baru dan konfigurasi masing masing lxc :

- sudo lxc-create -t download -n LXC_PHP7_1 -- -d ubuntu -r focal -a amd64
- sudo lxc-create -t download -n LXC_PHP7_2 -- -d ubuntu -r focal -a amd64
- sudo lxc-create -t download -n LXC_PHP7_3 -- -d ubuntu -r focal -a amd64
- sudo lxc-create -t download -n LXC_PHP7_4 -- -d ubuntu -r focal -a amd64
- sudo lxc-create -t download -n LXC_PHP7_5 -- -d ubuntu -r focal -a amd64
- sudo lxc-create -t download -n LXC_PHP7_6 -- -d ubuntu -r focal -a amd64
- sudo lxc-create -t download -n LXC_PHP5_1 -- -d debian -r buster -a amd64
- sudo lxc-create -t download -n LXC_PHP5_2 -- -d debian -r buster -a amd64
- sudo lxc-create -t download -n LXC_DB_SERVER -- -d debian -r buster -a amd64

2. Pada Setiap LXC lakukan langkah-langkah ini :
- sudo lxc-attach -n LXC_PHP7_1 -- apt update
- sudo lxc-attach -n LXC_PHP7_1 -- apt install -y php7.4 php7.4-fpm openssh-server
- sudo lxc-attach -n LXC_PHP7_2 -- apt update
- sudo lxc-attach -n LXC_PHP7_2 -- apt install -y php7.4 php7.4-fpm openssh-server
- sudo lxc-attach -n LXC_PHP7_3 -- apt update
- sudo lxc-attach -n LXC_PHP7_3 -- apt install -y php7.4 php7.4-fpm openssh-server
- sudo lxc-attach -n LXC_PHP7_4 -- apt update
- sudo lxc-attach -n LXC_PHP7_4 -- apt install -y php7.4 php7.4-fpm openssh-server
- sudo lxc-attach -n LXC_PHP7_5 -- apt update
- sudo lxc-attach -n LXC_PHP7_5 -- apt install -y php7.4 php7.4-fpm openssh-server
- sudo lxc-attach -n LXC_PHP7_6 -- apt update
- sudo lxc-attach -n LXC_PHP7_6 -- apt install -y php7.4 php7.4-fpm openssh-server
- sudo lxc-attach -n LXC_PHP5_1 -- apt-get install -y software-properties-common apt-transport-https lsb-release ca-certificates
- sudo lxc-attach -n LXC_PHP5_1 -- wget -O /etc/apt/trusted.gpg.d/php.gpg https://packages.sury.org/php/apt.gpg
- sudo lxc-attach -n LXC_PHP5_1 -- sh -c 'echo "deb https://packages.sury.org/php/ $(lsb_release -sc) main" > /etc/apt/sources.list.d/php.list'

- sudo lxc-attach -n LXC_PHP5_1 -- apt update
- sudo lxc-attach -n LXC_PHP5_2 -- apt-get install -y software-properties-common apt-transport-https lsb-release ca-certificates
- sudo lxc-attach -n LXC_PHP5_2 -- wget -O /etc/apt/trusted.gpg.d/php.gpg https://packages.sury.org/php/apt.gpg
- sudo lxc-attach -n LXC_PHP5_2 -- sh -c 'echo "deb https://packages.sury.org/php/ $(lsb_release -sc) main" > /etc/apt/sources.list.d/php.list'
- sudo lxc-attach -n LXC_PHP5_2 -- apt update
- sudo lxc-attach -n LXC_PHP5_1 -- apt install php5.6 php5.6-fpm php5.6-cli php5.6-json
- sudo lxc-attach -n LXC_PHP5_2 -- apt install php5.6 php5.6-fpm php5.6-cli php5.6-json
- sudo lxc-attach -n LXC_DB_SERVER -- apt update
- sudo lxc-attach -n LXC_DB_SERVER -- apt install mariadb-server
- sudo lxc-attach -n LXC_DB_SERVER -- systemctl start mariadb
- sudo lxc-attach -n LXC_DB_SERVER -- mysql_secure_installation
- sudo apt install openssh-server python
- apt install nano
- cd /etc/ssh
- nano sshd_config
- tambahkan
- PermitRootLogin yes
- sudo service sshd restart
- passwd
- set passwd bebas
- exit
- ssh root@ip lxc

3. Pergi ke " nano host" untuk mengklasifikasi pada setiap lxc seperti skema yang ada di bawah ini

- cd ~/tubes/inventories

- nano hosts
4. Buat file
   - nano install-ci.yml //for code igniter
   - nano install-laravel.yml //for laravel
   - nano install-wp.yml //for wordpress
   - nano install-yii.yml //for yii2.0
   - nano install-mariadb.yml //for phpMyAdmin

```
GNU nano 6.2                                    install-ci.yml
- hosts: ci
  vars:
    git_url: 'https://github.com/aldonesia/sas-ci'
    destdir: '/var/www/html/ci'
    domain: '10.0.3.94'
  roles:
    -app
```

```
GNU nano 6.2                                    install-laravel.yml
---
- hosts: Laravel
  vars:
    username: 'admin'
    password: '1234'
    domain: '10.0.3.115'
  roles:
    - php
    - lv
```

```
GNU nano 6.2                                    install-mariadb.yml
-hosts: database
 vars:
   username: 'admin'
   password: '1234'
   domain: '10.0.3.140'
 roles:
   -db
   -pma
```

```
GNU nano 6.2                                    install-wp.yml
---
- hosts: wordpress
  vars:
    username: 'admin'
    password: '1234'
    domain: '10.0.3.49'
  roles:
    -wp
```

```
  GNU nano 6.2                                             install-yii.yml
---
- hosts: yii2
  vars:
    username: 'admin'
    password: '1234'
    domain: ''
  roles:
    -yii
```

5. Lalu jalankan perintah di bawah ini :
   - cd /roles/ci/tasks
   - nano main.yml

```
  GNU nano 6.2                                             main.yml
--
- name: delete apt chance
  become: yes
  become_user: root
  become_method: su
  command: rm -vf /var/lib/apt/lists/*

- name: install reqruitment dpkg to install php5
  become: yes
  become_user: root
  become_method: su
  apt: name={{ item }} state=latest  update_cache=true
  with_items:
    - python
    - ca-certificates
    - apt-transport-https
    - wget
    - curl
    - python-apt
    - software-properties-common
    - git

- name: Add key
  apt_key:
    url: https://packages.sury.org/php/apt.gpg
    state: present

- name: Add Php Repository
  apt_repository:
    repo: "deb https:packages.sury.org/php/ stretch main"
    state: present
    filename: php.list
    update_cache: true

- name: install nginx php5
  become: yes
  become_user: yes
  become_method: su
  apt: name={{ item }} state=latest update_cache=true
  with_items:
    - nginx
    - nginx-extras
    - php5.6
    - php5.6-fpm
    - php5.6-common
    - php5.6-cli
    - php5.6-curl
    - php5.6-mbstring
```

- cd ../templates
- nano app.conf

```
GNU nano 6.2                                        app.conf
server {
  listen 80;
  server_name {{servername}};
  root {{ destdir }};
  index index.php;
  location / {
     try_files $uri $uri/ /index.php?$querry_string;
  }
  location ~ \.php$ {
     fastcgi_pass unix: /run/php/php5.6-fpm.sock;
     fastcgi_index index.php;
     fastcgi_param SCRIPT_FILENAME {{ destdir }}$fastcgi_script_name;
     include fastcgi_params;
  }
}
```

- cd ../handlers
- nano main.yml

```
GNU nano 6.2                                        main.yml
---
- name: restart nginx
  become: yes
  become_users: root
  become_method: su
  action: service name=nginx state=restarted

- name: restart php
  become: yes
  become_user: root
  become_method: su
  action: service name=php5.6-fpm state=restarted
```

- cd ../../
- cd php/tasks
- nano main.yml

```
GNU nano 6.2                                          main.yml
---
- name: delete apt chance
  become: yes
  become_users: root
  become_method: su
  command: rm -vf /var/lib/apt/lists/*

- name: install php
  become: yes
  become_user: root
  become_method: su
  apt: name={{ item }} state=latest update_chance=true
  with_items:
    - gtkhash
    - crack-md5
    - git
    - curl
    - nginx
    - nginx-extras
    - php7.4
    - php7.4-fpm
    - php7.4-curl
    - php7.4-xml
    - php7.4-gd
    - php7.4-opcache
    - php7.4-mbstring
    - php7.4-zip
    - php7.4-json
    - php7.4-cli

- name: enable module pghp mbstring
  command: phpenmod mbstring
  notify:
    - restart php
```

- cd ../handlers
- nano main.yml

```
GNU nano 6.2                                          main.yml
---
- name: restart php
  become: yes
  become_user: root
  become_method: su
  action: service name=php7.4-fpm state=restarted
```

- cd ../../
- cd lv/tasks
- nano main.yml

```yaml
---
- name: delete apt cache
  become: yes
  become_user: root
  become_method: su
  command: rm -vf /var/lib/apt/lists/*

- name: Download and install Composer
  shell: curl -sS https://getcomposer.org/installer | php
  args:
    chdir: /usr/src/
  creates: /usr/local/bin/composer
  warn: false
  become: yes

- name: Add Composer to global path
  copy:
    dest: /usr/local/bin/composer
    group: root
    mode: '0755'
    owner: root
    src: /usr/src/composer.phar
    remote_src: yes
  become: yes

- name: Ansible delete file create-project
  file:
    path: /var/www/html/landing
    state: absent

- name: composer create-project
  shell: /usr/local/bin/composer create-project laravel/laravel /var/www/html/landing --prefer-d

- name: Copy .env.template
  template:
    src: templates/env.template
    dest: /var/www/html/landing/.env

- name: composer
  shell: cd /var/www/html/landing/; /usr/local/bin/composer install --no-interaction
```

- cd ../templates
- nano env.template

```
  GNU nano 6.2                          env.template *
APP_NAME=Laravel
APP_ENV=local
APP_KEY=
APP_DEBUG=true
APP_URL=http://vm.local

LOG_CHANNEL=stack
LOG_DEPRECATIONS_CHANNEL=null
LOG_LEVEL=debug

DB_CONNECTION=mysql
DB_HOST=10.0.3.140
DB_PORT=3306
DB_DATABASE=landing
DB_USERNAME=admin
DB_PASSWORD=1234

BROADCAST_DRIVER=log
CACHE_DRIVER=file
FILESYSTEM_DRIVER=local
QUEUE_CONNECTION=sync
SESSION_DRIVER=file
SESSION_LIFETIME=120

MEMCACHED_HOST=127.0.0.1

REDIS_HOST=127.0.0.1
REDIS_PASSWORD=null
REDIS_PORT=6379

MAIL_MAILER=smtp
MAIL_HOST=mailhog
MAIL_PORT=1025
MAIL_USERNAME=null
MAIL_PASSWORD=null
MAIL_ENCRYPTION=null
MAIL_FROM_ADDRESS=null
MAIL_FROM_NAME="${APP_NAME}"

AWS_ACCESS_KEY_ID=
AWS_SECRET_ACCESS_KEY=
AWS_DEFAULT_REGION=us-east-1
AWS_BUCKET=
AWS_USE_PATH_STYLE_ENDPOINT=false

PUSHER_APP_ID=
PUSHER_APP_KEY=
PUSHER_APP_SECRET=
```

- nano lv.conf

```
  GNU nano 6.2                          lv.conf *
server {
    listen 80;
    listen [::]:80;

    # Log files for Debugging
    access_log /var/log/nginx/vhostlaravel-access.log;
    error_log /var/log/nginx/vhostlaravel-error.log;

    # Webroot Directory for Laravel project
    root /var/www/html/landing/public;
    index index.php index.html index.htm;

    # Your Domain Name
    server_name {{servername}};

    location / {
        try_files $uri $uri/ /index.php?$query_string;
    }

    # PHP-FPM Configuration Nginx
    location ~ \.php$ {
        try_files $uri =404;
        fastcgi_split_path_info ^(.+\.php)(/.+)$;
        fastcgi_pass 127.0.0.1:9001;
        fastcgi_index index.php;
        fastcgi_param SCRIPT_FILENAME $document_root$fastcgi_script_name;
        include fastcgi_params;
    }
}
```

- cd ../../

- cd db/tasks
- nano main.yml

```yaml
---
- name: delete apt cache
  become: yes
  become_user: root
  become_method: su
  command: rm -vf /var/lib/apt/lists/*

- name: install mariadb
  become: yes
  become_user: root
  become_method: su
  apt: name={{ item }} state=latest update_cache=true
  with_items:
    - python
    - mariadb-server
    - python-mysqldb
    - python-pymysql

- name: Stop MySQL
  service: name=mysqld state=stopped

- name: set environment variables
  shell: systemctl set-environment MYSQLD_OPTS="--skip-grant-tables"

- name: Start MySQL
  service: name=mysqld state=started
```

- cd ../templates
- nano my.cnf

```ini
# These groups are read by MariaDB server.
# Use it for options that only the server (but not clients) should see
#
# See the examples of server my.cnf files in /usr/share/mysql/
#
# this is read by the standalone daemon and embedded servers
[server]

# this is only for the mysqld standalone daemon
[mysqld]

# Basic Settings
#
user                    = mysql
pid-file                = /var/run/mysqld/mysqld.pid
socket                  = /var/run/mysqld/mysqld.sock
port                    = 3306
basedir                 = /usr
datadir                 = /var/lib/mysql
tmpdir                  = /tmp
lc-messages-dir         = /usr/share/mysql
skip-external-locking
```

- cd ../handlers
- nano main.yml

```yaml
---
- name: restart mysql
  become: yes
  become_user: root
  become_method: su
  action: service name=mysql state=restarted
```