

## CHAPTER V

### IMPLEMENTATION AND TESTING

#### 5.1. Implementation

Before the Test, writers must first install the Operating System not with GUI into Server Computer in this case I use the Operating System Ubuntu Server 12.04 LTS.

After installing the application, the authors completeness to other servers applications such as SSHD, LAMP (Linux, Apache Web Server, MySQL database, PHP).

After all has been installed in Operating System not with GUI Ubuntu Server 12.04 LTS so the authors began to prepare for the Webmin application and PHPVirtualbox.

The first step that must be done is :

##### 5.1.1. Install Webmin

1. Login as root and edit sources.list in /etc/apt/sources.list

```
nano /etc/apt/sources.list
```

2. Add this 2 line inside sources.list then save and exit

```
deb http://download.webmin.com/download/repository sarge contrib
```

```
deb http://webmin.mirror.somersettechsolutions.co.uk/repository sarge  
contrib
```

### 3. Import GPG key

```
wget http://www.webmin.com/jcameron-key.asc
```

```
apt-key add jcameron-key.asc
```

### 4. Update sources.list

```
sudo apt-get update
```

### 5. After success then install Webmin

```
sudo apt-get install webmin
```

In addition to the above, the writer also can provide manual way is to install Webmin :

#### 1. Download the last version of webmin and choose debian package (.deb)

```
wget http://www.webmin.com/download/deb/webmin-current.deb
```

#### 2. Then install webmin

```
dpkg --install webmin-current.deb
```

### 5.1.2. Install PHPVirtualbox

#### 1. Install Virtual box from apt

```
apt-get -f install virtualbox
```

#### 2. Copy paste file phpvirtualbox and extpack from flashdisk to folder /var/www

*mount /dev/sdb1 /mnt*

*cp /mnt/phpvirtualbox-4.1-11 /var/www*

*cp /mnt/Oracle\_VM\_VirtualBox\_Extension\_Pack-4.3\_4.3.8-92456.vbox-extpack /var/www*

3. Setting phpvirtualbox as root

*nano /var/www/phpvirtualbox-4.1-11/config.php*

4. Location dan Console Host replaced by IP server computer

*Var \$location = 'http://192.168.41.242:18083/';*

*#var \$consoleHost = '192.168.41.242';*

5. Open the Virtualbox file so that the server IP can be recognized

*nano /etc/default/virtualbox*

6. Then fill in this script

*VBOXWEB\_HOST=192.168.41.242*

7. After finished setting then restart the web server apache2 service

*service apache2 restart*

8. And run the virtualbox

```
vboxwebsrv -host 192.168.41.242 -b
```

9. Then install extpack if usb error message

```
VboxManage extpack install
```

10. Then after installation completed, author check that extpack

```
VboxManage list extpack
```

11. If that all done, so PHPVirtualbox can running.

12. To automatically running phpvirtualbox after booting, must be setting in crontab first.

```
crontab -e
```

13. After that successful so fill in this script into crontab.

```
@reboot /usr/lib/virtualbox/vboxwebsrv -b --logfile  
/home/ikom/vmlog/vb.log -host 192.168.41.242 -port 18083
```

14. Then make a directory in /home/ikom/vmlog.

```
cd /home/ikom  
mkdir vmlog
```

## 5.2. Testing

Once installed Webmin and PHPVirtualbox finished, the writer began to try the application of Laptop authors use Operating System Windows 7 so that it can be proven that the server can be used not only use Linux-based Operating Systems only.

### 5.2.1. Testing Webmin using Remote Server

To be able to start the application using a Web browser webmin from my Laptops. In here the authors use the Opera Web Browser.

1. Firstly writer is typing in Browser

[http://\(IP server yang digunakan\):10000 \(port Webmin\)](http://(IP server yang digunakan):10000 (port Webmin))

So login page will appear



2. To be able to log in using the username that has been made

**Login to Webmin**

You must enter a username and password to login to the Webmin server on  
192.168.41.242.

Username

Password

☐ Remember login permanently?

3. After successful login it will show the start webmin page that contains a lot of information about the server pc

The screenshot shows the Webmin dashboard after a successful login. The interface includes a navigation menu on the left with options like 'Webmin', 'System', 'Services', 'Apache Webserver', 'MySQL Database Server', 'Send User Mail', 'Generate Passwords For Sharing', 'Others', 'Networking', 'Hardware', 'Cluster', 'Unraid Modules', and 'Search'. The main content area displays system information for 'System: ikom (027.8.5.1)' on 'Operating System: Ubuntu Linux 32-bit'. It shows the system is up since Jul 15 11:31:58 2014, running on a 2.10GHz CPU with 2 cores. System uptime is 1 hour, 12 minutes. Running processes are 100. CPU load averages are 0.20 (1 min), 0.15 (5 min), and 0.17 (15 min). CPU usage is 2% (system), 0% (kernel), 0% (idle), 98% (user). Real memory is 101.75 MB used, 731.12 MB total. Virtual memory is 2 bytes used, 115 MB total. Local disk space is 4.72 GB used, 72.10 GB total. Package updates: 129 package updates are available. A notification at the bottom states: 'Webmin version 1.830 is now available, but you are running version 1.832. Upgrade Webmin Now.'

After a successful login, writer will explain the two functions on the Webmin of many functions that can be used is a function to configure the Samba server and configure Network.

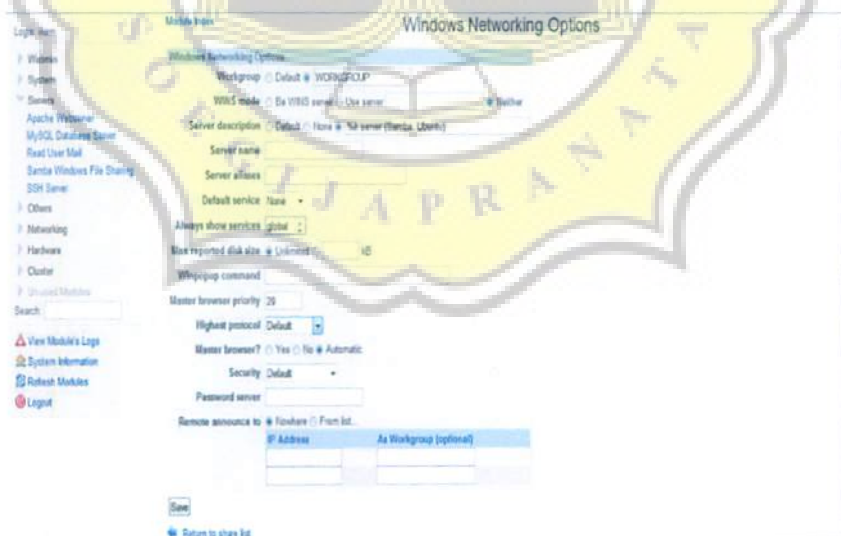
1. To configure Samba Server first go to sub page Samba server that is in part Servers - Samba Windows File Sharing



There is also the writer can see a lot of functions that can be performed by Webmin for Samba Servers in Computer Servers.

### 1.1. Windows Networking

First author chose to try the functions of Windows Networking



In the Windows Networking name of the author may change from Workgroup to change the password on the Samba Server Computer Server.



- 1.2. After changing the Windows Networking writer tries to look at the configuration file on the Samba server by selecting Edit Config File



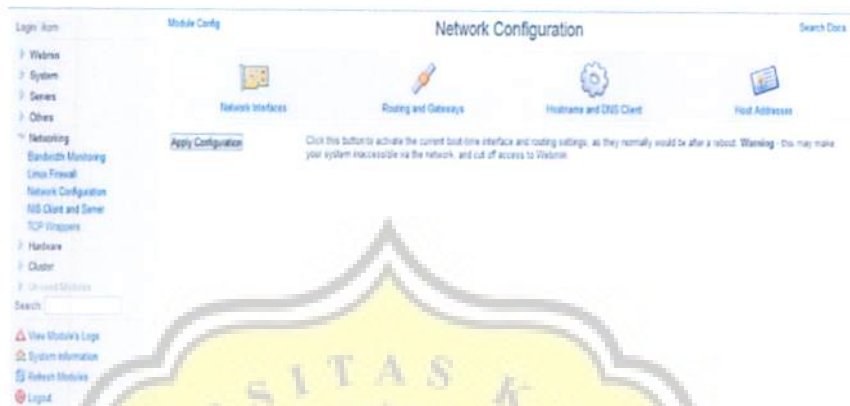
- 1.3. Then after trying to setup a Samba file server authors also try to see the users who use the Samba server by logging into the Samba option Users



2. After trying authors now part of the Samba server configuration writers try something else, namely the Network Configuration.



Therefore, the author goes into the sub pages Networking - Network Configuration



Within the Network Configuration page, the writer will try one by one function in it.

2.1. The first ones I will try is the function of Network Interfaces is to look at the hardware used for network author computer server



There is also the writer can choose the interfaces that will be used and the author can remove unused interfaces.

## 2.2. The second author tries configuration Routing and Gateways



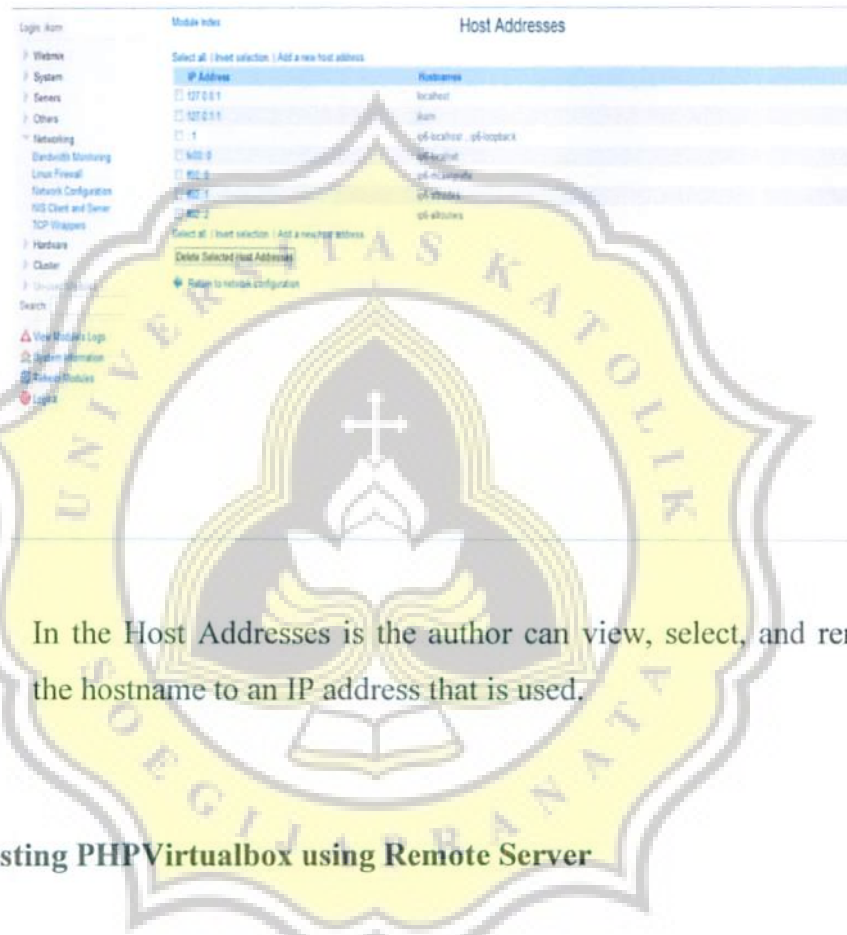
In the Routing and Gateways writer can reconfigure the gateway server computer and the router can select the appropriate or inappropriate use as a router

## 2.3. For the third is the Hostname and DNS Client



In this section the author can reconfigure the DNS server hostname and the writer wants to adjust the available network.

#### 2.4. For the last, Function number four is the Host Addresses



In the Host Addresses is the author can view, select, and remove the hostname to an IP address that is used.

#### 5.2.2. Testing PHPVirtualbox using Remote Server

To try PHPVirtualbox authors also had to use Opera Web Browser.

Author can give step by step to using the PHPVirtualbox until install the Operating System with GUI inside that.

Step - step using PHPVirtualbox with and install the Operating System inside that using Remote Server :

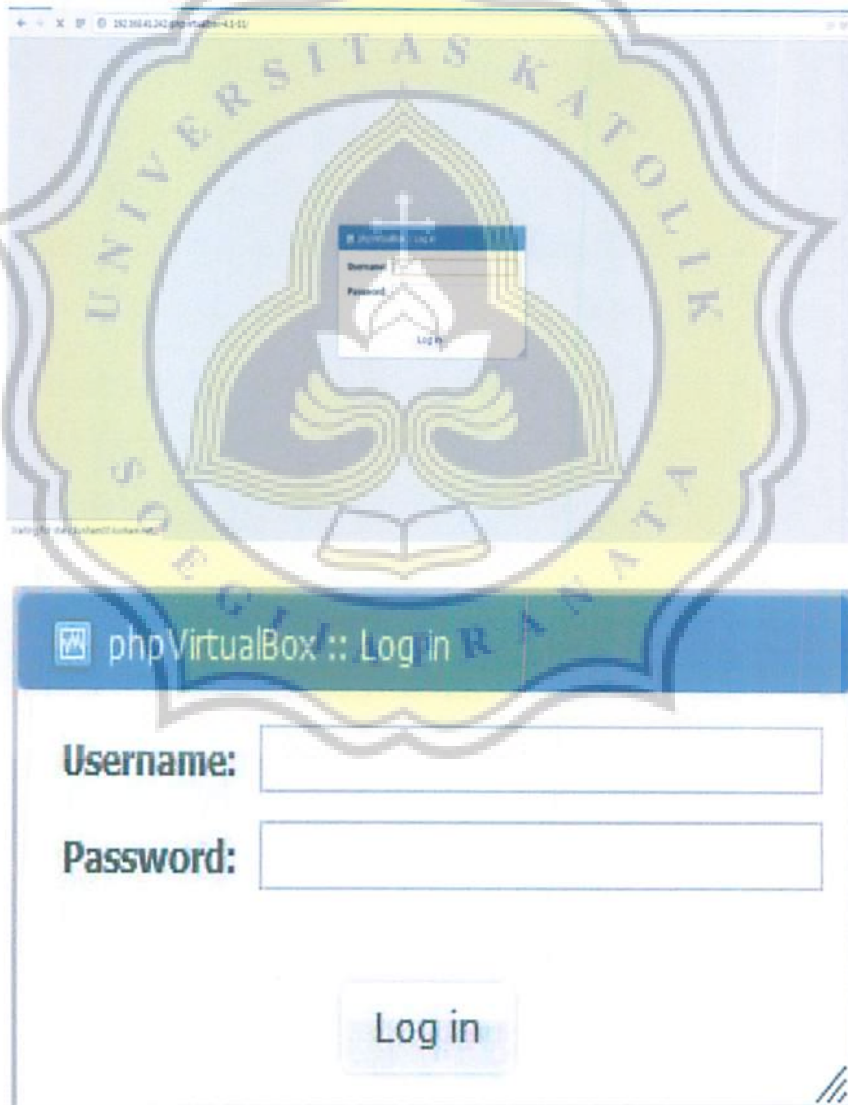
## 1. Typing on Web Browsers

<http://192.168.41.242/phpvirtualbox4.1-11/>

(because using phpvirtualbox version 4.1-11 and that IP server is 192.168.41.242).

Wait until page login appear.

Login page will appear on the laptop authors



phpVirtualBox :: Log in

Username:

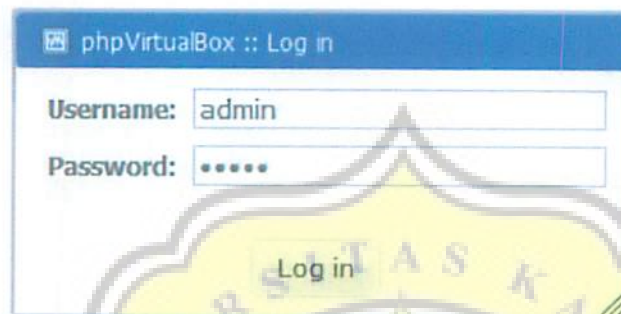
Password:

Log in

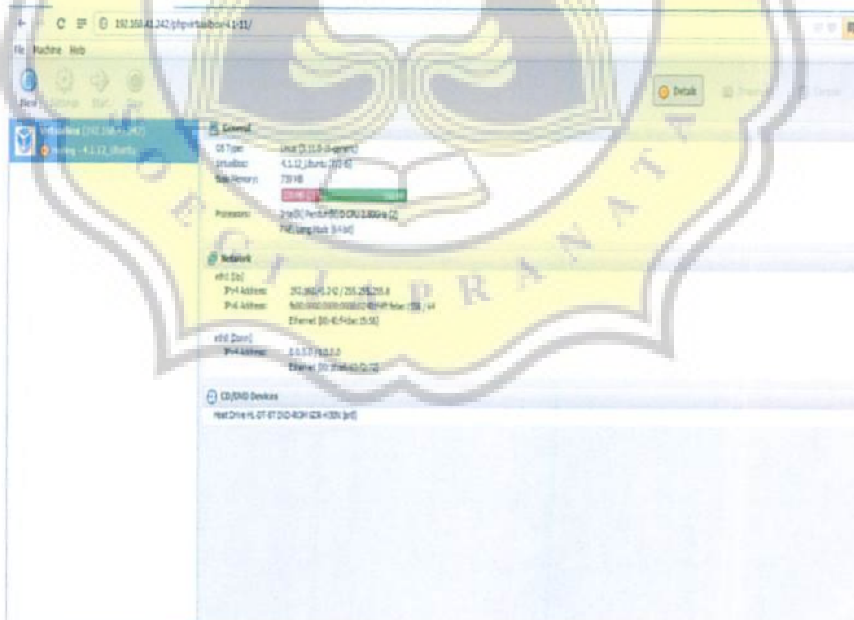
2. After login page was appear, the author enter the default username and password in phpvirtualbox :

Username : admin

Password : admin

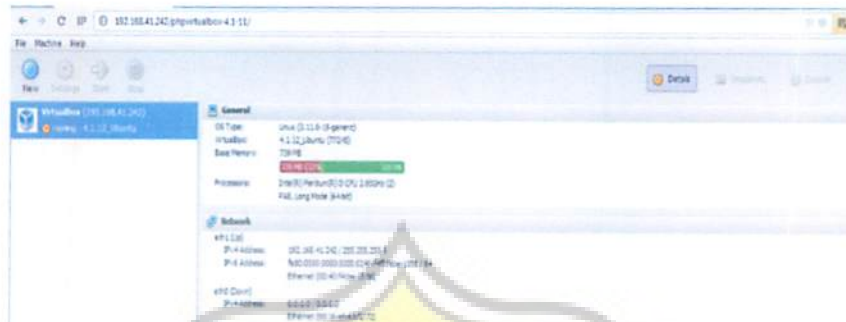


3. After successful login, the author will see the home page in phpvirtualbox

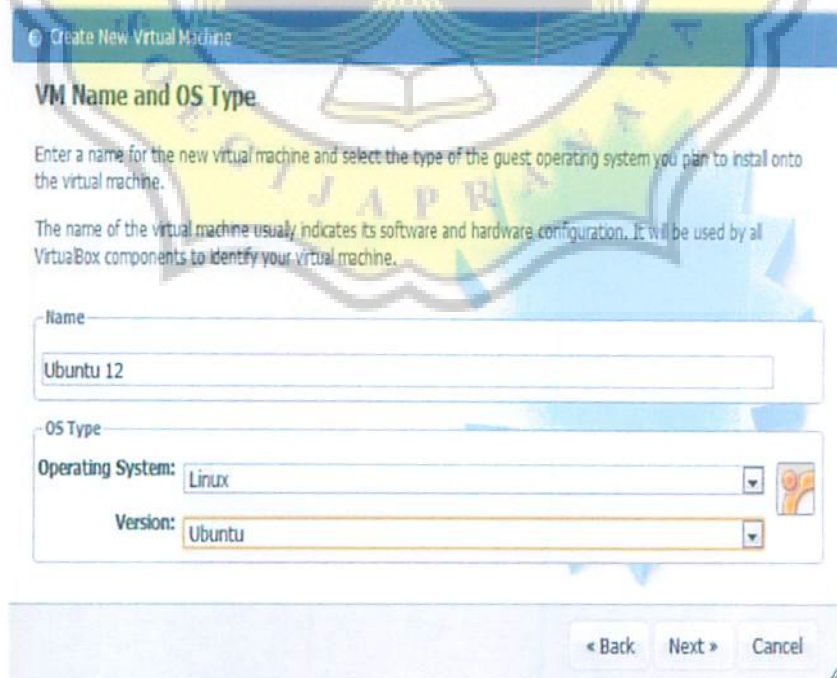




4. In this page to view the computer information systems and servers, it can be entered into Virtualbox



5. Then the author will install the Operating System in virtualbox. Author use Operating System Ubuntu 12.04 LTS. The initial step is to install the Operating System choose New in the toolbar so that it will exit the display the Create New Virtual Machine



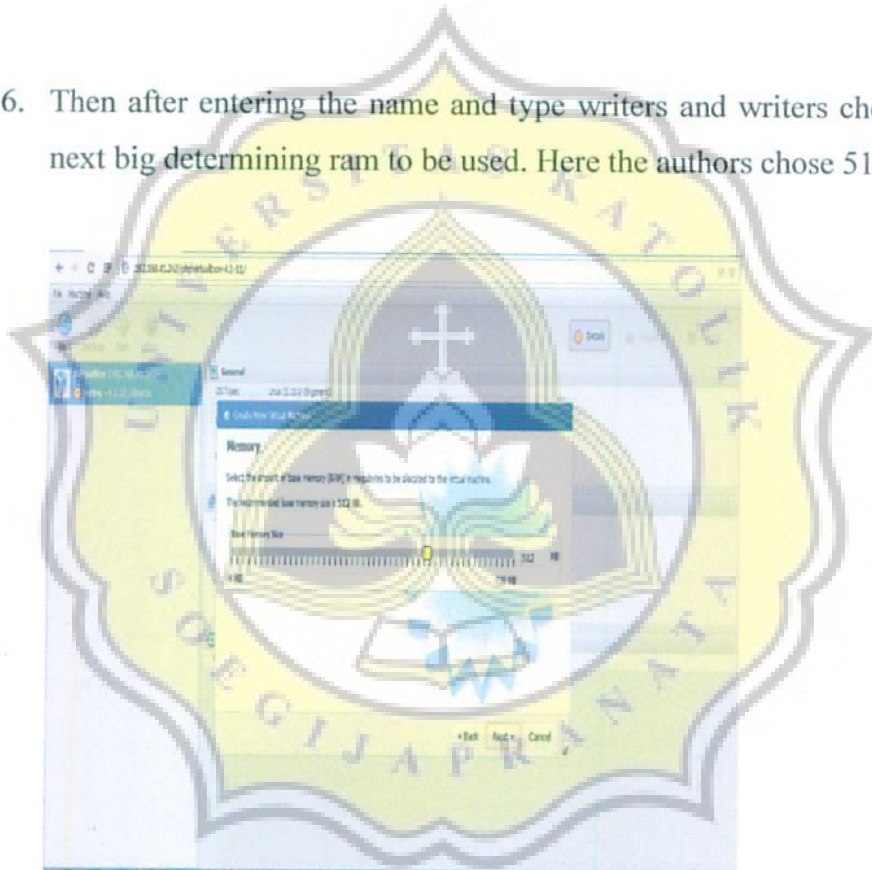
After that, input the name of the Operating System, include Operating System Type and Version. Here the authors chose :

Name : Ubuntu 12

OS : Linux

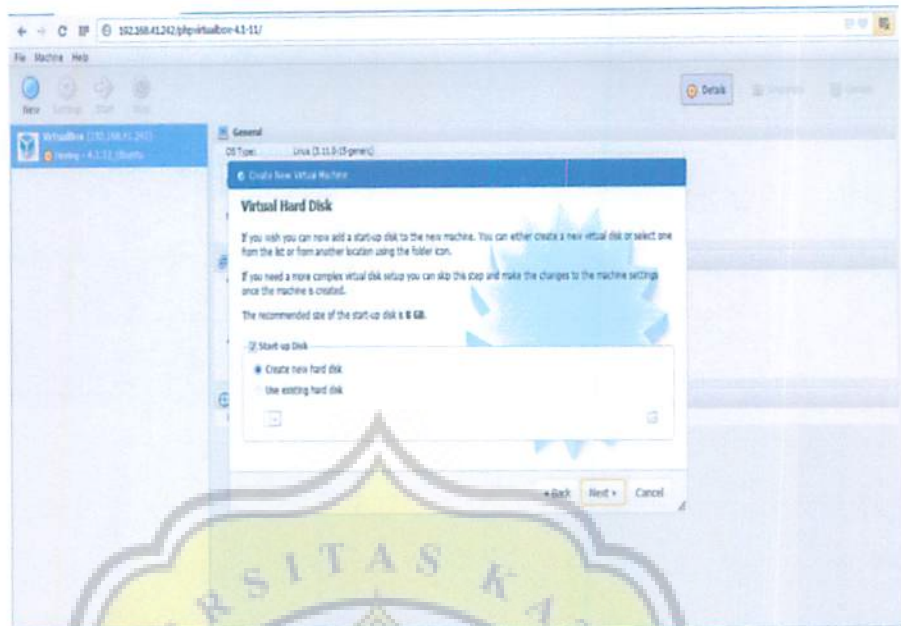
Version : Ubuntu

6. Then after entering the name and type writers and writers choose the next big determining ram to be used. Here the authors chose 512Mb.

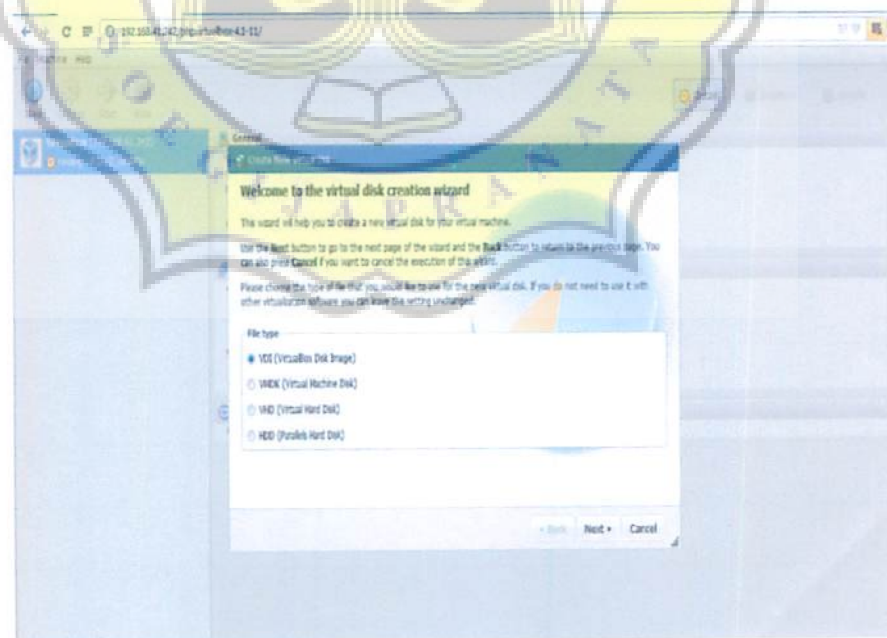


7. After determining that a big ram is used, the author determines to make a new hard drive or a hard drive that is already available. Writers choose Create New Hard Disk.

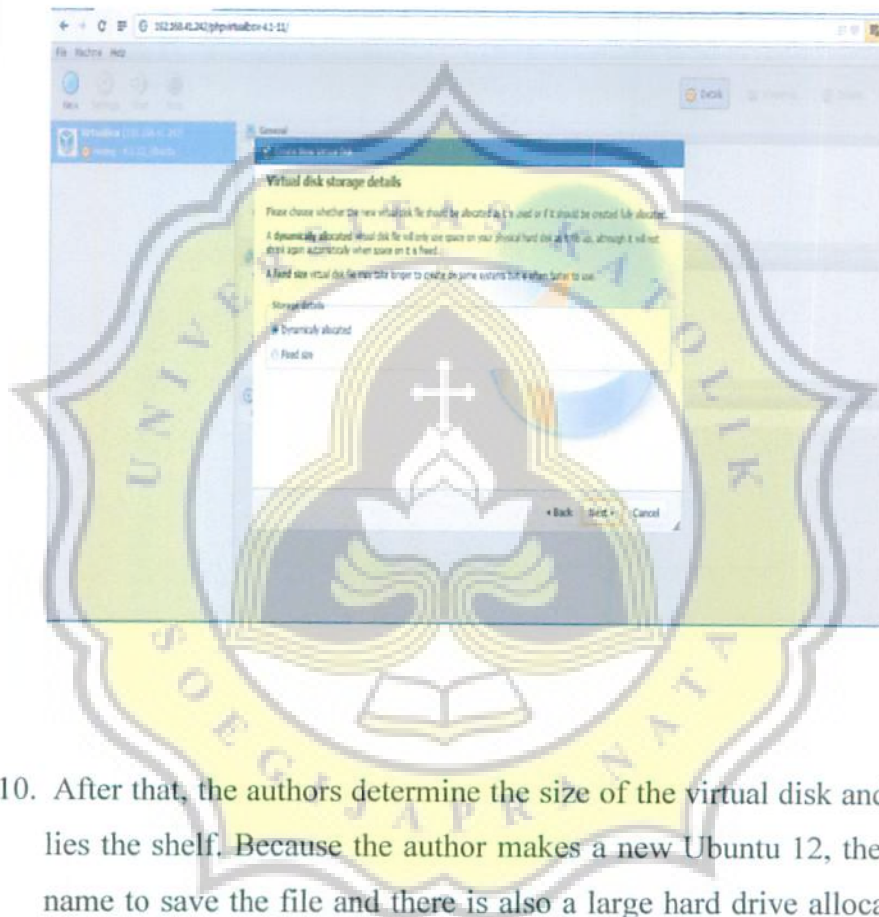




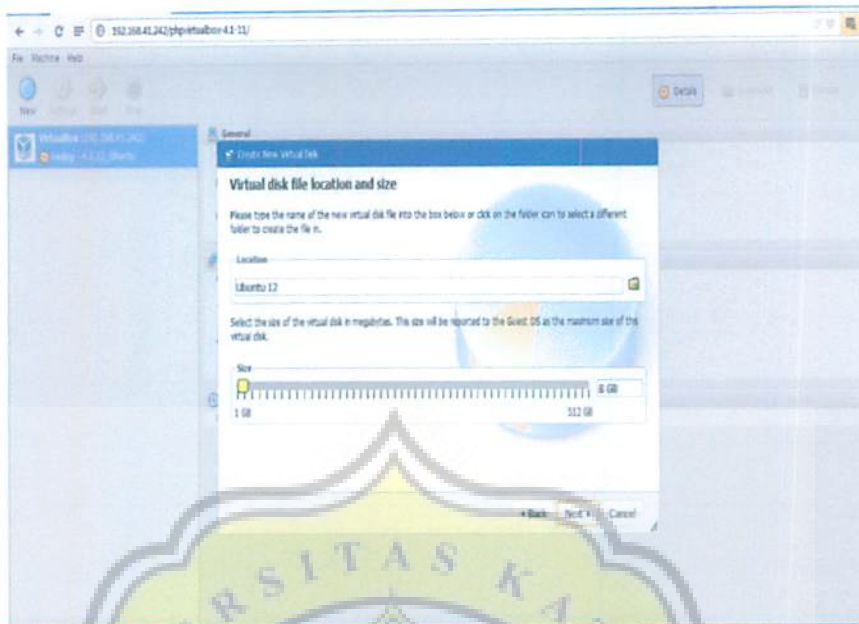
8. After determined the hard drive for storage and author determines the type of file that will be used later. For that authors choose the VDI is VirtualBox Disk Images



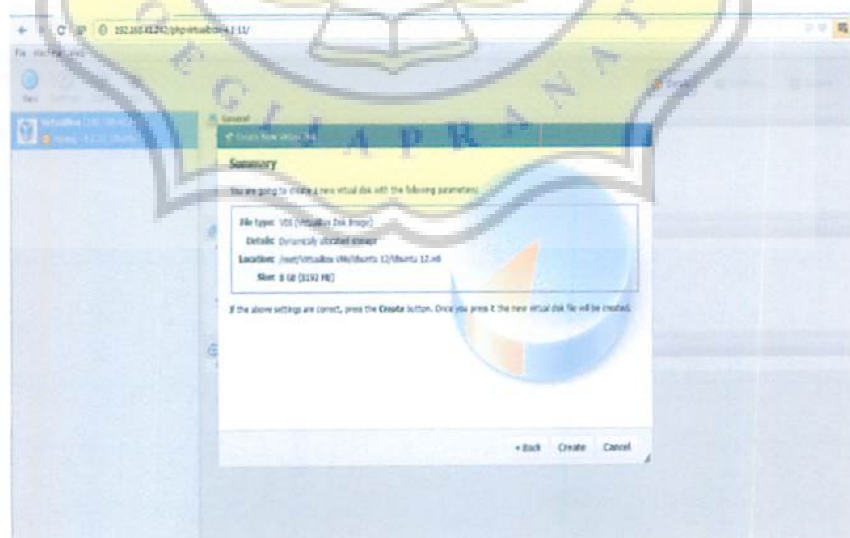
9. After determining the file type, the authors chose a storage area. Here the authors chose Dynamic store on the hard drive that is physically on the server computer.

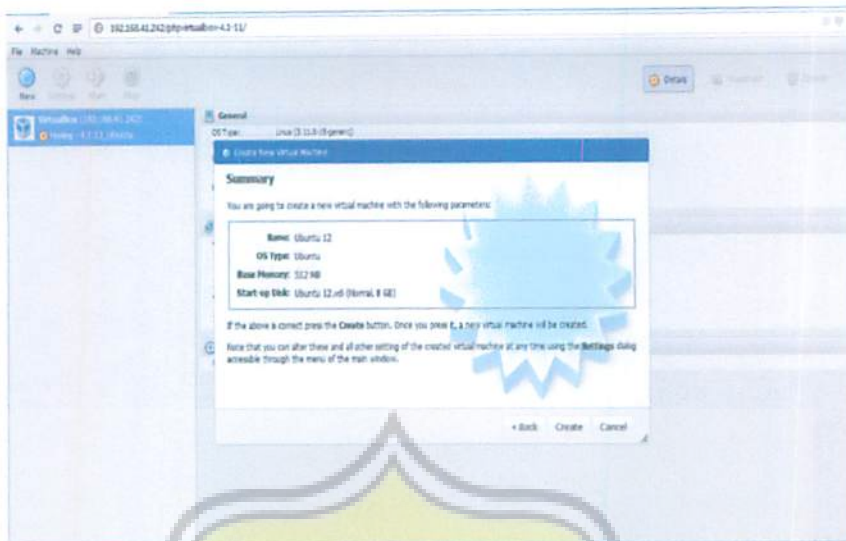


10. After that, the authors determine the size of the virtual disk and where lies the shelf. Because the author makes a new Ubuntu 12, the author name to save the file and there is also a large hard drive allocated for 8Gb.



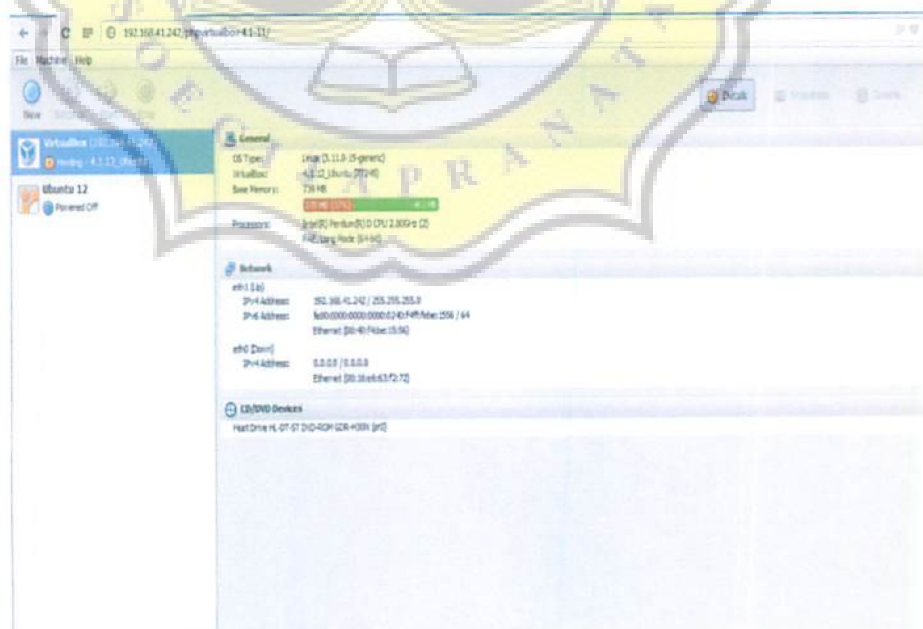
11. Once it is all finished before starting the install VirtualBox will provide a summary or description of all the options before starting the install to avoid mistakes.



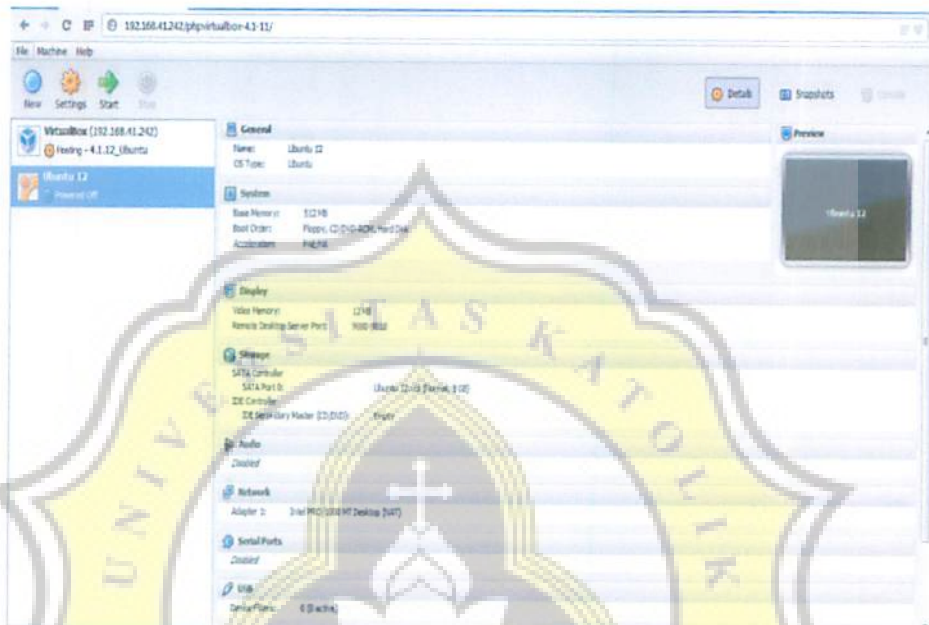


12. After authors looked at in the appropriate description of all the authors chose to proceed with selecting the create.

After selecting create, then it will continue to make the Operating System. And when it was created, the writer will find the Operating System appears on the home page PHPVirtualbox.

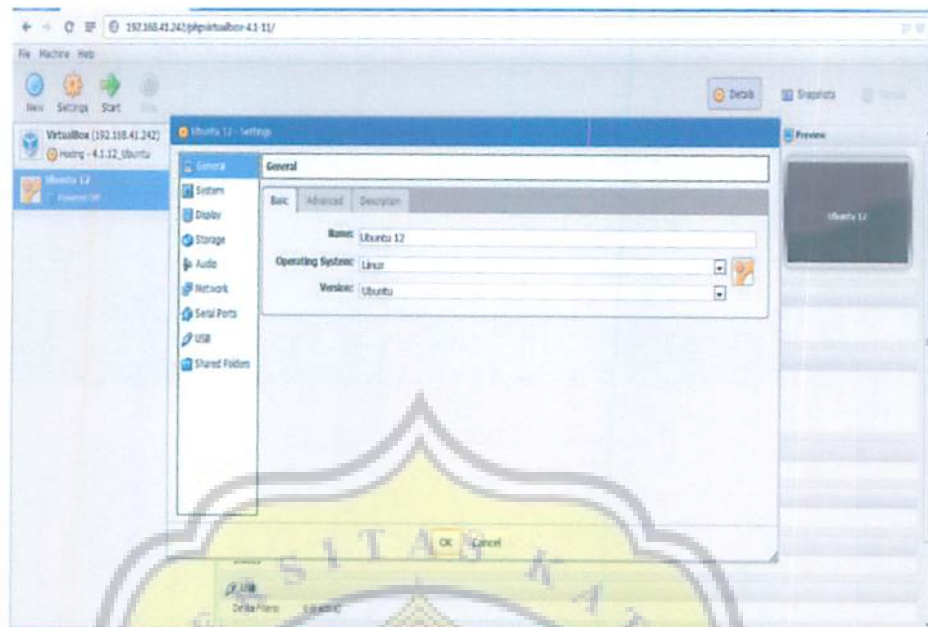


13. After the author can also see information in the operating system by clicking on the Operating System.

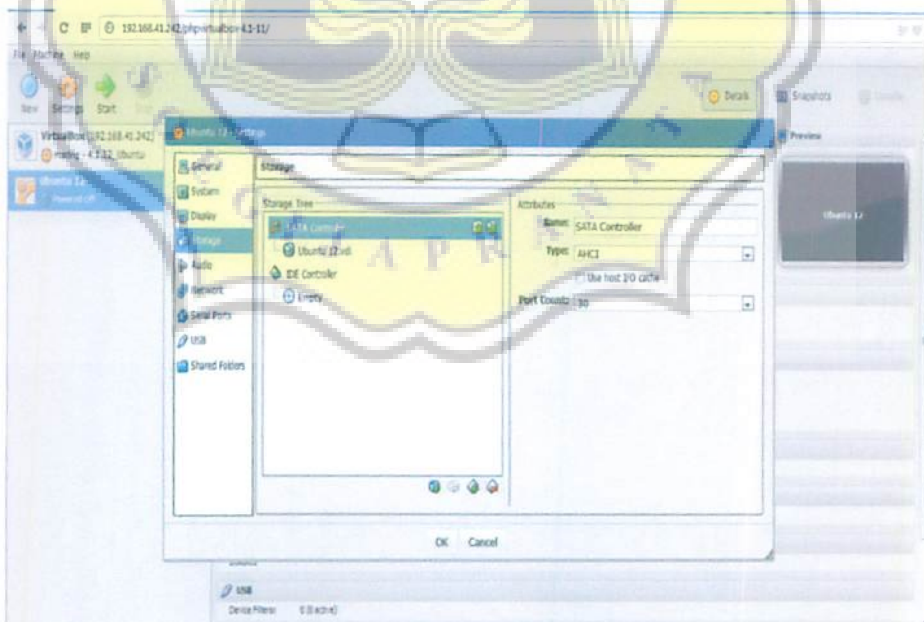


14. Then after the completion of the next step is inserting the file .iso into a description of the storage operating system. By selecting the settings menu on the toolbar.

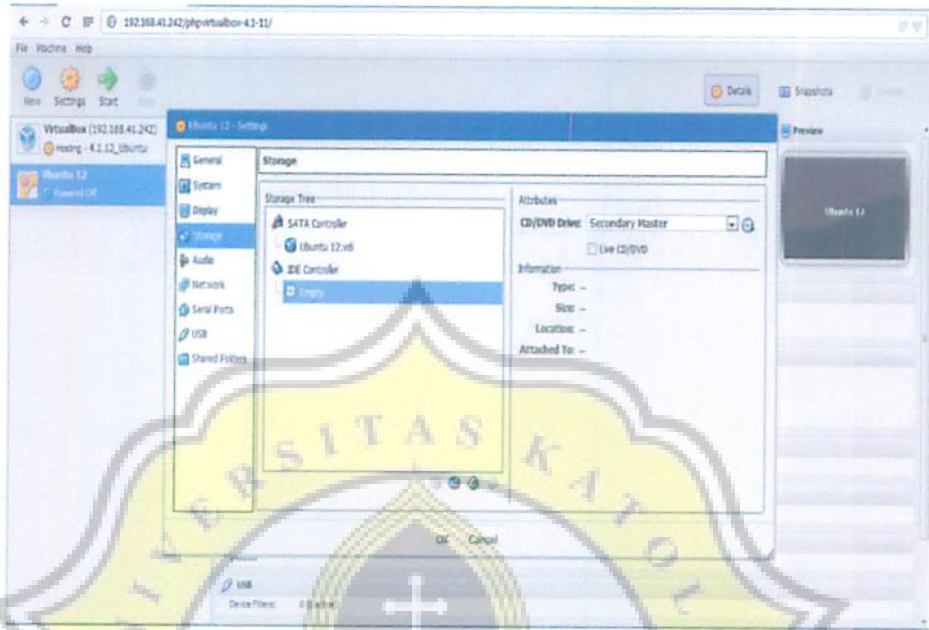




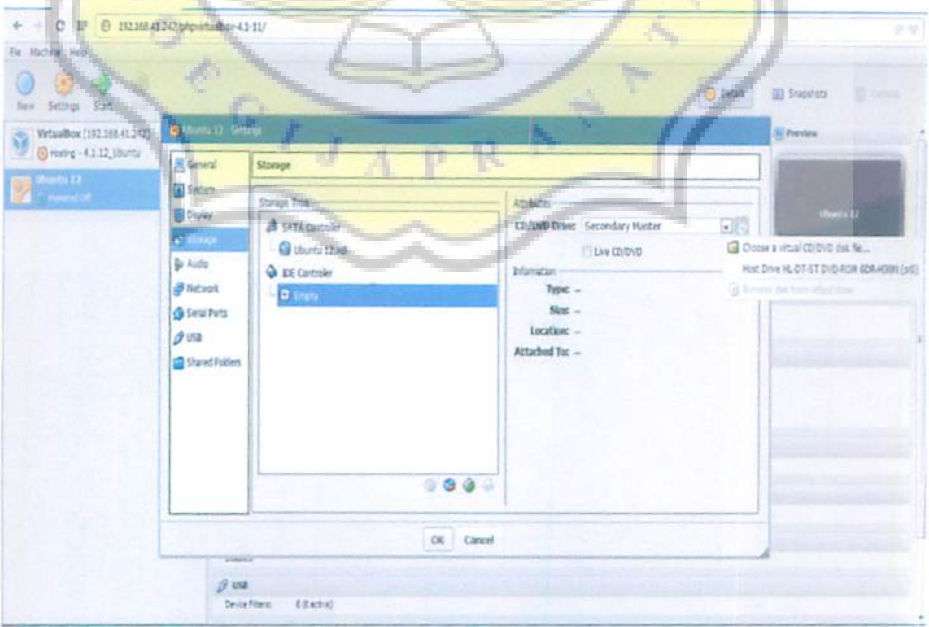
15. After selecting settings writers choose storage.



16. Then the authors noticed that the information contained empty in IDE Controller that should be filled by the file .iso of the Operating System.

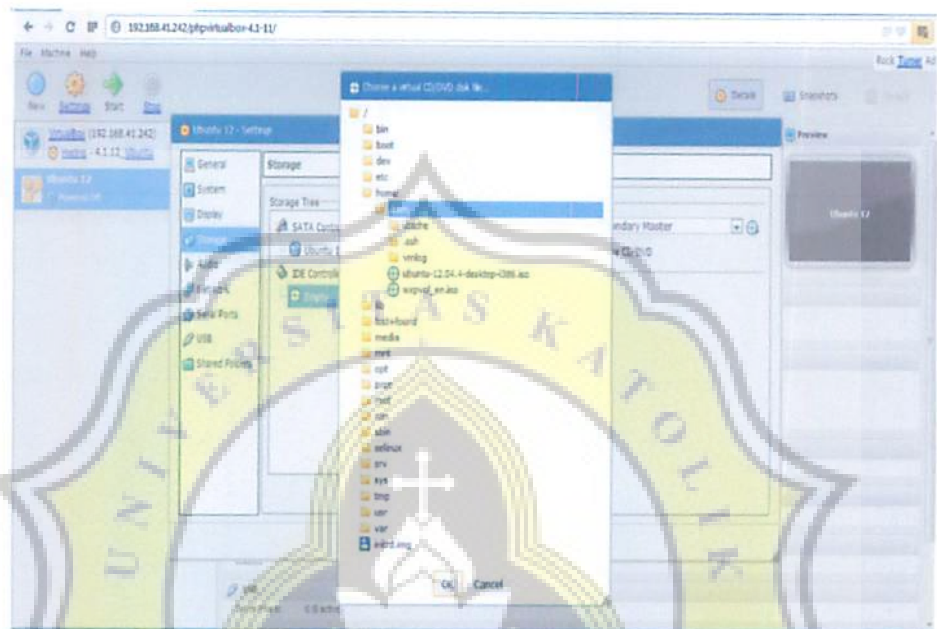


17. For load file .iso inside Virtualbox the authors chose the symbol next to the cd right choice CD/DVD Drive.

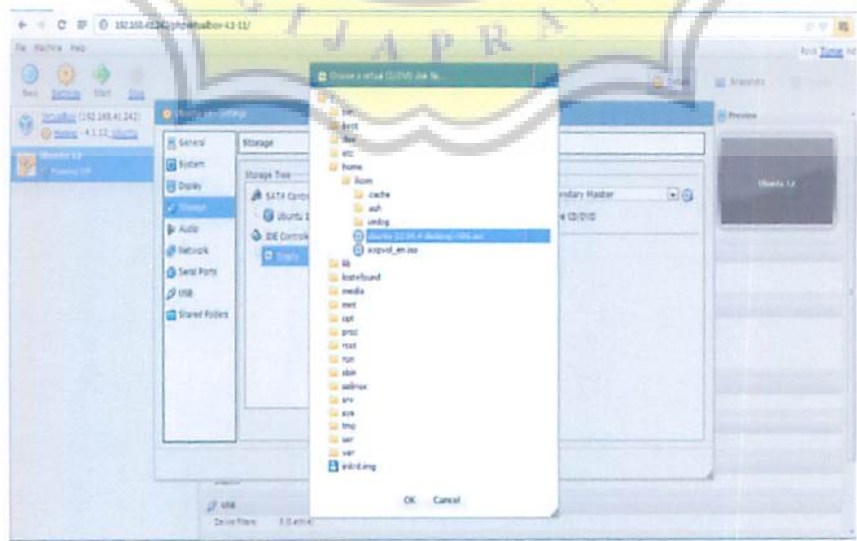




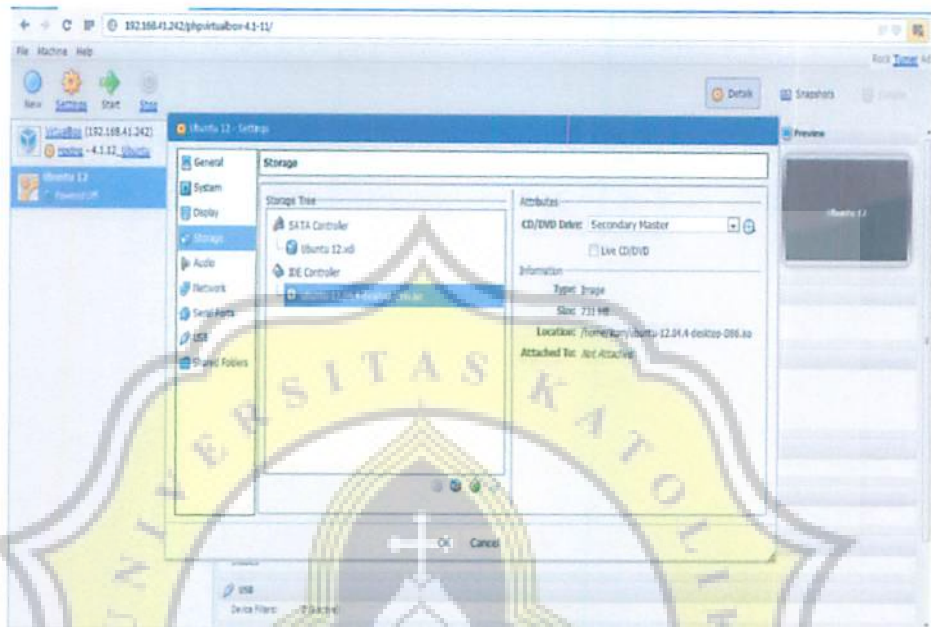
18. The next step the authors choose a virtual CD / DVD disk file. It will appear the option file storage location on the server computer.



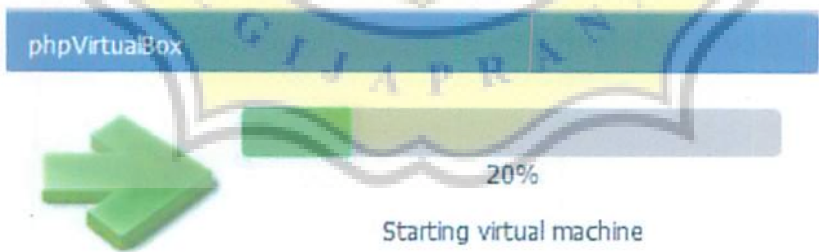
19. Then author select that file .iso in here the authors put the file in home folder / Ikom.

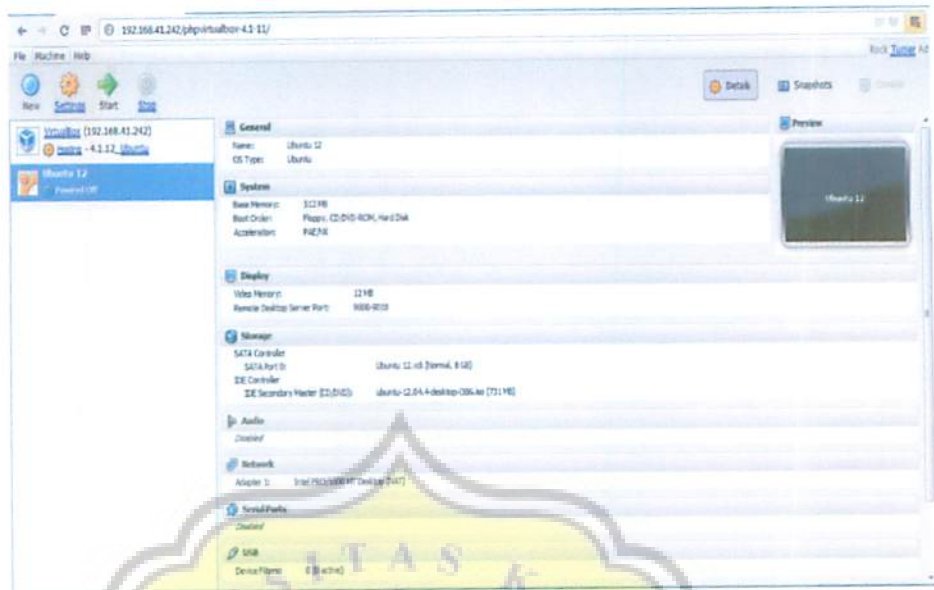


20. After selecting the authors look at the description of the previous IDE Controller becomes that empty file .iso



21. After completion, the authors select OK and return to the start page.





22. Then the writers start running the OS by selecting the Start option. Then install the Operating System inside Virtualbox by selecting connect and then detach.

