

FAMP

FreeBSD. Apache. MariaDB. PHP

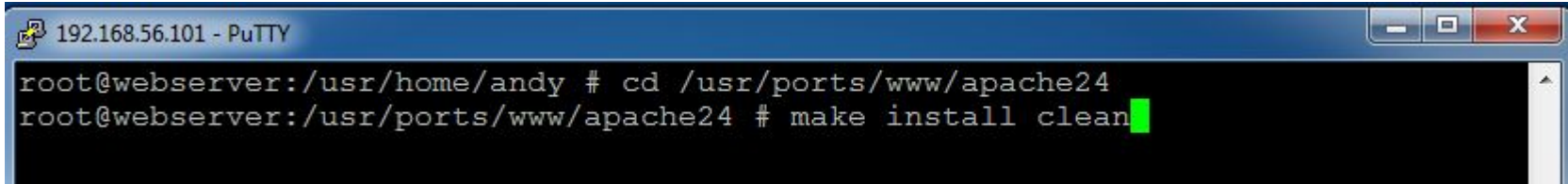
How To Build.Setup.Deploy

by `m1m1n`

The Introduction

- You Have A FreeBSD Box
- An Extracted Portsnap & Distfiles
- A Putty & WinSCP (Windows Users)
- A Terminal & SCP (Linux Users)
- Basic of ee/nano editor
- Basic of Unix/Linux Command Line
- A Lots of Snacks...

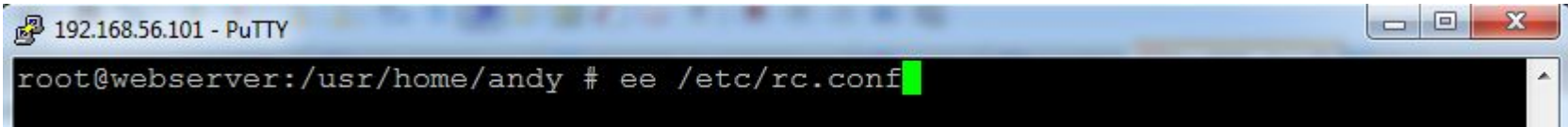
The Setup. Configuration. Deploy (Apache24)

A terminal window titled "192.168.56.101 - PuTTY" showing a root user at a webserver. The user has navigated to the directory /usr/ports/www/apache24 and has entered the command "make install clean".

```
192.168.56.101 - PuTTY
root@webserver:/usr/home/andy # cd /usr/ports/www/apache24
root@webserver:/usr/ports/www/apache24 # make install clean
```

Installing Apache24

```
# cd /usr/ports/www/apache24 && make install clean
```

A terminal window titled "192.168.56.101 - PuTTY" showing a root user at a webserver. The user has entered the command "ee /etc/rc.conf" to edit the configuration file.

```
192.168.56.101 - PuTTY
root@webserver:/usr/home/andy # ee /etc/rc.conf
```

Apache24 on Start up

```
# ee /etc/rc.conf
```

The Setup. Configuration. Deploy (Apache24)

```
sendmail_enable="NONE"
hostname="webserver.fsisystem.net"
ifconfig_em0="DHCP"
sshd_enable="YES"
# Set dumpdev to "AUTO" to enable crash dumps, "NO" to disable
dumpdev="AUTO"

# APACHE24
apache24_enable="YES"
apache24_http_accept_enable="YES"
```

```
apache24_enable="YES"
```

```
apache24_http_accept_enable="YES"
```

The Setup. Configuration. Deploy (Apache24)

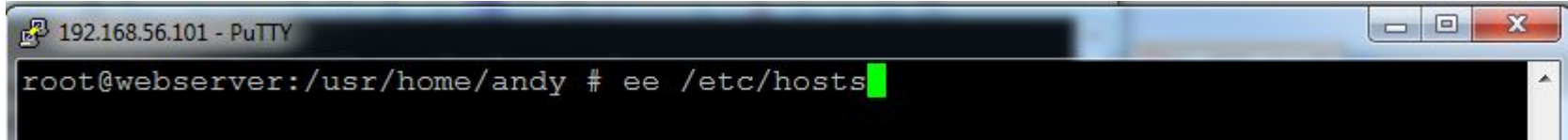
```
root@webserver:/usr/home/andy # ee /usr/local/etc/apache24/httpd.conf
```

Configure httpd.conf

```
# ee /usr/local/etc/apache24/httpd.conf
```

```
#  
ServerAdmin andy@belajarfreebsd.or.id  
  
#  
# ServerName gives the name and port that the server uses to identify itself.  
# This can often be determined automatically, but we recommend you specify  
# it explicitly to prevent problems during startup.  
#  
# If your host doesn't have a registered DNS name, enter its IP address here.  
#  
ServerName webserver.fsisystem.net:80
```

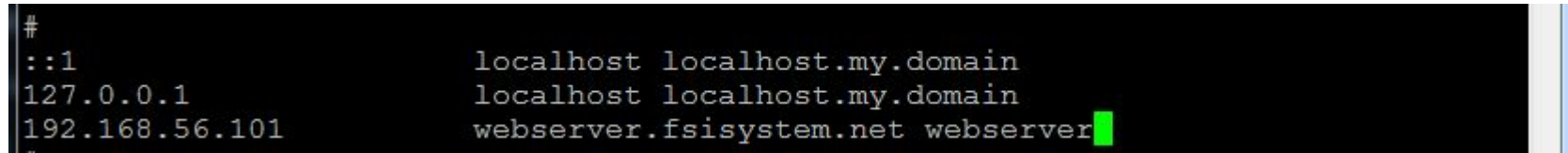
The Setup. Configuration. Deploy (Apache24)



```
192.168.56.101 - PuTTY
root@webserver:~/usr/home/andy # ee /etc/hosts
```

Configure hosts

```
# ee /etc/hosts
```



```
#
::1 localhost localhost.my.domain
127.0.0.1 localhost localhost.my.domain
192.168.56.101 webserver.fsisystem.net webserver
```

Server ip address & Server FQDN

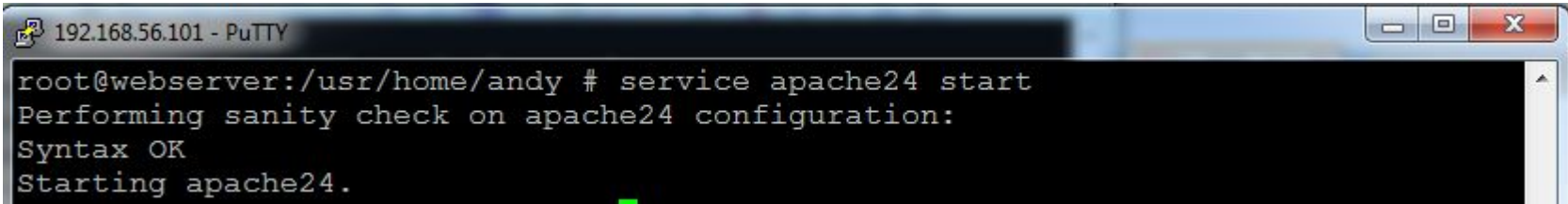
```
192.168.56.101 webserver.fsisystem.net webserver
```

The Setup. Configuration. Deploy (Apache24)

```
LoadModule rewrite_module libexec/apache24/mod_rewrite.so
LoadModule php5_module      libexec/apache24/libphp5.so
```

Enabling mod_rewrite & mod_php

Remove `#` on `rewrite_module` & `php5_module`



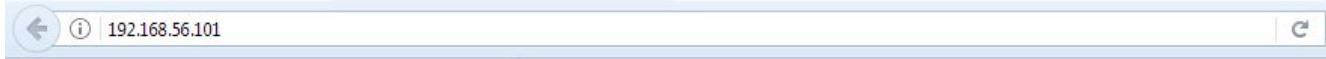
```
192.168.56.101 - PuTTY
root@webserver:/usr/home/andy # service apache24 start
Performing sanity check on apache24 configuration:
Syntax OK
Starting apache24.
```

Starting Apache24 Service

```
# service apache24 start
```

The Setup. Configuration. Deploy (Apache24)

— — —

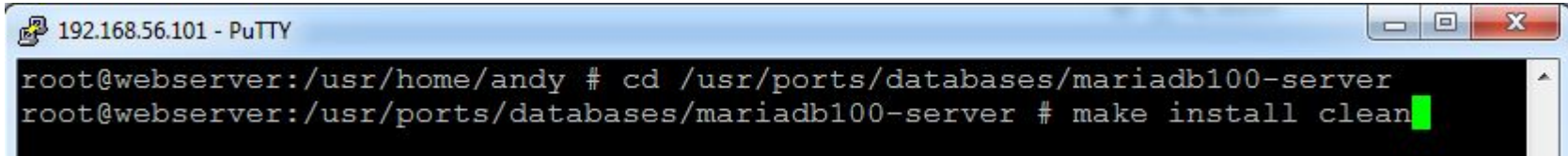


It works!

Testing with Browser using server ip address

It Works!

The Setup. Configuration. Deploy (MariaDB)

A terminal window titled "192.168.56.101 - PuTTY" showing a root user at a webserver. The user navigates to the directory "/usr/ports/databases/mariadb100-server" and runs the command "make install clean".

```
root@webserver:/usr/home/andy # cd /usr/ports/databases/mariadb100-server
root@webserver:/usr/ports/databases/mariadb100-server # make install clean
```

Installing MariaDB100-Server

```
# cd /usr/ports/databases/mariadb100-server
# make install clean
```

A terminal window titled "192.168.56.101 - PuTTY" showing a root user at a webserver. The user runs the command "ee /etc/rc.conf" to edit the system configuration file.

```
root@webserver:/usr/home/andy # ee /etc/rc.conf
```

Adding MariaDB on Start Up

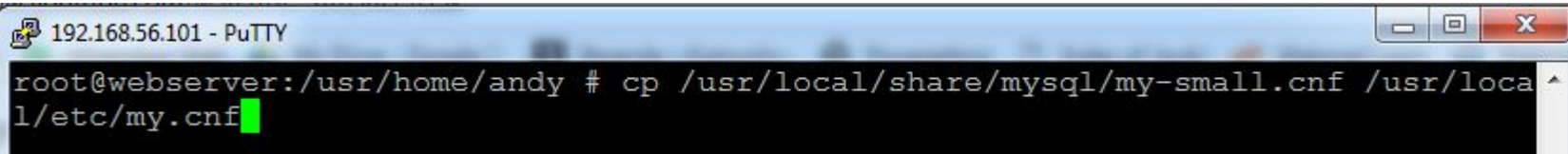
```
# ee /etc/rc.conf
```

The Setup. Configuration. Deploy (MariaDB)

```
---  
# MARIADB  
mysql_enable="YES"
```

MariaDB on Server Start Up

```
mysql_enable="YES"
```

A terminal window titled "192.168.56.101 - PuTTY" showing a command being executed. The command is "cp /usr/local/share/mysql/my-small.cnf /usr/local/etc/my.cnf". The cursor is at the end of the command.

```
192.168.56.101 - PuTTY  
root@webserver:/usr/home/andy # cp /usr/local/share/mysql/my-small.cnf /usr/local/etc/my.cnf
```

Copying my.cnf from System

```
# cp /usr/local/share/mysql/my-small.cnf /usr/local/etc/my.cnf
```

The Setup. Configuration. Deploy (MariaDB)

```
root@webserver:/usr/home/andy # service mysql-server start
Starting mysql.
root@webserver:/usr/home/andy # sockstat -4 -l
USER      COMMAND  PID   FD  PROTO  LOCAL ADDRESS  FOREIGN ADDRESS
mysql     mysqld   40108 16  tcp46  *:3306         *:*
```

Starting MariaDB Service & Status

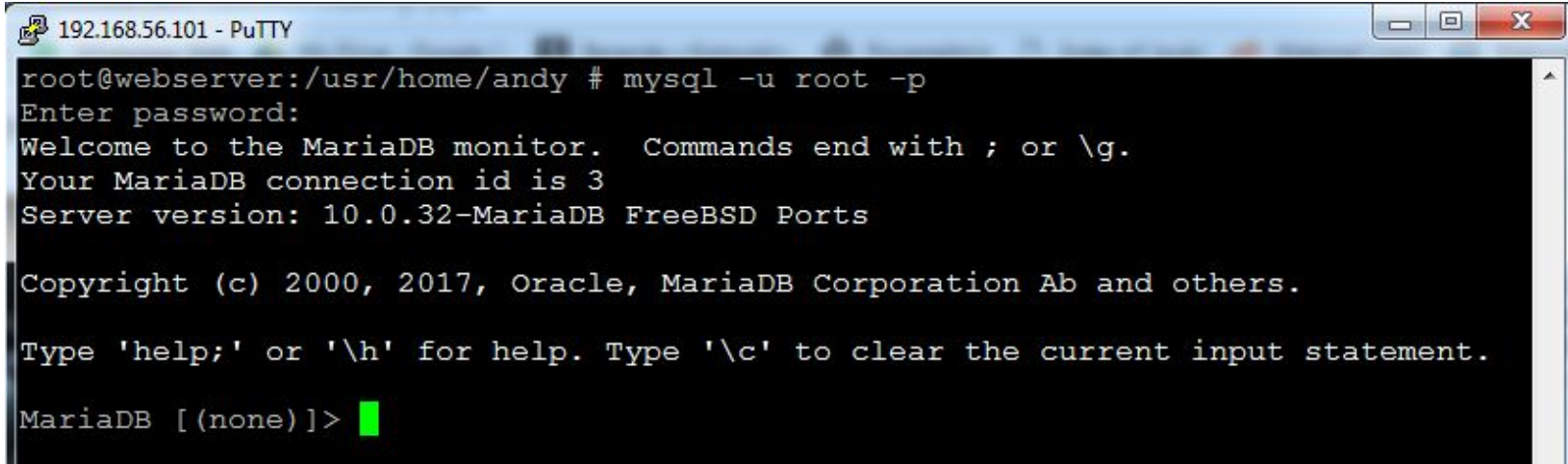
```
# service mysql-server start
# sockstat -4 -l
```

```
root@webserver:/usr/home/andy # mysqladmin -u root password '1qaz@WSX3edc'
```

MariaDB set root password for the first time

```
# mysqladmin -u root password 'passwordanda'
```

The Setup. Configuration. Deploy (MariaDB)

A screenshot of a PuTTY terminal window titled "192.168.56.101 - PuTTY". The terminal shows a user at the root of a webserver logging into the MariaDB monitor. The user enters the command "mysql -u root -p", and the terminal displays the password prompt, a welcome message, connection ID, server version, and copyright information. The prompt "MariaDB [(none)]>" is shown with a green cursor.

```
root@webserver:/usr/home/andy # mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 3
Server version: 10.0.32-MariaDB FreeBSD Ports

Copyright (c) 2000, 2017, Oracle, MariaDB Corporation Ab and others.

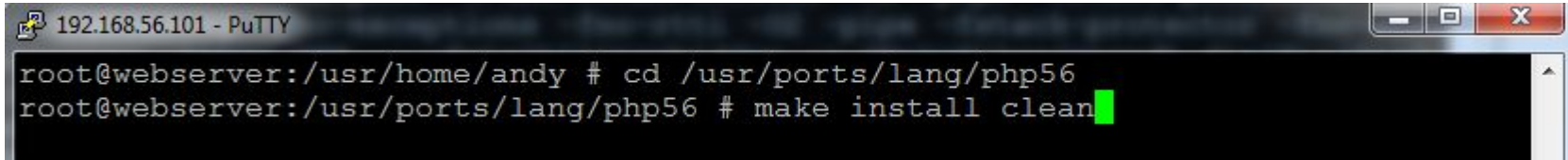
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> █
```

MariaDB first login

```
# mysql -u root -p
```

The Setup. Configuration. Deploy (PHP)

A terminal window titled "192.168.56.101 - PuTTY" showing a user at the root of a webserver. The user navigates to the directory /usr/ports/lang/php56 and runs the command "make install clean".

```
192.168.56.101 - PuTTY
root@webserver:/usr/home/andy # cd /usr/ports/lang/php56
root@webserver:/usr/ports/lang/php56 # make install clean
```

Installing php56

```
# cd /usr/ports/lang/php56 && make install clean
```

A terminal window titled "192.168.56.101 - PuTTY" showing a user at the root of a webserver. The user navigates to the directory /usr/ports/www/mod_php56 and runs the command "make install clean".

```
192.168.56.101 - PuTTY
root@webserver:/usr/home/andy # cd /usr/ports/www/mod_php56
root@webserver:/usr/ports/www/mod_php56 # make install clean
```

Installing php56 module for Apache24

```
# cd /usr/ports/www/mod_php56 && make install clean
```

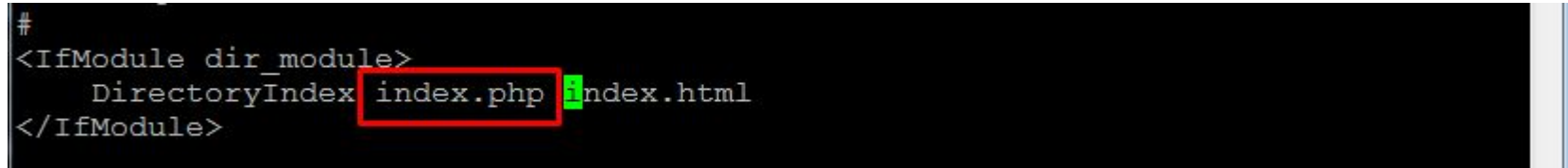
The Setup. Configuration. Deploy (PHP)



```
192.168.56.101 - PuTTY
root@webserver:/usr/home/andy # ee /usr/local/etc/apache24/httpd.conf
```

Configure Apache24 for php56

```
# ee /usr/local/etc/apache24/httpd.conf
```



```
#
<IfModule dir_module>
  DirectoryIndex index.php index.html
</IfModule>
```

Adding index.php in front of index.html

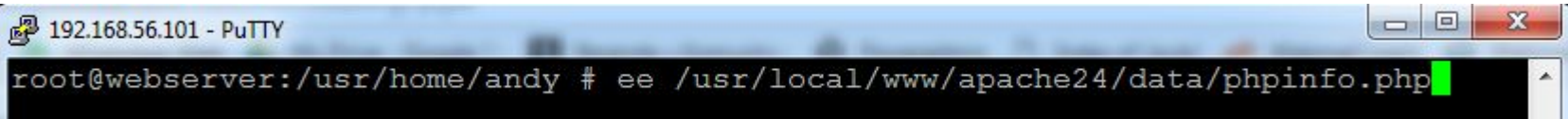
```
DirectoryIndex index.php index.html
```

The Setup. Configuration. Deploy (PHP)

```
#  
AddType application/x-compress .Z  
AddType application/x-gzip .gz .tgz  
AddType application/x-httpd-php .php  
AddType application/x-httpd-php-source .phps  
#
```

Adding Type Application for php56

```
AddType application/x-httpd-php .php  
AddType application/x-httpd-php-source .phps
```



A screenshot of a PuTTY terminal window. The title bar reads "192.168.56.101 - PuTTY". The terminal content shows the command: `root@webserver:/usr/home/andy # ee /usr/local/www/apache24/data/phpinfo.php`. A green cursor is positioned at the end of the command.

Creating phpinfo.php file

```
# ee /usr/local/www/apache24/data/phpinfo.php
```

The Setup. Configuration. Deploy (PHP)

```
---  
read : read a file      |char  : ascii code of char      |0-9 : go to line "#"  
write: write a file    |case  : case sensitive search   |exit : leave and save  
!cmd  : shell "cmd"    |nocase: ignore case in search   |quit : leave, no save  
expand: expand tabs    |noexpand: do not expand tabs
```

```
=====  
<?php  
phpinfo();
```

Phpinfo.php content

```
<?php phpinfo();
```

```
root@webserver:/usr/home/andy # cd /usr/local/etc/  
root@webserver:/usr/local/etc # cp php.ini-production php.ini
```

Copying php.ini from System

```
# cp /usr/local/etc/php.ini-production /usr/local/etc/php.ini
```


The Setup. Configuration. Deploy (PHP)

```
root@webserver:/usr/local/etc # ee /usr/local/etc/php.ini
```

Configure php.ini for Basic Use

```
# ee /usr/local/etc/php.ini
```

```
[Date]
; Defines the default timezone used by the date functions
; http://php.net/date.timezone
date.timezone = Asia/Jakarta
```

```
date.timezone = Asia/Jakarta
```

The Setup. Configuration. Deploy (PHP)

```
---  
; The path can be defined as:  
;  
session.save_path = "/tmp"  
;
```

```
session.save_path= "/tmp"
```

192.168.56.101 - PuTTY

```
root@webserver:/usr/home/andy # service apache24 restart  
Performing sanity check on apache24 configuration:  
Syntax OK
```

Restarting Apache24

```
# Service Apache24 restart
```

The Setup. Configuration. Deploy (PHP)



PHP Version 5.6.31 	
System	FreeBSD webserver.fs.isystem.net 11.1-RELEASE FreeBSD 11.1-RELEASE #0 r321309: Fri Jul 21 02:08:28 UTC 2017 root@releng2.nyi.freebsd.org:/usr/obj/usr/src/sys/GENERIC amd64
Build Date	Aug 22 2017 22:13:36
Configure Command	./configure '--with-layout=GNU' '--localstatedir=/var' '--with-config-file-scan-dir=/usr/local/etc/php' '--disable-all' '--enable-libxml' '--enable-mysqlnd' '--with-libxml-dir=/usr/local' '--with-pcre-regex=/usr/local' '--with-zlib-dir=/usr' '--program-prefix=' '--disable-cli' '--disable-cgi' '--with-apxs2=/usr/local/sbin/apxs' '--with-regex=php' '--with-zend-vm=CALL' '--prefix=/usr/local' '--mandir=/usr/local/man' '--infodir=/usr/local/info' '--build=amd64-portbsd-freebsd11.1' 'build_alias=amd64-portbsd-freebsd11.1' 'CC=cc' 'CFLAGS=-O2' '-pipe' '-fstack-protector' '-fno-strict-aliasing' 'LDFLAGS=-fstack-protector' 'LIBS=-pthread' 'CPPFLAGS=' 'CPP=cpp' 'CXX=c++' 'CXXFLAGS=-O2' '-pipe' '-fstack-protector' '-fno-strict-aliasing'
Server API	Apache 2.0 Handler
Virtual Directory Support	disabled
Configuration File (php.ini) Path	/usr/local/etc
Loaded Configuration File	(none)
Scan this dir for additional .ini files	/usr/local/etc/php
Additional .ini files parsed	(none)
PHP API	20131106
PHP Extension	20131226
Zend Extension	220131226
Zend Extension Build	API220131226.NTS
PHP Extension Build	API20131226.NTS
Debug Build	no
Thread Safety	disabled
Zend Signal Handling	disabled
Zend Memory Manager	enabled

The Credits

ALLAH SWT & Nabi Muhammad SAW

www.skyline.net.id

FSISystem

Quanta & Inspur Servers

Komunitas BelajarFreeBSD Indonesia