

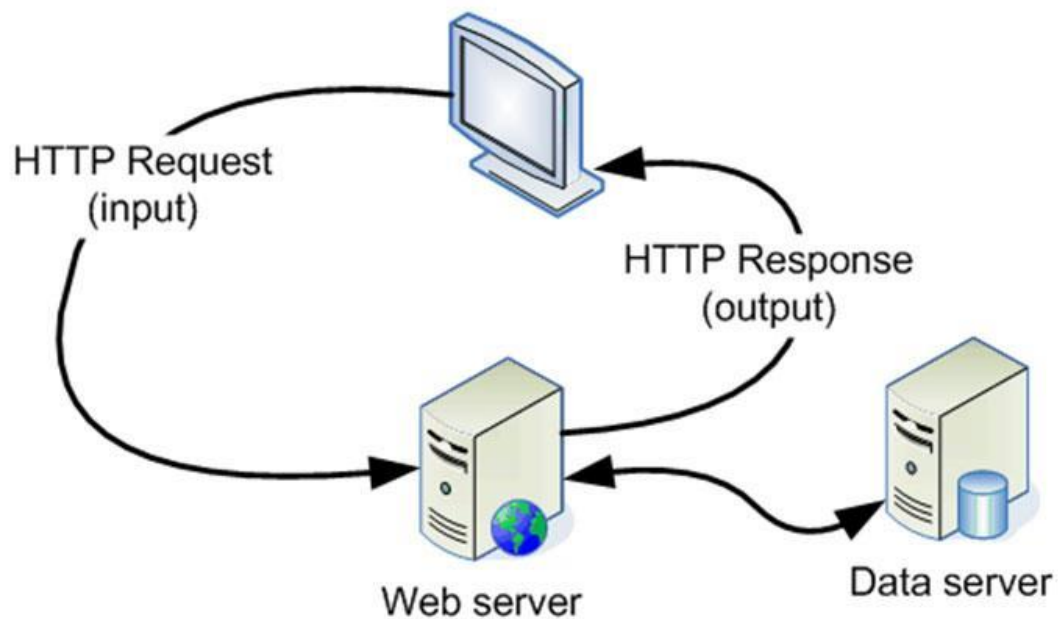
## WEB SERVER

**Web server** adalah perangkat lunak yang berfungsi sebagai penerima permintaan yang dikirimkan melalui browser kemudian memberikan tanggapan permintaan dalam bentuk halaman situs web atau lebih umumnya dalam dokumen HTML.

## DATABASE SERVER

**Database Server** adalah sebuah program komputer yang menyediakan layanan pengelolaan basis data dan melayani komputer atau program aplikasi basis data yang menggunakan model klien/server.

## CARA KERJA WEB SERVER DAN DATABASE SERVER



1. HTTP Request  
Client akan meminta kepada web server halaman yang diakses pada sebuah website
2. Prossessing  
Web Server akan memproses halaman website dengan mengintegrasikan data yang ada di Database server menjadi file HTML yang dapat di proses oleh browser
3. HTTP Response  
Web Server mengirimkan File HTML ke Client. Dan di client dapat melihat tampilan website tersebut

## Setting Web dan Database Server

1. Ketik syntax dibawah ini untuk menginstall web server

```
apt install apache2 -y
```

2. Tunggu sampai proses instalasi selesai

```
Enabling module reqtimeout.  
Enabling conf charset.  
Enabling conf localized-error-pages.  
Enabling conf other-vhosts-access-log.  
Enabling conf security.  
Enabling conf serve-cgi-bin.  
Enabling site 000-default.  
Created symlink /etc/systemd/system/multi-user.target.wants/apache2.service → /lib/systemd/system/apache2.service.  
Created symlink /etc/systemd/system/multi-user.target.wants/apache-htcacheclean.service → /lib/systemd/system/apache-htcacheclean.service.  
Processing triggers for man-db (2.9.4-2) ...  
Processing triggers for libc-bin (2.31-13+deb11u5) ...  
root@fendy:~#
```

3. Ketik syntax dibawah ini untuk menginstall pemograman PHP

```
apt install php php-mysqli php-xml -y
```

4. Tunggu sampai proses instalasi selesai

```
Creating config file /etc/php/7.4/cli/php.ini with new version  
Setting up libapache2-mod-php7.4 (7.4.33-1+deb11u3) ...  
  
Creating config file /etc/php/7.4/apache2/php.ini with new version  
Module mpm_event disabled.  
Enabling module mpm_prefork.  
apache2_switch_mpm Switch to prefork  
apache2_invoke: Enable module php7.4  
Setting up php-xml (2:7.4+76) ...  
Setting up php7.4 (7.4.33-1+deb11u3) ...  
Setting up php (2:7.4+76) ...  
Processing triggers for man-db (2.9.4-2) ...  
Processing triggers for libc-bin (2.31-13+deb11u5) ...  
Processing triggers for php7.4-cli (7.4.33-1+deb11u3) ...  
Processing triggers for libapache2-mod-php7.4 (7.4.33-1+deb11u3) ...  
root@fendy:~# _
```

5. Ketik syntax dibawah ini untuk menginstall database server (mariadb-server)

```
apt install mariadb-server -y
```

6. Tunggu sampai instalasi selesai

```
Setting up mariadb-server-core-10.5 (1:10.5.19-0+deb11u2) ...
Setting up libhttp-date-perl (6.05-1) ...
Setting up libdbd-mariadb-perl (1.21-3) ...
Setting up mariadb-client-core-10.5 (1:10.5.19-0+deb11u2) ...
Setting up mariadb-client-10.5 (1:10.5.19-0+deb11u2) ...
Setting up libhtml-parser-perl (3.75-1+b1) ...
Setting up libhttp-message-perl (6.28-1) ...
Setting up libcgi-pm-perl (4.51-1) ...
Setting up libhtml-template-perl (2.97-1.1) ...
Setting up mariadb-server-10.5 (1:10.5.19-0+deb11u2) ...
Created symlink /etc/systemd/system/multi-user.target.wants/mariadb.service → /lib/systemd/system/mariadb.service.
Setting up mariadb-server (1:10.5.19-0+deb11u2) ...
Setting up libcgi-fast-perl (1:2.15-1) ...
Processing triggers for man-db (2.9.4-2) ...
Processing triggers for libc-bin (2.31-13+deb11u5) ...
root@fendy:~#
```

7. Ketik syntak dibawah ini untuk mensetting database server

```
mysql_secure_installation
```

```
root@fendy:~# mysql_secure_installation

NOTE: RUNNING ALL PARTS OF THIS SCRIPT IS RECOMMENDED FOR ALL MariaDB
SERVERS IN PRODUCTION USE! PLEASE READ EACH STEP CAREFULLY!

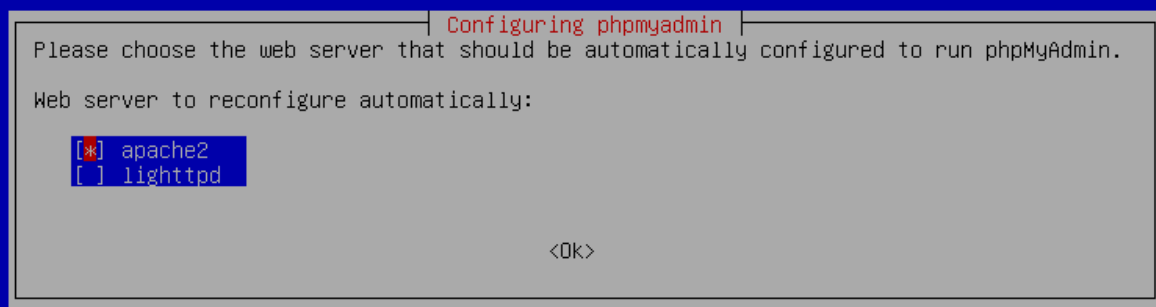
In order to log into MariaDB to secure it, we'll need the current
password for the root user. If you've just installed MariaDB, and
haven't set the root password yet, you should just press enter here.

Enter current password for root (enter for none):
```

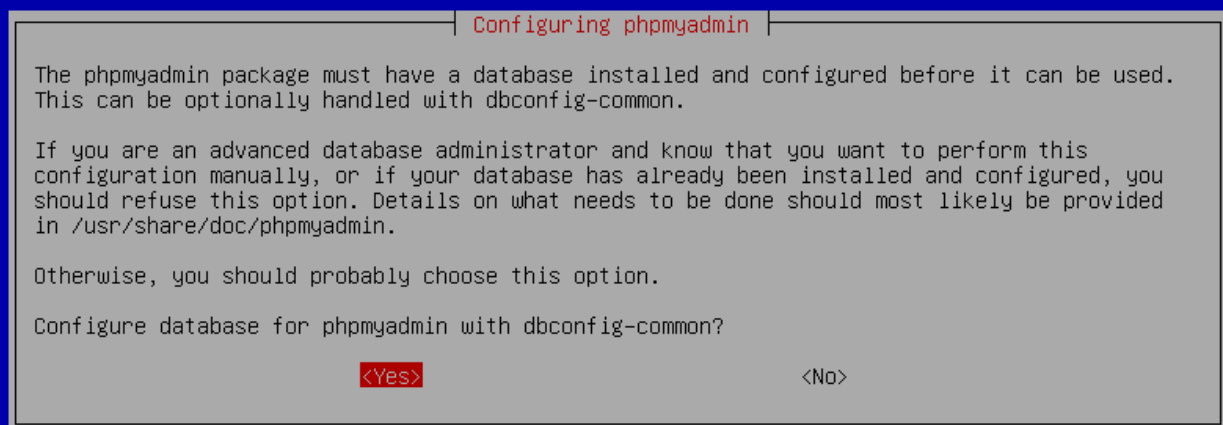
8. Karena kita belum menetapkan kata sandi root untuk database server, tekan Enter untuk melewati pertanyaan ini. Untuk itu ikuti pertanyaan ini sampai selesai.
  - Switch to unix\_socket authentication [Y/n] - tekan n
  - Set root password? [Y/n] - tekan y untuk membuat password pada database kalian
  - Remove anonymous users? [Y/n] - tekan y
  - Disallow root login remotely? [Y/n] - tekan y
  - Remove test database and access to it? [Y/n] - tekan y
  - Reload privilege tables now? [Y/n] - tekan y System akan menunjukkan instalasi MariaDB sekarang lebih aman.
9. Ketik syntak dibawah ini untuk menginstall aplikasi phpmyadmin

```
apt install phpmyadmin -y
```

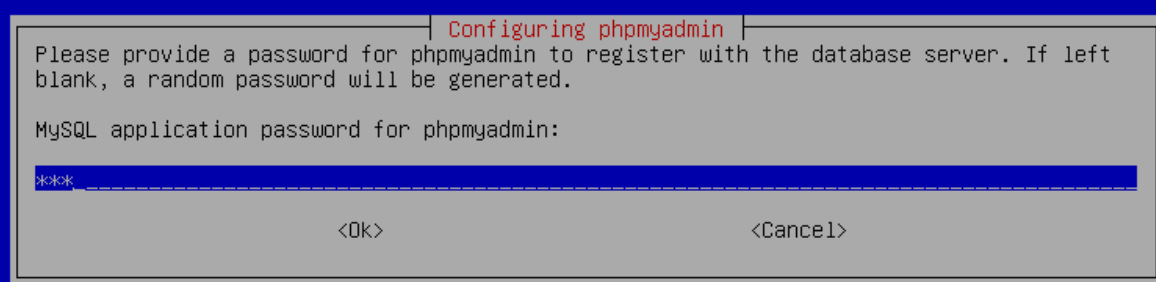
10. Tunggu sampai instalasi selesai



11. Centang apache2 dengan menekan tombol spasi dan tekan enter untuk melanjutkan



12. Pilih "Yes" untuk melakukan setting pada aplikasi phpmyadmin

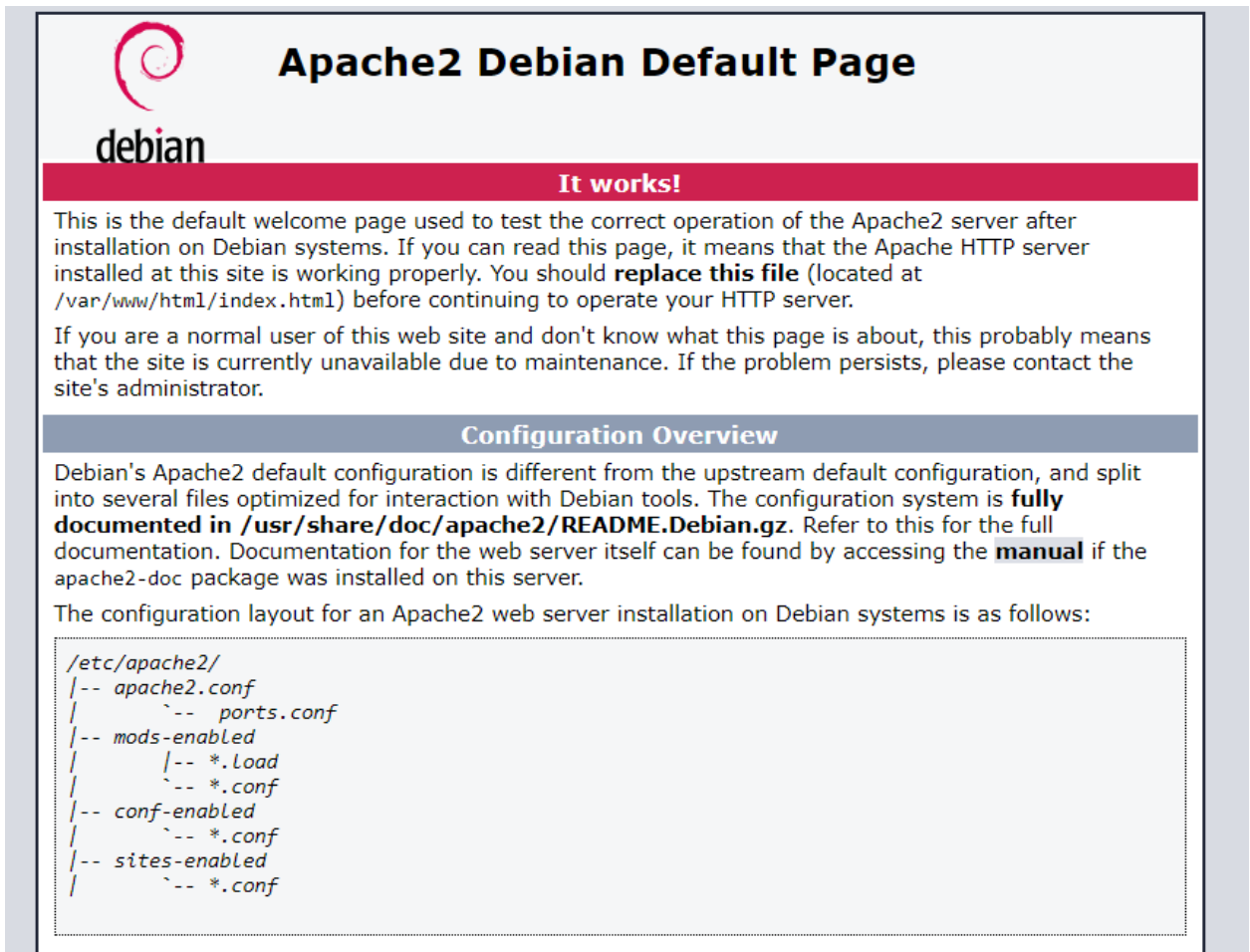


13. Masukkan password root database agar aplikasi phpmyadmin dapat terhubung ke database

14. Ulangi masukan password root database

15. Tunggu proses instalasi selesai

16. Test web server di google chrome dengan mengetik IP Address server



The screenshot shows the Apache2 Debian Default Page. At the top left is the Debian logo. The main heading is "Apache2 Debian Default Page". Below it is a red banner with the text "It works!". The main body of the page contains two paragraphs of text. The first paragraph explains that this is the default welcome page used to test the correct operation of the Apache2 server after installation on Debian systems. It states that if you can read this page, it means that the Apache HTTP server installed at this site is working properly. It advises to replace this file (located at /var/www/html/index.html) before continuing to operate your HTTP server. The second paragraph explains that if you are a normal user of this web site and don't know what this page is about, this probably means that the site is currently unavailable due to maintenance. It advises to contact the site's administrator if the problem persists. Below the text is a section titled "Configuration Overview". It explains that Debian's Apache2 default configuration is different from the upstream default configuration, and split into several files optimized for interaction with Debian tools. It states that the configuration system is fully documented in /usr/share/doc/apache2/README.Debian.gz. It refers to this for the full documentation. It also states that documentation for the web server itself can be found by accessing the manual if the apache2-doc package was installed on this server. At the bottom, it states that the configuration layout for an Apache2 web server installation on Debian systems is as follows: and then lists the directory structure: /etc/apache2/ with subdirectories for apache2.conf, ports.conf, mods-enabled, conf-enabled, and sites-enabled, each containing \*.load and \*.conf files.

**Apache2 Debian Default Page**

**It works!**

This is the default welcome page used to test the correct operation of the Apache2 server after installation on Debian systems. If you can read this page, it means that the Apache HTTP server installed at this site is working properly. You should **replace this file** (located at /var/www/html/index.html) before continuing to operate your HTTP server.

If you are a normal user of this web site and don't know what this page is about, this probably means that the site is currently unavailable due to maintenance. If the problem persists, please contact the site's administrator.

**Configuration Overview**

Debian's Apache2 default configuration is different from the upstream default configuration, and split into several files optimized for interaction with Debian tools. The configuration system is **fully documented in /usr/share/doc/apache2/README.Debian.gz**. Refer to this for the full documentation. Documentation for the web server itself can be found by accessing the **manual** if the apache2-doc package was installed on this server.

The configuration layout for an Apache2 web server installation on Debian systems is as follows:

```
/etc/apache2/  
|-- apache2.conf  
|   |-- ports.conf  
|-- mods-enabled  
|   |-- *.load  
|   |-- *.conf  
|-- conf-enabled  
|   |-- *.conf  
|-- sites-enabled  
|   |-- *.conf
```

Jika muncul gambar diatas berarti web server kita sudah aktif

17. Test database server di google chrome dengan mengetik <IP Address Server>/phpmyadmin



The screenshot shows the phpMyAdmin login page. At the top is the phpMyAdmin logo. Below it is the text "Selamat Datang di phpMyAdmin". There are two main sections. The first section is titled "Bahasa - Language" and contains a dropdown menu with "Bahasa Indonesia - Indonesian" selected. The second section is titled "Masuk" and contains two input fields: "Nama Pengguna:" with the value "root" and "Kata Sandi:" with three asterisks. There is a "Kirim" button at the bottom right of the login section.

**phpMyAdmin**

Selamat Datang di phpMyAdmin

Bahasa - Language

Bahasa Indonesia - Indonesian

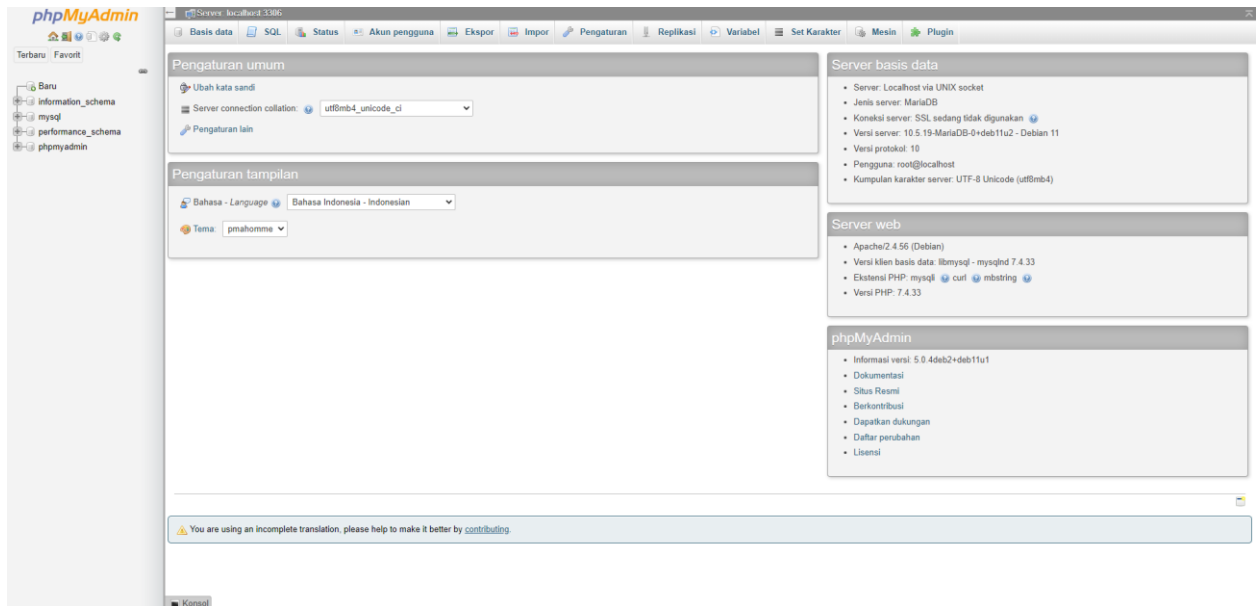
Masuk

Nama Pengguna: root

Kata Sandi: \*\*\*

Kirim

18. Masukan username root dan password root database yang kita bikin



Jika muncul gambar diatas berarti database server kita sudah aktif