

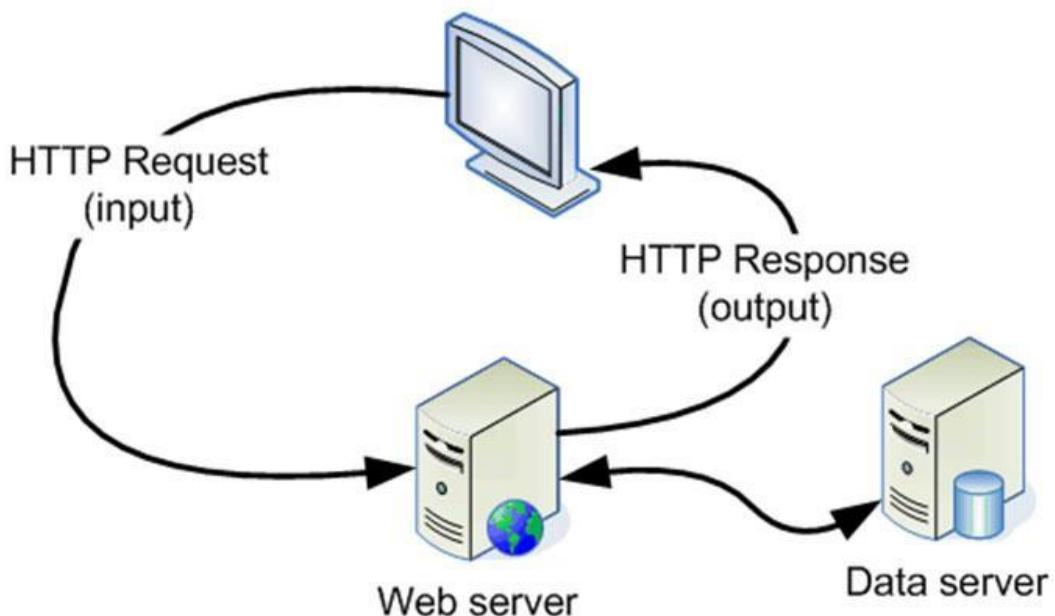
WEB SERVER

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. Processing
Web Server akan memproses halaman website dengan mengintegrasikan data yang ada di Database server menjadi file HTML yang dapat diproses 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 syntak 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 syntak 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 syntak 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):
```

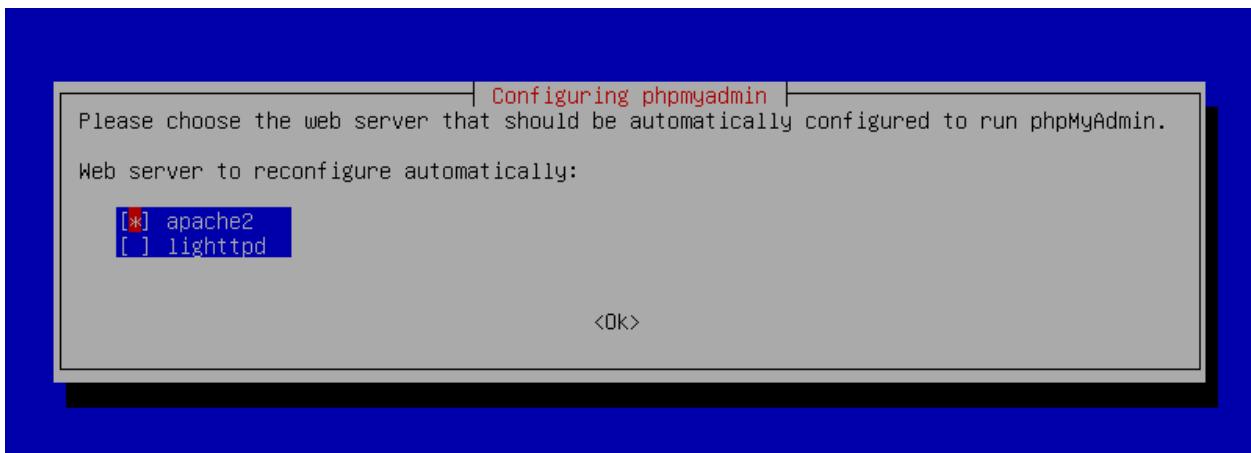
8. Karena kita belum menetapkan kata sandi root untuk database server, tekan Enter untuk melewati pertanyaan ini. Untuk itu ikuti pertanyaan ini sampai selesai.

- 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.

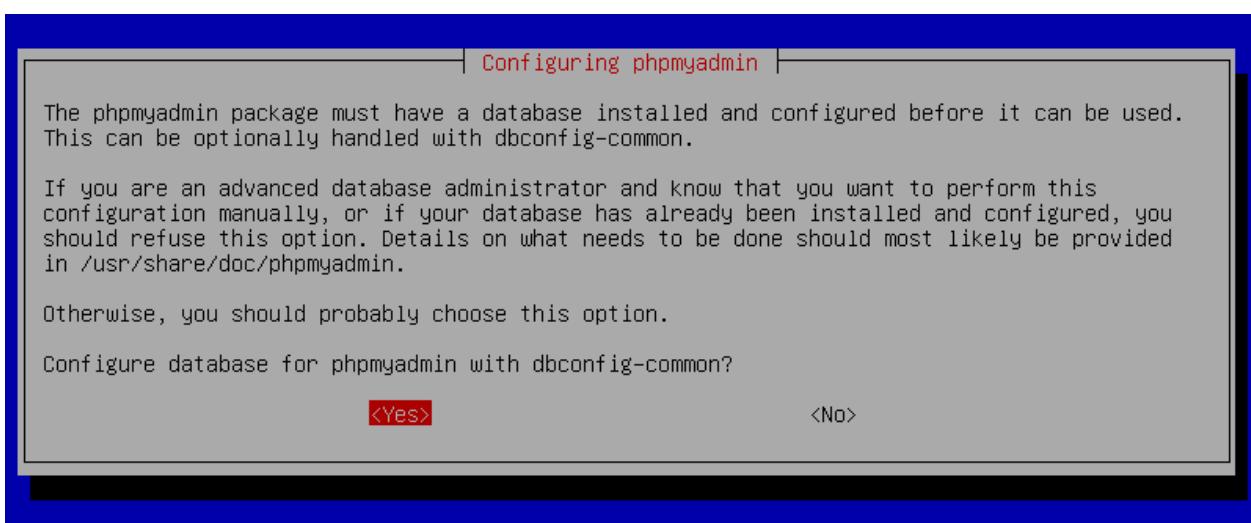
9. Ketik syntak dibawah ini untuk menginstall aplikasi phpmyadmin

```
apt install phpmyadmin -y
```

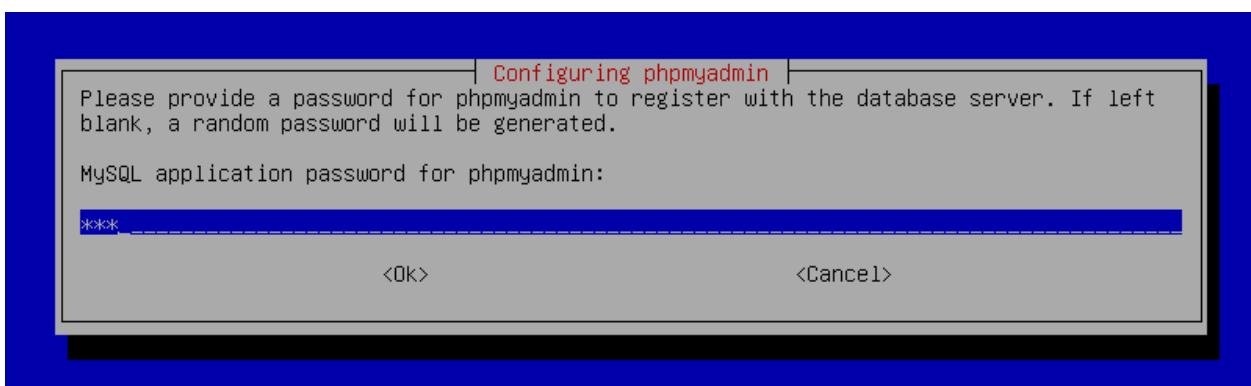
10. Tunggu sampai instalasi selesai



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

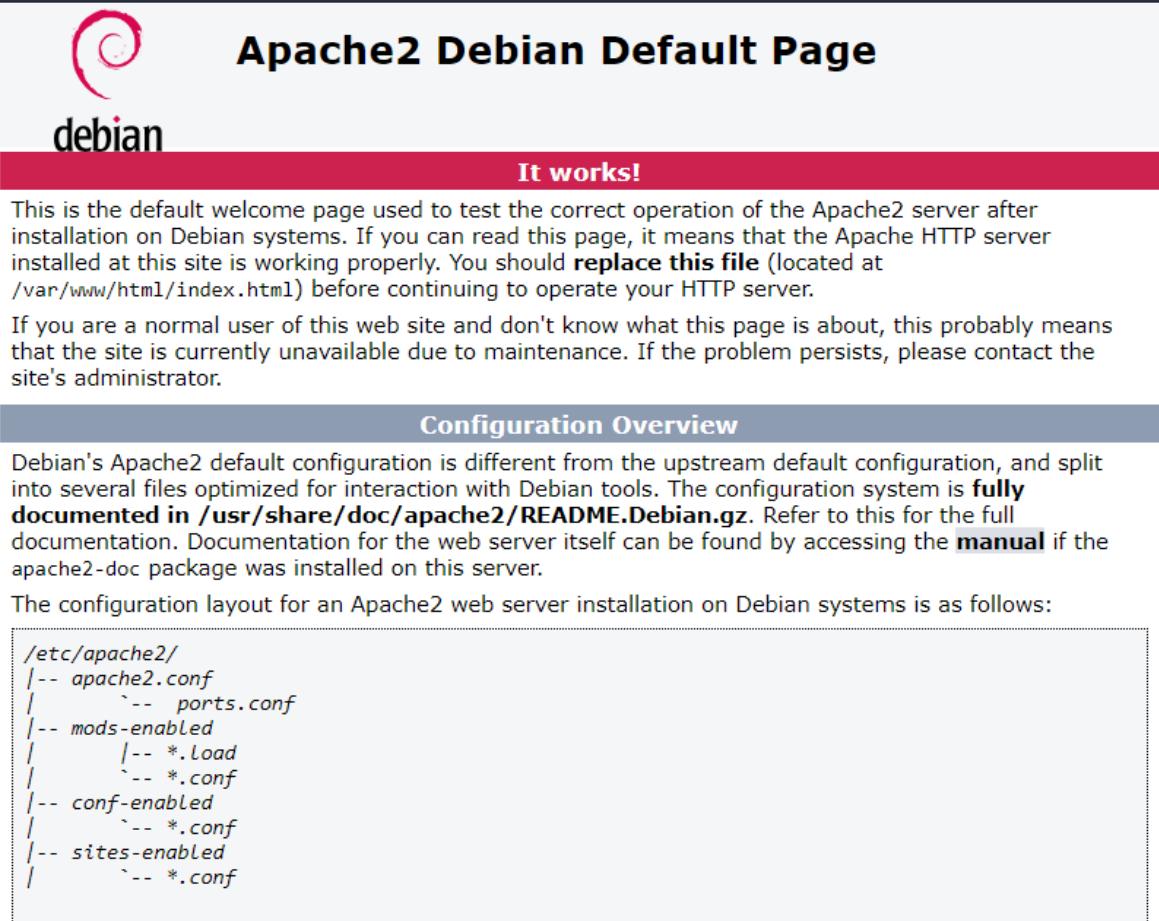


12. Pilih "Yes" untuk melakukan setting pada aplikasi phpmyadmin



13. Masukan 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 title is "Apache2 Debian Default Page". Below it, a red bar contains the text "It works!". The page content explains that this is the default welcome page for testing the Apache2 server on Debian systems. It mentions that if the page is readable, the server is working properly. It also notes that the file should be replaced with a custom index.html. A note below states that the site might be unavailable due to maintenance and encourages users to contact the administrator. A "Configuration Overview" section follows, detailing the configuration layout in /etc/apache2/, which includes files like apache2.conf, ports.conf, mods-enabled, conf-enabled, and sites-enabled, each containing multiple configuration files.

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 with a sailboat icon. Below it, the text "Selamat Datang di phpMyAdmin" is displayed. A language selection dropdown labeled "Bahasa - Language" is set to "Bahasa Indonesia - Indonesian". Below this is the login form with fields for "Nama Pengguna" (root) and "Kata Sandi" (password). A "Masuk" button is at the top of the form, and a "Kirim" button is at the bottom right.

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

The screenshot shows the phpMyAdmin interface for a MySQL server running on port 3306. The left sidebar lists databases: Baru, information_schema, mysql, performance_schema, and phpmyadmin. The main content area has tabs for Pengaturan umum, Pengaturan tampilan, Server basis data, Server web, and phpMyAdmin. Under Pengaturan umum, there's a dropdown for 'Server connection collation' set to 'utf8mb4_unicode_ci'. Under Server basis data, it lists the server as 'localhost via UNIX socket', using MariaDB 10.5.19, SSL not used, and PHP 7.4.33. Under Server web, it lists Apache 2.4.56, MySQL 5.7.37, and PHP 7.4.33. Under phpMyAdmin, it lists the version as 5.0.4deb2+deb11u1, along with links for documentation, support, and licensing.

Pengaturan umum

Pengaturan tampilan

Server basis data

Server web

phpMyAdmin

Jika muncul gambar diatas berarti database server kita sudah aktif