

LAPORAN PRAKTIKUM ARSIKOM

(Arsitektur dan Organisasi Komputer)



Disusun Oleh :

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1. Yang pertama seperti biasa kita langsung mulai dengan perintah `sudo apt update` untuk update dan melakukan pengecekan terhadap status SSH

```
zizi@zizi: ~  
zizi@zizi:~$ sudo apt update  
[sudo] password for zizi:  
Hit:1 http://id.archive.ubuntu.com/ubuntu focal InRelease  
Hit:2 http://id.archive.ubuntu.com/ubuntu focal-updates InRelease  
Hit:3 http://id.archive.ubuntu.com/ubuntu focal-backports InRelease  
Hit:4 http://id.archive.ubuntu.com/ubuntu focal-security InRelease  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
67 packages can be upgraded. Run 'apt list --upgradable' to see them.  
zizi@zizi:~$ sudo systemctl status ssh  
● ssh.service - OpenBSD Secure Shell server  
   Loaded: loaded (/lib/systemd/system/ssh.service; enabled; vendor preset: enabled)  
   Active: active (running) since Wed 2023-11-22 02:37:05 UTC; 11min ago  
     Docs: man:sshd(8)  
           man:sshd_config(5)  
  Main PID: 1445 (sshd)  
    Tasks: 1 (limit: 2257)  
  Memory: 3.0M  
   CGroup: /system.slice/ssh.service  
           └─1445 sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups  
  
Nov 22 02:37:04 zizi systemd[1]: ssh.service: Succeeded.  
Nov 22 02:37:04 zizi systemd[1]: Stopped OpenBSD Secure Shell server.  
Nov 22 02:37:05 zizi systemd[1]: Starting OpenBSD Secure Shell server...  
Nov 22 02:37:05 zizi sshd[1445]: Server listening on 0.0.0.0 port 22.  
Nov 22 02:37:05 zizi sshd[1445]: Server listening on :: port 22.  
Nov 22 02:37:05 zizi systemd[1]: Started OpenBSD Secure Shell server.  
Nov 22 02:47:49 zizi sshd[2468]: Accepted password for zizi from 192.168.1.7 port 60654 ssh2  
Nov 22 02:47:49 zizi sshd[2468]: pam_unix(sshd:session): session opened for user zizi by (uid=
```

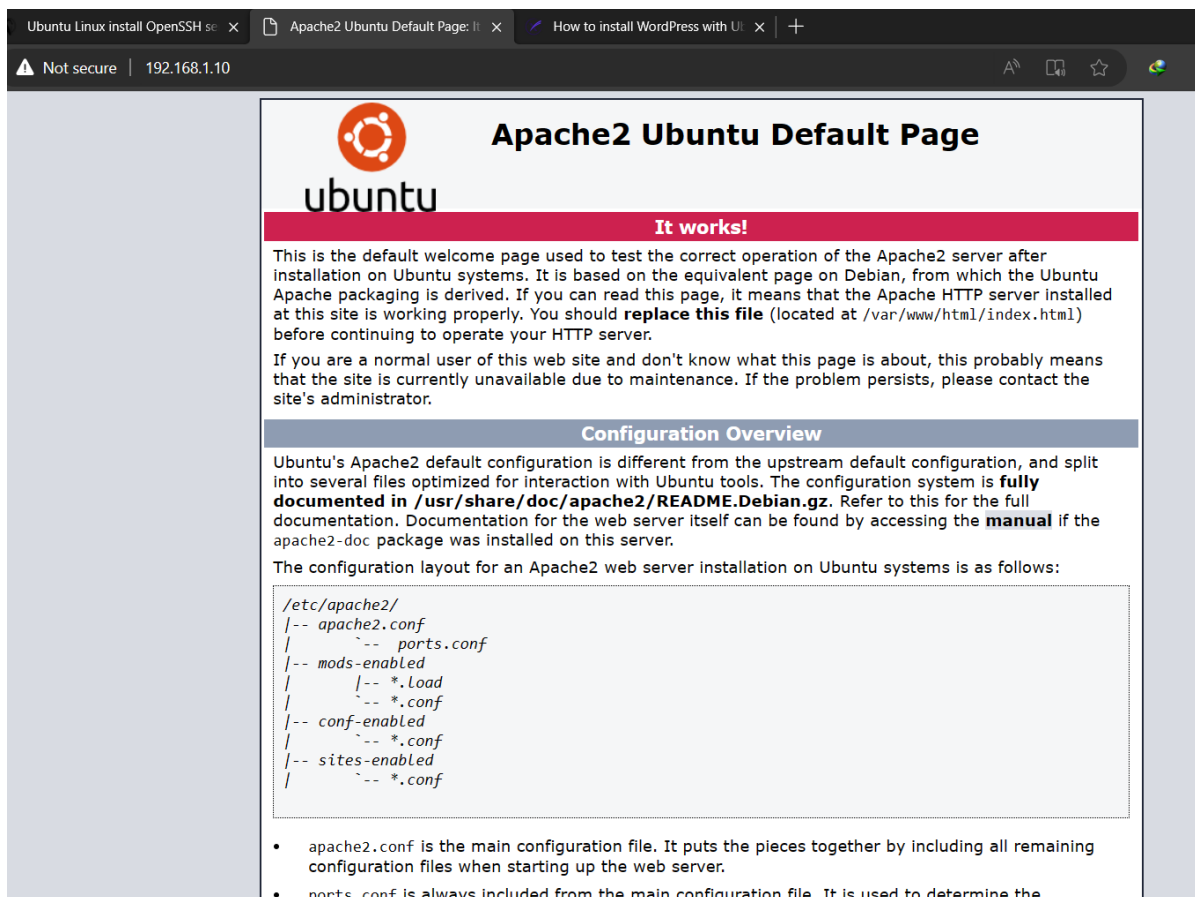
2. Langkah kedua, adalah di mana kita login menggunakan alamat IP lalu dilanjutkan dengan menginstal Apache.

```
zizi@zizi:~$ ssh zizi@zizi-10.1.10.250  
zizi@zizi:~$ sudo apt install apache2  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
The following additional packages will be installed:  
  apache2-bin apache2-data apache2-utils libapr1 libaprutil1 libaprutil1-dbd-sqlite3  
  libaprutil1-ldap libjansson4 liblua5.2-0 ssl-cert  
Suggested packages:  
  apache2-doc apache2-suexec-pristine | apache2-suexec-custom www-browser openssl-blacklist  
The following NEW packages will be installed:  
  apache2 apache2-bin apache2-data apache2-utils libapr1 libaprutil1 libaprutil1-dbd-sqlite3  
  libaprutil1-ldap libjansson4 liblua5.2-0 ssl-cert  
0 upgraded, 11 newly installed, 0 to remove and 67 not upgraded.  
Need to get 1,867 kB of archives.  
After this operation, 8,098 kB of additional disk space will be used.  
Do you want to continue? [Y/n] y
```

3. Yang ketiga, kita memberi perintah untuk menghidupkan Apache.

```
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 ufw (0.36-6ubuntu1) ...
Processing triggers for systemd (245.4-4ubuntu3.20) ...
Processing triggers for man-db (2.9.1-1) ...
Processing triggers for libc-bin (2.31-0ubuntu9.9) ...
zizi@zizi:~$ sudo systemctl enable apache2
Synchronizing state of apache2.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable apache2
zizi@zizi:~$
```

4. Setelah dihidupkan lalu kita akan mengecek menggunakan alamat IP kita di web sampai muncul tampilan bahwa berfungsi



Ubuntu Linux install OpenSSH se x Apache2 Ubuntu Default Page: li x How to install WordPress with Uli x +

Not secure | 192.168.1.10

Apache2 Ubuntu Default Page

It works!

This is the default welcome page used to test the correct operation of the Apache2 server after installation on Ubuntu systems. It is based on the equivalent page on Debian, from which the Ubuntu Apache packaging is derived. 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

Ubuntu's Apache2 default configuration is different from the upstream default configuration, and split into several files optimized for interaction with Ubuntu 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 Ubuntu systems is as follows:

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

- `apache2.conf` is the main configuration file. It puts the pieces together by including all remaining configuration files when starting up the web server.
- `ports.conf` is always included from the main configuration file. It is used to determine the

5. Langkah kelima adalah kita menginstal mysql server

```
zizi@zizi:~$ sudo apt install mysql-server
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  libcgi-fast-perl libcgi-pm-perl libencode-locale-perl libevent-core-2.1-7
  libevent-pthreads-2.1-7 libfcgi-perl libhtml-parser-perl libhtml-tagset-perl
  libhtml-template-perl libhttp-date-perl libhttp-message-perl libio-html-perl
  liblwp-mediatypes-perl libmecab2 libtimedate-perl liburi-perl mecab-ipadic
  mecab-ipadic-utf8 mecab-utils mysql-client-8.0 mysql-client-core-8.0 mysql-common
  mysql-server-8.0 mysql-server-core-8.0
Suggested packages:
  libdata-dump-perl libipc-sharedcache-perl libwww-perl mailx tinyca
The following NEW packages will be installed:
  libcgi-fast-perl libcgi-pm-perl libencode-locale-perl libevent-core-2.1-7
  libevent-pthreads-2.1-7 libfcgi-perl libhtml-parser-perl libhtml-tagset-perl
  libhtml-template-perl libhttp-date-perl libhttp-message-perl libio-html-perl
  liblwp-mediatypes-perl libmecab2 libtimedate-perl liburi-perl mecab-ipadic
  mecab-ipadic-utf8 mecab-utils mysql-client-8.0 mysql-client-core-8.0 mysql-common
  mysql-server mysql-server-core-8.0
0 upgraded, 25 newly installed, 0 to remove and 67 not upgraded.
Need to get 36.8 MB of archives.
After this operation, 318 MB of additional disk space will be used.
Do you want to continue? [Y/n]
```

6. Install keamanan mysql dan pilihlah di angka 0 atau low

```
zizi@zizi:~$ sudo mysql_secure_installation

Securing the MySQL server deployment.

Connecting to MySQL using a blank password.

VALIDATE PASSWORD COMPONENT can be used to test passwords
and improve security. It checks the strength of password
and allows the users to set only those passwords which are
secure enough. Would you like to setup VALIDATE PASSWORD component?

Press y|Y for Yes, any other key for No: y

There are three levels of password validation policy:

LOW      Length >= 8
MEDIUM  Length >= 8, numeric, mixed case, and special characters
STRONG Length >= 8, numeric, mixed case, special characters and dictionary

Please enter 0 = LOW, 1 = MEDIUM and 2 = STRONG: 0
```

7. Selanjutnya, kita akan memberi perintah untuk mengecek status mysql

```
zizi@zizi:~$ sudo systemctl status mysql
● mysql.service - MySQL Community Server
   Loaded: loaded (/lib/systemd/system/mysql.service; enabled; vendor preset: enabled)
   Active: active (running) since Wed 2023-11-22 02:53:32 UTC; 1min 45s ago
     Main PID: 4869 (mysqld)
    Status: "Server is operational"
      Tasks: 38 (limit: 2257)
     Memory: 363.5M
    CGroup: /system.slice/mysql.service
            └─4869 /usr/sbin/mysqld

Nov 22 02:53:30 zizi systemd[1]: Starting MySQL Community Server...
Nov 22 02:53:32 zizi systemd[1]: Started MySQL Community Server.
zizi@zizi:~$
```

8. Nah, di langka ini kita memberi perintah untuk menghidupkan mysql

```
zizi@zizi:~$ sudo systemctl enable mysql
Synchronizing state of mysql.service with SysV service script with /lib/systemd/systemd-sysv-
install.
Executing: /lib/systemd/systemd-sysv-install enable mysql
zizi@zizi:~$ sudo systemctl status mysql
● mysql.service - MySQL Community Server
   Loaded: loaded (/lib/systemd/system/mysql.service; enabled; vendor preset: enabled)
   Active: active (running) since Wed 2023-11-22 02:53:32 UTC; 1min 45s ago
     Main PID: 4869 (mysqld)
    Status: "Server is operational"
      Tasks: 38 (limit: 2257)
     Memory: 363.5M
    CGroup: /system.slice/mysql.service
            └─4869 /usr/sbin/mysqld

Nov 22 02:53:30 zizi systemd[1]: Starting MySQL Community Server...
Nov 22 02:53:32 zizi systemd[1]: Started MySQL Community Server.
zizi@zizi:~$ sudo apt install php libapache2-mod-php php-mysql
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  libapache2-mod-php7.4 php-common php7.4 php7.4-cli php7.4-common php7.4-json php7.4-mysql
  php7.4-opcache php7.4-readline
Suggested packages:
  php-pear
The following NEW packages will be installed:
  libapache2-mod-php libapache2-mod-php7.4 php php-common php-mysql php7.4 php7.4-cli
  php7.4-common php7.4-json php7.4-mysql php7.4-opcache php7.4-readline
0 upgraded, 12 newly installed, 0 to remove and 67 not upgraded.
Need to get 4,157 kB of archives.
Microsoft Store's operation, 18.5 MB of additional disk space will be used.
Do you want to continue? [Y/n]
```

9. Lakukan penginstalan terhadap PHP dan tak lupa lakukan restart terhadap apache

```
zizi@zizi:~$ sudo apt install php-curl php-gd php-mbstring php-xml php-xmldrpc php-soap php-intl php-zip
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  fontconfig-config fonts-dejavu-core libfontconfig1 libgd3 libjpeg-turbo8 libjpeg8 libonig5 libtiff5 libwebp6 libxmlrpc-epi0 libxpm4 libzip5 php7.4-curl php7.4-gd
  php7.4-intl php7.4-mbstring php7.4-soap php7.4-xml php7.4-xmldrpc php7.4-zip
Suggested packages:
  libgd-tools
The following NEW packages will be installed:
  fontconfig-config fonts-dejavu-core libfontconfig1 libgd3 libjpeg-turbo8 libjpeg8 libonig5 libtiff5 libwebp6 libxmlrpc-epi0 libxpm4 libzip5 php-curl php-gd php-intl
  php-mbstring php-soap php-xml php-xmldrpc php-zip php7.4-curl php7.4-gd php7.4-intl php7.4-mbstring php7.4-soap php7.4-xml php7.4-xmldrpc php7.4-zip
0 upgraded, 29 newly installed, 0 to remove and 67 not upgraded.
Need to get 2,896 kB of archives.
After this operation, 9,598 kB of additional disk space will be used.
Do you want to continue? [Y/n]
```

```
zizi@zizi:~$ php -v
PHP 7.4.3-4ubuntu2.19 (cli) (built: Jun 27 2023 15:49:59) ( NTS )
Copyright (c) The PHP Group
Zend Engine v3.4.0, Copyright (c) Zend Technologies
    with Zend OPcache v7.4.3-4ubuntu2.19, Copyright (c), by Zend Technologies
zizi@zizi:~$ sudo systemctl restart apache2
zizi@zizi:~$ cd /var/www/html
zizi@zizi:/var/www/html$
zizi@zizi:/var/www/html$
zizi@zizi:/var/www/html$ sudo wget -c http://wordpress.org/latest.tar.gz
--2023-11-22 02:58:12-- http://wordpress.org/latest.tar.gz
Resolving wordpress.org (wordpress.org)... 198.143.164.252
Connecting to wordpress.org (wordpress.org)[198.143.164.252]:80... connected.
HTTP request sent, awaiting response... 301 Moved Permanently
Location: https://wordpress.org/latest.tar.gz [following]
--2023-11-22 02:58:13-- https://wordpress.org/latest.tar.gz
Connecting to wordpress.org (wordpress.org)[198.143.164.252]:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 24479162 (23M) [application/octet-stream]
Saving to: 'latest.tar.gz'

latest.tar.gz      36%[=====>]          MB/s   eta 8s
```

```
zizi@zizi:~$ sudo systemctl restart apache2
zizi@zizi:~$
```


10. Di langkah ini adalah di mana kita melakukan wordpress

```
zizi@zizi:~$ cd /var/www/html
zizi@zizi:/var/www/html$
zizi@zizi:/var/www/html$
zizi@zizi:/var/www/html$ sudo wget -c http://wordpress.org/latest.tar.gz
--2023-11-22 02:58:12-- http://wordpress.org/latest.tar.gz
Resolving wordpress.org (wordpress.org)... 198.143.164.252
Connecting to wordpress.org (wordpress.org)|198.143.164.252|:80... connected.
HTTP request sent, awaiting response... 301 Moved Permanently
Location: https://wordpress.org/latest.tar.gz [following]
--2023-11-22 02:58:13-- https://wordpress.org/latest.tar.gz
Connecting to wordpress.org (wordpress.org)|198.143.164.252|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 24479162 (23M) [application/octet-stream]
Saving to: 'latest.tar.gz'

latest.tar.gz          36%[=====>] Show hidden icons MB/s eta 8s
```

11. Lalu kita melakukan pengecekan terhadap apa yang kita buat lalu selanjutnya kita membuat database untuk web tersebut

```
zizi@zizi:/var/www/html$ ls -l
total 23924
-rw-r--r-- 1 root root 10918 Nov 22 02:50 index.html
-rw-r--r-- 1 root root 24479162 Nov 9 00:45 latest.tar.gz
drwxr-xr-x 5 nobody nogroup 4096 Nov 9 00:45 wordpress
zizi@zizi:/var/www/html$
zizi@zizi:/var/www/html$
zizi@zizi:/var/www/html$ sudo mysql -u root -p
Enter password:
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 10
Server version: 8.0.35-0ubuntu0.20.04.1 (Ubuntu)

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affiliates. Other names may be trademarks of their respective
owners.

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

mysql> CREATE DATABASE demo_db;
Query OK, 1 row affected (0.02 sec)

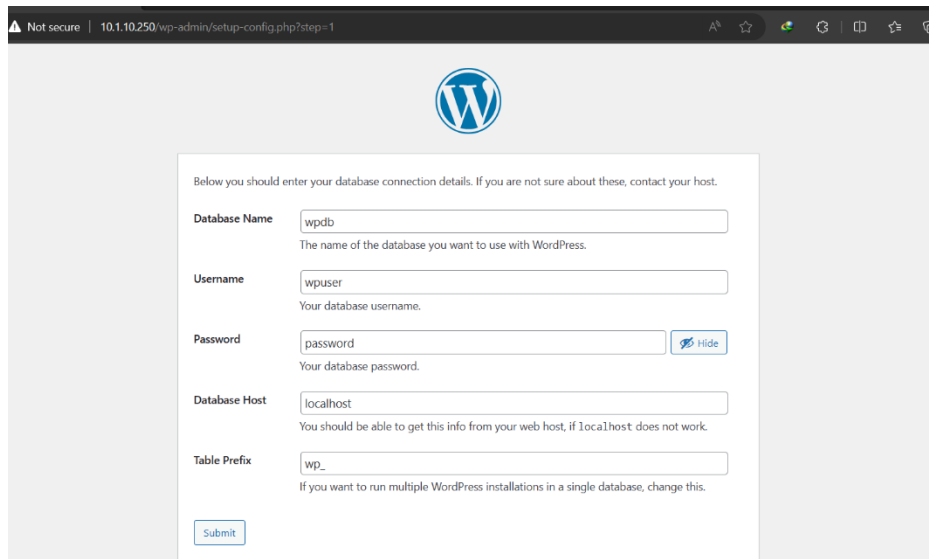
mysql> CREATE USER demo_user@localhost IDENTIFIED BY 'demo-password';
Query OK, 0 rows affected (0.03 sec)

mysql> GRANT ALL PRIVILEGES ON demo_db. * TO demo_user@localhost;
Query OK, 0 rows affected (0.01 sec)

mysql> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.01 sec)

mysql> exit;
Bye
zizi@zizi:/var/www/html$
```

12. Yang terakhir, buka web yang telah kita buat menggunakan alamat IP (10.1.10.250) dan tak lupa juga menggunakan /wordpress. Setelah terdapat tampilan yang keluar silahkan isi menggunakan data yang kita buat di database tadi. Selanjutnya kita buat akun untuk web tersebut dan masukkan akun tersebut ke halaman login sampai kepada titik kita masuk ke dalam web WordPress yang kita telah buat. Selesai



Not secure | 10.1.10.250/wp-admin/setup-config.php?step=1

Below you should enter your database connection details. If you are not sure about these, contact your host.

Database Name
The name of the database you want to use with WordPress.

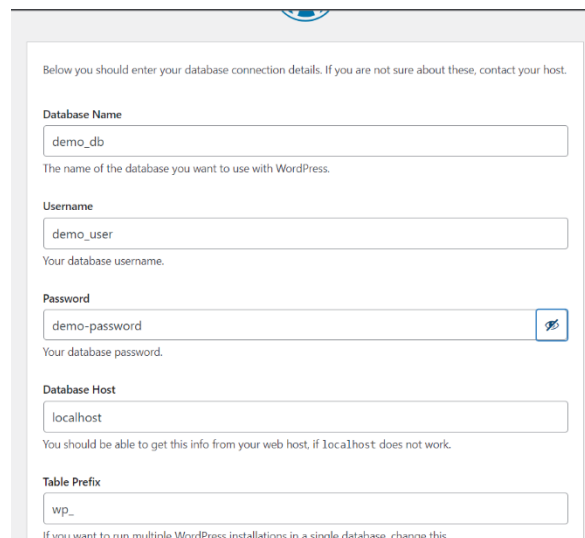
Username
Your database username.

Password [Hide](#)
Your database password.

Database Host
You should be able to get this info from your web host, if localhost does not work.

Table Prefix
If you want to run multiple WordPress installations in a single database, change this.

[Submit](#)



Below you should enter your database connection details. If you are not sure about these, contact your host.

Database Name
The name of the database you want to use with WordPress.

Username
Your database username.

Password [Hide](#)
Your database password.

Database Host
You should be able to get this info from your web host, if localhost does not work.

Table Prefix
If you want to run multiple WordPress installations in a single database, change this.

Welcome

Welcome to the famous five-minute WordPress installation process! Just fill in the information below and you'll be on your way to using the most extendable and powerful personal publishing platform in the world.

Information needed

Please provide the following information. Do not worry, you can always change these settings later.

Site Title

ZIZI

Username

zizi

Usernames can have only alphanumeric characters, spaces, underscores, hyphens, periods, and the @ symbol.

Password

zizi

Very weak

Hide

Confirm Password

☒ Confirm use of weak password

Your Email

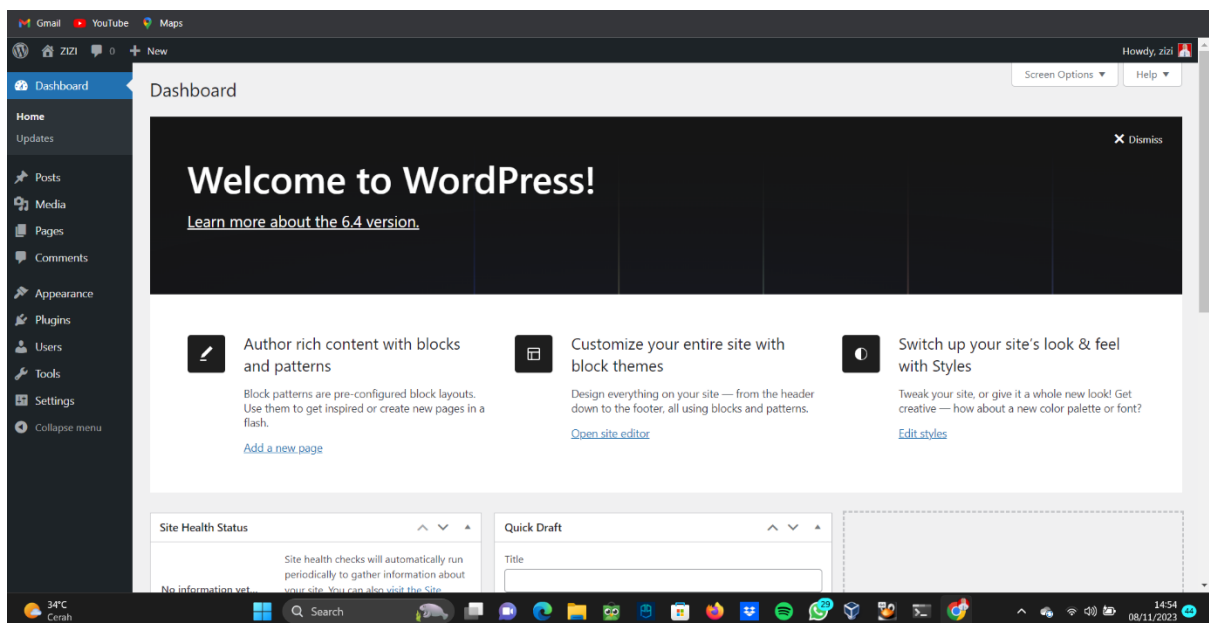
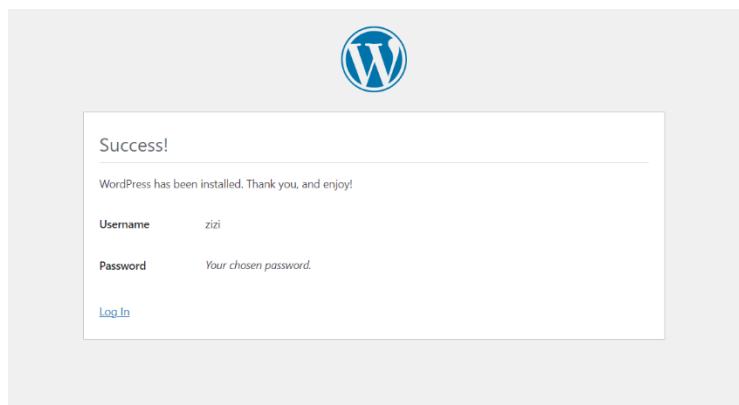
rethiezinnia@gmail.com

Double-check your email address before continuing.

Search engine visibility

☐ Discourage search engines from indexing this site

It is up to search engines to honor this request.

A screenshot of the WordPress 6.4 dashboard. The top navigation bar includes links for Home, Updates, Posts, Media, Pages, Comments, Appearance, Plugins, Users, Tools, Settings, and a Collapse menu. The main content area features a large "Welcome to WordPress!" banner with a link to "Learn more about the 6.4 version.". Below the banner are three cards: "Author rich content with blocks and patterns", "Customize your entire site with block themes", and "Switch up your site's look & feel with Styles". At the bottom, there are widgets for "Site Health Status" (showing "No information yet") and "Quick Draft" (with a "Title" input field). The Windows taskbar at the bottom shows the date as 08/11/2023 and the time as 14:54.