

docker 로 ubuntu 실행 후 접속

```
$ sudo su -
$ docker run -it -p 80:80 --name ub-wordpress ubuntu /bin/bash
```

```
root@vm-ubuntu20:~# docker ps -al
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS                               NAMES
01a5e77bdc07   ubuntu   "/bin/bash"             16 seconds ago Up 13 seconds  0.0.0.0:80->80/tcp, :::80->80/tcp  ub-wordpress
```

wordpress 설치 과정**[필요한 패키지 설치]**

```
$ apt update
$ apt upgrade
```

[설치 중간에 입력할 내용 - Aisa: 6, Seoul: 69]

```
$ apt install php libapache2-mod-php php-cli php-fpm php-json php-pdo php-mysql php-zip
php-gd php-mbstring php-curl php-xml php-pear php-bcmath
$ apt install wget
$ apt install zip
```

[wordpress 다운로드]

```
$ cd ~
$ wget http://wordpress.org/latest.zip
```

```
root@01a5e77bdc07:~# ls
latest.zip
```

[다운로드 한 압축파일 풀기]

```
$ unzip -q latest.zip -d /var/www/html/
```

```
root@01a5e77bdc07:~# cd /var/www/html
root@01a5e77bdc07:/var/www/html# ls
index.html  wordpress
```

[wordpress 폴더 안에 있는 파일들을 상위 폴더(/var/www/html/)에 복사]

```
$ cd wordpress
$ cp -a * ..
```

```

root@01a5e77bdc07:/var/www/html/wordpress# ls
index.php      wp-admin      wp-content    wp-load.php   wp-signup.php
license.txt    wp-blog-header.php wp-cron.php   wp-login.php  wp-trackback.php
readme.html    wp-comments-post.php wp-includes   wp-mail.php   xmlrpc.php
wp-activate.php wp-config-sample.php wp-links-opml.php wp-settings.php

```

[소유권 변경]

```
$ chown www-data:www-data -R /var/www/html/
```

```

root@01a5e77bdc07:/var/www/html# ls -al
total 236
drwxr-xr-x  6 www-data www-data  4096 Sep 26 16:51 .
drwxr-xr-x  3 root     root     4096 Sep 26 16:43 ..
-rw-r--r--  1 www-data www-data 10918 Sep 26 16:46 index.html
-rw-r--r--  1 www-data www-data   405 Feb  6  2020 index.php
-rw-r--r--  1 www-data www-data 19915 Jan  1  2021 license.txt
-rw-r--r--  1 www-data www-data  7346 Jul  6 21:23 readme.html
drwxr-xr-x  5 www-data www-data  4096 Sep  9 11:20 wordpress
-rw-r--r--  1 www-data www-data  7165 Jan 21  2021 wp-activate.php
drwxr-xr-x  9 www-data www-data  4096 Sep  9 11:20 wp-admin
-rw-r--r--  1 www-data www-data   351 Feb  6  2020 wp-blog-header.php
-rw-r--r--  1 www-data www-data  2328 Feb 17  2021 wp-comments-post.php
-rw-r--r--  1 www-data www-data  3004 May 21 19:40 wp-config-sample.php
drwxr-xr-x  4 www-data www-data  4096 Sep  9 11:20 wp-content
-rw-r--r--  1 www-data www-data  3939 Jul 31  2020 wp-cron.php
drwxr-xr-x 25 www-data www-data 12288 Sep  9 11:20 wp-includes
-rw-r--r--  1 www-data www-data  2496 Feb  6  2020 wp-links-opml.php
-rw-r--r--  1 www-data www-data  3900 May 16 02:38 wp-load.php
-rw-r--r--  1 www-data www-data 45463 Apr  7 03:39 wp-login.php
-rw-r--r--  1 www-data www-data  8509 Apr 14  2020 wp-mail.php
-rw-r--r--  1 www-data www-data 22297 Jun  2 08:09 wp-settings.php
-rw-r--r--  1 www-data www-data 31693 May  8 05:16 wp-signup.php
-rw-r--r--  1 www-data www-data  4747 Oct  9  2020 wp-trackback.php
-rw-r--r--  1 www-data www-data  3236 Jun  9  2020 xmlrpc.php

```

apache2 실행 과정

[필요한 패키지 설치]

```
$ apt install apache2 apache2-utils
```

```
$ apt install nmap -y
```

```
$ apt install vim
```

[부팅 시 자동실행]

```
$ systemctl enable apache2
```

```
root@01a5e77bdc07:~# 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
```

[apache2 실행 전 'ServerName' 설정 관련 오류 해결방법]

\$ vim /etc/apache2/apache2.conf

```
# Global configuration
#
ServerName localhost
#
# ServerRoot: The top of the directory tree under which the server's
# configuration, error, and log files are kept.
#
# NOTE! If you intend to place this on an NFS (or otherwise network)
# mounted filesystem then please read the Mutex documentation (available
# at <URL:http://httpd.apache.org/docs/2.4/mod/core.html#mutex>);
# you will save yourself a lot of trouble.
#
# Do NOT add a slash at the end of the directory path.
#
#ServerRoot "/etc/apache2"
```

[apache2 실행 및 포트 확인]

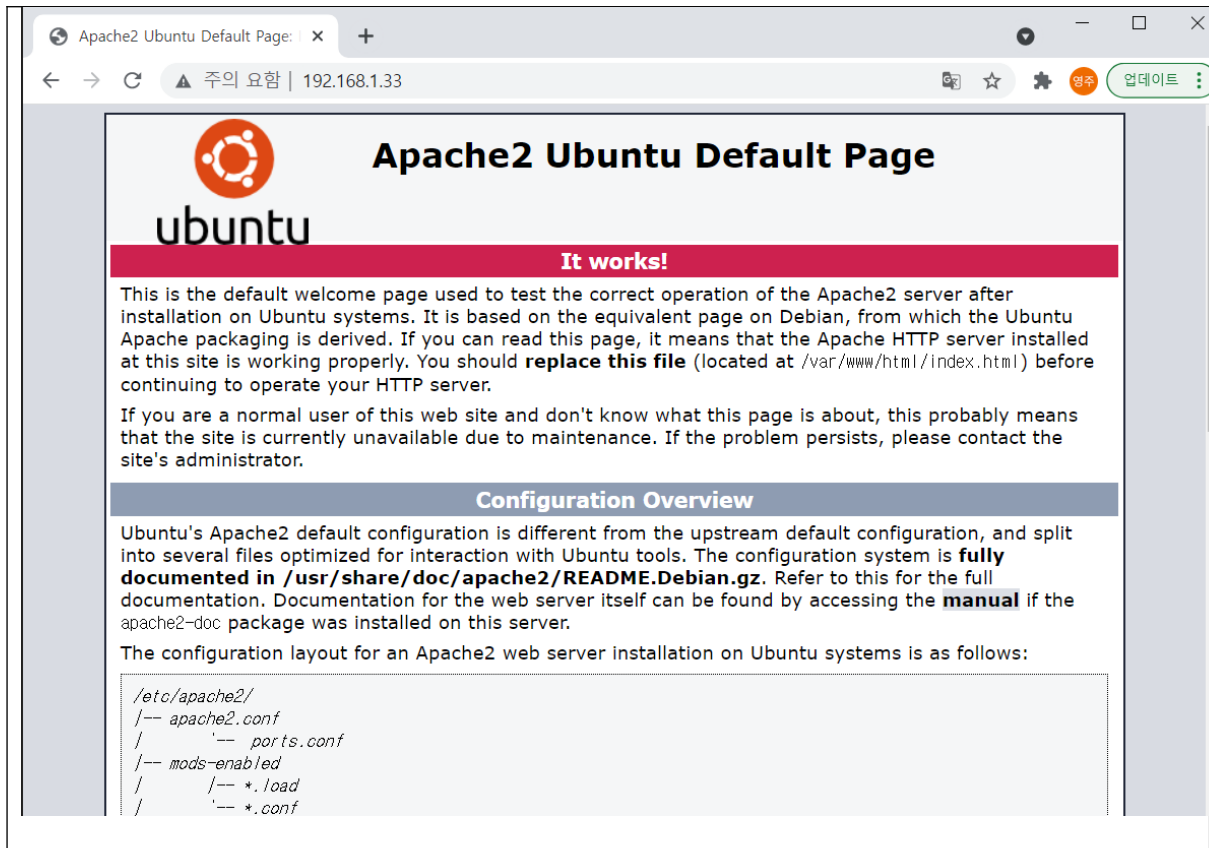
\$ service apache2 start

\$ nmap -sT -p 1-65535 localhost

```
root@01a5e77bdc07:~# service apache2 start
* Starting Apache httpd web server apache2
*
root@01a5e77bdc07:~# nmap -sT -p 1-65535 localhost
Starting Nmap 7.80 ( https://nmap.org ) at 2021-09-26 16:59 KST
Nmap scan report for localhost (127.0.0.1)
Host is up (0.00012s latency).
Other addresses for localhost (not scanned): ::1
Not shown: 65534 closed ports
PORT      STATE SERVICE
80/tcp    open  http

Nmap done: 1 IP address (1 host up) scanned in 2.87 seconds
```

[웹페이지 화면]



mariaDB 설치 과정

[필요한 패키지 설치]

```
$ apt install software-properties-common mariadb-server mariadb-client -y
```

[mariaDB 실행]

```
$ service mysql start
```

```
root@01a5e77bdc07:~# service mysql start
* Starting MariaDB database server mysqld [ OK
```

[mariaDB 설정]

```
$ mysql_secure_installation
```

- Enter current password for root (enter for none): **enter**
- Set root password? [Y/n] **n**
- Remove anonymous users? [Y/n] **y**
- Disallow root login remotely? [Y/n] **y**
- Remove test database and access to it? [Y/n] **y**
- Reload privilege tables now? [Y/n] **y**

[MariaDB 접속]

```
$ mysql -u root -p
```

```
root@01a5e77bdc07:~# mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 57
Server version: 10.3.31-MariaDB-0ubuntu0.20.04.1 Ubuntu 20.04

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

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

MariaDB [(none)]>
```

[database 생성]

```
CREATE DATABASE wordpress_db;
SHOW DATABASES;
```

```
MariaDB [(none)]> CREATE DATABASE wordpress_db;
Query OK, 1 row affected (0.000 sec)

MariaDB [(none)]> show databases;
+-----+
| Database                |
+-----+
| information_schema      |
| mysql                   |
| performance_schema      |
| wordpress_db            |
+-----+
4 rows in set (0.001 sec)
```

[사용자 생성]

```
CREATE USER wordpress_user@localhost IDENTIFIED BY 'your-strong-password';
```

[사용자 DB 권한 부여]

```
GRANT ALL PRIVILEGES ON wordpress_db.* TO wordpress_user@localhost;
```

[설정된 내용 적용 후 종료]

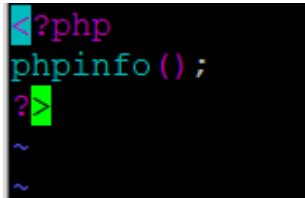
```
FLUSH PRIVILEGES;
exit;
```

php 설치 과정

[필요한 패키지 설치하는 위에서 실행 했음]

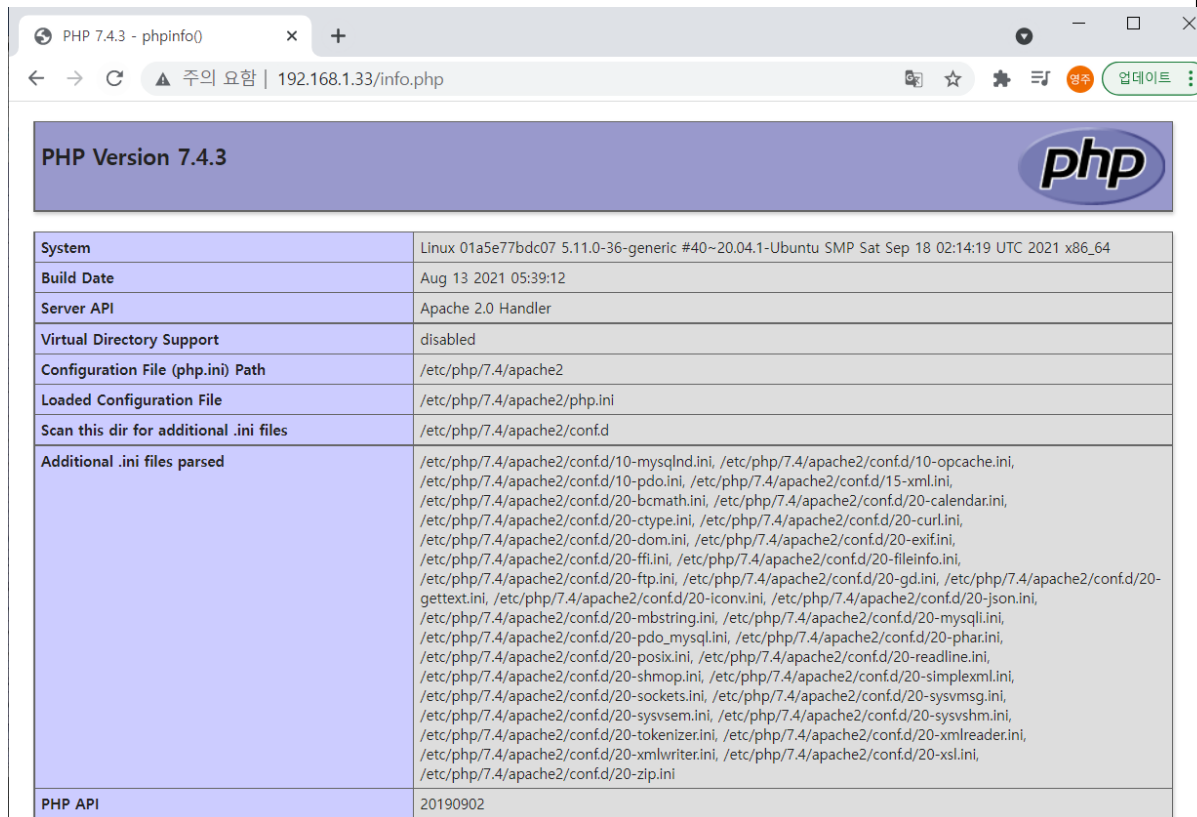
[php 설치 확인]

```
$ vim /var/www/html/info.php
```



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

[웹페이지 화면]



PHP 7.4.3 - phpinfo()

← → ↻ 주의 요함 | 192.168.1.33/info.php

PHP Version 7.4.3

System	Linux 01a5e77bdc07 5.11.0-36-generic #40~20.04.1-Ubuntu SMP Sat Sep 18 02:14:19 UTC 2021 x86_64
Build Date	Aug 13 2021 05:39:12
Server API	Apache 2.0 Handler
Virtual Directory Support	disabled
Configuration File (php.ini) Path	/etc/php/7.4/apache2
Loaded Configuration File	/etc/php/7.4/apache2/php.ini
Scan this dir for additional .ini files	/etc/php/7.4/apache2/conf.d
Additional .ini files parsed	/etc/php/7.4/apache2/conf.d/10-mysqld.ini, /etc/php/7.4/apache2/conf.d/10-opcache.ini, /etc/php/7.4/apache2/conf.d/10-pdo.ini, /etc/php/7.4/apache2/conf.d/15-xml.ini, /etc/php/7.4/apache2/conf.d/20-bcmath.ini, /etc/php/7.4/apache2/conf.d/20-calendar.ini, /etc/php/7.4/apache2/conf.d/20-ctype.ini, /etc/php/7.4/apache2/conf.d/20-curl.ini, /etc/php/7.4/apache2/conf.d/20-dom.ini, /etc/php/7.4/apache2/conf.d/20-exif.ini, /etc/php/7.4/apache2/conf.d/20-ffi.ini, /etc/php/7.4/apache2/conf.d/20-fileinfo.ini, /etc/php/7.4/apache2/conf.d/20-ftp.ini, /etc/php/7.4/apache2/conf.d/20-gd.ini, /etc/php/7.4/apache2/conf.d/20-gettext.ini, /etc/php/7.4/apache2/conf.d/20-iconv.ini, /etc/php/7.4/apache2/conf.d/20-json.ini, /etc/php/7.4/apache2/conf.d/20-mbstring.ini, /etc/php/7.4/apache2/conf.d/20-mysqli.ini, /etc/php/7.4/apache2/conf.d/20-pdo_mysql.ini, /etc/php/7.4/apache2/conf.d/20-phar.ini, /etc/php/7.4/apache2/conf.d/20-posix.ini, /etc/php/7.4/apache2/conf.d/20-readline.ini, /etc/php/7.4/apache2/conf.d/20-shmop.ini, /etc/php/7.4/apache2/conf.d/20-simplexml.ini, /etc/php/7.4/apache2/conf.d/20-sockets.ini, /etc/php/7.4/apache2/conf.d/20-sysmsg.ini, /etc/php/7.4/apache2/conf.d/20-sysvsem.ini, /etc/php/7.4/apache2/conf.d/20-sysvshm.ini, /etc/php/7.4/apache2/conf.d/20-tokenizer.ini, /etc/php/7.4/apache2/conf.d/20-xmlreader.ini, /etc/php/7.4/apache2/conf.d/20-xmlwriter.ini, /etc/php/7.4/apache2/conf.d/20-xsl.ini, /etc/php/7.4/apache2/conf.d/20-zip.ini
PHP API	20190902

wordpress 와 mariaDB, apache2 연결 과정

[DB 연결 설정]

```
$ cd /var/www/html
```

```
$ mv wp-config-sample.php wp-config.php
```

```
$ vim wp-config.php
```

```
// ** MySQL settings - You can get this info from your web host ** //
/** The name of the database for WordPress */
define( 'DB_NAME', 'wordpress_db' );

/** MySQL database username */
define( 'DB_USER', 'wordpress_user' );

/** MySQL database password */
define( 'DB_PASSWORD', '1234' );

/** MySQL hostname */
define( 'DB_HOST', 'localhost' );

/** Database charset to use in creating database tables. */
define( 'DB_CHARSET', 'utf8' );

/** The database collate type. Don't change this if in doubt. */
define( 'DB_COLLATE', '' );
```

[apache2 연결 설정]

```
$ touch /etc/apache2/sites-available/wordpress.conf
$ ln -s /etc/apache2/sites-available/wordpress.conf /etc/apache2/sites-enabled/wordpress.conf
$ vim /etc/apache2/sites-available/wordpress.conf
```

```
<VirtualHost *:80>
ServerAdmin yeongju@hallym.ac.kr
DocumentRoot /var/www/html/
ServerName localhost
ServerAlias localhost
<Directory /var/www/html/>
Options FollowSymLinks
AllowOverride All
Order allow,deny
allow from all
</Directory>
ErrorLog /var/log/apache2/your-domain.com-error_log
CustomLog /var/log/apache2/your-domain.com-access_log common
</VirtualHost>
```

[apache2 재시작 및 확인]

```
$ a2ensite wordpress.conf
$ a2enmod rewrite
$ service apache2 restart
$ nmap -sT -p 1-65535 localhost
```

```

root@01a5e77bdc07:/var/www/html# a2ensite wordpress.conf
Site wordpress already enabled
root@01a5e77bdc07:/var/www/html# a2enmod rewrite
Enabling module rewrite.
To activate the new configuration, you need to run:
    service apache2 restart
root@01a5e77bdc07:/var/www/html# service apache2 restart
 * Restarting Apache httpd web server apache2
root@01a5e77bdc07:/var/www/html# nmap -sT -p 1-65535 localhost
Starting Nmap 7.80 ( https://nmap.org ) at 2021-09-26 18:09 KST
Nmap scan report for localhost (127.0.0.1)
Host is up (0.00011s latency).
Other addresses for localhost (not scanned): ::1
Not shown: 65533 closed ports
PORT      STATE SERVICE
80/tcp    open  http
3306/tcp  open  mysql

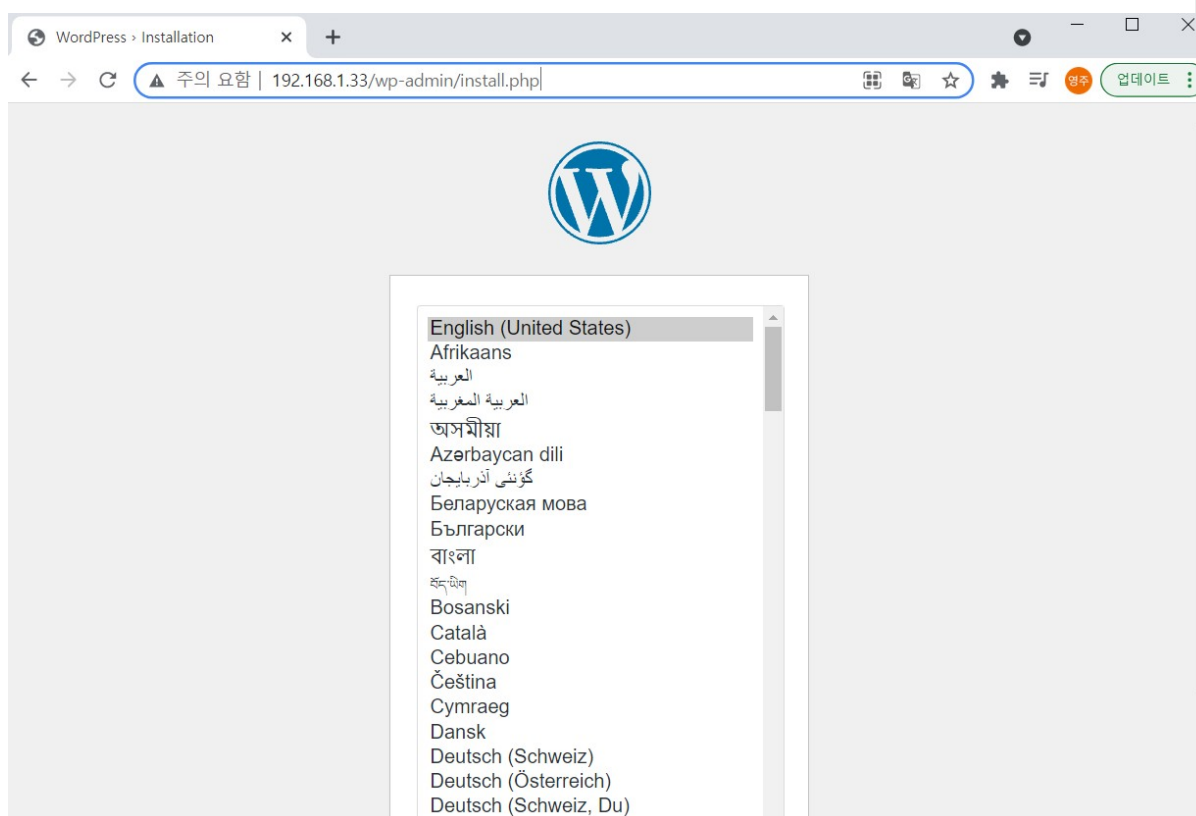
Nmap done: 1 IP address (1 host up) scanned in 1.89 seconds
root@01a5e77bdc07:/var/www/html#

```

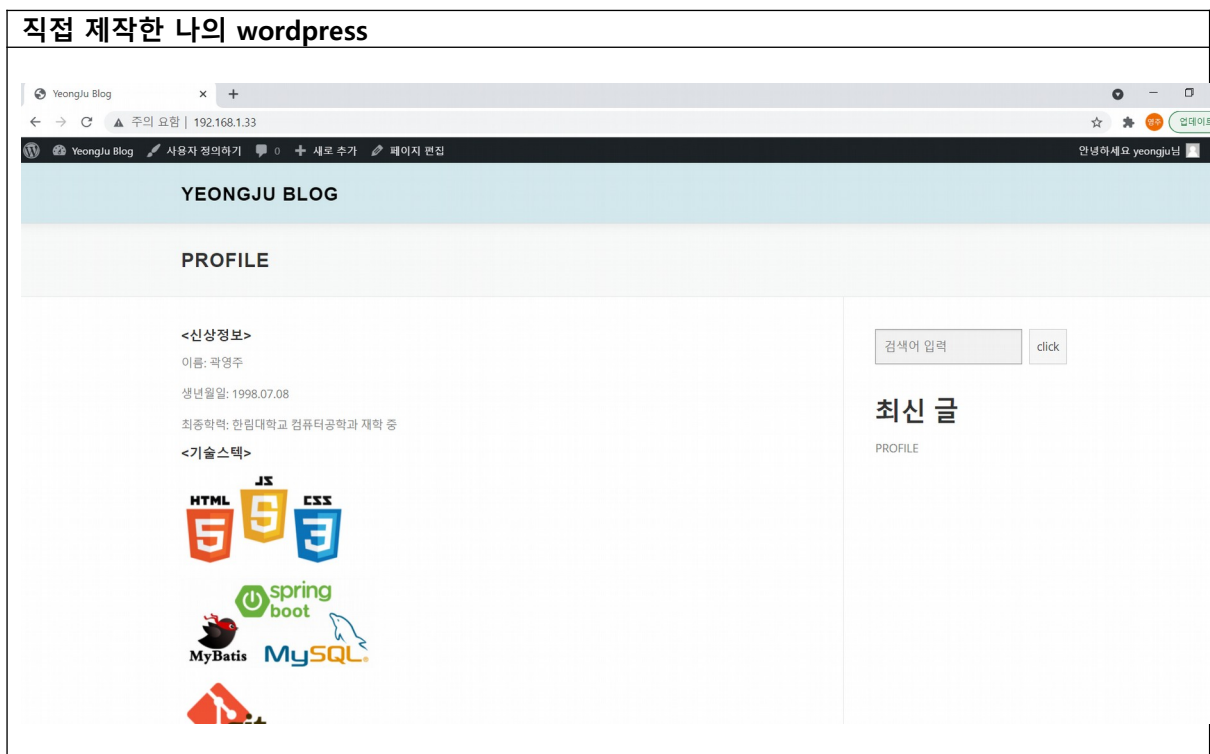
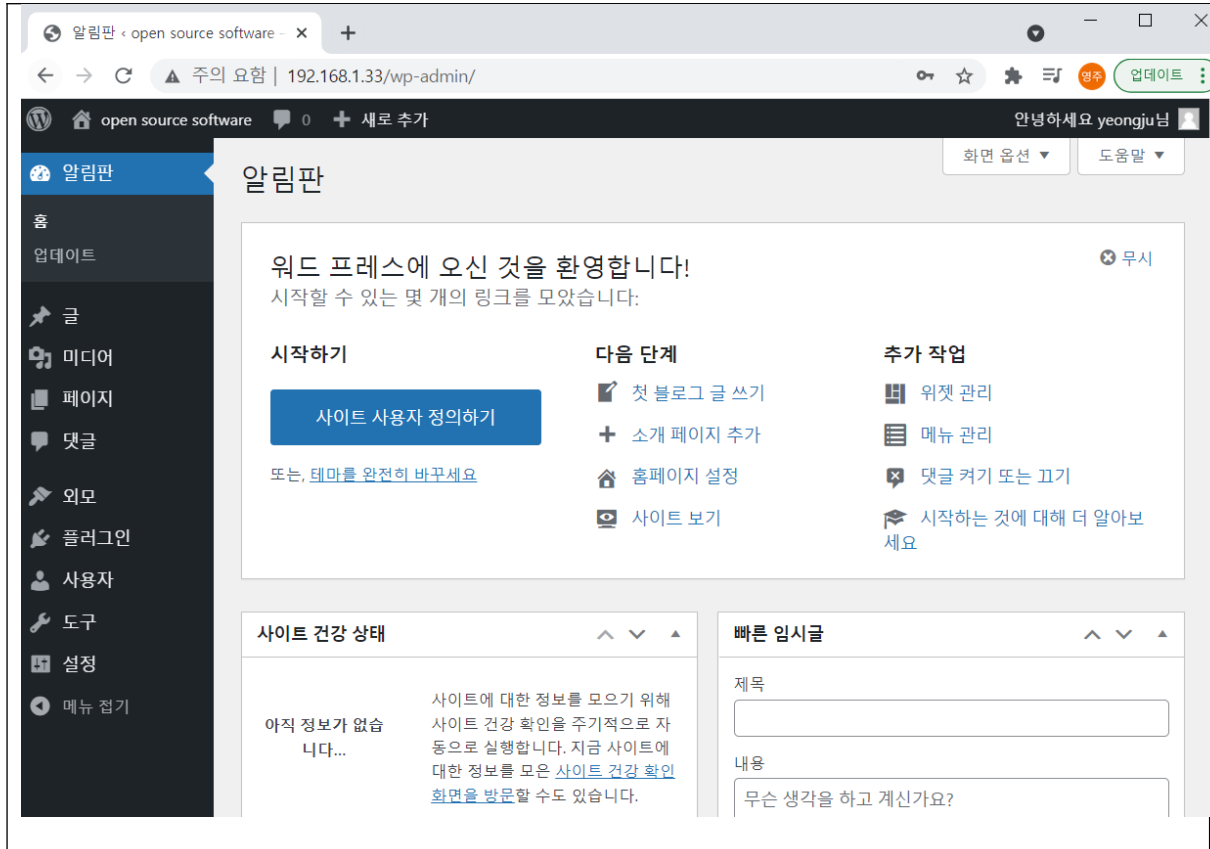
[OK

[웹페이지 화면]

\$ mv index.html index.bak



[언어 설정 -> 사용자 정보입력 -> 로그인]



docker 이미지 저장 및 docker hub 업로드


[docker 이미지 저장]

```
$ docker commit ub-wordpress yjkwak/ub-wordpress:latest
```

```
root@vm-ubuntu20:~# docker commit ub-wordpress yjkwak/ub-wordpress:latest
sha256:1f501dcf40cfde6fa3be471aa16642888c0deffd6f3b149bb4eeac986b1ae918
root@vm-ubuntu20:~# docker images
```

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
yjkwak/ub-wordpress	latest	1f501dcf40cf	12 seconds ago	845MB
ub-wordpress	latest	93321190ded4	25 minutes ago	845MB
httpd	latest	5ebe6e00baf9	4 days ago	138MB
nginx	latest	ad4c705f24d3	2 weeks ago	133MB
ubuntu	latest	fb52e22af1b0	3 weeks ago	72.8MB

[docker hub repository 생성]

 **dockerhub**

Explore Repositories Organizations

Repositories > Create >

Create Repository

yjkwak


▼


ub-wordpress

Description

Visibility

Using 0 of 1 private repositories. [Get more](#)

☒ Public 
Appears in Docker Hub search results

☐ Private 
Only visible to you

Cancel Create

[docker 로그인]

```
$ docker login
```

```
root@vm-ubuntu20:~# docker login
Login with your Docker ID to push and pull images from Docker Hub. If you don't have a Docker ID, head over to https://hub.docker.com to create one.
Username: yjkwak
Password:
WARNING! Your password will be stored unencrypted in /root/.docker/config.json.
Configure a credential helper to remove this warning. See
https://docs.docker.com/engine/reference/commandline/login/#credentials-store

Login Succeeded
```

[docker hub 업로드]

```
$ docker push yjkwak/ub-wordpress:latest
```

```
root@vm-ubuntu20:~# docker push yjkwak/ub-wordpress:latest
The push refers to repository [docker.io/yjkwak/ub-wordpress]
511cd3c12e39: Pushed
4942a1abcbfa: Mounted from library/ubuntu
latest: digest: sha256:e058382e0c6ef796217f2e9eabe830476751e78c856df8ea94bb9d6044ec8148 size: 74
```

docker hub

Search for great content (e.g., mysql)

Explore

Repositories

Orgs

yjkwak

Repositories

ub-wordpress

General

Tags

Builds

Collaborators

Webhooks

Settings

Advanced Image Management
View all your images and tags in this repository, clean up unused content, recover untagged images

yjkwak / ub-wordpress
This repository does not have a description

Last pushed: a minute ago

Tags and Scans

VULNERABILITY SCANNING - DISABLED
[Enable](#)

This repository contains 1 tag(s).

TAG	OS	PULLED	PUSHED
latest		a minute ago	a minute ago

[See all](#)

docker 이미지 다운로드 및 실행

[docker 이미지 다운로드]

```
$ docker stop ub-wordpress
$ docker rm ub-wordpress
$ docker rmi yjkwak/ub-wordpress:latest
$ docker pull yjkwak/ub-wordpress:latest
```

```
root@vm-ubuntu20:~# docker ps -al
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS        NAMES
root@vm-ubuntu20:~# docker images
REPOSITORY    TAG        IMAGE ID        CREATED        SIZE
httpd         latest    5ebe6e00baf9    4 days ago    138MB
nginx         latest    ad4c705f24d3    2 weeks ago    133MB
ubuntu        latest    fb52e22af1b0    3 weeks ago    72.8MB
root@vm-ubuntu20:~# docker pull yjkwak/ub-wordpress:latest
latest: Pulling from yjkwak/ub-wordpress
35807b77a593: Already exists
9f083cb05dca: Pull complete
Digest: sha256:e058382e0c6ef796217f2e9eabe830476751e78c856df8ea94bb9d6044ec8148
Status: Downloaded newer image for yjkwak/ub-wordpress:latest
docker.io/yjkwak/ub-wordpress:latest
root@vm-ubuntu20:~# docker images
REPOSITORY    TAG        IMAGE ID        CREATED        SIZE
yjkwak/ub-wordpress  latest    1f501dcf40cf    11 minutes ago    845MB
httpd         latest    5ebe6e00baf9    4 days ago    138MB
nginx         latest    ad4c705f24d3    2 weeks ago    133MB
ubuntu        latest    fb52e22af1b0    3 weeks ago    72.8MB
root@vm-ubuntu20:~#
```

[다운로드한 이미지 실행]

```
$ docker run -it -p 80:80 --name yjkwak-wp yjkwak/ub-wordpress:latest /bin/bash
$ service apache2 start
$ service mysql start
```

```
root@vm-ubuntu20:~# docker ps -al
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS        NAMES
84c3b09d6ed5  yjkwak/ub-wordpress:latest  "/bin/bash"        51 seconds ago    Up 49 seconds    0.0.0.0:80->80/tcp, :::80->80/tcp    yjkwak-w
root@84c3b09d6ed5:/# service apache2 start
* Starting Apache httpd web server apache2
*
root@84c3b09d6ed5:/# service mysql start
* Starting MariaDB database server mysqld
[ OK ]
```

[웹페이지 화면]

