

Lab2. Install WordPress

목적

이전 실습에서 생성했던 Web Server에 WordPress를 설치하고 생성한 RDS 인스턴스에 연결하는 실습이다. WordPress에 관련된 데이터베이스는 RDS 인스턴스에 생성한다.

사전 준비물

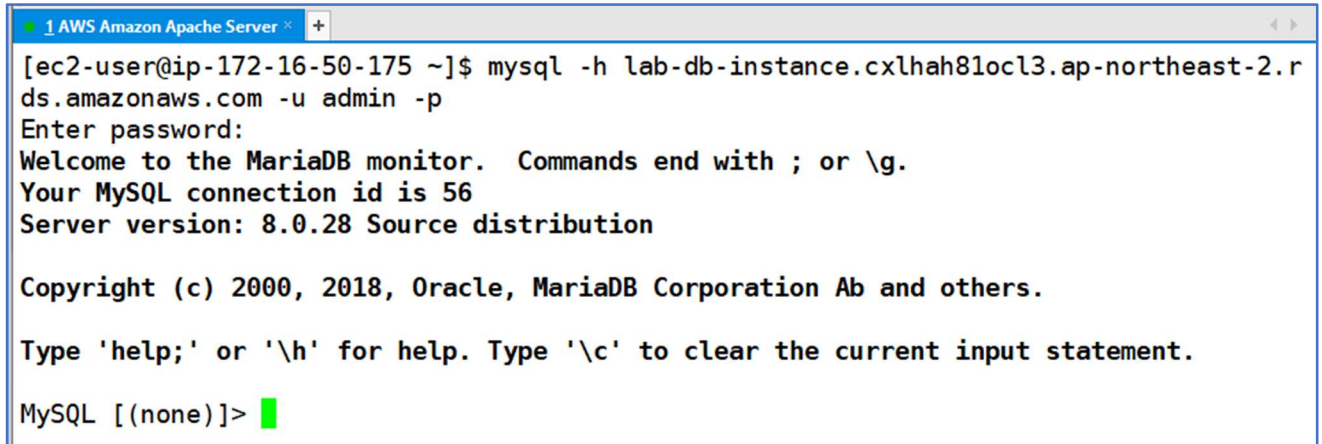
AWS Free-Tier 계정

Web Server Instance를 이용하여 RDS Instance에 접속하기

1. Web Server EC2 Instance에서 다음과 같이 RDS Instance에 연결한다.

```
$ mysql -h [RDS Instance Endpoint] -u admin -p
```

```
Enter password : suwonmymysql
```



```
[ec2-user@ip-172-16-50-175 ~]$ mysql -h lab-db-instance.cx1hah81ocl3.ap-northeast-2.rds.amazonaws.com -u admin -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MySQL connection id is 56
Server version: 8.0.28 Source distribution

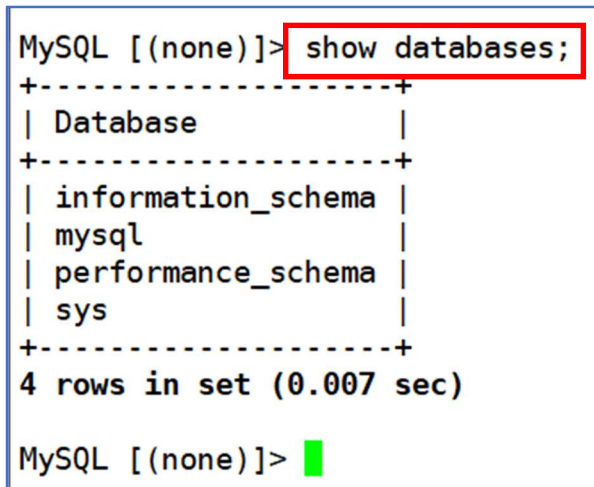
Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

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

MySQL [(none)]>
```

2. RDS Instance에 연결 성공하면 다음의 명령을 통해 이미 설치된 데이터베이스를 확인한다.

```
MySQL [(none)]> show databases;
```



```
MySQL [(none)]> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| sys |
+-----+
4 rows in set (0.007 sec)

MySQL [(none)]>
```

3. 다음의 명령으로 **wordpress** 데이터베이스를 생성한다.

```
MySQL [(none)] > CREATE DATABASE wordpress DEFAULT CHARACTER SET utf8 COLLATE utf8_general_ci;
```

```
MySQL [(none)] > show databases;
```

```
MySQL [(none)]> CREATE DATABASE wordpress DEFAULT CHARACTER SET utf8 COLLATE utf8_general_ci;
```

```
Query OK, 1 row affected, 2 warnings (0.021 sec)
```

```
MySQL [(none)]> show databases;
```

Database
information_schema
mysql
performance_schema
sys
wordpress

```
5 rows in set (0.001 sec)
```

```
MySQL [(none)]> █
```

4. **exit** 명령을 통해 **RDS 데이터베이스**에서 로그아웃한다.

```
MySQL [(none)]> exit
```

```
Bye
```

```
[ec2-user@ip-172-16-50-175 ~]$ █
```

Wordpress 설치

1. 먼저 **Amazon RDS**에 연결하여 **wordpress** 데이터베이스를 다음과 같은 명령으로 생성한다. 그리고 성공적으로 데이터베이스가 생성되면 **show databases;** 명령으로 확인한다.

CREATE DATABASE wordpress DEFAULT CHARACTER SET utf8 COLLATE utf8_general_ci;

```
1 AWS Apache Web Server x +
Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

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

MySQL [(none)]> CREATE DATABASE wordpress DEFAULT CHARACTER SET utf8 COLLATE utf8_general_ci;
Query OK, 1 row affected, 2 warnings (0.01 sec)

MySQL [(none)]> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mycompany |
| mysql |
| performance_schema |
| sys |
| wordpress |
+-----+
6 rows in set (0.00 sec)
```

2. **exit** 명령으로 RDS를 닫는다.

```
MySQL [(none)]> exit
Bye
[ec2-user@ip-172-16-10-19 ~]$
```

3. **wget** 명령어를 통해 **wordpress**의 압축파일을 다운로드한다.

\$ wget <https://wordpress.org/wordpress-5.6-RC5.tar.gz>

```
1 AWS Apache Web Server x +
[ec2-user@ip-172-16-10-19 ~]$ wget https://wordpress.org/wordpress-5.6-RC5.tar.gz
--2022-09-14 08:06:01-- https://wordpress.org/wordpress-5.6-RC5.tar.gz
Resolving wordpress.org (wordpress.org)... 198.143.164.252
Connecting to wordpress.org (wordpress.org)|198.143.164.252|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 15422073 (15M) [application/octet-stream]
Saving to: 'wordpress-5.6-RC5.tar.gz'

100%[=====>] 15,422,073 5.19MB/s in 2.8s

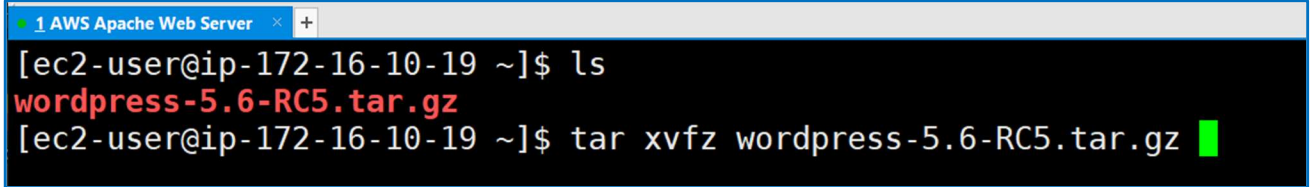
2022-09-14 08:06:05 (5.19 MB/s) - 'wordpress-5.6-RC5.tar.gz' saved [15422073/15422073]

[ec2-user@ip-172-16-10-19 ~]$
```

4. 다운로드 받은 압축파일을 확인하고 압축을 푼다.

```
$ ls
```

```
$ tar xvfz latest.tar.gz
```

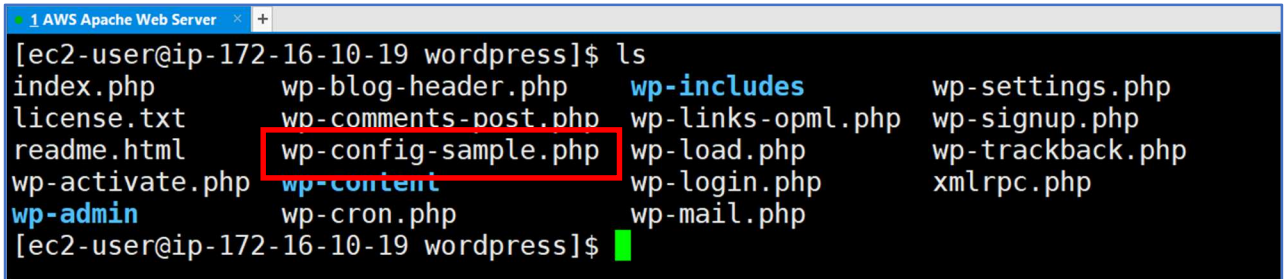


```
1 AWS Apache Web Server x +
[ec2-user@ip-172-16-10-19 ~]$ ls
wordpress-5.6-RC5.tar.gz
[ec2-user@ip-172-16-10-19 ~]$ tar xvfz wordpress-5.6-RC5.tar.gz
```

5. 압축을 풀면 **wordpress** 디렉토리가 생성된다. 해당 디렉토리로 이동하여 하위 목록을 확인한다. 여기서 **wp-config-sample.php**를 찾는다.

```
$ cd wordpress
```

```
$ cd ls
```



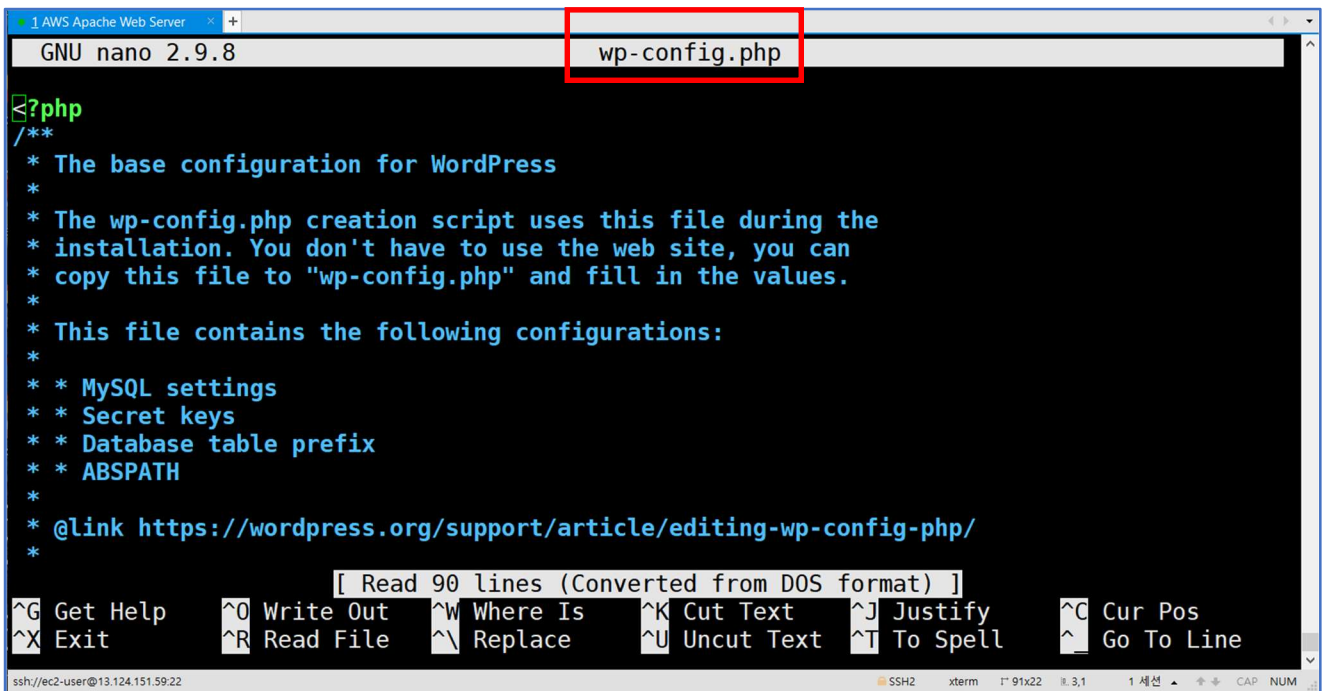
```
1 AWS Apache Web Server x +
[ec2-user@ip-172-16-10-19 wordpress]$ ls
index.php          wp-blog-header.php  wp-includes         wp-settings.php
license.txt        wp-comments-post.php wp-links-opml.php   wp-signup.php
readme.html        wp-config-sample.php wp-load.php         wp-trackback.php
wp-activate.php    wp-content          wp-login.php       xmlrpc.php
wp-admin           wp-cron.php         wp-mail.php
[ec2-user@ip-172-16-10-19 wordpress]$
```

6. **wp-config-sample.php** 파일을 **wp-config.php** 파일로 복사한다.

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

7. nano 편집기를 이용해서 wp-config.php 파일을 수정한다.

\$ sudo nano wp-config.php



```
GNU nano 2.9.8 wp-config.php
<?php
/**
 * The base configuration for WordPress
 *
 * The wp-config.php creation script uses this file during the
 * installation. You don't have to use the web site, you can
 * copy this file to "wp-config.php" and fill in the values.
 *
 * This file contains the following configurations:
 *
 * * MySQL settings
 * * Secret keys
 * * Database table prefix
 * * ABSPATH
 *
 * @link https://wordpress.org/support/article/editing-wp-config-php/
 */
[ Read 90 lines (Converted from DOS format) ]
^G Get Help      ^O Write Out    ^W Where Is    ^K Cut Text    ^J Justify     ^C Cur Pos
^X Exit          ^R Read File   ^\ Replace     ^U Uncut Text  ^T To Spell    ^_ Go To Line
ssh://ec2-user@13.124.151.59:22  SSH2  xterm  1" 91x22  8.3,1  1 선택  CAP NUM
```

8. 다음과 같이 필요한 입력한다.

```
/** The name of the database for WordPress */
```

```
define( 'DB_NAME', 'wordpress' );
```

```
/** Database username */
```

```
define( 'DB_USER', 'admin' );
```

```
/** Database password */
```

```
define( 'DB_PASSWORD', 'suwonmymysql' );
```

```
/** Database hostname */
```

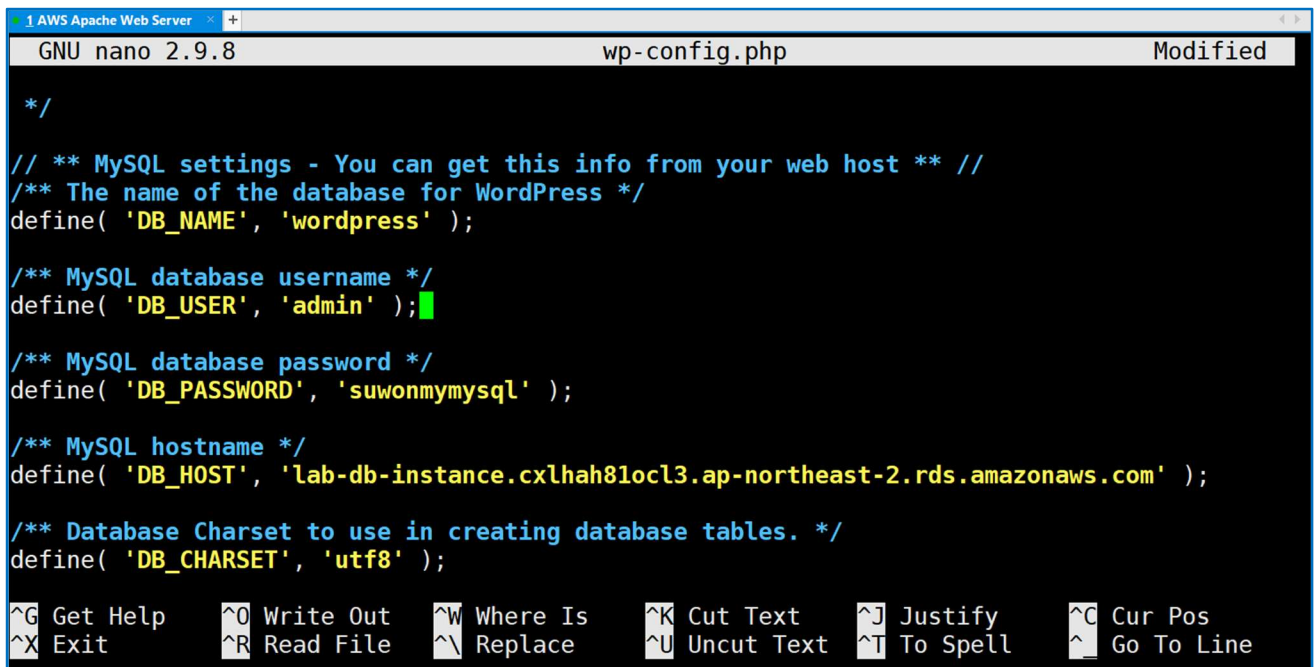
```
define( 'DB_HOST', 'lab-db-instance.cx1hah81ocl3.ap-northeast-2.rds.amazonaws.com' );
```

```
/** Database charset to use in creating database tables. */
```

```
define( 'DB_CHARSET', 'utf' );
```

```
/** The database collate type. Don't change this if in doubt. */
```

```
define( 'DB_COLLATE', 'utf8_general_ci' );
```



```
1 AWS Apache Web Server  wp-config.php  Modified

*/

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

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

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

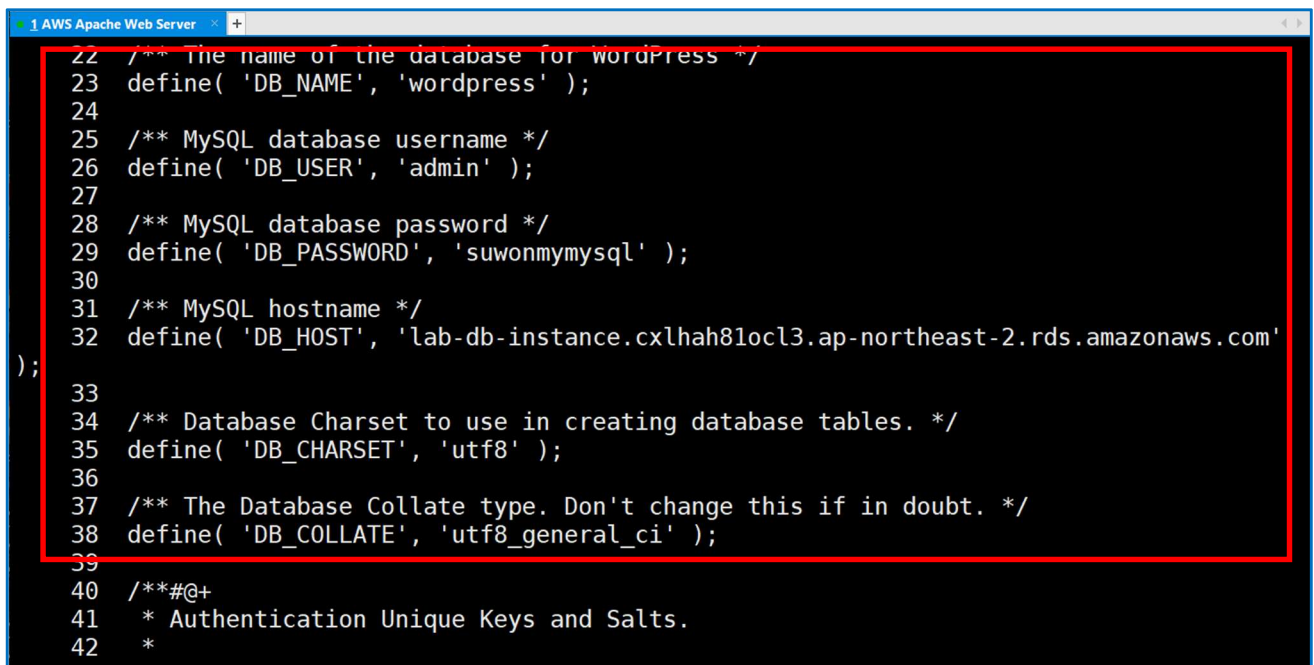
/** MySQL hostname */
define( 'DB_HOST', 'lab-db-instance.cxlhah81ocl3.ap-northeast-2.rds.amazonaws.com' );

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

^G Get Help  ^O Write Out  ^W Where Is  ^K Cut Text  ^J Justify  ^C Cur Pos
^X Exit      ^R Read File  ^\ Replace   ^U Uncut Text ^T To Spell  ^_ Go To Line
```

9. 파일을 저장하고 닫는다. 다음 명령으로 제대로 저장되었는지 수정되었는지 확인할 수 있다.

```
$ cat -n wp-config.php
```



```
1 AWS Apache Web Server  wp-config.php  Modified

22 /** The name of the database for WordPress */
23 define( 'DB_NAME', 'wordpress' );
24
25 /** MySQL database username */
26 define( 'DB_USER', 'admin' );
27
28 /** MySQL database password */
29 define( 'DB_PASSWORD', 'suwonmymysql' );
30
31 /** MySQL hostname */
32 define( 'DB_HOST', 'lab-db-instance.cxlhah81ocl3.ap-northeast-2.rds.amazonaws.com'
);
33
34 /** Database Charset to use in creating database tables. */
35 define( 'DB_CHARSET', 'utf8' );
36
37 /** The Database Collate type. Don't change this if in doubt. */
38 define( 'DB_COLLATE', 'utf8_general_ci' );
39
40 /**#@+
41  * Authentication Unique Keys and Salts.
42  *
```


10. 그 다음 구성할 섹션은 **the Authentication Unique Keys and Salts**이다. 아래의 링크로 이동하여 아래와 같이 값을 모두 복사한 후 **wp-config.php** 해당 위치로 교체한다.

<https://api.wordpress.org/secret-key/1.1/salt/>

```
← → ↺ api.wordpress.org/secret-key/1.1/salt

define('AUTH_KEY',         'oFCrbF6sRPRC_1+0||U.LSKZ:rSd3(P).W:$RjNxD/dy3a|&gs4f|_iyb_o-=>@')
define('SECURE_AUTH_KEY', 'DwL3w^qZWC8}){L|v|a*F3$p?aq+Z-(B]D(hn!;;jn:MP dJrN-cmy6B,pM0-Nlf')
define('LOGGED_IN_KEY',    'b8T=xnn??fR.Ksc(bB)yN2ILOPvfIL)afQ52v[0Erry(G&?~-S5.cb/|$_hkQ.RV')
define('NONCE_KEY',        '}{R~JI|K6M[D+>0AZ@FLMj|+<-;A{'`C5Xw.+[Z.*`3),Vx[A#|QG-&<^X7~)+3tw')
define('AUTH_SALT',        'WIKZ94l HC)me^zY4S!G<1NNG&>3P#dp=r-6=,~uiL!@Zl]GPRUeVktT> oZZ<IN')
define('SECURE_AUTH_SALT', ':sV!9z,`/`,tzW.20Tui:+3jJS&RpjsS|}.nAjxcHW0QnI~JVUi]^D0GiqC0a0!q')
define('LOGGED_IN_SALT',   'Z^ic}%4$Tpy|:oVmuK L|o <>RN`+V!vjqs8;[*E2CCPM+6KWbKb2-Q:x,rQX*PS')
define('NONCE_SALT',       'c+,wp,K|t;e:5Y$fBM(4P[xsyB;^~qs%e!i8U0|PC^Tz_.`AZ|!>K0A{H|(6nz>-')
```

```
1 AWS Apache Web Server
GNU nano 2.9.8 wp-config.php Modified

*
* @since 2.6.0
*/
define('AUTH_KEY',         'oFCrbF6sRPRC_1+0||U.LSKZ:rSd3(P).W:$RjNxD/dy3a|&gs4f|_iyb_o-=
define('SECURE_AUTH_KEY', 'DwL3w^qZWC8}){L|v|a*F3$p?aq+Z-(B]D(hn!;;jn:MP dJrN-cmy6B,pM0-N$
define('LOGGED_IN_KEY',    'b8T=xnn??fR.Ksc(bB)yN2ILOPvfIL)afQ52v[0Erry(G&?~-S5.cb/|$_hkQ.$
define('NONCE_KEY',        '}{R~JI|K6M[D+>0AZ@FLMj|+<-;A{'`C5Xw.+[Z.*`3),Vx[A#|QG-&<^X7~)+3$
define('AUTH_SALT',        'WIKZ94l HC)me^zY4S!G<1NNG&>3P#dp=r-6=,~uiL!@Zl]GPRUeVktT> oZZ<$
define('SECURE_AUTH_SALT', ':sV!9z,`/`,tzW.20Tui:+3jJS&RpjsS|}.nAjxcHW0QnI~JVUi]^D0GiqC0a0$
define('LOGGED_IN_SALT',   'Z^ic}%4$Tpy|:oVmuK L|o <>RN`+V!vjqs8;[*E2CCPM+6KWbKb2-Q:x,rQX*$
$H|(6nz>-');
/**#@-*/

/**
 * WordPress Database Table prefix.
 *
 * You can have multiple installations in one database if you give each
 */
^G Get Help      ^O Write Out     ^W Where Is      ^K Cut Text      ^J Justify       ^C Cur Pos
^X Exit          ^R Read File     ^_ Replace       ^U Uncut Text   ^T To Spell     ^_ Go To Line
```

11. 파일을 저장하고 다시 다음의 명령으로 확인해보자.

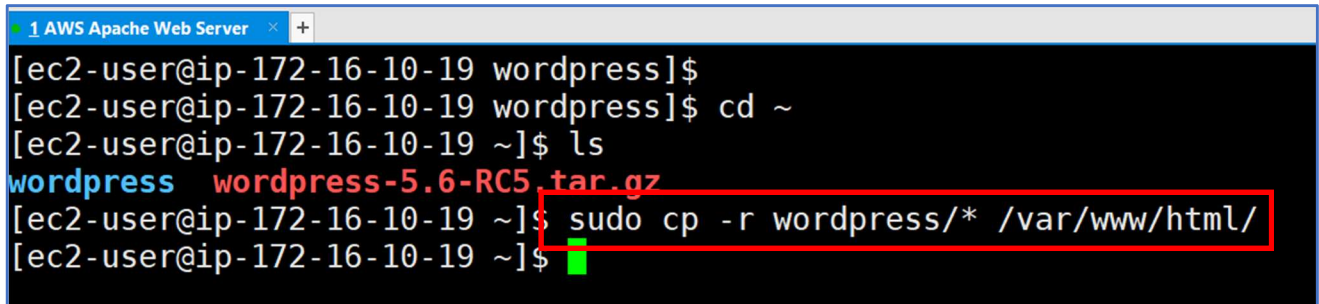
\$ cat -n wp-config.php

```
1 AWS Apache Web Server
47 * @since 2.6.0
48 */
49 define('AUTH_KEY',         'oFCrbF6sRPRC_1+0||U.LSKZ:rSd3(P).W:$RjNxD/dy3a|&gs4f|_i
yb_ o-=>@');
50 define('SECURE_AUTH_KEY', 'DwL3w^qZWC8}){L|v|a*F3$p?aq+Z-(B]D(hn!;;jn:MP dJrN-cmy6
B,pM0-Nlf');
51 define('LOGGED_IN_KEY',    'b8T=xnn??fR.Ksc(bB)yN2ILOPvfIL)afQ52v[0Erry(G&?~-S5.cb/
|$_hkQ.RV');
52 define('NONCE_KEY',        '}{R~JI|K6M[D+>0AZ@FLMj|+<-;A{'`C5Xw.+[Z.*`3),Vx[A#|QG-&<
^X7~)+3tw');
53 define('AUTH_SALT',        'WIKZ94l HC)me^zY4S!G<1NNG&>3P#dp=r-6=,~uiL!@Zl]GPRUeVkt
T> oZZ<IN');
54 define('SECURE_AUTH_SALT', ':sV!9z,`/`,tzW.20Tui:+3jJS&RpjsS|}.nAjxcHW0QnI~JVUi]^D0
GiqC0a0!q');
55 define('LOGGED_IN_SALT',   'Z^ic}%4$Tpy|:oVmuK L|o <>RN`+V!vjqs8;[*E2CCPM+6KWbKb2-Q
:x,rQX*PS');
56 define('NONCE_SALT',       'c+,wp,K|t;e:5Y$fBM(4P[xsyB;^~qs%e!i8U0|PC^Tz_.`AZ|!>K0A
{H|(6nz>-');
57 /**#@-*/
58
59 /**
60 * WordPress Database Table prefix.
```


12. **wordpress** 압축파일 다운받았던 곳으로 이동하여 **wordpress** 디렉토리안의 모든 파일들을 **/var/www/html** 아래로 복사한다.

```
$ cd ~
```

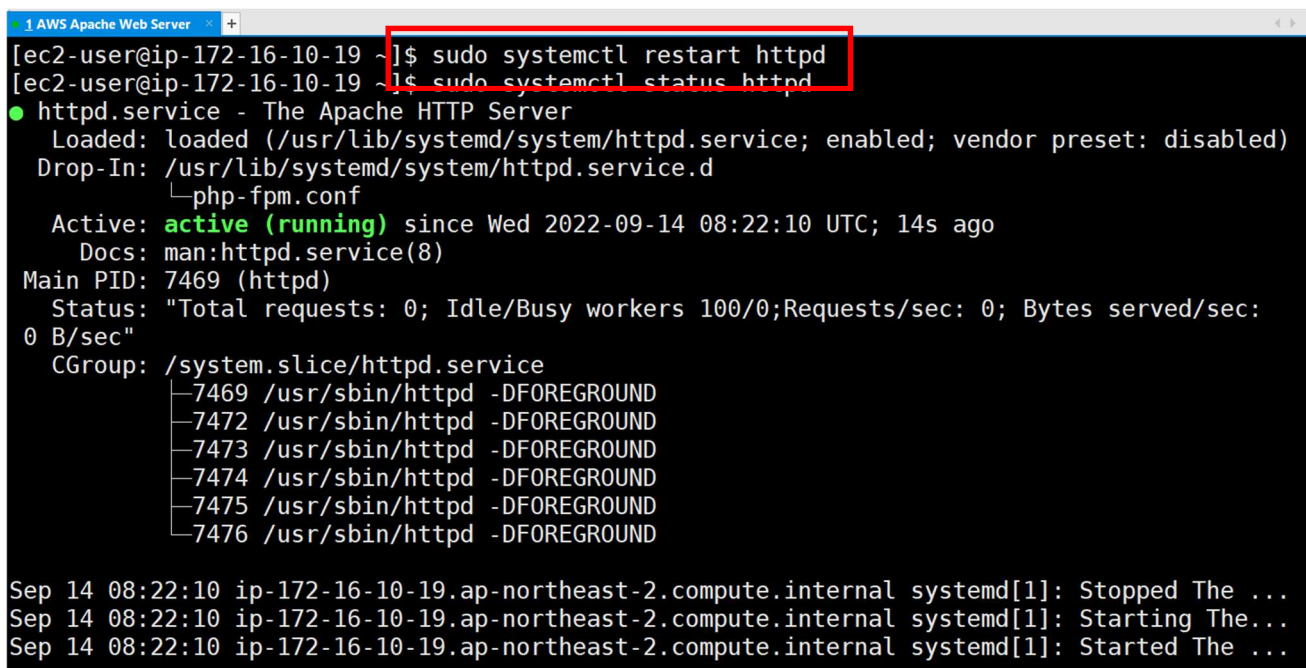
```
$ sudo cp -r wordpress/* /var/www/html/
```

A terminal window titled "1 AWS Apache Web Server" showing a series of commands. The user is in the directory ~/wordpress. They run 'cd ~' and 'ls', which shows 'wordpress' and 'wordpress-5.6-RC5.tar.gz'. The command 'sudo cp -r wordpress/* /var/www/html/' is entered and highlighted with a red box. The prompt returns to '~\$' with a green cursor.

```
[ec2-user@ip-172-16-10-19 wordpress]$  
[ec2-user@ip-172-16-10-19 wordpress]$ cd ~  
[ec2-user@ip-172-16-10-19 ~]$ ls  
wordpress  wordpress-5.6-RC5.tar.gz  
[ec2-user@ip-172-16-10-19 ~]$ sudo cp -r wordpress/* /var/www/html/  
[ec2-user@ip-172-16-10-19 ~]$
```

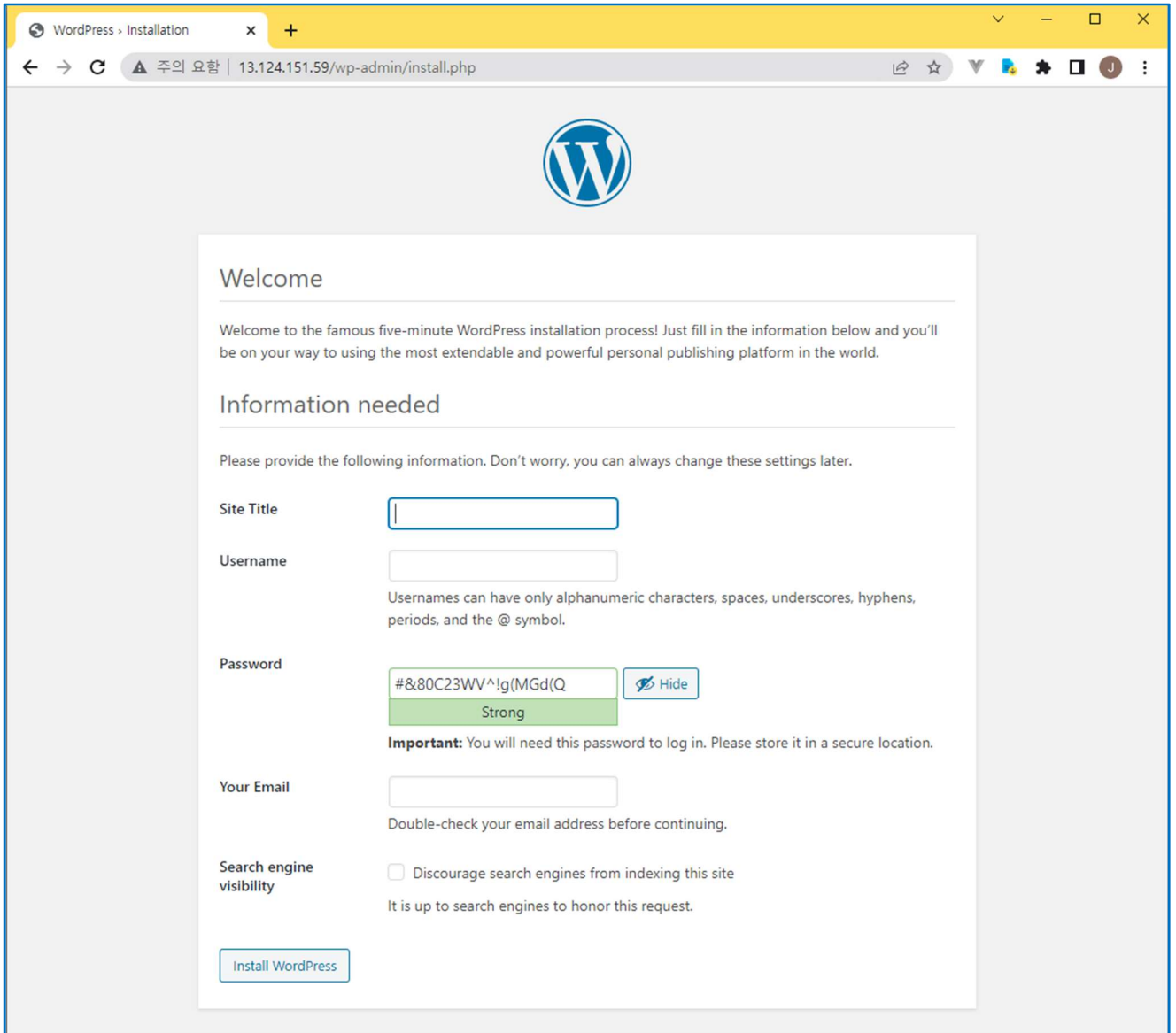
13. 그 다음, **httpd service**를 재시작한다.

```
$ sudo systemctl restart httpd
```

A terminal window titled "1 AWS Apache Web Server" showing the command 'sudo systemctl restart httpd' and 'sudo systemctl status httpd' highlighted with a red box. Below the commands, the status of the httpd.service is displayed, showing it is active (running). At the bottom, there are log messages from systemd indicating the service was stopped and started.


```
[ec2-user@ip-172-16-10-19 ~]$ sudo systemctl restart httpd  
[ec2-user@ip-172-16-10-19 ~]$ sudo systemctl status httpd  
● httpd.service - The Apache HTTP Server  
   Loaded: loaded (/usr/lib/systemd/system/httpd.service; enabled; vendor preset: disabled)  
   Drop-In: /usr/lib/systemd/system/httpd.service.d  
            └─php-fpm.conf  
   Active: active (running) since Wed 2022-09-14 08:22:10 UTC; 14s ago  
     Docs: man:httpd.service(8)  
  Main PID: 7469 (httpd)  
    Status: "Total requests: 0; Idle/Busy workers 100/0;Requests/sec: 0; Bytes served/sec:  
0 B/sec"  
   CGroup: /system.slice/httpd.service  
            └─7469 /usr/sbin/httpd -DFOREGROUND  
              └─7472 /usr/sbin/httpd -DFOREGROUND  
                └─7473 /usr/sbin/httpd -DFOREGROUND  
                  └─7474 /usr/sbin/httpd -DFOREGROUND  
                    └─7475 /usr/sbin/httpd -DFOREGROUND  
                      └─7476 /usr/sbin/httpd -DFOREGROUND  
  
Sep 14 08:22:10 ip-172-16-10-19.ap-northeast-2.compute.internal systemd[1]: Stopped The ...  
Sep 14 08:22:10 ip-172-16-10-19.ap-northeast-2.compute.internal systemd[1]: Starting The...  
Sep 14 08:22:10 ip-172-16-10-19.ap-northeast-2.compute.internal systemd[1]: Started The ...
```

14. WebServer EC2 인스턴스의 public IP 주소로 접속해 보자.



WordPress > Installation x +

주의 요함 | 13.124.151.59/wp-admin/install.php



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. Don't worry, you can always change these settings later.

Site Title

Username

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

Password [Hide](#)

Strong

Important: You will need this password to log in. Please store it in a secure location.

Your Email

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.

[Install WordPress](#)

15. 필요한 각 각의 값을 입력하고 **[Install WordPress]** 버튼을 클릭한다. 특별히 **Password**는 복사해서 다른 곳에 별도로 저장한다.

WordPress > Installation

주의 요함 | 13.124.151.59/wp-admin/install.php

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. Don't worry, you can always change these settings later.

Site Title 수원대학교 클라우드 융복합 전

Username suwon

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

Password #&80C23WV^!g(MGd(Q) [Hide](#)

Strong

Important: You will need this password to log in. Please store it in a secure location.

Your Email henry@suwon.ac.kr

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.

[Install WordPress](#)

16. 성공적으로 Wordpress가 설치되었다. **[Log In]** 버튼을 클릭하여 로그인해 보자.

주의 요함 | 13.124.151.59/wp-admin/install.php?step=2

Success!

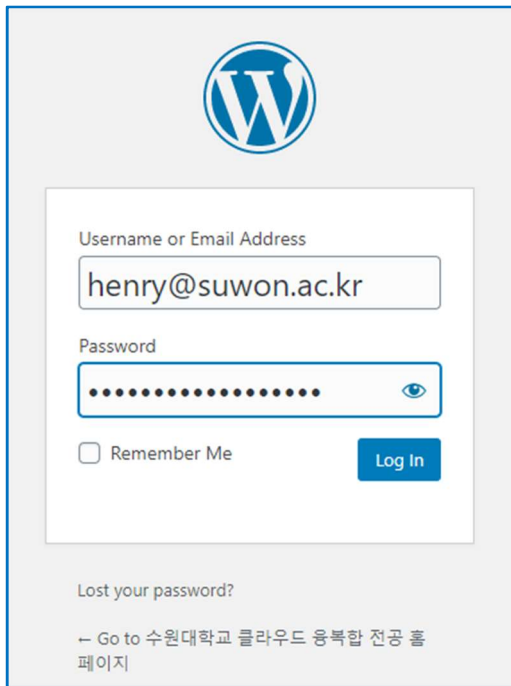
WordPress has been installed. Thank you, and enjoy!

Username suwon

Password Your chosen password.

[Log In](#)

17. Username 또는 Email 주소를 넣고 별도로 저장했던 비밀번호를 넣고 [Log In]을 클릭하여 로그인해보자.



The image shows the WordPress login interface. At the top is the WordPress logo. Below it is a form with two input fields: 'Username or Email Address' containing 'henry@suwon.ac.kr' and 'Password' with masked dots. There is a 'Remember Me' checkbox and a 'Log In' button. Below the form, there is a link for 'Lost your password?' and a footer link that says 'Go to 수원대학교 클라우드 융복합 전공 홈페이지'.

18. 성공적으로 Wordpress 로그인이 끝났다.

