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Introduction

This is a brief guide about deploy laravel on AWS CentOS 7.

Pre Requirement

You need an AWS account and start a CentOS 7 EC2 instance. Then use your key to connect your server.

```
$ ssh -i "your-key.pem" centos@your.host
```

After you connected your instance, you can update all software.

```
$ yum update
```

Install Apache

Install apache won't take a lot of time.

```
$ yum install httpd
```

> Do that if you need https support
>
> ```
> $ yum install httpd mod_ssl
> ```

Then, create a virtual host.

```
$ vim /etc/httpd/conf.d/vhost.conf
```

Add those

```
<VirtualHost *:80>
ServerAdmin kuzoncby@gmail.com
DocumentRoot "/var/www/yourproject/public"
ServerName yourdomain.com
ServerAlias www.yourdomain.com
ErrorLog "/var/log/httpd/yourproject-error_log"
CustomLog "/var/log/httpd/yourproject-access_log" combined

<Directory "/var/www/yourproject/public/">
DirectoryIndex index.html index.php
Options FollowSymLinks
AllowOverride All
Require all granted
 <IfModule mod_mime.c>
    AddType application/x-javascript .js
    AddType text/css .css
   </IfModule>
   <IfModule mod_deflate.c>
    AddOutputFilterByType DEFLATE text/css application/x-javascr
ipt text/x-component text/html text/plain text/xml application/j
avascript
    <IfModule mod_setenvif.c>
        BrowserMatch ^Mozilla/4 gzip-only-text/html
        BrowserMatch ^Mozilla/4.0[678] no-gzip
        BrowserMatch bMSIE !no-gzip !gzip-only-text/html
    </IfModule>
    </IfModule>
    Header append Vary User-Agent env=!dont-vary
</Directory>
</VirtualHost>
```

Last thing is start ***httpd***

```
$ systemctl start httpd
$ systemctl enable httpd
```

Install MariaDB

CentOS 7 have MariaDB 5 native support. Just use this command.

```
$ yum install mariadb-server
```

> If you need MariaDB 10. Setup repositories at this website
> https://downloads.mariadb.org/mariadb/repositories/#mirror=ut-austin

Next, init database.

```
$ systemctl start mariadb
$ mysql_secure_installation
```

The database gonna work.

Install PHP

CentOS 7 provide PHP 5.4. But Laravel require at least 5.6.4. I added REMI repo to make laravel work.

Before install remi, I install EPEL.

```
$ yum install epel-release
```

Next, install REMI.

> Try this configuration wizard.

```
$ yum install http://rpms.remirepo.net/enterprise/remi-release-7
.rpm
```

After set repository, you can install PHP.

```
$ yum install composer php php-fpm php-mysqlnd
$ systemctl start php-fpm
```

Deploy Your Code

Switch to apache website directory.

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

Then clone your code.

```
$ git clone git@github.com:/yourname/yourporject
or
$ git clone https://github.com/yourname/yourporject
```

Go to your code directory. Install dependency via composer

```
$ composer install
```

Setup environment.

```
$ cp .env.example .env
$ php artisan key:generate
$ vim .env
```

Setup database connection in .env file.

Back to **/var/www** and change permissions.

```
$ chown -R apache:apache yourproject
$ chmod -R 755 yourproject
```

Now, you can see your website on browser.

SELinux

```
# tail -f /var/log/php-fpm/www-error.log
PHP Fatal error:  Uncaught UnexpectedValueException: The stream
or file "/var/www/yourproject/storage/logs/laravel.log" could no
t be opened: failed to open stream: Permission denied in /var/ww
w/yourproject/bootstrap/cache/compiled.php:14181Stack trace
```

The website working good when I use ***php artisan serv --port=80 --host=0.0.0.0***, but apache get 500 when I try to login. No matter how I change owner or mod, I cannot make it work.

Then I try to shutdown SELinux. It's works!

So, if you have same problem like me, just do like that:

```
# chcon -R -t httpd_sys_rw_content_t storage/
```

And your session gonna able to storage, you can make auth now.

When you try to connect your database, you see this error:

```
An exception occured in driver: SQLSTATE[HY000] [2002] Permissio
n denied
```

Run this command

```
setsebool httpd_can_network_connect_db on
```