SECTION 4:

INSTALL NGINX

```
sudo yum install nginx
```

Start and Enable NGINX

```
sudo systemctl start nginx && sudo systemctl enable nginx
```

Fix system and NGINX bug: second command typed on a single line

```
mkdir /etc/systemd/system/nginx.service.d

printf "[Service]\nExecStartPost=/bin/sleep 0.1\n" >
/etc/systemd/system/nginx.service.d/override.conf

systemctl daemon-reload
```

INSTALL MARIADB

```
sudo yum install mariadb-server mariadb
```

Start and Enable MariaDB

```
sudo systemctl start mariadb && sudo systemctl enable mariadb
```

Secure MariaDB installation

```
sudo mysql_secure_installation
```

Configure MariaDB

The MariaDB installation includes several configuration file templates that can be used to quickly configure the server.

The templates are found: /usr/share/mysql/

my-medium.cnf

Ideal for dedicated database servers with 128MB of available memory or less. Another good example for multi-role servers.

Please refer to video lectures on configuring my-medium for your server

PHP 7.4

Add additional repository: REMI

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

The package yum-utils packages should be installed - check:

```
sudo yum install yum-utils
```

Enable remi repo, run for 7.4:

```
sudo yum-config-manager --enable remi-php74

sudo yum update
```

Install php7.4 Modules

```
sudo yum install php-fpm php-gd php-json php-mbstring php-mysqlnd php-xml php-xmlrpc php-opcache php-cli
```

Start and Enable the PHP fpm service

```
sudo systemctl start php-fpm.service && sudo systemctl enable php-fpm.service
```

Restart PHP fpm service

```
sudo systemctl restart php-fpm
```

Update PHP from 7.2 - 7.3 or 7.4 and 7.3 - 7.4

Enable the repo for the version you require, then update the packages:

Enable the 7.3 remi repo:

```
sudo yum-config-manager --enable remi-php73

sudo yum update
```

Enable the 7.4 remi repo:

```
sudo yum-config-manager --enable remi-php74

sudo yum update
```

Secure PHP

Backup php.ini

Please refer to video lectures

Open php.ini:

```
sudo nano php.ini
```

Make the following changes to the file - Please refer to video lectures for values after equals

```
cgi.fix_pathinfo=

allow_url_fopen =
```

Configure Unix Socket

Make backup copy of configuration file:

Please refer to video lectures

Open PHP-FPM configuration file:

```
sudo nano /etc/php-fpm.d/www.conf
```

Make the following changes: Please refer to video lectures for values after equals

```
user = apache to user =

group = apache to group =

listen.owner = nobody to listen.owner =

listen.group = nobody to listen.group =
```

And, lastly, under listen = 127.0.0.1:9000 add this line:

```
listen = /var/run/php-fpm/php-fpm.sock
```

Comment the line with a semi colon: listen = 127.0.0.1:9000

```
; listen = 127.0.0.1:9000
```

DECEMBER 2019 - UPDATE

I've noticed that certain commercial themes / plugins make tremendous demands - memory requirements - on system resources. To keep the server as stable as possible, you need to change/reduce the pm.max_children value in the www.conf file.

Please make the following changes in the www.conf file:

```
sudo nano /etc/php-fpm.d/www.conf
```

Change values of the following 4 directives in the file:

```
pm.max_children = 5

pm.start_servers = 2

pm.min_spare_servers = 1

pm.max_spare_servers = 3
```

Restart php-fpm:

```
sudo systemctl restart php-fpm
```

This applies to both php 7.3 and php 7.4