

Mjlsi Deployment Guide

Ubuntu 20.04 Server

Application information

Application Name Mjlsi
Backend Laravel 10 and .NET 6.0
Frontend Angular 15
Database MySQL 8
NodeJS v 18.16.0
Npm v 9.5.1

Install Apache

1. Install Apache on ubuntu

Follow the following steps to install Apache2 on your server, and make sure that there no other server is installed on the port 80:

- sudo apt update
- sudo apt install apache2
- sudo a2enmod rewrite
- sudo a2enmod headers
- sudo a2enmod proxy
- sudo a2enmod proxy_http
- sudo a2enmod proxy_html
- sudo systemctl restart apache2

<https://www.digitalocean.com/community/tutorials/how-to-install-the-apache-web-server-on-ubuntu-20-04>

https://www.digitalocean.com/community/tutorials/how-to-rewrite-urls-with-mod_rewrite-for-apache-on-ubuntu-20-04

2. Install MySQL on Ubuntu

- sudo apt update
- sudo apt install mysql-server
- sudo systemctl start mysql.service
- sudo mysql
- ALTER USER 'root'@'localhost' IDENTIFIED WITH mysql_native_password BY 'BoL97TsOMYwacmoD@';
- exit

<https://www.digitalocean.com/community/tutorials/how-to-install-mysql-on-ubuntu-20-04>

3. Install PHP and Composer

```
- sudo apt install software-properties-common
- sudo add-apt-repository ppa:ondrej/php
- sudo apt update
- sudo apt install php8.1
- php -v : should be PHP 8.1.xx
- sudo apt-get install -y php8.1-cli php8.1-common php8.1-mysql php8.1-zip php8.1-gd php8.1-mbstring
php8.1-curl php8.1-xml php8.1-bcmath php8.1-redis
- curl -sS https://getcomposer.org/installer -o /tmp/composer-setup.php
- HASH=`curl -sS https://composer.github.io/installer.sig`
- echo $HASH
- php -r "if (hash_file('SHA384', '/tmp/composer-setup.php') === '$HASH') { echo 'Installer verified'; } else {
echo 'Installer corrupt'; unlink('composer-setup.php'); } echo PHP_EOL;"
- sudo php /tmp/composer-setup.php --install-dir=/usr/local/bin --filename=composer
sudo apt-get install php8.1-ldap
```

```
sudo apt-get install php8.1-xml
```

<https://www.digitalocean.com/community/tutorials/how-to-install-php-8-1-and-set-up-a-local-development-environment-on-ubuntu-22-04>

4. Install phpMyAdmin

```
- sudo apt update
- sudo apt install phpmyadmin php-mbstring php-zip php-gd php-json php-curl
- click with space on apache2(this is very important)
- sudo phpenmod mbstring
- sudo systemctl restart apache2
```

<https://www.digitalocean.com/community/tutorials/how-to-install-and-secure-phpmyadmin-on-ubuntu-20-04>

5. Install ImageMagick and GhostScript

- sudo apt install imagemagick imagemagick-doc
- convert -version
- sudo apt install imagemagick php8.1-Imagick
 - **replace policy.xml in /etc/ImageMagick-6/**
- sudo apt-get install ghostscript
- sudo apt install php-imagick

6. Install Redis

- sudo apt update
- sudo apt install redis-server
- sudo systemctl status redis

<https://www.digitalocean.com/community/tutorials/how-to-install-and-secure-redis-on-ubuntu-20-04>

7. Install NodeJs and NPM

- sudo apt update
- curl -fsSL https://deb.nodesource.com/setup_18.x | sudo -E bash -
- sudo apt install -y nodejs
- node -v
- curl -qL https://www.npmjs.com/install.sh | sh
- curl -o- https://raw.githubusercontent.com/nvm-sh/nvm/v0.39.3/install.sh
- curl -o- https://raw.githubusercontent.com/nvm-sh/nvm/v0.39.3/install.sh | bash
- source ~/.bashrc
- nvm install v18
- sudo npm install -g node-gyp
- sudo apt update && sudo apt install build-essential

<https://www.digitalocean.com/community/tutorials/how-to-install-node-js-on-ubuntu-20-04>

8. Install .NET SDK

```
- sudo wget https://packages.microsoft.com/config/ubuntu/20.04/packages-microsoft-prod.deb -O packages-microsoft-prod.deb
- sudo dpkg -i packages-microsoft-prod.deb
- sudo rm packages-microsoft-prod.deb
- sudo apt-get update
- sudo apt-get install -y dotnet-sdk-6.0
- sudo apt-get install -y aspnetcore-runtime-6.0
- sudo dotnet tool install --global dotnet-ef --version 6.0.4
```

<https://learn.microsoft.com/en-us/dotnet/core/install/linux-ubuntu-2004>

9. Install laravel-echo-server

```
- npm install -g laravel-echo-server
```

10. Install git

```
- sudo apt update
- sudo apt install git
- git --version
```

11. Install supervisor

```
- sudo apt update && sudo apt install supervisor
- sudo systemctl status supervisor
```

<https://www.digitalocean.com/community/tutorials/how-to-install-and-manage-supervisor-on-ubuntu-and-debian-vps>

12. Install Angular Cli

```
- sudo npm install -g @angular/cli@15
```

13. Build Mjlsi Apps

- clone the repo into **mjlsi-git** folder
- modify .env and copy it to the Backend folder & copy .env for Chat to Chat folder
- copy the shell scripts files to your home directory (be.sh , fe.sh , chat.sh , ds-be.sh and ds-fe.sh)
- bash be.sh
- bash fe.sh
- bash chat.sh
- Copy .htaccess to /var/www/html/app
- Copy laravel-echo-server.json to /var/www/html/app/BackEnd
- copy queue-worker.conf , queue-chat-worker.conf , laravel-echo-worker.conf to /etc/supervisor/conf.d
- sudo supervisorctl reread
- sudo supervisorctl update
- sudo systemctl enable supervisor
- sudo systemctl start supervisor

14. Build Digital Signature

- Clone the repo into **mjlsi-ds-git** folder
- bash ds-be.sh
- bash ds-fe.sh
- Copy kestrel-mjlsi.service to /etc/systemd/system/
- sudo systemctl start kestrel-mjlsi.service