

# BookStack on CentOS 7

BookStack is a simple, self-hosted, easy-to-use platform for sharing and storing information.

## What you need:

Fresh install of CentOS 7 or other RHEL7 clone.

EPEL and IUS Community Project repositories.

## Add the repositories

```
yum -y install epel-release
```

```
yum -y install https://centos7.iuscommunity.org/ius-release.rpm
```

## Update the system and install the packages

```
yum update -y && reboot
```

```
yum -y install git mariadb101u-server nginx php72u php72u-cli php72u-fpm php72u-gd php72u-json php72u-mbstring php72u-mysqlnd php72u-openssl php72u-tidy php72u-tokenizer php72u-xml php72u-ldap
```

## Start and secure MySQL

```
systemctl restart mariadb.service # Start MySQL service  
mysql_secure_installation # Set root password  
mysql -u root -p # Enter root password
```

## Create database and user

```
CREATE DATABASE IF NOT EXISTS bookstackdb DEFAULT CHARACTER SET utf8 COLLATE utf8_general_ci;  
GRANT ALL PRIVILEGES ON bookstackdb.* TO 'bookstackuser'@'localhost' IDENTIFIED BY  
'YourAwesomePassword' WITH GRANT OPTION;  
FLUSH PRIVILEGES;  
quit
```

## Configure Nginx

### Update SOCKS permissions for php-fpm

Update `/etc/php-fpm.d/www.conf` configuration. Look for and update the following settings.

```
listen = /var/run/php-fpm.sock
listen.owner = nginx ; SOCKS permission
listen.group = nginx ; SOCKS permission
listen.mode = 0660 ; SOCKS permission
user = nginx ; PHP-FPM running user
group = nginx ; PHP-FPM running group
php_value[session.save_path] = /var/www/sessions
```

## Backup original Nginx configuration file

```
mv /etc/nginx/nginx.conf /etc/nginx/nginx.conf.orig\
```

## Create a new config file

```
vim /etc/nginx/nginx.conf
```

```
user nginx;
worker_processes auto;
error_log /var/log/nginx/error.log;
pid /run/nginx.pid;

include /usr/share/nginx/modules/*.conf;

events {
    worker_connections 1024;
}

http {
    log_format main '$remote_addr - $remote_user [$time_local] "$request" '
        '$status $body_bytes_sent "$http_referer" '
        '"$http_user_agent" "$http_x_forwarded_for"';

    access_log /var/log/nginx/access.log main;

    sendfile        on;
    tcp_nopush      on;
    tcp_nodelay      on;
    keepalive_timeout 65;
    types_hash_max_size 2048;

    include          /etc/nginx/mime.types;
```

```
default_type    application/octet-stream;
```

```
include /etc/nginx/conf.d/*.conf;
```

```
}
```

## Bookstack configuration

```
vim /etc/nginx/conf.d/bookstack.conf
```

```
server {
    listen 80;

    server_name localhost;

    root /var/www/BookStack/public;

    access_log /var/log/nginx/bookstack_access.log;
    error_log /var/log/nginx/bookstack_error.log;

    client_max_body_size 1G;
    fastcgi_buffers 64 4K;

    index index.php;

    location / {
        try_files $uri $uri /index.php?$query_string;
    }

    location ~ ^/(?:\.htaccess|data|config|db_structure\.xml|README) {
        deny all;
    }

    location ~ \.php(?:$|/) {
        fastcgi_split_path_info ^(.+\.php)(/.+)$;
        include fastcgi_params;
        fastcgi_param SCRIPT_FILENAME $document_root$fastcgi_script_name;
        fastcgi_param PATH_INFO $fastcgi_path_info;
        fastcgi_pass unix:/var/run/php-fpm.sock;
    }

    location ~* \.(?:jpg|jpeg|gif|bmp|ico|png|css|js|swf)$ {
        expires 30d;
```

```
access_log off;
}
}
```

## Setting up composer

```
cd /usr/local/bin # Enter the directory where composer will be installed
curl -sS https://getcomposer.org/installer | php # Install composer
mv composer.phar composer # Rename composer
```

## Download BookStack code

```
cd /var/www # Change to where BookStack will be installed
mkdir /var/www/sessions # Create php sessions directory
git clone https://github.com/BookStackApp/BookStack.git --branch release --single-branch # Clone the latest
from the release branch
cd BookStack && composer install # Change to the BookStack directory, and let composer do the rest
```

## Create the .env file

Update the database settings. The rest of the parameters are safe defaults. A sample is available [here](#):

```
cp .env.example .env # Copy the example config
vim .env # Update the new config with database.
```

Set permissions and generate the database. You should still be in the BookStack directory.

```
php artisan key:generate --force # Generate and update APP_KEY
chown -R nginx:nginx /var/www/{BookStack,sessions} # Change ownership to the webserver
php artisan migrate --force # Generate database tables
```

# Setup Let's Encrypt

```
yum install -y certbot-nginx # Install certbot
certbot --nginx -d books.clusterapps.com # Run certbot. Follow the prompts.
```

## Final cleanup

```
firewall-cmd --permanent --add-service={http,https}
systemctl enable nginx.service mariadb.service php-fpm.service
systemctl reboot
```

Once the system has finished booting, open a browser and head to <https://your.url>

---

Revision #6

Created 13 March 2019 15:41:02 by Michael Cleary

Updated 16 February 2022 23:58:51 by Michael Cleary