

- Creating an NGINX Web Server With Docker
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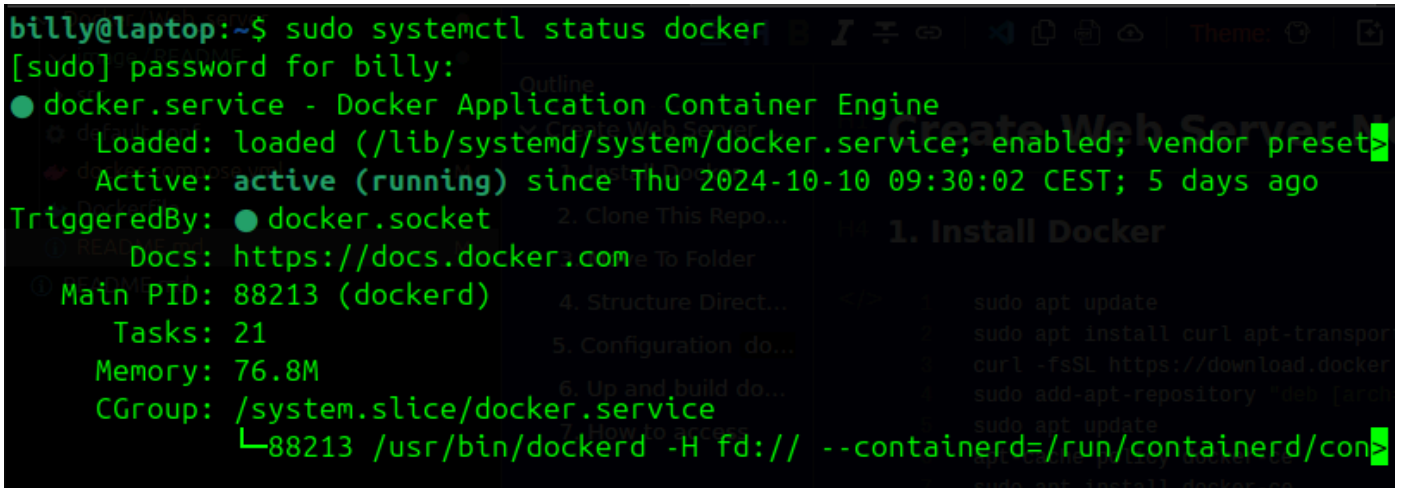
Creating an NGINX Web Server With Docker

1. Install Docker

```
sudo apt update
sudo apt install curl apt-transport-https ca-certificates software-properties-common
curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo apt-key add -
sudo add-apt-repository "deb [arch=amd64] https://download.docker.com/linux/ubuntu focal stable"
sudo apt update
apt-cache policy docker-ce
sudo apt install docker-ce
```

Check your installation with the command:

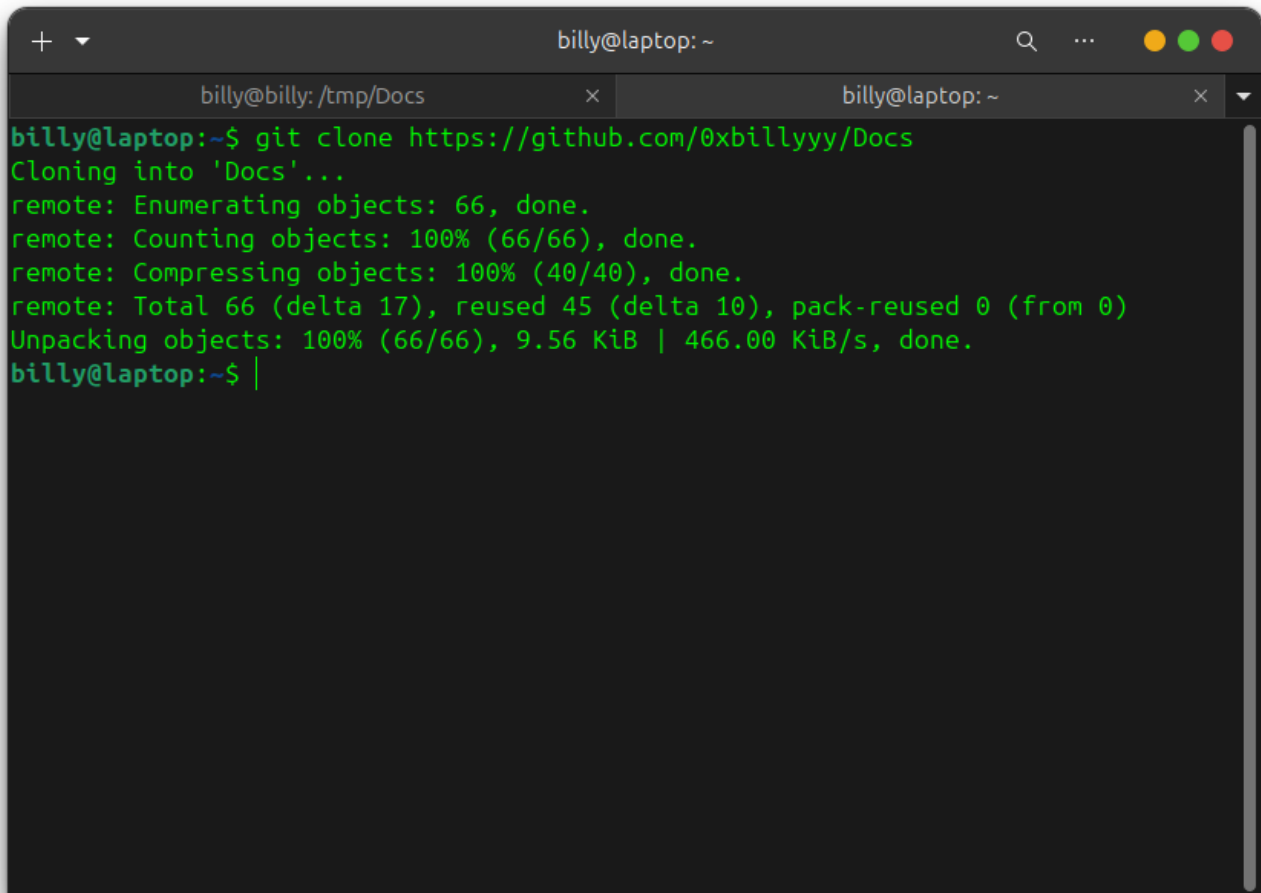
```
sudo systemctl status docker
```



```
billy@laptop:~$ sudo systemctl status docker
[sudo] password for billy:
● docker.service - Docker Application Container Engine
   Loaded: loaded (/lib/systemd/system/docker.service; enabled; vendor preset: enabled)
   Active: active (running) since Thu 2024-10-10 09:30:02 CEST; 5 days ago
     TriggeredBy: ● docker.socket
   Docs: https://docs.docker.com
   Main PID: 88213 (dockerd)
    Tasks: 21
   Memory: 76.8M
   CGroup: /system.slice/docker.service
           └─88213 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/containerd.sock
```

2. Clone This Repository

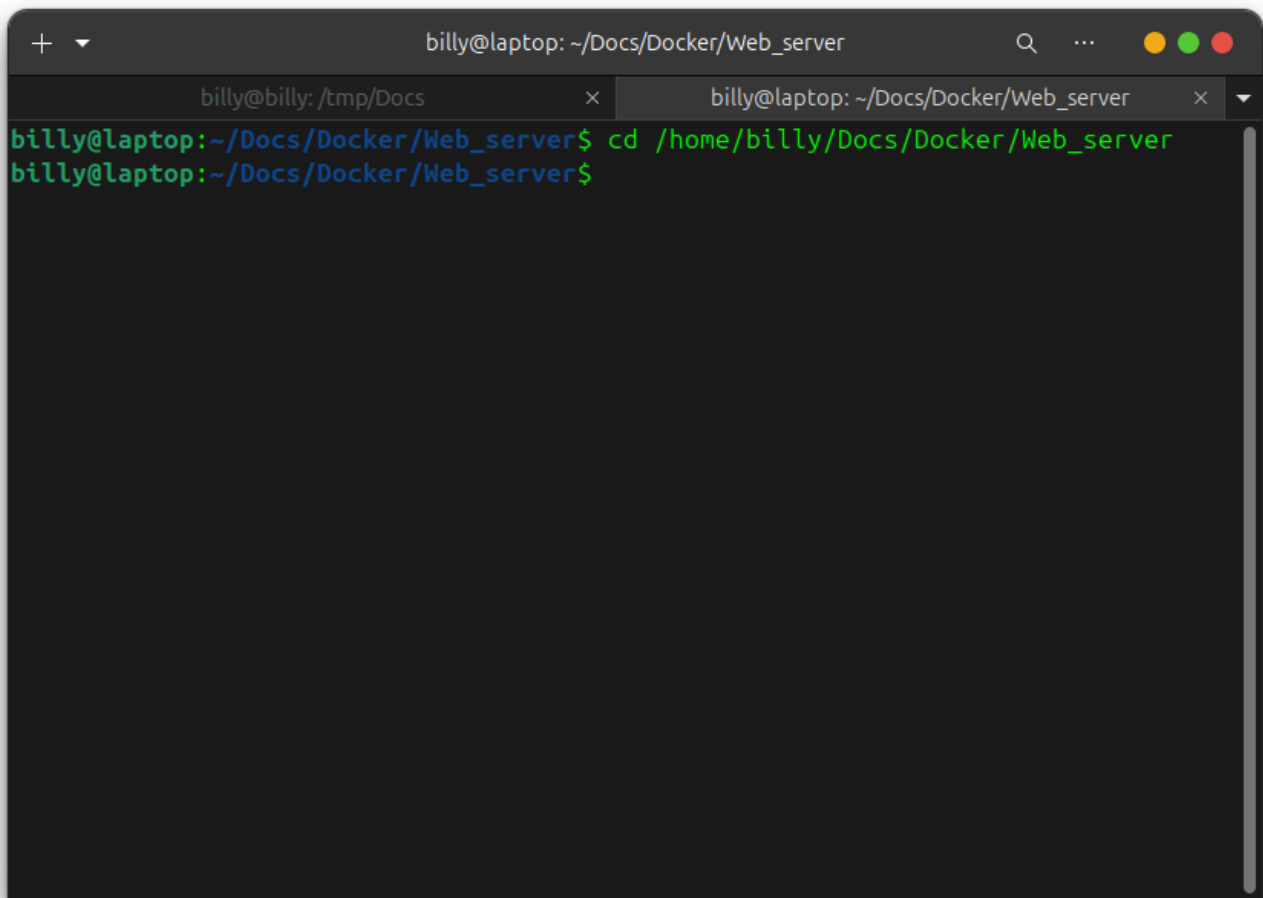
```
git clone https://github.com/0xbillyyy/Docs
```

A terminal window titled 'billy@laptop: ~' with two tabs: 'billy@billy: /tmp/Docs' and 'billy@laptop: ~'. The terminal shows the execution of 'git clone https://github.com/0xbillyyy/Docs'. The output is as follows:

```
billy@laptop:~$ git clone https://github.com/0xbillyyy/Docs
Cloning into 'Docs'...
remote: Enumerating objects: 66, done.
remote: Counting objects: 100% (66/66), done.
remote: Compressing objects: 100% (40/40), done.
remote: Total 66 (delta 17), reused 45 (delta 10), pack-reused 0 (from 0)
Unpacking objects: 100% (66/66), 9.56 KiB | 466.00 KiB/s, done.
billy@laptop:~$ |
```

3. Move To Folder

```
cd [Your_PATH]/Docs/Docker/Web_server/
```

A terminal window with a dark background. The title bar shows 'billy@laptop: ~/Docs/Docker/Web_server'. There are two tabs: 'billy@billy: /tmp/Docs' and 'billy@laptop: ~/Docs/Docker/Web_server'. The terminal shows the command 'cd /home/billy/Docs/Docker/Web_server' being executed, and the prompt returns to 'billy@laptop: ~/Docs/Docker/Web_server\$'.

```
billy@laptop: ~/Docs/Docker/Web_server
billy@laptop: ~/Docs/Docker/Web_server$ cd /home/billy/Docs/Docker/Web_server
billy@laptop: ~/Docs/Docker/Web_server$
```

4. Structure Directory

```
Docker/
├── Web_server/
│   ├── src/ (This is where your script is located)
│   ├── Dockerfile (Here your docker build location is in the configuration)
│   ├── default.conf (This is where the nginx configuration is located)
│   ├── docker-compose.yml (Here your docker build location is in the
configuration)
│   └── README.md
```

5. Configuration `docker-compose.yml`

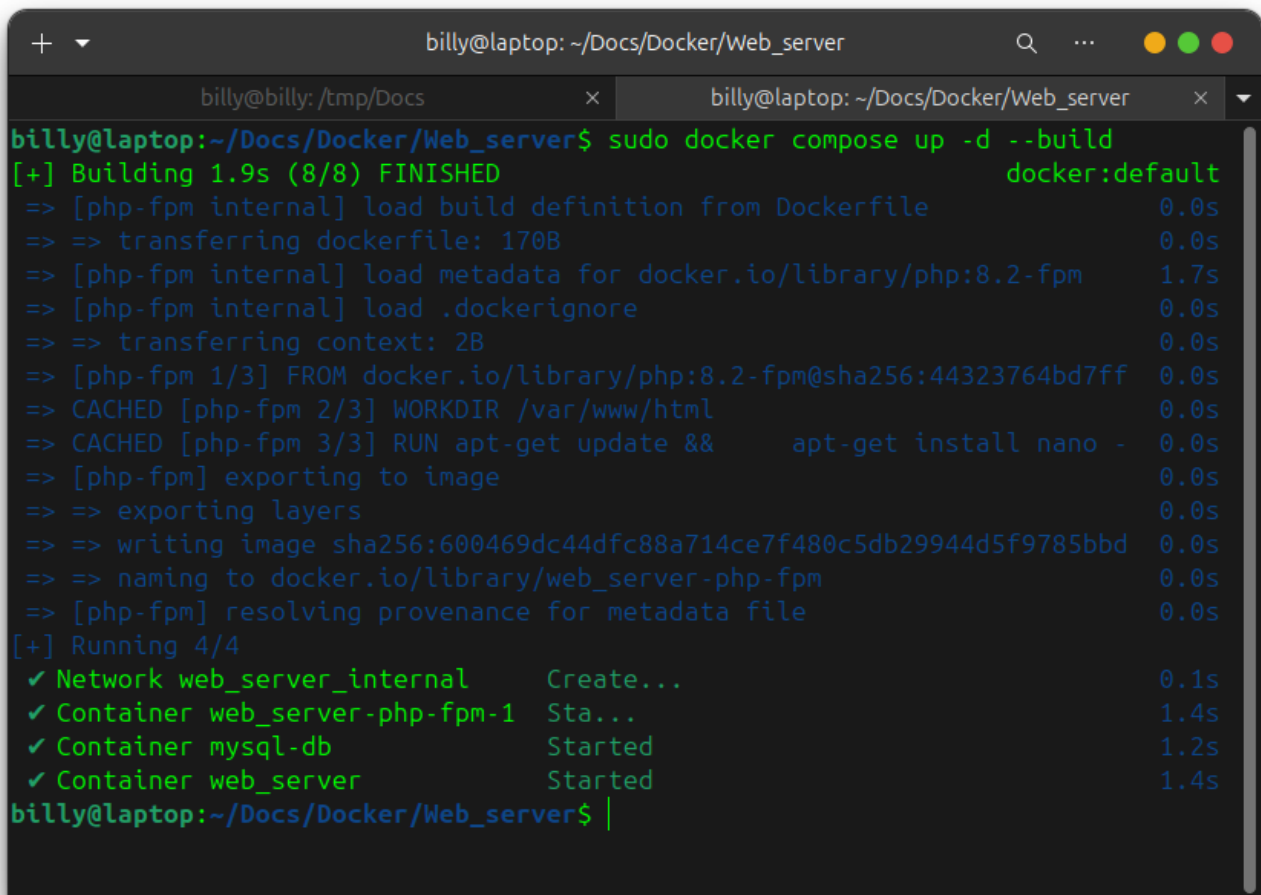
In the folder here edit `docker-compose.yml` as desired

```
services:
  web:
    container_name: web_server (Here you can edit the container name)
    image: nginx:latest
    ports:
      - '8081:80' (Port from server 8080 to docker 80, you can modify the
port from)
```

```
networks:
  - internal
volumes:
  - ./src:/var/www/html
  - ./default.conf:/etc/nginx/conf.d/default.conf
```

6. Up and build docker

```
docker-compose up -d --build
```



```
billy@laptop: ~/Docs/Docker/Web_server
billy@laptop: ~/Docs/Docker/Web_server$ sudo docker compose up -d --build
[+] Building 1.9s (8/8) FINISHED                                docker:default
=> [php-fpm internal] load build definition from Dockerfile      0.0s
=> => transferring dockerfile: 170B                               0.0s
=> [php-fpm internal] load metadata for docker.io/library/php:8.2-fpm 1.7s
=> [php-fpm internal] load .dockerignore                        0.0s
=> => transferring context: 2B                                       0.0s
=> [php-fpm 1/3] FROM docker.io/library/php:8.2-fpm@sha256:44323764bd7ff 0.0s
=> CACHED [php-fpm 2/3] WORKDIR /var/www/html                    0.0s
=> CACHED [php-fpm 3/3] RUN apt-get update && apt-get install nano - 0.0s
=> [php-fpm] exporting to image                                  0.0s
=> => exporting layers                                              0.0s
=> => writing image sha256:600469dc44dfc88a714ce7f480c5db29944d5f9785bbd 0.0s
=> => naming to docker.io/library/web_server-php-fpm              0.0s
=> [php-fpm] resolving provenance for metadata file              0.0s
[+] Running 4/4
✓ Network web_server_internal    Create...    0.1s
✓ Container web_server-php-fpm-1 Sta...      1.4s
✓ Container mysql-db            Started    1.2s
✓ Container web_server          Started    1.4s
billy@laptop: ~/Docs/Docker/Web_server$ |
```

7. How to access

Access your service at browser [Your IP/HOST]:[Port From Docker]

example: 127.0.0.1:8080

PHP 8.2.24 - phpinfo()

127.0.0.1:8080

New Chrome available

PHP Version 8.2.24



System	Linux c4a9057bad88 5.4.0-29-generic #33-Ubuntu SMP Wed Apr 29 14:32:27 UTC 2020 x86_64
Build Date	Sep 27 2024 06:50:55
Build System	Linux - Docker
Build Provider	https://github.com/docker-library/php
Configure Command	'./configure' '--build=x86_64-linux-gnu' '--with-config-file-path=/usr/local/etc/php' '--with-config-file-scan-dir=/usr/local/etc/php/conf.d' '--enable-option-checking=fatal' '--with-mhash' '--with-pic' '--enable-mbstring' '--enable-mysqld' '--with-password-argon2' '--with-sodium=shared' '--with-pdo-sqlite=/usr' '--with-sqlite3=/usr' '--with-curl' '--with-iconv' '--with-openssl' '--with-readline' '--with-zlib' '--disable-phpdbg' '--with-pear' '--with-libdir=lib/x86_64-linux-gnu' '--disable-cgi' '--enable-fpm' '--with-fpm-user=www-data' '--with-fpm-group=www-data' 'build_alias=x86_64-linux-gnu'
Server API	FPM/FastCGI
Virtual Directory Support	disabled
Configuration File (php.ini) Path	/usr/local/etc/php
Loaded Configuration File	(none)
Scan this dir for additional .ini files	/usr/local/etc/php/conf.d
Additional .ini files parsed	/usr/local/etc/php/conf.d/docker-fpm.ini, /usr/local/etc/php/conf.d/docker-php-ext-mysqli.ini, /usr/local/etc/php/conf.d/docker-php-ext-sodium.ini
PHP API	20220829
PHP Extension	20220829
Zend Extension	420220829
Zend Extension Build	API420220829.NTS
PHP Extension Build	API20220829.NTS
Debug Build	no
Thread Safety	disabled
Zend Signal Handling	enabled
Zend Memory Manager	enabled

www.php.net