Nginx Docker Hub

About

- Nginx is an open source reverse proxy server for
    - HTTP
    - HTTPS
    - STMP
    - POP3
    - IMAP
- Load Balancer
- HTTP Cache
- Web Server

Adventajes

- High Performance
- High Concurrency
- Low Memory Usage

Image Usage

Hosting Static Content

```
docker run --name my-nginx-container -v
/host/path/nginx.conf:/etc/nginx/nginx/.conf:ro -d nginx
```

Dockerfile can be used to generate a new image that includes the necessary content

```
FROM nginx
COPY static-html-directory /usr/share/nginx/html
```

Place this file in the same directory as your directory of content, run `docker build -t some-content-nginx .` then start the container

```
docker run --name some-nginx -d -p 8080:80 some-content-nginx
```

then you can visit `http://localhost:8080/` in the browser.

Complex Config

```
docker run --name my-custom-nginx-container -v
/host/path/nginx.conf:/etc/nginx/nginx.conf:ro -d nginx
```

to addapt default configuration file

```
docker run --name tmp-nginx-container -d nginx
docker cp tmp-nginx-container:/etc/nginx/nginx.conf /host/path/nginx.conf
docker rm -f tmp-nginx-container
```

```
FROM nginx
COPY nginx.conf /etc/nginx/nginx.conf
```

To add custom `CMD` in Dockerfile be sure to include `-g daemon off;` in the CMD order for nginx to stay in the foreground, so that docker can track the preocess properly.

Then build the image with `docker build -t custom-nginx .` an run it as

```
docker run --name my-custom-nginx-container -d custom-nginx
```

Environment Variables

- Nginx does not support environment variables inside most configuration blocks
- This image extract environment variables before nginx starts.

Using docker-compose:

```
web:
  image: nginx
  volumes:
    - ./templates:/etc/nginx/templates
  ports:
    - "8080:80"
  environment:
    - NGINX_HOST=foobar.com
    - NGINX_PORT=80
```

This function reads template files in /etc/nginx/templates/*.template and outputs the result of executing `envsubst` to `/etc/nginx/conf.d`.

Nginx Read Only Mode

1. Mount a docker volume to every location where nginx writes information.

2. Default Nginx config requires write-access to /var/cache and /var/run
3. To advanced configuration that requires nginx to write other location, add more volume mounts to those locations.

```
docker run -d -p 80:80 --read-only -v $(pwd)/nginx-cache:/var/cache/nginx -
v $(pwd)/nginx-pid:/var/run nginx
```

Debug Mode

```
docker run --name my-nginx -v
/host/path/nginx.conf:/etc/nginx/nginx.conf:ro -d nginx nginx-debug -g
'daemon off;'
```

```
web:
  image: nginx
  volumes:
    - ./nginx.conf:/etc/nginx/nginx.conf:ro
  command: [nginx=debug, '-g', 'daemon-off;']
```