**Create and Deploy Docker Image for Angular Application**

**General Discussion**

Originally, I tried to deploy Angular app via GutHub repository. Unfortunately, OpenShift generated an OutOfMemory (OOM) error and the deployment failed. Then it is decided to deploy Docker image instead. However, this turned out to be a tricky approach. OpenShift generated the following error:

nginx: [emerg] mkdir() "/var/cache/nginx/client\_temp" failed (13: Permission denied)

It needs deep understanding of both NGINX and OpenShift Image guidelines to find a proper solution. Without bothering spending too much time on this issue, I used the workaround from

<https://dev.to/vitorstick/dockerize-angular-app-and-deploy-on-openshift-1km8>.

The project source code is available from <https://github.com/dhui808/userreg-ui>. The tricky parts are the Dockfile and nginx.conf listed below.

**Dockfile**

FROM node:14.5.0 AS compile-image

WORKDIR /opt/ng

COPY package\*.json ./

RUN npm install -g @angular/cli

RUN npm install

COPY . .

RUN npm run build --prod

### Had to use nginxinc/nginx-unprivileged due to problems on OpenShift with nginx permissions

FROM nginxinc/nginx-unprivileged

COPY ./nginx.conf /etc/nginx/conf.d/default.conf

COPY --from=compile-image /opt/ng/dist /usr/share/nginx/html

CMD ["nginx", "-g", "daemon off;"]

**nginx.conf**

server {

listen 0.0.0.0:8080;

listen [::]:8080;

default\_type application/octet-stream;

gzip on;

gzip\_comp\_level 6;

gzip\_vary on;

gzip\_min\_length 1000;

gzip\_proxied any;

gzip\_types text/plain text/css application/json application/x-javascript text/xml application/xml application/xml+rss text/javascript;

gzip\_buffers 16 8k;

gunzip on;

client\_max\_body\_size 256M;

root /usr/share/nginx/html;

location / {

try\_files $uri $uri/ /index.html =404;

}

}