Load Balancer Setup Instructions

Installation of Pre-requisites

1. Update Apt Get

**$sudo apt-get update**

1. Install NPM

**$sudo apt-get install npm**

1. Install nginx to route http:80 to the custom port

**$sudo apt-get install nginx**

1. Install Build Tools

**$sudo apt-get install -y build-essential**

Configure Nginx to Route Traffic from :80 (http) to :8080 (node js)

Configure Nginx to route all incoming trafiff on port 80 (HTTP) to the Node JS app that is listening on port 8080.

Production:

1. **$sudo rm /etc/nginx/sites-enabled/default**
2. Create a new file: **/etc/nginx/sites-available/captionify.com** and add these lines to it:

**server {**

**listen 80;**

**server\_name www.captionify.com;**

**location / {**

**proxy\_set\_header X-Forwarded-For $remote\_addr;**

**proxy\_set\_header Host $http\_host;**

**proxy\_pass "http://127.0.0.1:8080";**

**}**

**}**

1. **$sudo ln -s /etc/nginx/sites-available/captionify.com /etc/nginx/sites-enabled/captionify.com**
2. **$sudo service nginx restart** #restart service

Staging:

1. **$sudo rm /etc/nginx/sites-enabled/default**
2. Create a new file: **/etc/nginx/sites-available/captionify.com** and add these lines to it:

**server {**

**listen 80;**

**server\_name stage.captionify.com;**

**location / {**

**proxy\_set\_header X-Forwarded-For $remote\_addr;**

**proxy\_set\_header Host $http\_host;**

**proxy\_pass "http://127.0.0.1:8080";**

**}**

**}**

1. **$sudo ln -s /etc/nginx/sites-available/captionify.com /etc/nginx/sites-enabled/captionify.com**
2. **$sudo service nginx restart** #restart service

Configure Nginx to Route Traffic from :443 (https) to :8080 (node js)

Setup Certbot / Lets Encrypt for Automatic SSL Certificates (Excellent Tutorial: <https://www.digitalocean.com/community/tutorials/how-to-secure-nginx-with-let-s-encrypt-on-ubuntu-16-04)>

1. First, ensure that the domain that needs to be configured is publicly reachable (i.e., not blocked by DNS or firewall)
2. **$sudo add-apt-repository ppa:certbot/certbot**
3. **$sudo apt-get update**
4. **$sudo apt-get install python-certbot-nginx**
5. **$sudo certbot --nginx -d www.captionify.com** #for production

OR

**$sudo certbot --nginx -d stage.captionify.com** #for stage

1. When prompted about redirection for HTTPS, select "**No Redirect**" option as we're going to set up redirection later ourselves.
2. **$sudo openssl dhparam -out /etc/ssl/certs/dhparam.pem 2048**
3. Add this line anywhere in the **'server'** block of **/etc/nginx/sites-available/captionify.com** -> **ssl\_dhparam /etc/ssl/certs/dhparam.pem;**
4. **$sudo systemctl reload nginx** #reload Nginx
5. Setup cron job to auto-renew the certificate, if needed
   1. **$sudo crontab -e** #edit crontab file in editor
   2. Paste the following at the end of the crontab file => **15 3 \* \* \* /usr/bin/certbot renew --quiet**