**To Secure Nexus Private Repository with SSL Certificate(HTTPS)**

**Install EPEL REPO:**

Install and enable the EPEL rpm package

yum install -y <https://dl.fedoraproject.org/pub/epel/epel-release-latest-7.noarch.rpm>

Enable the EPEL repository on Amazon Linux by using the yum-config-manager command

yum-config-manager --enable epel

To verify that the EPEL repository is enabled, run the following command:

yum repolist

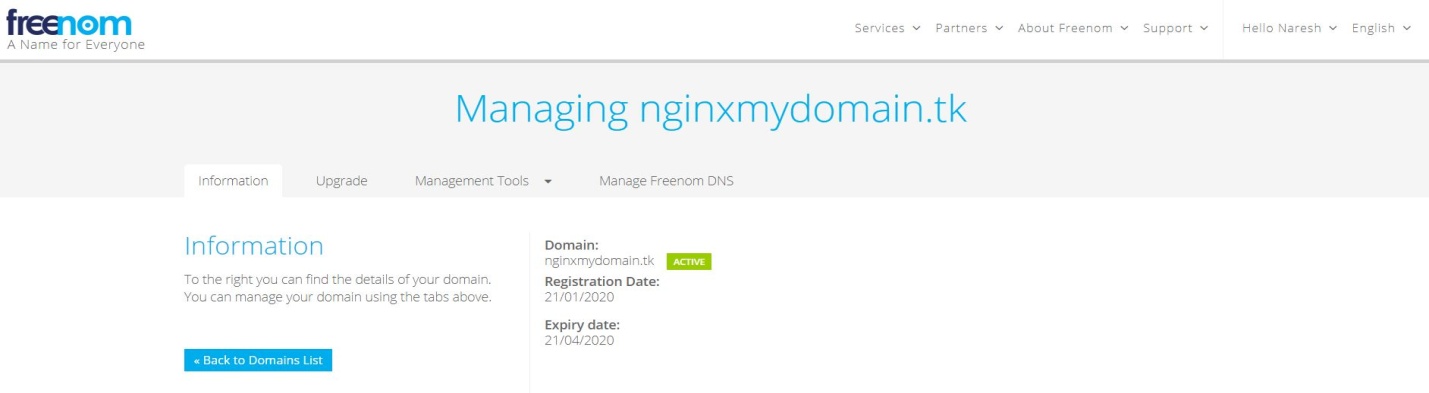
**Install Nginx:**

yum install nginx -y

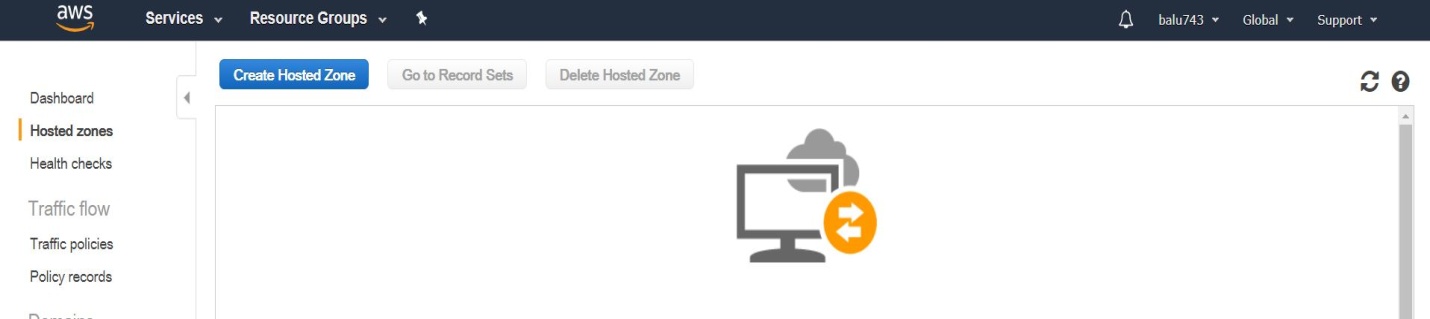
**Domain:**

Create One Domain by using **Freenom.com**

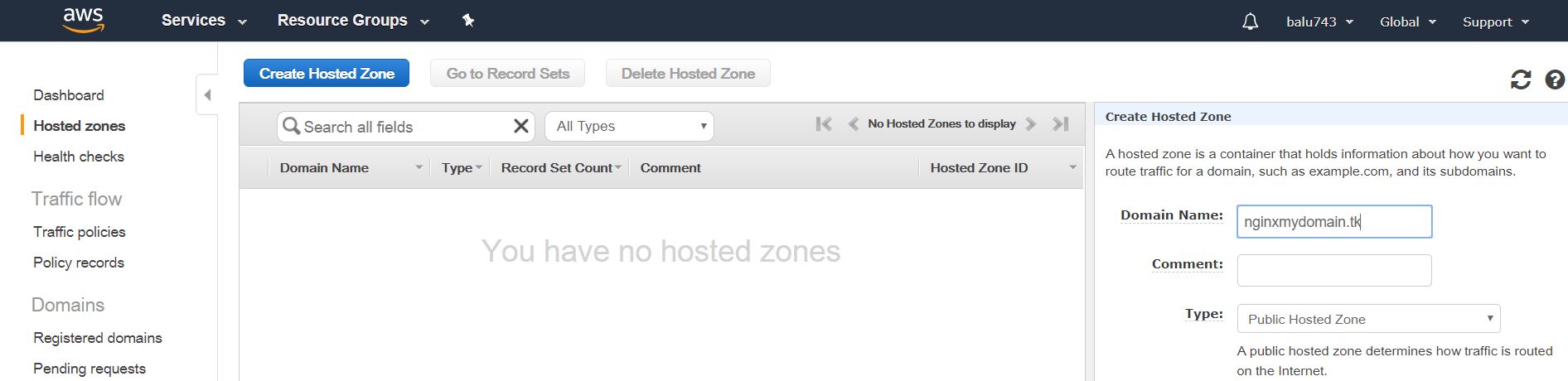
Below shown one Domain which was created by me.



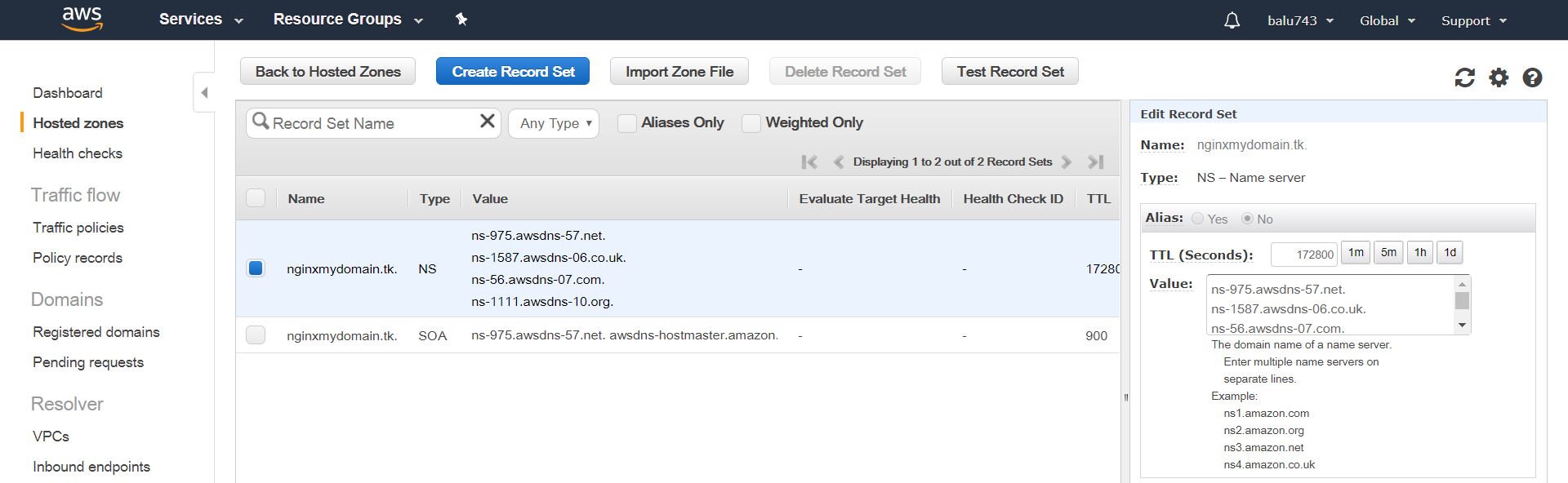
Go to Route53 and create Hosted Zone



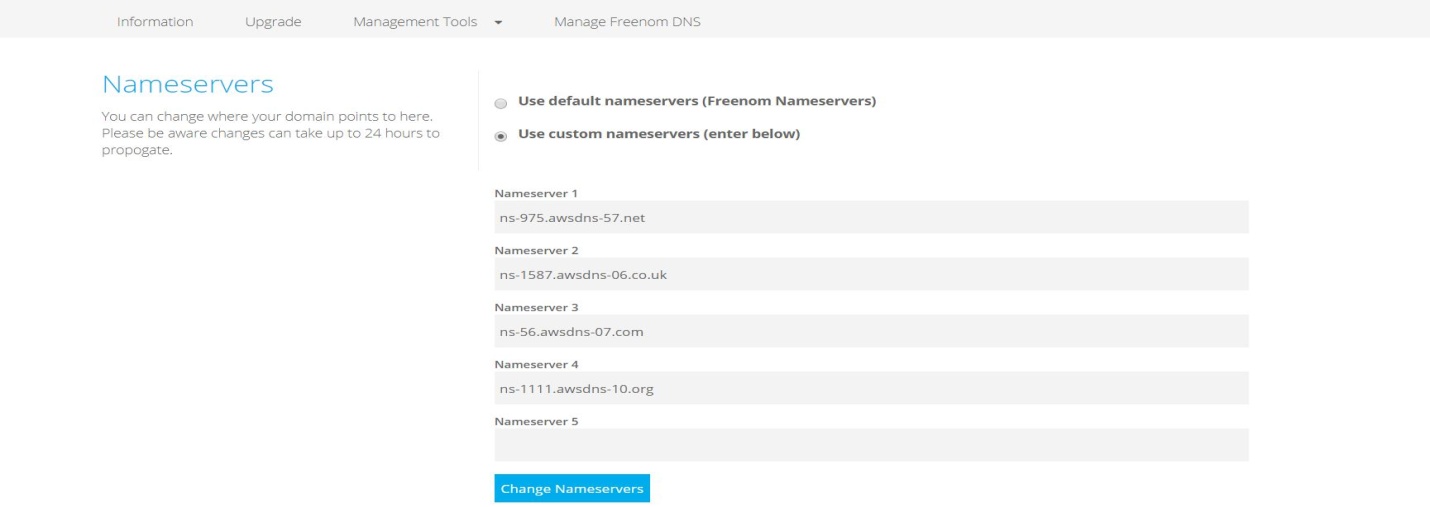
Click on Create Hosted Zone



Give Domain and click on create



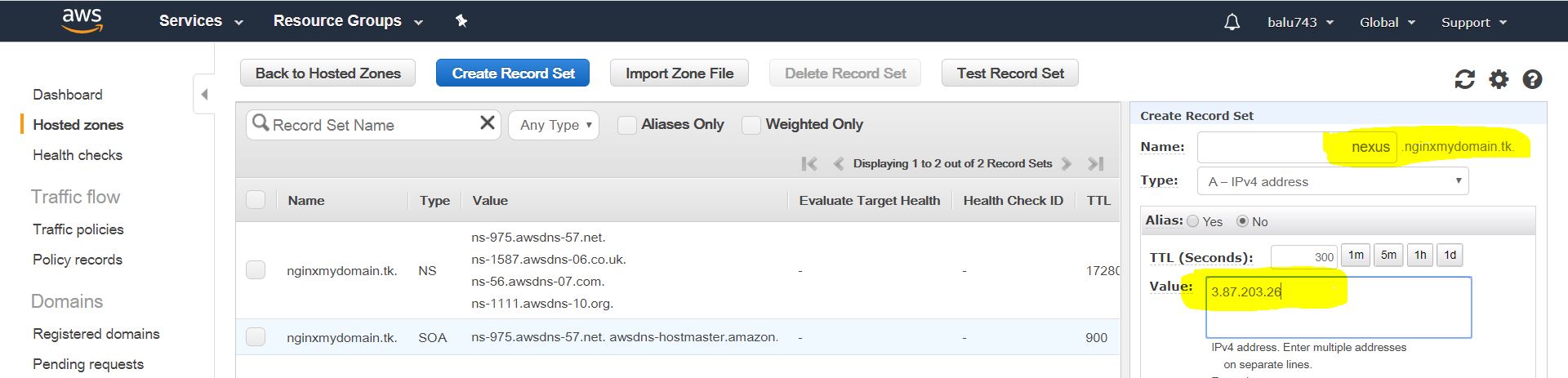
Please update these Name Spaces in our Domain (Freenom.com) by clicking on Manage Freenom DNS



Update Name Servers which was create while creating Hosted Zone and Click on Change Name Servers.

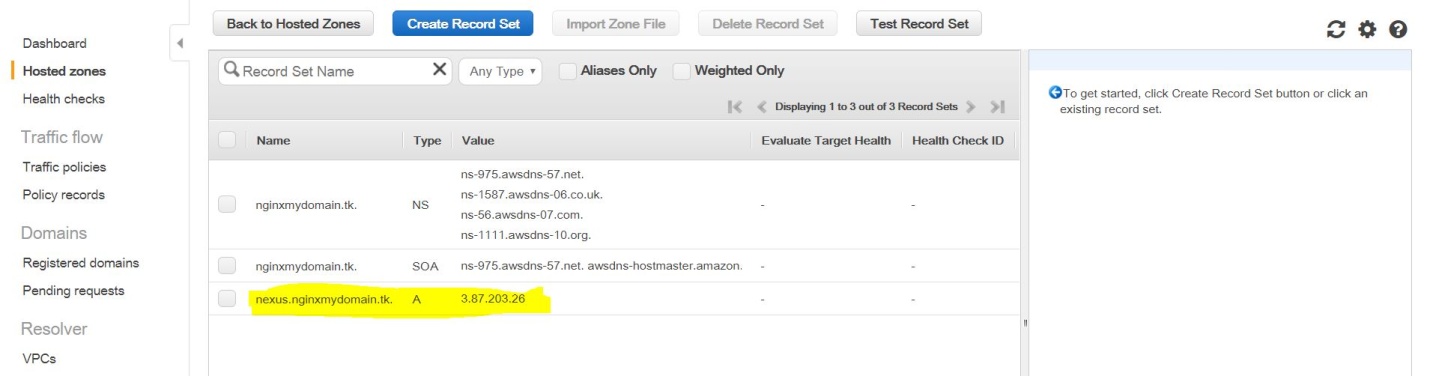
Now create new Record Set with IP address where we are going to install Nexus.

Click on Create Record Set and give values as shown in below



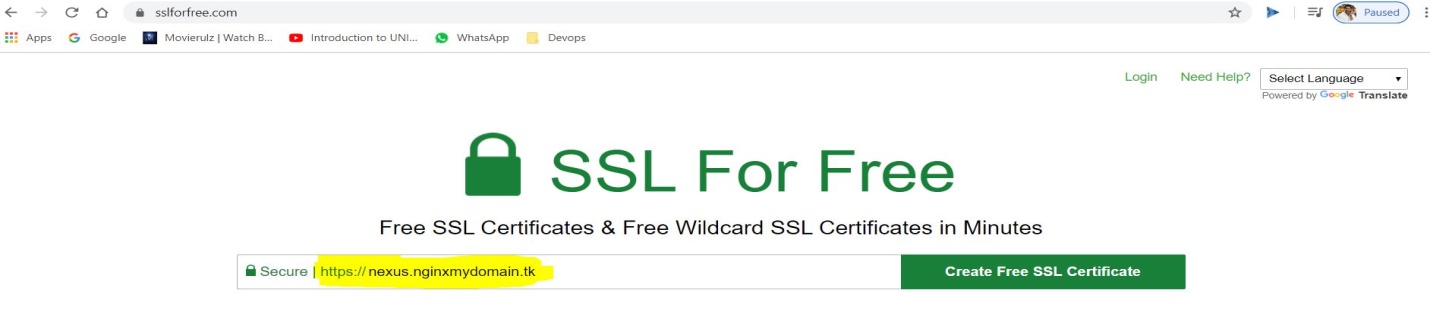
Click on Create

Check below whether New Record Set created or not

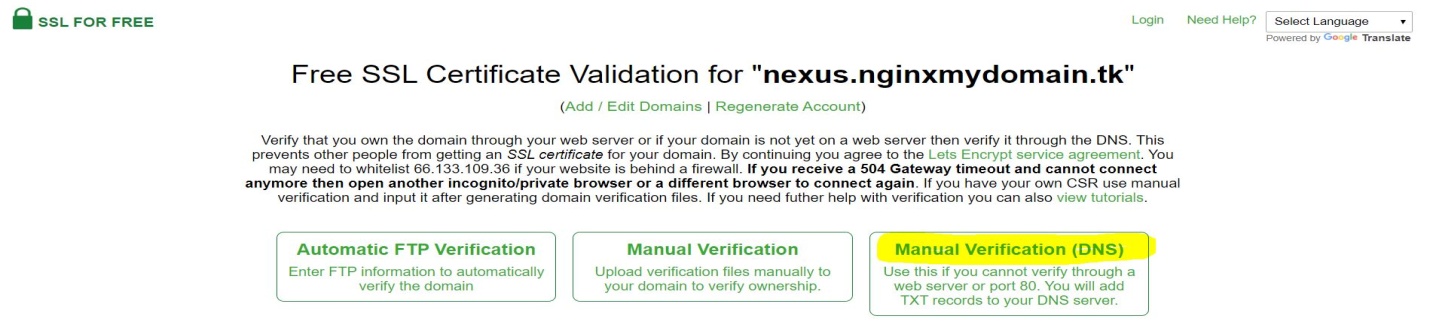


**Create SSL Certificate:**

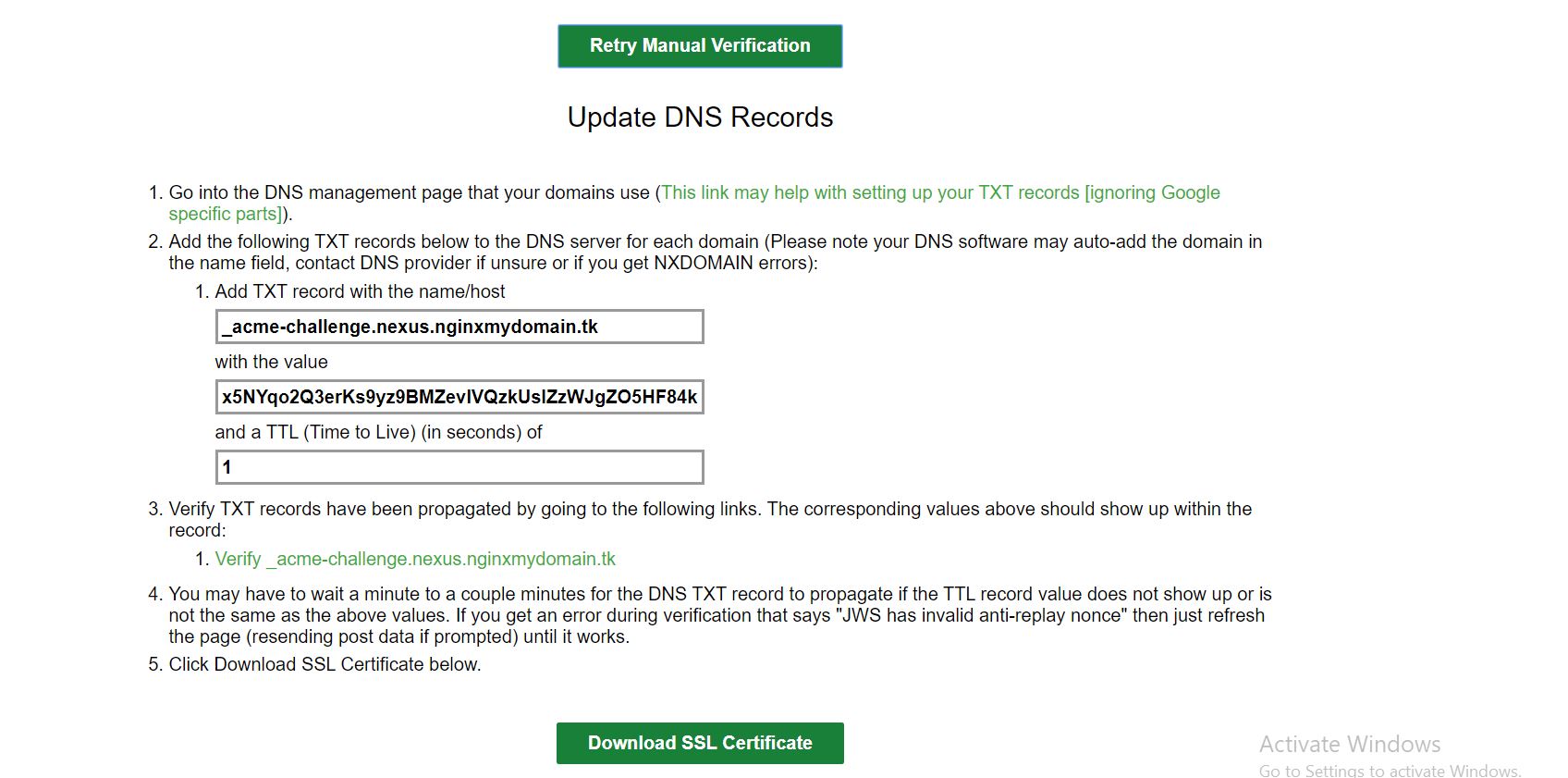
Open sslforfree.com and give our Domain name



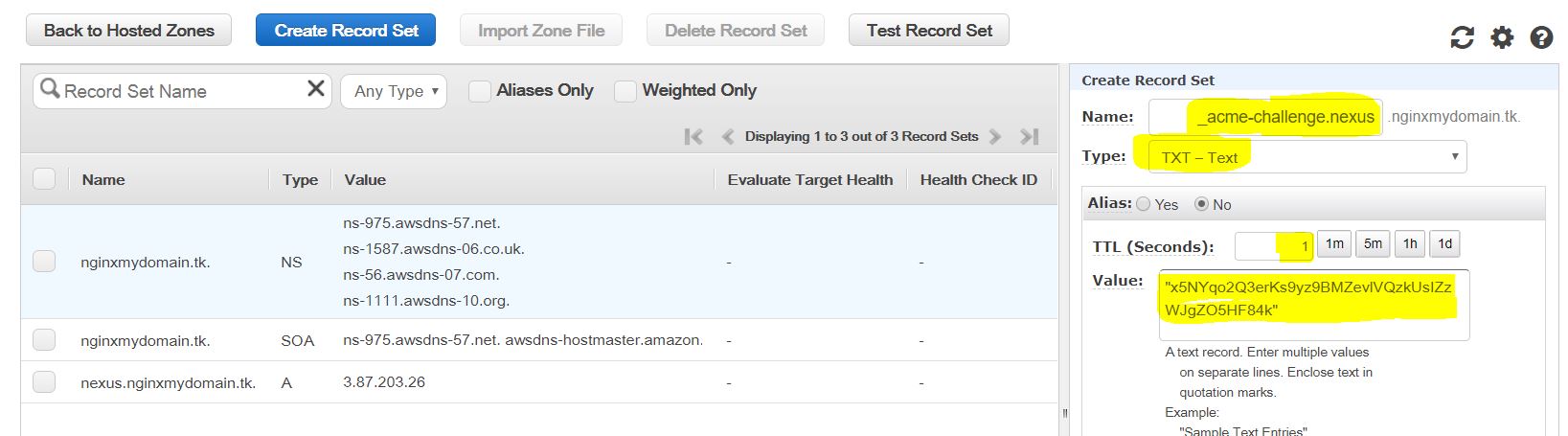
Click on Create Free SSL Certificate:



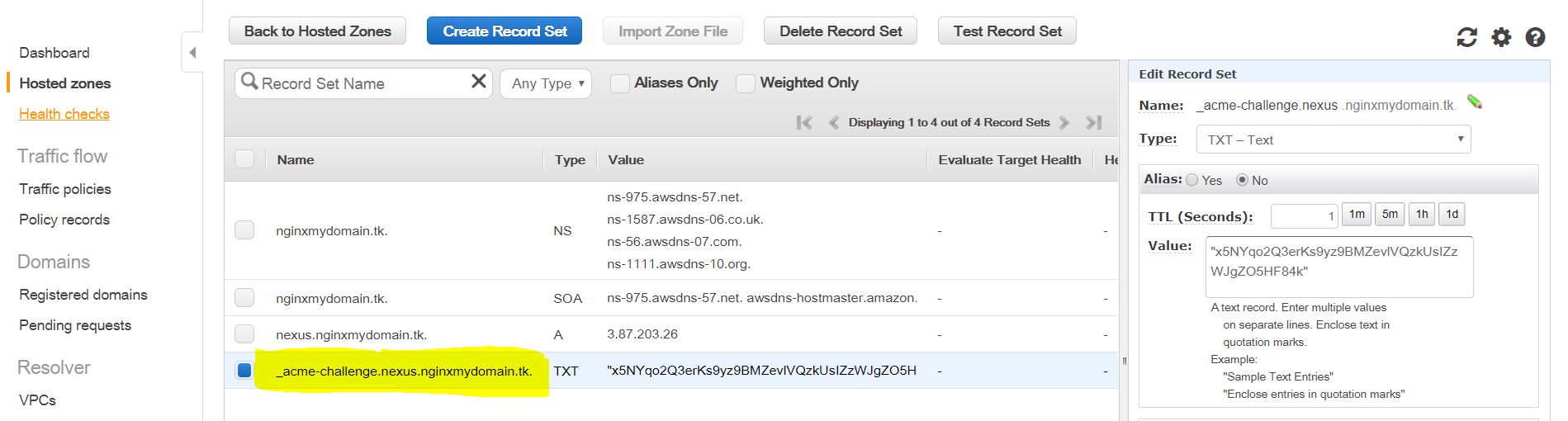
Click on Manual Verification (DNS):

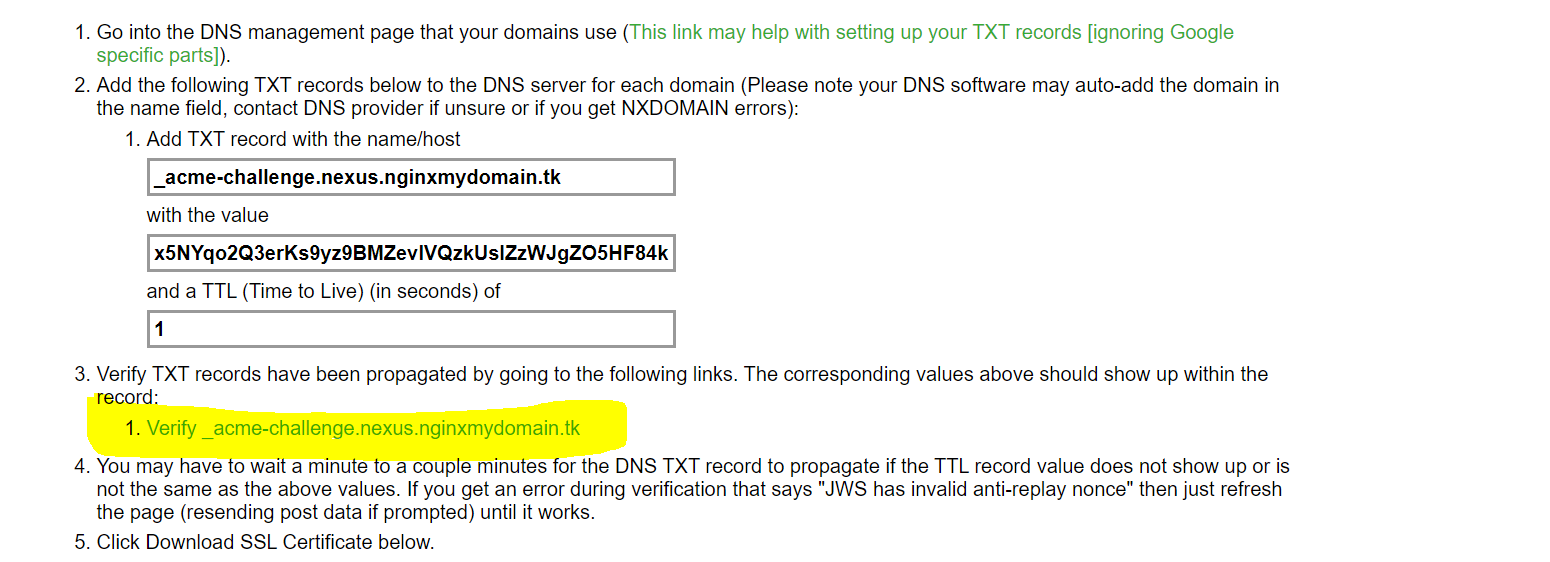


Update New TXT Record Set by using above details in Route53

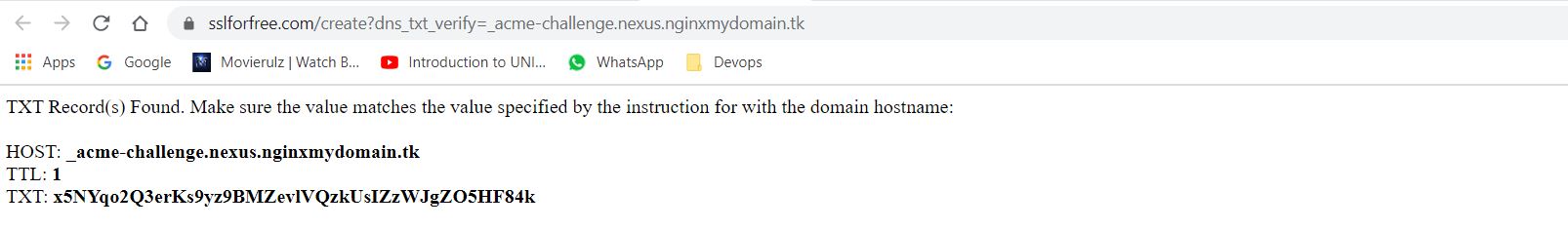
Click on create

Check whether the Record Created in Route53 or not

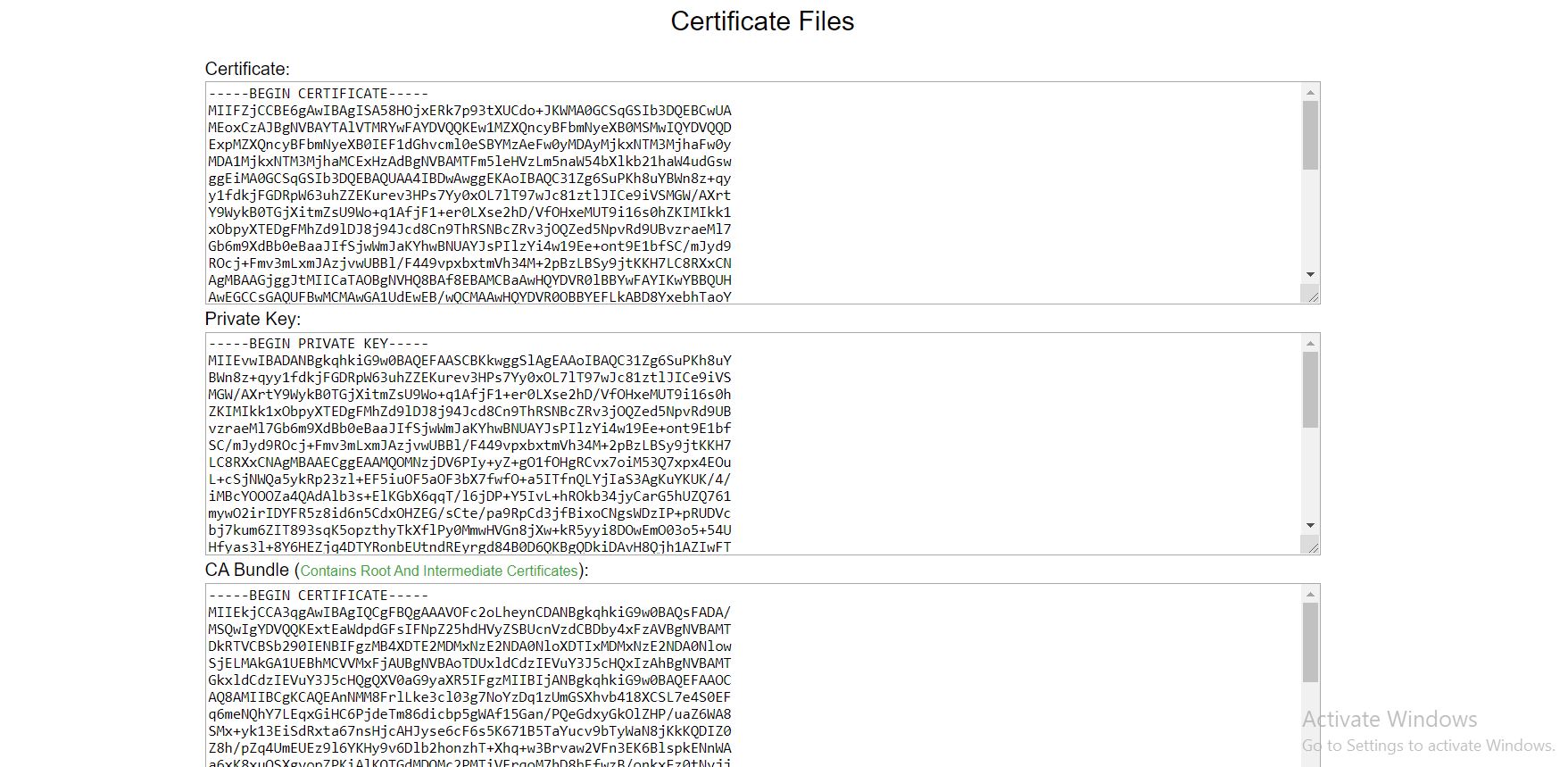
Goto SSL for Free site:



Click on verify:



Now Download SSL Certificate



Replace nginx.conf file with below data:

cd /etc/nginx/

>nginx.conf

vi nginx.conf

worker\_processes 1;

events {

worker\_connections 1024;

}

http {

error\_log /var/log/nginx/error.log warn;

access\_log /dev/null;

proxy\_intercept\_errors off;

proxy\_send\_timeout 120;

proxy\_read\_timeout 300;

upstream nexus {

server localhost:8081;

}

upstream registry {

server localhost:5000;

}

server {

listen 80;

listen 443 ssl default\_server;

server\_name nexus.devopsproj.com;

add\_header Strict-Transport-Security "max-age=31536000; includeSubDomains" always;

ssl\_certificate /etc/nginx/server.crt;

ssl\_certificate\_key /etc/nginx/server.key;

ssl\_session\_cache shared:SSL:10m;

ssl\_session\_timeout 5m;

ssl\_protocols TLSv1 TLSv1.1 TLSv1.2;

ssl\_prefer\_server\_ciphers on;

ssl\_ciphers "EECDH+AESGCM:EDH+AESGCM:ECDHE-RSA-AES128-GCM-SHA256:AES256+EECDH:DHE-RSA-AES128-GCM-SHA256:AES256+EDH:ECDHE-RSA-AES256-GCM-SHA384:DHE-RSA-AES256-GCM-SHA384:ECDHE-RSA-AES256-SHA384:ECDHE-RSA-AES128-SHA256:ECDHE-RSA-AES256-SHA:ECDHE-RSA-AES128-SHA:DHE-RSA-AES256-SHA256:DHE-RSA-AES128-SHA256:DHE-RSA-AES256-SHA:DHE-RSA-AES128-SHA:ECDHE-RSA-DES-CBC3-SHA:EDH-RSA-DES-CBC3-SHA:AES256-GCM-SHA384:AES128-GCM-SHA256:AES256-SHA256:AES128-SHA256:AES256-SHA:AES128-SHA:DES-CBC3-SHA:HIGH:!aNULL:!eNULL:!EXPORT:!DES:!MD5:!PSK:!RC4";

keepalive\_timeout 5 5;

proxy\_buffering off;

# allow large uploads

client\_max\_body\_size 1G;

location / {

# redirect to docker registry

if ($http\_user\_agent ~ docker ) {

proxy\_pass http://registry;

}

proxy\_pass http://nexus;

proxy\_set\_header Host $host;

proxy\_set\_header X-Real-IP $remote\_addr;

proxy\_set\_header X-Forwarded-For $proxy\_add\_x\_forwarded\_for;

proxy\_set\_header X-Forwarded-Proto "https";

}

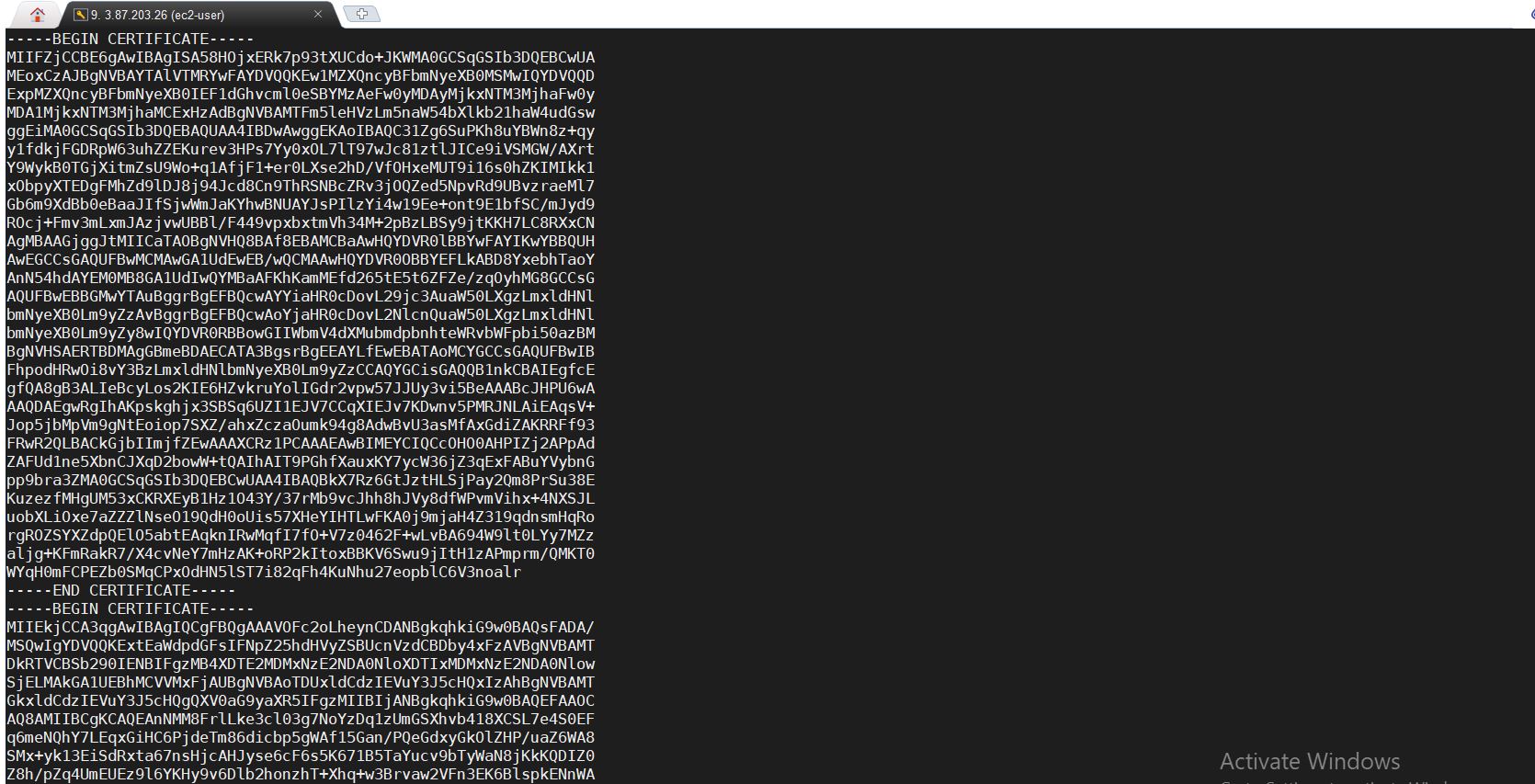
}

}

Create server.crt and server.key files with certificate files:

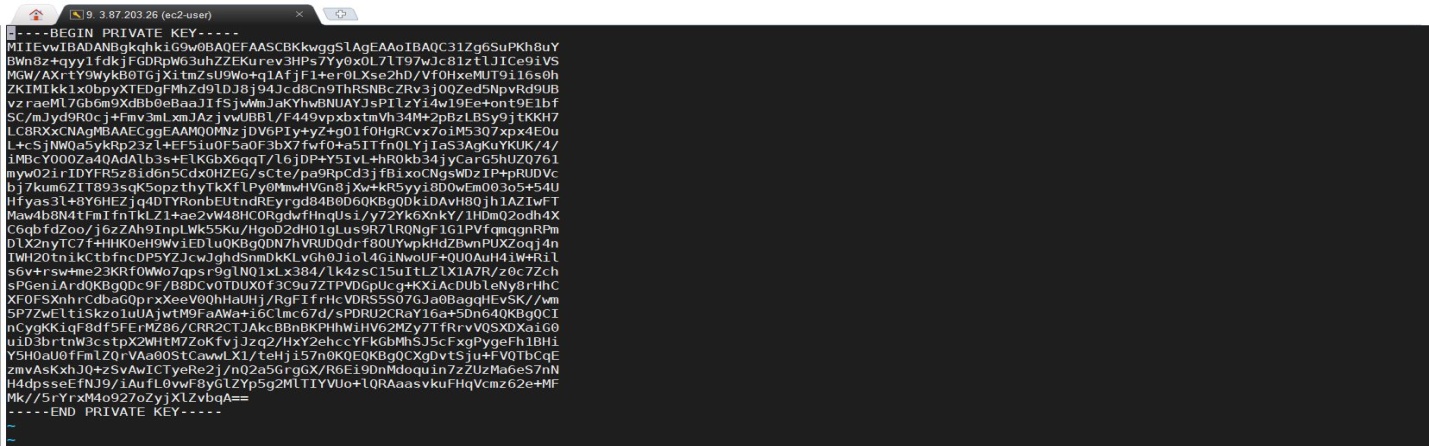
Create **server.crt**: (Update Certificate and CA Bundle data)

vi /etc/nginx/server.crt



Create **server.key**: (Update with Private Key data)

vi /etc/nginx/server.key



Restart **Nginx**:

service nginx restart

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**Install Nexus:**

Install Java:

yum install java-1.8.0-openjdk-devel java-1.8.0-openjdk-devel –y

Download nexus tar file:

wget <https://sonatype-download.global.ssl.fastly.net/nexus/3/nexus-3.0.2-02-unix.tar.gz>

Extract tar file:

tar xvzf nexus-3.0.2-02-unix.tar.gz

Change name of Nexus file:

mv nexus-3.0.2-02/ nexus

Add **nexus** user:

useradd nexus

Change owner ship for nexus file:

chown -R nexus:nexus nexus

Open /opt/nexus/bin/nexus.rc file and update data like as below:



Link file:

ln -s /opt/nexus/bin/nexus /etc/init.d/nexus

Login to **nexus** user:

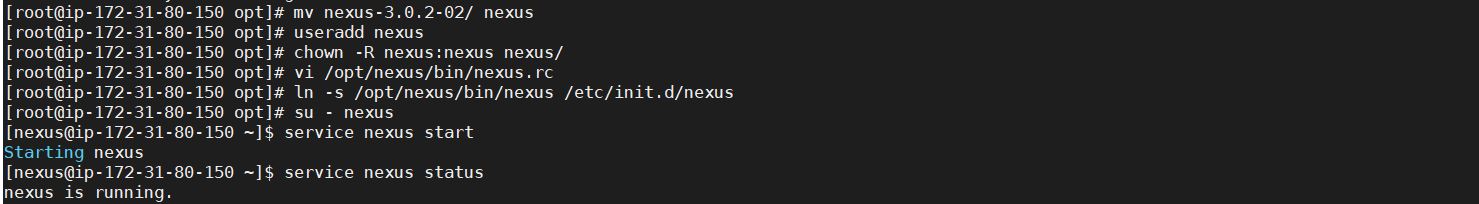
su - nexus

Start nexus:

service nexus start

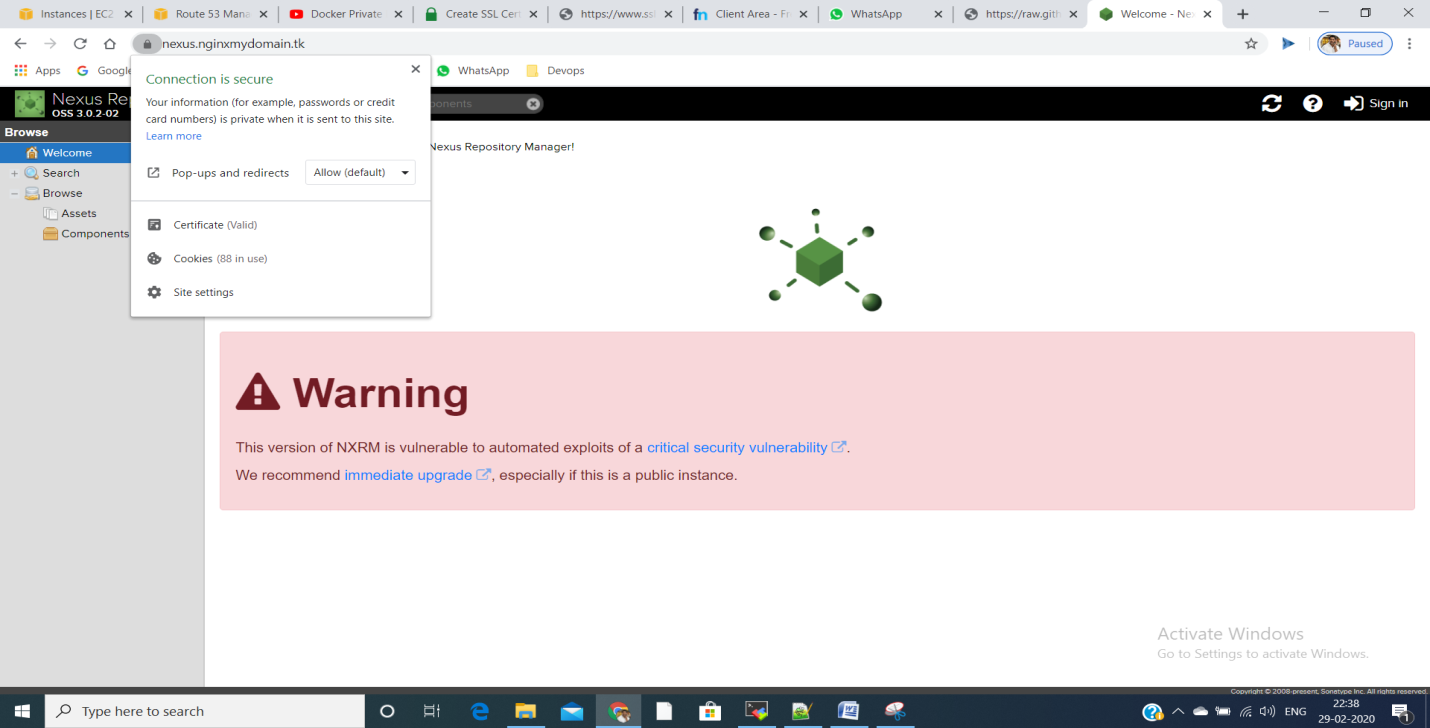
Check status of nexus:

service nexus status



Now give our domain name in UI and check whether Nexus opened or not with https:

<https://nexus.nginxmydomain.tk/>



Sign in details:

Username: admin

Password: admin123

