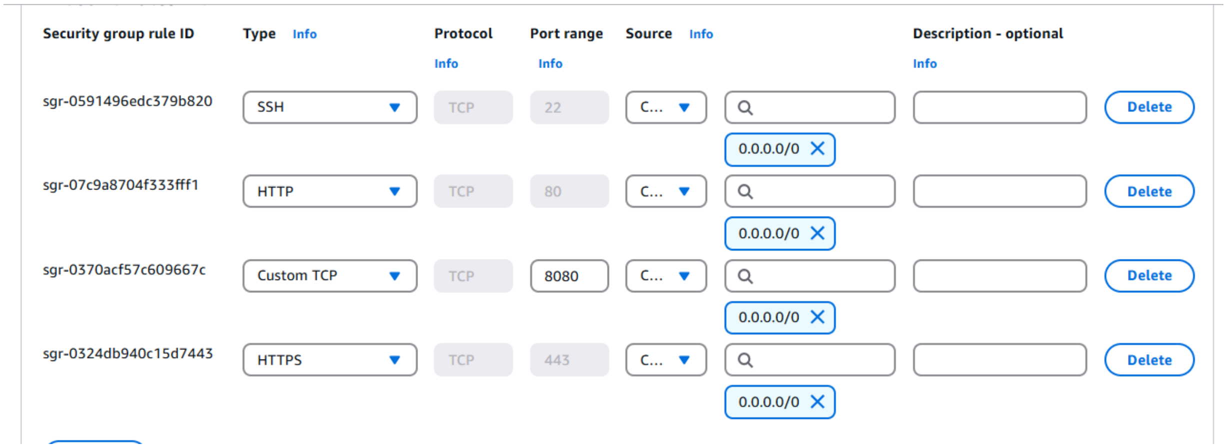
Jenkins on AWS

Create AWS instance choose AMI which is ubuntu
Security Group Inbound Rules:



Security group rule ID	Type Info	Protocol Info	Port range Info	Source Info		Description - optional Info	
sgr-0591496edc379b820	SSH	TCP	22	C...	0.0.0.0/0		Delete
sgr-07c9a8704f333fff1	HTTP	TCP	80	C...	0.0.0.0/0		Delete
sgr-0370acf57c609667c	Custom TCP	TCP	8080	C...	0.0.0.0/0		Delete
sgr-0324db940c15d7443	HTTPS	TCP	443	C...	0.0.0.0/0		Delete

Connect to your Instance:
Follow This documentation for Jenkins Installation:
https://www.jenkins.io/doc/book/installing/linux/
Install Java:

```
sudo apt update
sudo apt install fontconfig openjdk-17-jre
java -version
openjdk version "17.0.13" 2024-10-15
OpenJDK Runtime Environment (build 17.0.13+11-Debian-2)
OpenJDK 64-Bit Server VM (build 17.0.13+11-Debian-2, mixed mode, sharing)
```

Install Jenkins:

```
sudo wget -O /usr/share/keyrings/jenkins-keyring.asc \
https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key
echo "deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc]" \
https://pkg.jenkins.io/debian-stable binary/ | sudo tee \
/etc/apt/sources.list.d/jenkins.list > /dev/null
sudo apt-get update
sudo apt-get install jenkins
```

Start enable and check status of your jenkins

```
sudo systemctl enable jenkins
sudo systemctl start jenkins
sudo systemctl status jenkins
```

enter cntr+c and close the status.
Use NGinx server and I want to set reverse Proxy

```
sudo apt install nginx -y
```

Edit the jenkins configuration file

```
sudo nano /etc/nginx/sites-available/jenkins
```

```
server {
listen 80;
server_name your_domain_or_public_ip;
location / {
proxy_pass http://localhost:8080;
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 $scheme;
}
}
```

Here you edit your dns name:
save file using ctrl+o enter and then ctrl+x
Enable configuration by creating a link

```
sudo ln -s /etc/nginx/sites-available/jenkins /etc/nginx/sites-enabled/
```

delete default folder of jenkins

    sudo rm /etc/nginx/sites-enabled/default

Restart Jenkins:

    sudo systemctl restart nginx

Here now you can access your dns without using any port.
Now, access DNS using HTTPS Protocol:
Install Cert bort
No we want to generate certificate for our DNS but this DNS won't work directly. So we will use free DNS service.
you can DNS service and add your domain name and assign IP

let's say your domain name is sonamsoni.org
edit jenkins config
sudo nano /etc/nginx/sites-available/jenkins
Your code file:

```
server {
listen 80;
server_name aws-dns-name sonamsoni.org;
location / {
proxy_pass http://localhost:8080;
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 $scheme;
}
}
```

Restart Jenkins again.
sudo certbot --nginx -d sonamsoni.org

you can access Jenkins on https://sonamsoni.org