

# Capstone project (reactjs)

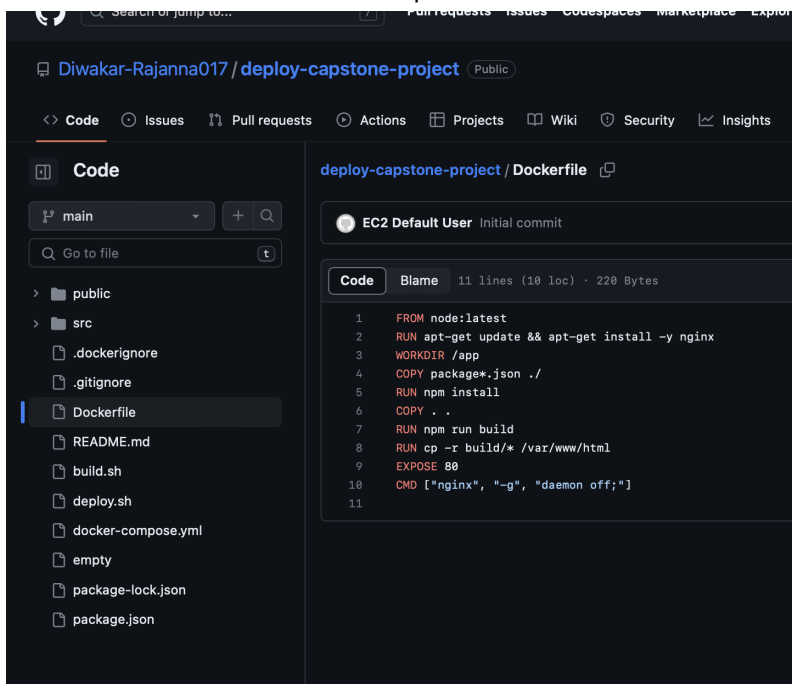
Docker hub url - <https://hub.docker.com/repositories/diwakarrajanna>

Github url - <https://github.com/Diwakar-Rajanna017/deploy-capstone-project.git>

Deployed application server -01 : <http://3.140.198.2>

Deployed application server -02 : <http://3.129.24.215>

- Clone : <https://github.com/rvsp/reactis-demo> to a ec2 machine to work on
- Wrote a dockerfile and docker compose file



```
1 FROM node:latest
2 RUN apt-get update && apt-get install -y nginx
3 WORKDIR /app
4 COPY package*.json ./
5 RUN npm install
6 COPY . .
7 RUN npm run build
8 RUN cp -r build/* /var/www/html
9 EXPOSE 80
10 CMD ["nginx", "-g", "daemon off;"]
11
```



```
1 version: '3'
2
3 services:
4   web:
5     image: my-capstone-app
6     ports:
7       - "80:80"
8     restart: always
9
```

Wrote build.sh and deploy.sh file - tused this sh script were used to check via ec2 ( path can been change according to ur requirement where u have clone ur repo and what type of machine u using )

deploy-capstone-project / build.sh

Diwakar-Rajanna017 adding build and deploy script

Code Blame 24 lines (16 loc) · 480 Bytes

```
1  #!/bin/bash
2
3  TAG=${1:-"latest"}
4
5  if [ -z "$1" ]; then
6      echo "No version number provided. Using 'latest' as the default tag."
7  fi
8
9  IMAGE_NAME="my-capstone-app"
10
11  echo "Building Docker image ${IMAGE_NAME}:${TAG}"
12
13  docker build -t "${IMAGE_NAME}:${TAG}" /home/ec2-user/reactjs-demo
14
15  if [ "$?" -eq 0 ]; then
16      echo "Docker image ${IMAGE_NAME}:${TAG} built successfully."
17  else
18      echo "Error: Docker image build failed."
19      exit 1
20  fi
21
22  echo "List of Docker images:"
23  docker images
24
```

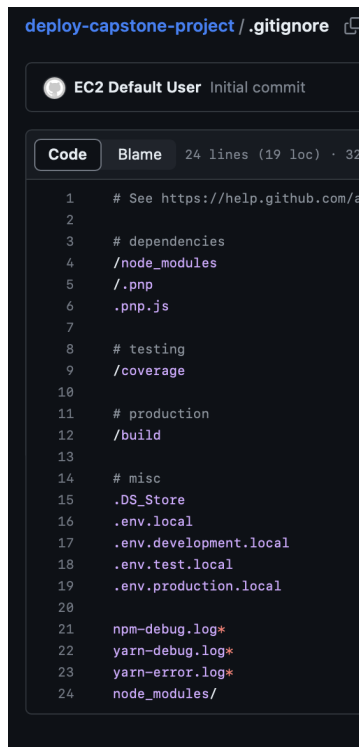
deploy-capstone-project / **deploy.sh**

Diwakar-Rajanna017 updated file for deploy and docker compose file

Code Blame 5 lines (3 loc) · 96 Bytes

```
1  #!/bin/bash
2
3  docker-compose -f /home/ec2-user/reactjs-demo/docker-compose.yml up -d
4
5  docker ps
```

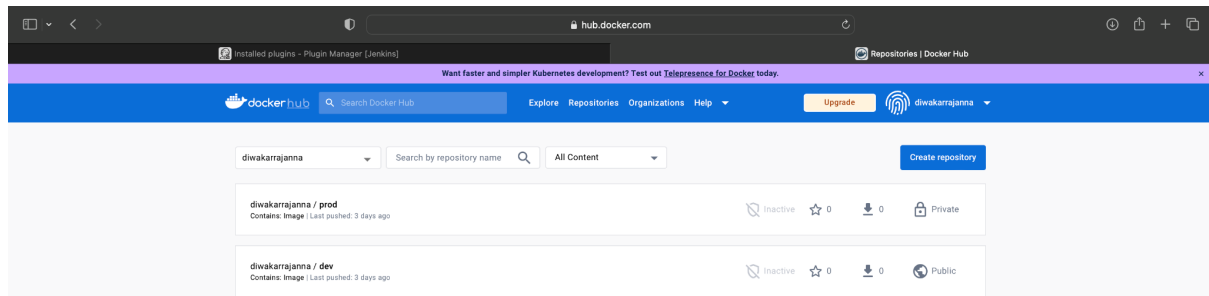
Create two file of .gitignore and .dockerignore to avoid pushing of unwanted file to central repo and i have declare node\_modules inside it



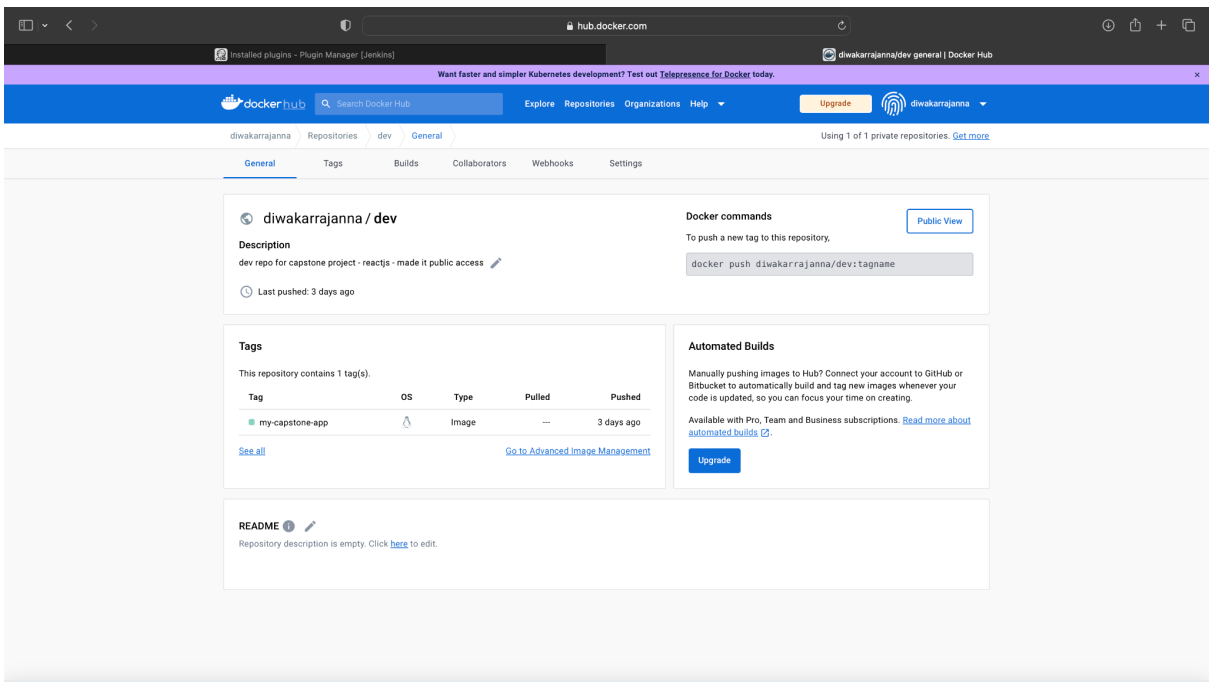
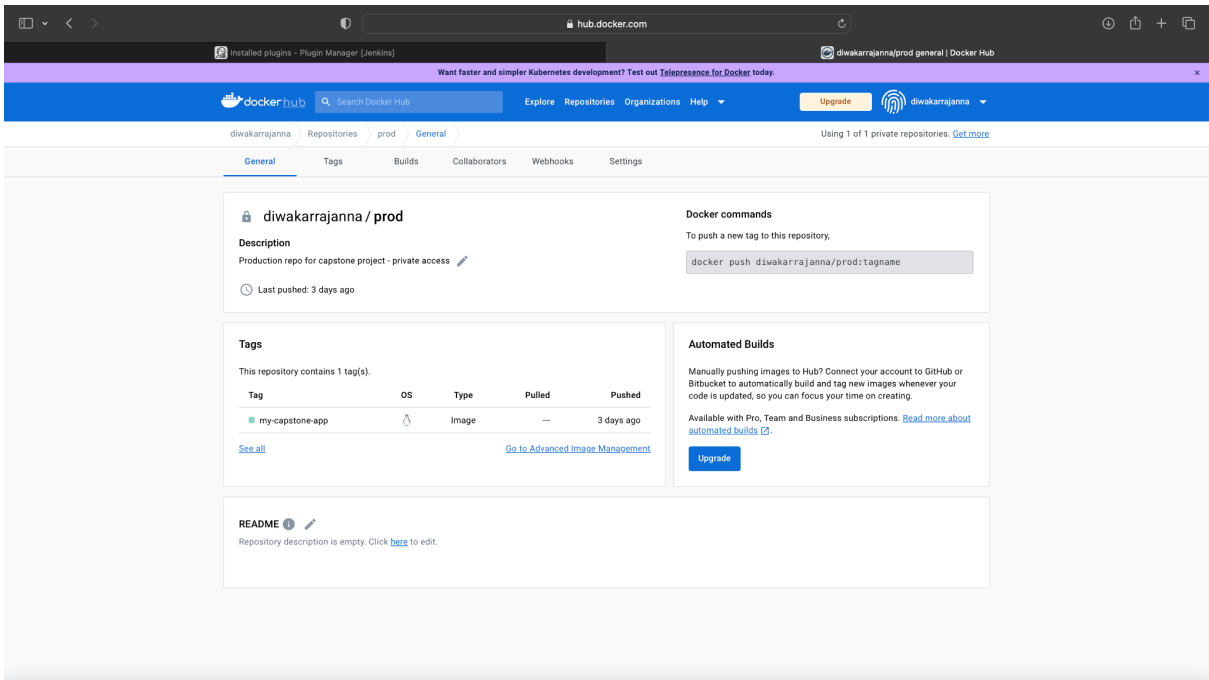
The screenshot shows a GitHub repository named 'deploy-capstone-project' with the file '.gitignore' selected. The user is 'EC2 Default User' and it's an 'Initial commit'. The file contains 24 lines of ignore rules. The rules are as follows:

```
1 # See https://help.github.com/a
2
3 # dependencies
4 /node_modules
5 /.pnp
6 .pnp.js
7
8 # testing
9 /coverage
10
11 # production
12 /build
13
14 # misc
15 .DS_Store
16 .env.local
17 .env.development.local
18 .env.test.local
19 .env.production.local
20
21 npm-debug.log*
22 yarn-debug.log*
23 yarn-error.log*
24 node_modules/
```

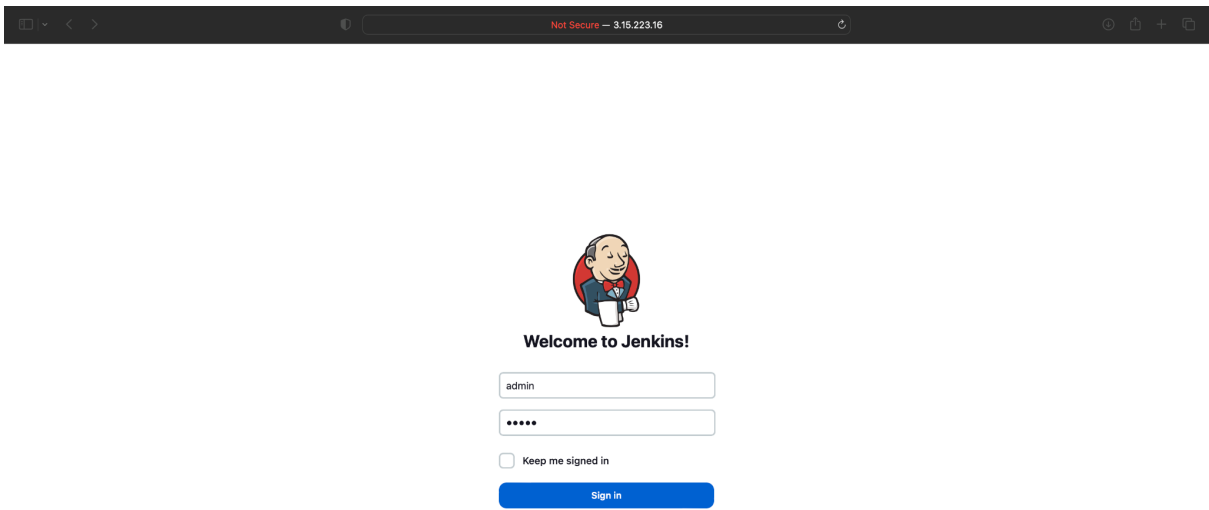
Created a docker hub repo



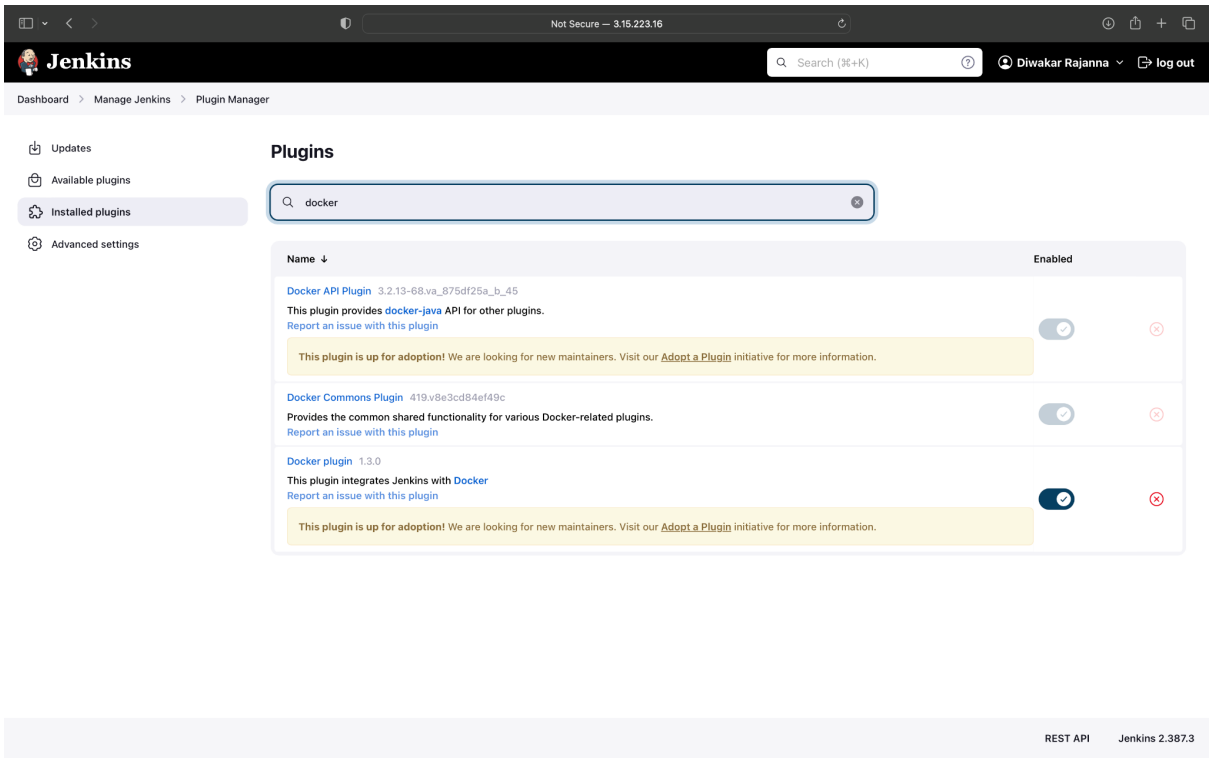
And repo for pushing the code maintained two repo dev and prod - prod made it private and dev public repo



Installed a jenkins a instance



Installed docker plugin to perform docker operation and git was already installed



Jenkins

Search (⌘+K)

Diwakar Rajanna log out

Dashboard > Manage Jenkins > Plugin Manager

Updates  
Available plugins  
Installed plugins  
Advanced settings

### Plugins

git

Name ↓	Enabled
<a href="#">Git client plugin</a> 4.2.0 Utility plugin for Git support in Jenkins <a href="#">Report an issue with this plugin</a>	<input checked="" type="checkbox"/>
<a href="#">Git Parameter Plug-in</a> 0.9.18 Adds ability to choose branches, tags or revisions from git repositories configured in project. <a href="#">Report an issue with this plugin</a>	<input checked="" type="checkbox"/>
<a href="#">Git plugin</a> 5.0.2 This plugin integrates <a href="#">Git</a> with Jenkins. <a href="#">Report an issue with this plugin</a>	<input checked="" type="checkbox"/>
<a href="#">GitHub API Plugin</a> 1.303-417.ve35d9dd78549 This plugin provides <a href="#">GitHub API</a> for other plugins. <a href="#">Report an issue with this plugin</a>	<input checked="" type="checkbox"/>
<a href="#">GitHub Branch Source Plugin</a> 1703.vd5a_2b_29c6cdc Multibranch projects and organization folders from GitHub. Maintained by CloudBees, Inc. <a href="#">Report an issue with this plugin</a>	<input checked="" type="checkbox"/>
<a href="#">GitHub plugin</a> 1.37.0 This plugin integrates <a href="#">GitHub</a> to Jenkins. <a href="#">Report an issue with this plugin</a>	<input checked="" type="checkbox"/>
<a href="#">Pipeline: GitHub Groovy Libraries</a> 42.v0739460cda_c4 Allows Pipeline Groovy libraries to be loaded on the fly from GitHub. <a href="#">Report an issue with this plugin</a>	<input checked="" type="checkbox"/>

Configuration of jenkins pipeline job

Used webhook to trigger the jenkins job

Jenkins

Search (⌘+K)

Diwakar Rajanna log out

Dashboard > capstone-reacts > Configuration

### Configure

General  
Advanced Project Options  
Pipeline

#### General

Enabled ☒

Description

build, push & deploy the application

- Connected jenkins to the github repo with auto build trigger(web hook) from both dev & master branch
- If code pushed to dev branch, docker image will build and pushed to dev repo in docker hub
- If dev merged to master, then docker image will be pushed to prod repo in docker hub

[Plain text] [Preview](#)

☐ Discard old builds ?

☐ Do not allow concurrent builds

☐ Do not allow the pipeline to resume if the controller restarts

☒ **GitHub project**

Project url ?

<https://github.com/Diwakar-Rajanna017/deploy-capstone-project.git/>

Advanced ▾

☐ Pipeline speed/durability override ?

☐ Preserve stashes from completed builds ?

☐ This project is parameterized ?

☐ Throttle builds ?

#### Build Triggers

Save Apply

## Configure

- General
- Advanced Project Options
- Pipeline

### Build Triggers

- ☐ Build after other projects are built ?
- ☐ Build periodically ?
- ☒ GitHub hook trigger for GITSCm polling ?
- ☐ Poll SCM ?
- ☐ Quiet period ?
- ☐ Trigger builds remotely (e.g., from scripts) ?

### Advanced Project Options

Advanced ▾

### Pipeline

#### Definition

Pipeline script ▾

```
Script ?
1 pipeline {
2   agent {
3     label 'capstone-test-ec2'
4   }
5
6   environment {
7     DOCKER_USERNAME = credentials('docker-hub-password')
8     DOCKER_PASSWORD = credentials('docker-hub-password')
9   }
10
11   stages {
12     stage('Clone') {
```

Save Apply

## Configure

- General
- Advanced Project Options
- Pipeline

```
Script ?
1 pipeline {
2   agent {
3     label 'capstone-test-ec2'
4   }
5
6   environment {
7     DOCKER_USERNAME = credentials('docker-hub-password')
8     DOCKER_PASSWORD = credentials('docker-hub-password')
9   }
10
11   stages {
12     stage('Clone') {
13       steps {
14         checkout([$class: 'GitSCM', branches: [[name: 'origin/dev'], [name: 'origin/master']], doGenerateSubmoduleConfigurations: fa
15       }
16     }
17
18     stage('Build Image') {
19       steps {
20         sh 'docker build -t myapp:latest .'
21       }
22     }
23
24     stage('Push and Deploy') {
25       steps {
26         script {
27           def registry
28           def tag
29
30           if (env.CHANGE_TARGET == 'origin/dev') {
31             registry = 'diwakarrajanna/dev'
32             tag = 'latest'
33           } else if (env.CHANGE_TARGET == 'origin/master') {
34             registry = 'diwakarrajanna/prod'
35             tag = 'latest'
36           } else {
37             error "Invalid branch"
38           }
39
40           if (registry && tag) {
41             withCredentials([usernamePassword(credentialsId: 'docker-hub-creds', usernameVariable: 'DOCKER_USERNAME', passwordVa
42               sh 'docker login -u $DOCKER_USERNAME -p $DOCKER_PASSWORD'
43               sh "docker tag myapp:latest ${registry}:${tag}"
44               sh "docker push ${registry}:${tag}"
45             }
46             sh 'docker-compose up -d'
47           } else {
48             error "Missing configuration for branch: ${env.CHANGE_TARGET}"
49           }
50         }
51       }
52     }
53   }
54 }
```

Save Apply

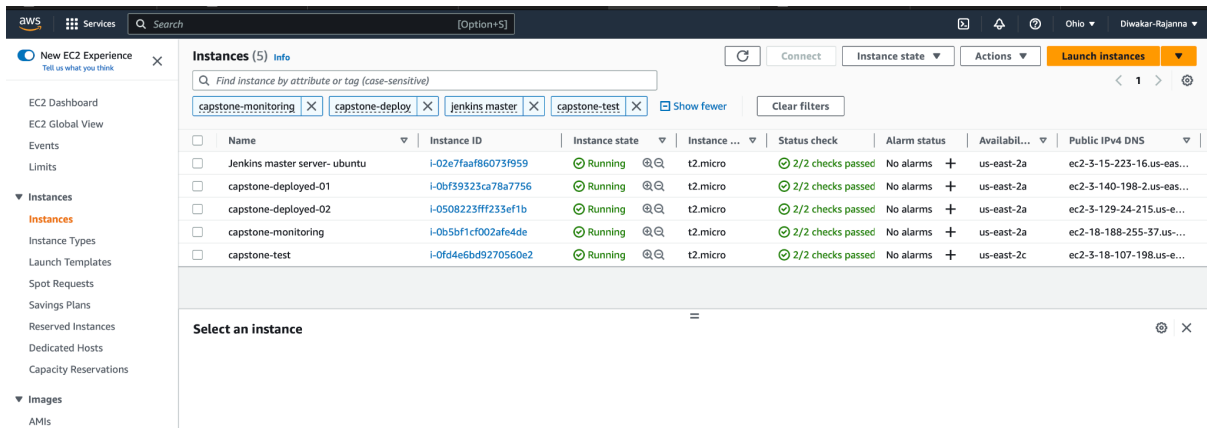
Deployed a application on two instance

Not Secure - 3.140.198.2	
#	Name

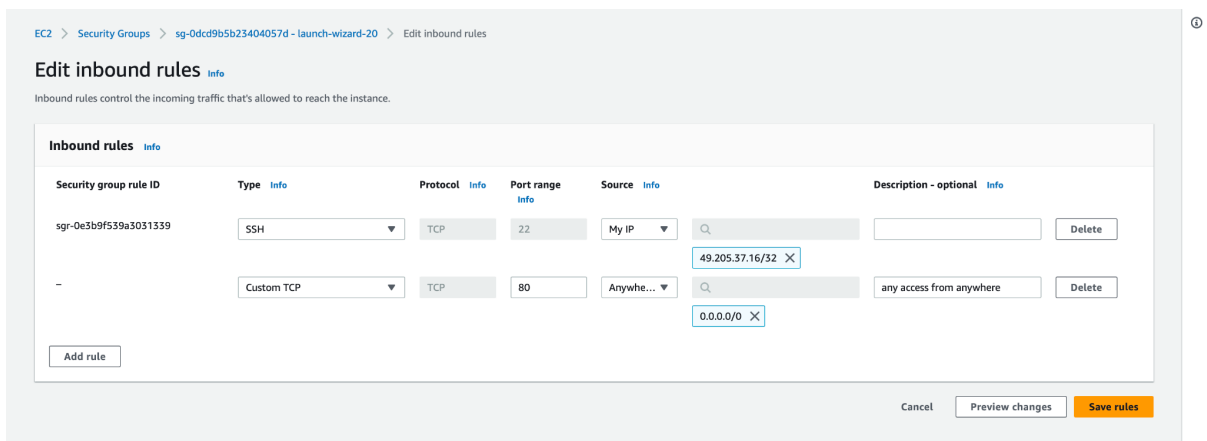
Not Secure - 3.129.24.215	
#	Name



## Aws server used for this project



And SG to ssh only from my ip and to access web application if u have a IP address



IP of the deployed web application ( Deployed application server -01 : <http://3.140.198.2>

Deployed application server -02 : <http://3.129.24.215>)

Docker hub url - <https://hub.docker.com/repositories/diwakarrajanna>

Github url - <https://github.com/Diwakar-Rajanna017/deploy-capstone-project.git>

## Monitoring tool - working on it

