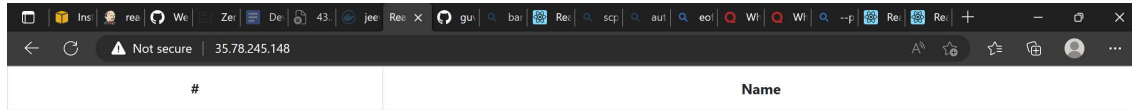


GUVI_REACT APPLICATION

DEPLOYED IP ADDRESS : 35.78.245.148

DEPLOYED IP ADDRESS : ec2-35-78-245-148.ap-northeast-1.compute.amazonaws.com

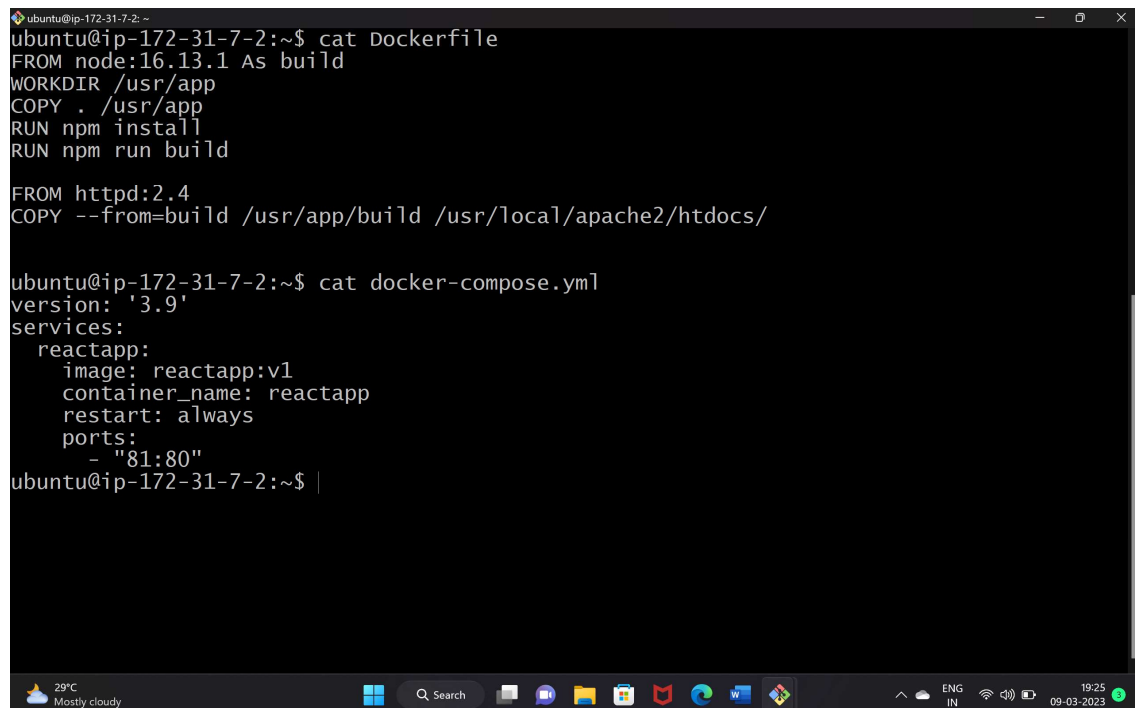
Git hub link : https://github.com/jeeviarajsam/guvi_project1.git



#	Name
---	------



Dockerfile and docker-compose.yml file creation:



```
ubuntu@ip-172-31-7-2: ~  
ubuntu@ip-172-31-7-2:~$ cat Dockerfile  
FROM node:16.13.1 As build  
WORKDIR /usr/app  
COPY . /usr/app  
RUN npm install  
RUN npm run build  
  
FROM httpd:2.4  
COPY --from=build /usr/app/build /usr/local/apache2/htdocs/  
  
ubuntu@ip-172-31-7-2:~$ cat docker-compose.yml  
version: '3.9'  
services:  
  reactapp:  
    image: reactapp:v1  
    container_name: reactapp  
    restart: always  
    ports:  
      - "81:80"  
ubuntu@ip-172-31-7-2:~$ |
```

Build.sh file created

```
ubuntu@ip-172-31-7-2: ~/guvi_project/project1/reactjs-demo
#!/bin/bash
#scripting for installing docker and docker image build
apt-get update && apt install docker.io -y
docker --version
#read -p "Enter the version of docker image:" option
docker build -t reactapp:v1 .
docker images

~
~
~
~
~
```

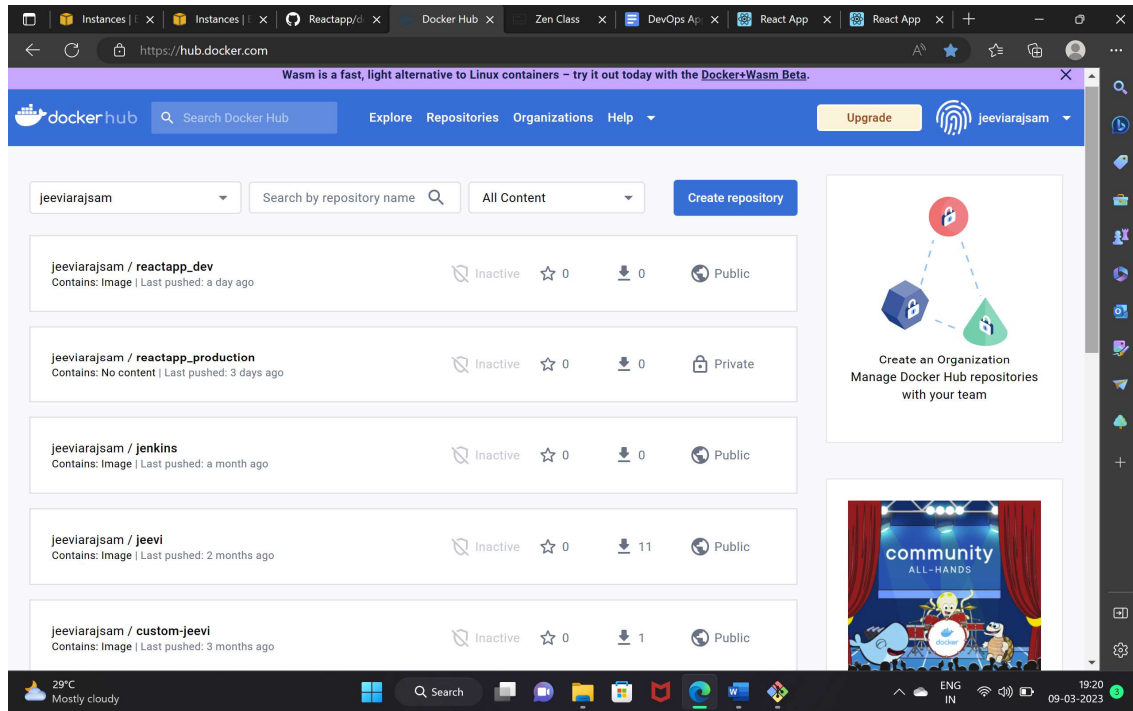
Deploy.sh file created

```
ubuntu@ip-172-31-7-2: ~/guvi_project/project1/reactjs-demo
#!/bin/bash
#deploy the application
ls -la
mkdir react_app && cp -rf public src Dockerfile build.sh deploy.sh docker-compose.yml package-lock.json package.json react_app
tar -cvzf react_app.tar.gz react_app
scp -o StrictHostKeyChecking=no -i $key react_app.tar.gz ubuntu@43.207.231.100:/home/ubuntu
ssh -T -o StrictHostKeyChecking=no -i $key ubuntu@43.207.231.100<<EOF
cd /home/ubuntu
rm -rf react_app || true
sudo docker system prune -f
tar -xvzf react_app.tar.gz
#deploy based on git hub branch commit
if [[ $GIT_BRANCH == origin/dev ]]
then
cd react_app
chmod +x build.sh
./build.sh
docker login --username=$docker_username --password=$docker_password
echo $docker_password | docker login -u $docker_username --password-stdin
docker image tag reactapp:v1 jeeviarajsam/reactapp_dev:v1
docker image push jeeviarajsam/reactapp_dev:v1
elif [[ $GIT_BRANCH == origin/master ]]
#docker-compose up -d
then
cd react_app
chmod +x build.sh
./build.sh
docker login --username=$docker_username --password=$docker_password
echo $docker_password | docker login -u $docker_username --password-stdin
docker image tag reactapp:v1 jeeviarajsam/reactapp_production:v1
docker image push jeeviarajsam/reactapp_production:v1
#docker-compose up -d
else
echo "error data"
fi
```

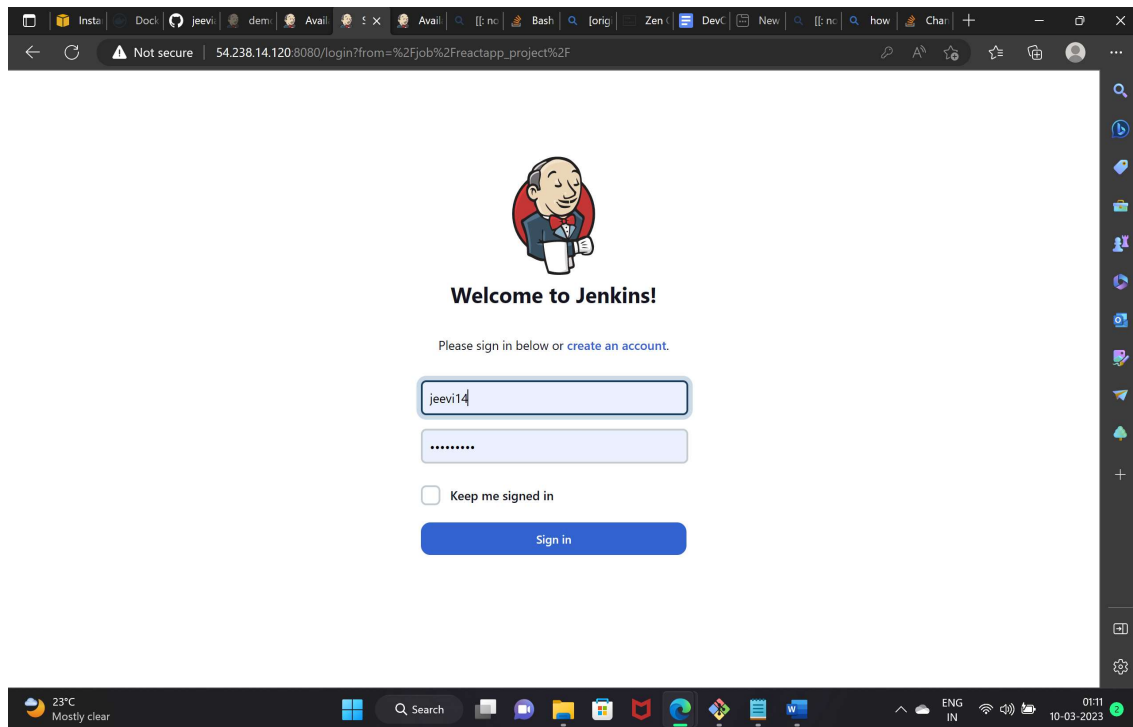
Git repository with 2 branches (master & dev) created

```
ubuntu@ip-172-31-7-2:~/guvi_project/project1/reactjs-demo$ vim deploy.sh
ubuntu@ip-172-31-7-2:~/guvi_project/project1/reactjs-demo$ git branch
* dev
  master
ubuntu@ip-172-31-7-2:~/guvi_project/project1/reactjs-demo$ ls -la
total 616
drwxrwxr-x 5 ubuntu ubuntu 4096 Mar 10 08:50 .
drwxrwxr-x 3 ubuntu ubuntu 4096 Mar 9 19:03 ..
drwxrwxr-x 8 ubuntu ubuntu 4096 Mar 10 08:31 .git
-rw-rw-r-- 1 ubuntu ubuntu 310 Mar 9 19:03 .gitignore
-rw-rw-r-- 1 ubuntu ubuntu 173 Mar 9 19:09 Dockerfile
-rw-rw-r-- 1 ubuntu ubuntu 2907 Mar 9 19:04 README.md
-rw-rw-r-- 1 ubuntu ubuntu 226 Mar 9 21:21 build.sh
-rw-rw-r-- 1 ubuntu ubuntu 1256 Mar 10 08:31 deploy.sh
-rw-rw-r-- 1 ubuntu ubuntu 136 Mar 10 05:11 docker-compose.yml
-rw-rw-r-- 1 ubuntu ubuntu 0 Mar 10 08:13 jenkins
-rw-rw-r-- 1 ubuntu ubuntu 579092 Mar 9 19:03 package-lock.json
-rw-rw-r-- 1 ubuntu ubuntu 812 Mar 9 19:03 package.json
drwxrwxr-x 2 ubuntu ubuntu 4096 Mar 9 19:03 public
drwxrwxr-x 3 ubuntu ubuntu 4096 Mar 9 19:03 src
ubuntu@ip-172-31-7-2:~/guvi_project/project1/reactjs-demo$
```

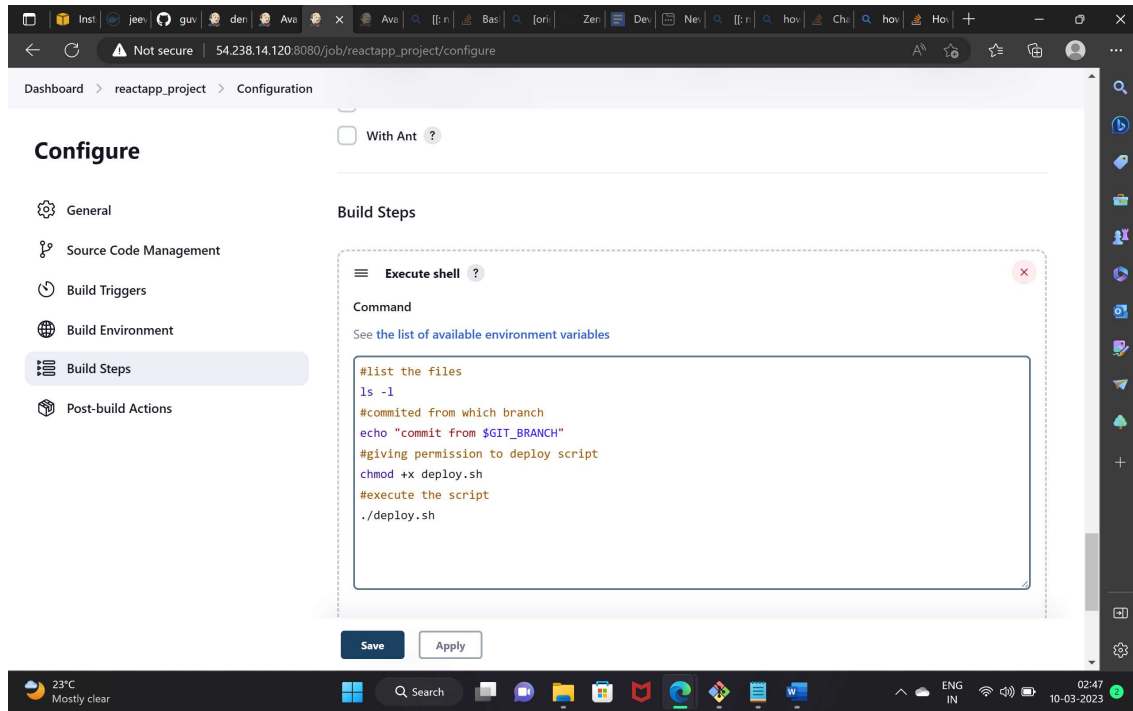
Create 2 docker repository in docker hub:



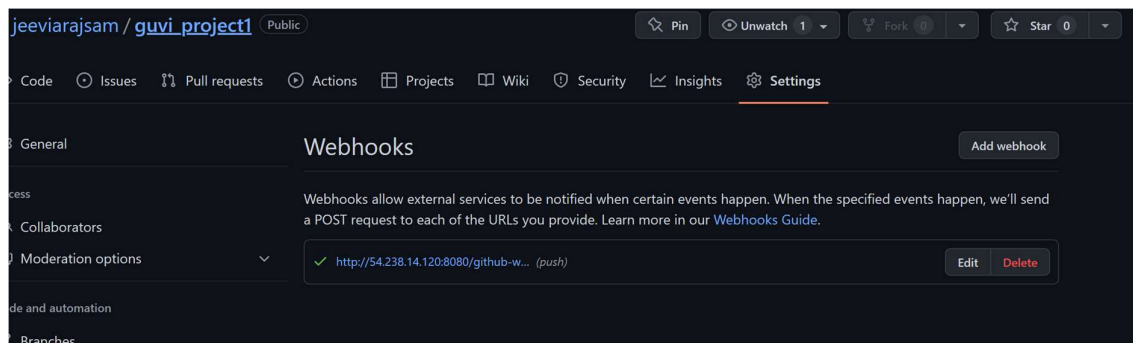
Jenkins configuration done and login as jeevi14 user



Create new freestyle project with project configuration:



Create webhook in github for trigger the push event from github repository to jenkins



Code pushed from dev branch image push to dev repo of the docker hub

```
54.238.14.120:8080/job/reactapp_project/88/console
> #88

Login Succeeded
WARNING! Your password will be stored unencrypted in /home/ubuntu/.docker/config.json.
Configure a credential helper to remove this warning. See
https://docs.docker.com/engine/reference/commandline/login/#credentials-store

Login Succeeded
The push refers to repository [docker.io/jeeviarajsam/reactapp_dev]
b5daf63183f5: Preparing
087e3023406c: Preparing
a30707f342ec: Preparing
849b101b0e3b: Preparing
2309cdaf4afb: Preparing
650abce4b096: Preparing
650abce4b096: Waiting
087e3023406c: Layer already exists
a30707f342ec: Layer already exists
2309cdaf4afb: Layer already exists
849b101b0e3b: Layer already exists
b5daf63183f5: Layer already exists
650abce4b096: Layer already exists
v1: digest: sha256:e50e7f37a016f8648afb3eaffaf14ce205d0f62855f5712e91c3f67f9ad808dd size: 1576
[Checks API] No suitable checks publisher found.
Finished: SUCCESS
```

Code pushed from dev branch image push to production repo of the docker hub

```
54.238.14.120:8080/job/reactapp_project/89/console
> #89

WARNING! Your password will be stored unencrypted in /home/ubuntu/.docker/config.json.
Configure a credential helper to remove this warning. See
https://docs.docker.com/engine/reference/commandline/login/#credentials-store

Login Succeeded
WARNING! Your password will be stored unencrypted in /home/ubuntu/.docker/config.json.
Configure a credential helper to remove this warning. See
https://docs.docker.com/engine/reference/commandline/login/#credentials-store

Login Succeeded
The push refers to repository [docker.io/jeeviarajsam/reactapp_production]
b5daf63183f5: Preparing
087e3023406c: Preparing
a30707f342ec: Preparing
849b101b0e3b: Preparing
2309cdaf4afb: Preparing
650abce4b096: Preparing
650abce4b096: Waiting
b5daf63183f5: Layer already exists
087e3023406c: Layer already exists
a30707f342ec: Layer already exists
849b101b0e3b: Layer already exists
2309cdaf4afb: Layer already exists
650abce4b096: Layer already exists
v1: digest: sha256:e50e7f37a016f8648afb3eaffaf14ce205d0f62855f5712e91c3f67f9ad808dd size: 1576
[Checks API] No suitable checks publisher found.
Finished: SUCCESS
```

Security group created in AWS EC2 with the name guvi_reactapp

Inboud rules of security group

EC2 > Security Groups > sg-030869aa6d661ce85 - guvi_reactapp

sg-030869aa6d661ce85 - guvi_reactapp

Actions

Details

Security group name

guvi_reactapp

Security group ID

sg-030869aa6d661ce85

Description

for reactapp

VPC ID

vpc-0aa5555e7245aca5b

Owner

978819838137

Inbound rules count

1 Permission entry

Outbound rules count

1 Permission entry

Inbound rules

Outbound rules

Tags

Inbound rules (1/1)

Manage tags

Edit inbound rules

Filter security group rules

< 1 >

Security group rule...	IP version	Type	Protocol	Port range	Source
sg-04ecb6031b6179...	IPv4	All traffic	All	All	0.0.0.0/0

Outbound rules of the security group

EC2 > Security Groups > sg-030869aa6d661ce85 - guvi_reactapp

sg-030869aa6d661ce85 - guvi_reactapp

Actions

Details

Security group name

guvi_reactapp

Security group ID

sg-030869aa6d661ce85

Description

for reactapp

VPC ID

vpc-0aa5555e7245aca5b

Owner

978819838137

Inbound rules count

1 Permission entry

Outbound rules count

1 Permission entry

Inbound rules

Outbound rules

Tags

Outbound rules (1/1)

Manage tags

Edit outbound rules

Filter security group rules

< 1 >

Security group rule...	IP version	Type	Protocol	Port range	Destination
sg-01885088cf2978d2f	IPv4	SSH	TCP	22	54.238.14.120/32

Instance launched with t2.micro and attached with created securtiy group

Instances (1/3) Info

Find instance by attribute or tag (case-sensitive)

Instance state = running X Clear filters

Refresh

Connect

Instance state

Actions

Launch instances

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS
deploy_RA	i-069db17cd34b93322	Running	t2.micro	2/2 checks passed	No alarms	ap-northeast-1c	ec2-43-207-231-100.ap...

Instance: i-069db17cd34b93322 (deploy_RA)

sg-030869aab6d661ce85 (guvi_reactapp)

Inbound rules

Filter rules

Name	Security group rule ID	Port range	Protocol	Source	Security groups
-	sgr-04edb6031b617931e	All	All	0.0.0.0/0	guvi_reactapp

Outbound rules

Filter rules

Name	Security group rule ID	Port range	Protocol	Destination	Security groups
-	sgr-01885088cf2978d2f	22	TCP	54.238.14.120/32	guvi_reactapp

Cloud watch monitoring

SNS created status checked failed instance

Amazon SNS > Topics > react_app_notification > Subscription: 176946d6-bc6f-45f3-9f8e-6547372ded51

Subscription: 176946d6-bc6f-45f3-9f8e-6547372ded51

EditDelete

Details

ARN
arn:aws:sns:ap-northeast-1:978819838137:react_app_notification:176946d6-bc6f-45f3-9f8e-6547372ded51

Endpoint
jeeviarajsam@gmail.com

Topic
react_app_notification

Subscription Principal
arn:aws:iam::978819838137:user/jeevi

Status
Confirmed

Protocol
EMAIL

Subscription filter policy

Redrive policy (dead-letter queue)

Cloud watch monitoring and event created for status check failure instance:

Amazon EventBridge > Rules > Create rule

Step 1
Define rule detail

Step 2
Build event pattern

Step 3
Select target(s)

Step 4 - optional
Configure tags

Step 5
Review and create

Review and create

Step 1: Define rule detail Edit

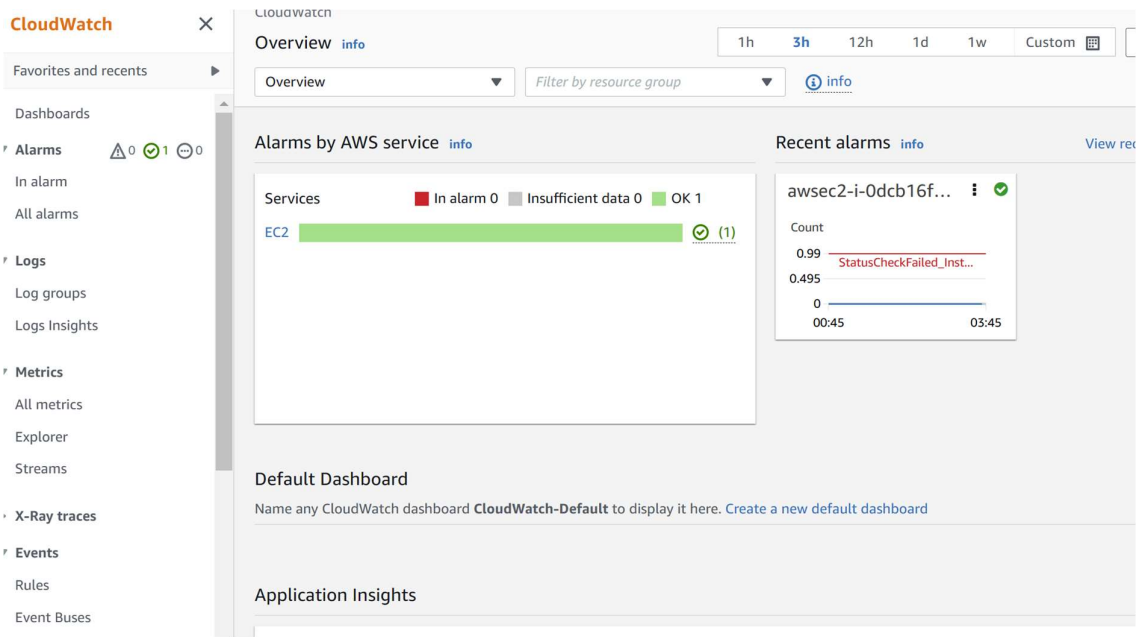
Define rule detail

Rule name react_app	Status ✔ Enabled	Event bus default
Description for react_app project	Rule type Standard rule	

Step 2: Build event pattern Edit

Event pattern [Info](#)

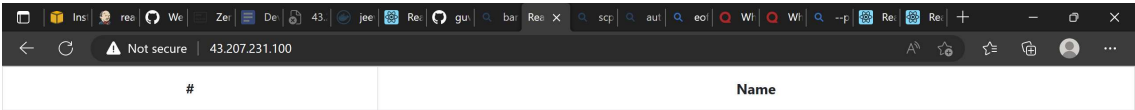
```
1 {
2   "source": ["aws.ec2"],
3   "detail-type": ["EC2 Fast Launch State-change Notification"]
4 }
```



Output application run in created instance:

From production branch

<http://35.78.245.148/> , ec2-43-207-231-100.ap-northeast-1.compute.amazonaws.com

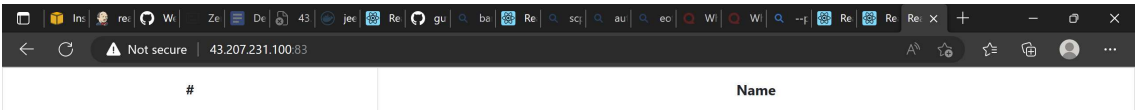


A screenshot of a web browser window. The address bar shows 'Not secure | 43.207.231.100'. The page content is a simple table with two columns: '#' and 'Name'. The table is currently empty.

#	Name
---	------



From dev branch : <http://43.207.231.100:83/>



A screenshot of a web browser window. The address bar shows 'Not secure | 43.207.231.100:83'. The page content is a simple table with two columns: '#' and 'Name'. The table is currently empty.

#	Name
---	------

