Github repository: https://github.com/kishorekannanc/devops-project.git

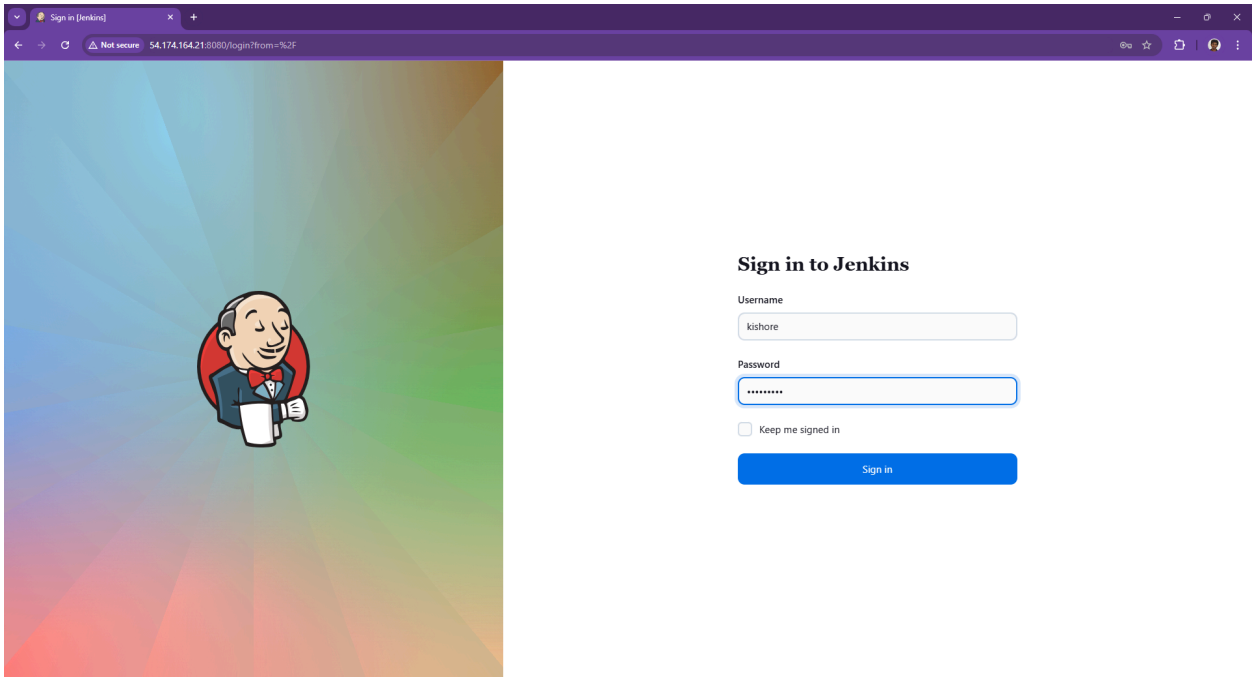
App-URL: http://54.174.164.21/

Docker images and container

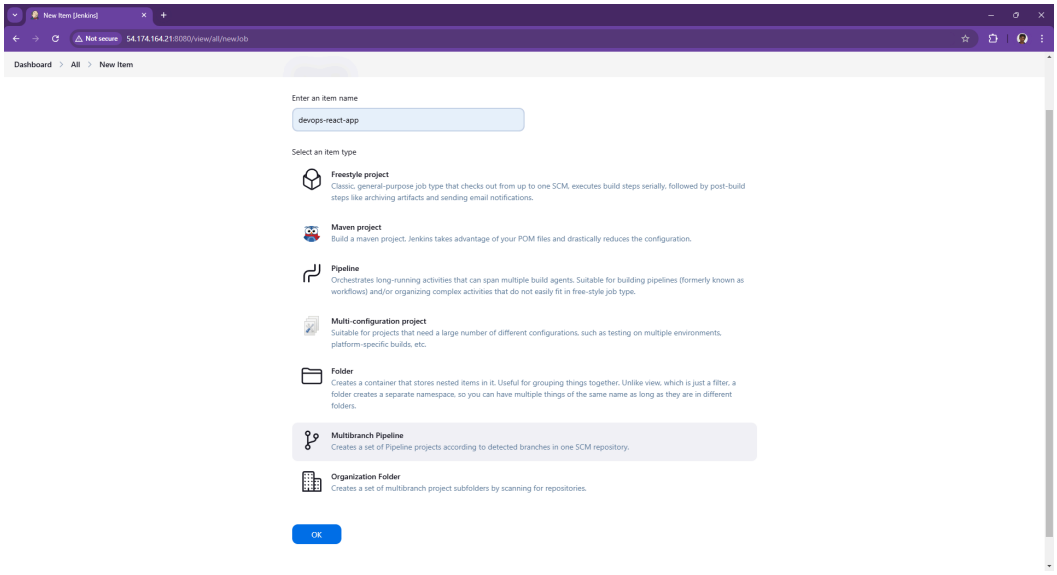
```
ubuntu@ip-172-31-93-54:~$ docker images
REPOSITORY              TAG       IMAGE ID       CREATED         SIZE
kishorekannan23/dev     v1        ffd029b8e9e7   5 minutes ago   194MB
kishorekannan23/prod    v1        ed9b4ae69836   5 minutes ago   194MB
nginx                   latest    60c8a892f36f   7 weeks ago     192MB
ubuntu@ip-172-31-93-54:~$ docker ps
CONTAINER ID   IMAGE                     COMMAND                  CREATED         STATUS         PORTS                                   NAMES
2eaab3e2c082   kishorekannan23/prod:v1   "/docker-entrypoint.…"   5 minutes ago   Up 5 minutes   0.0.0.0:80->80/tcp, :::80->80/tcp   main_app_container
ubuntu@ip-172-31-93-54:~$
```

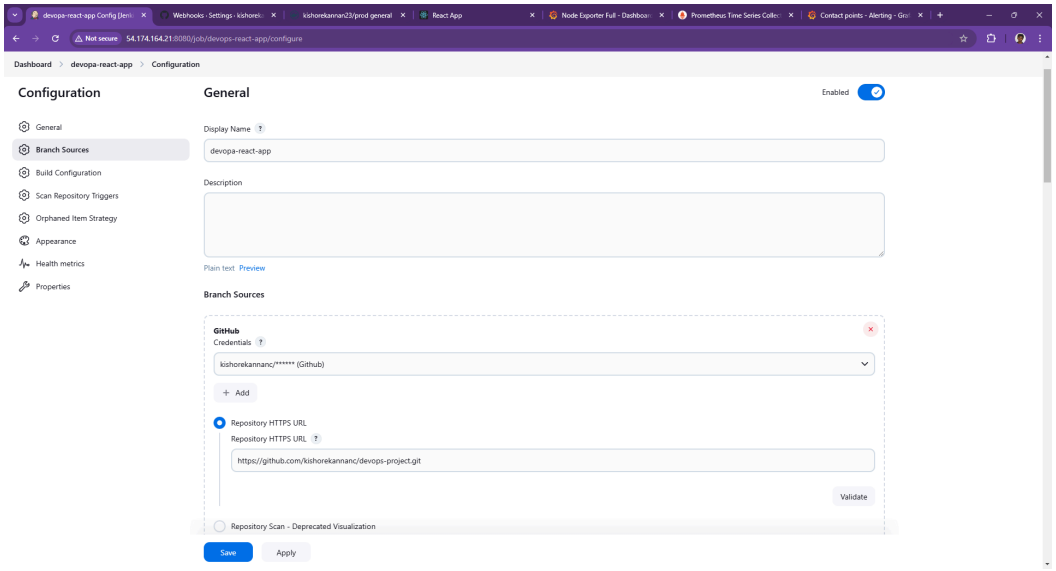
JENKINS

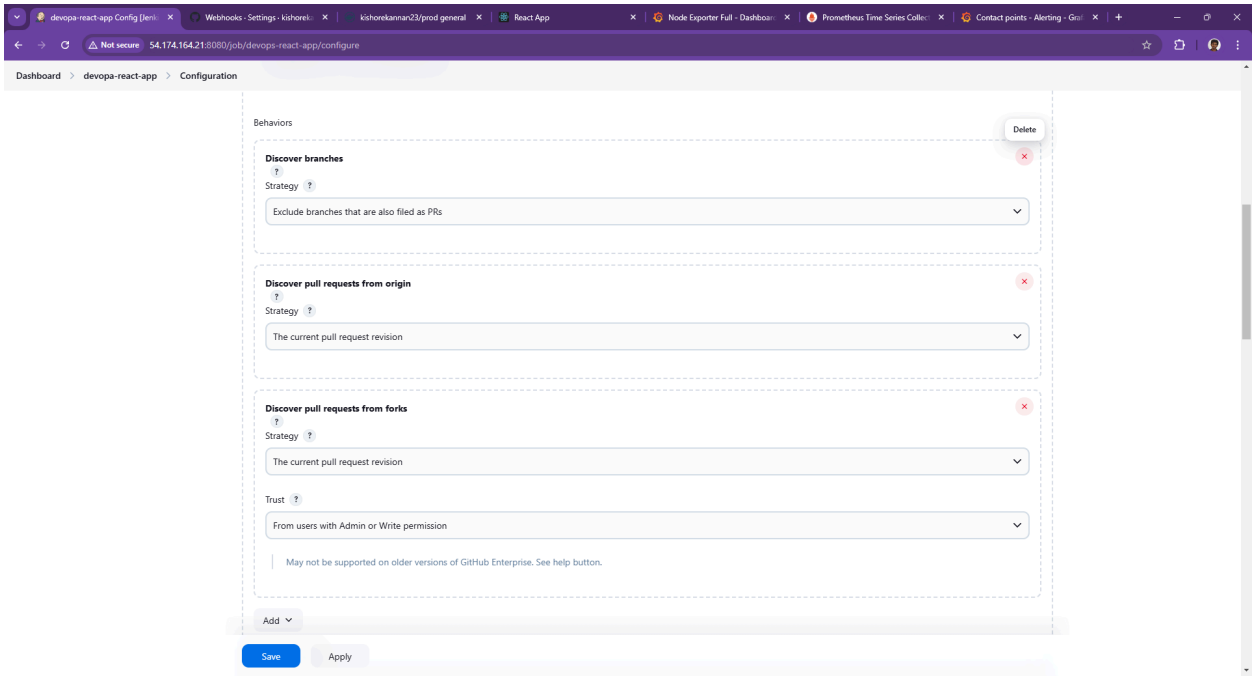
Login page:

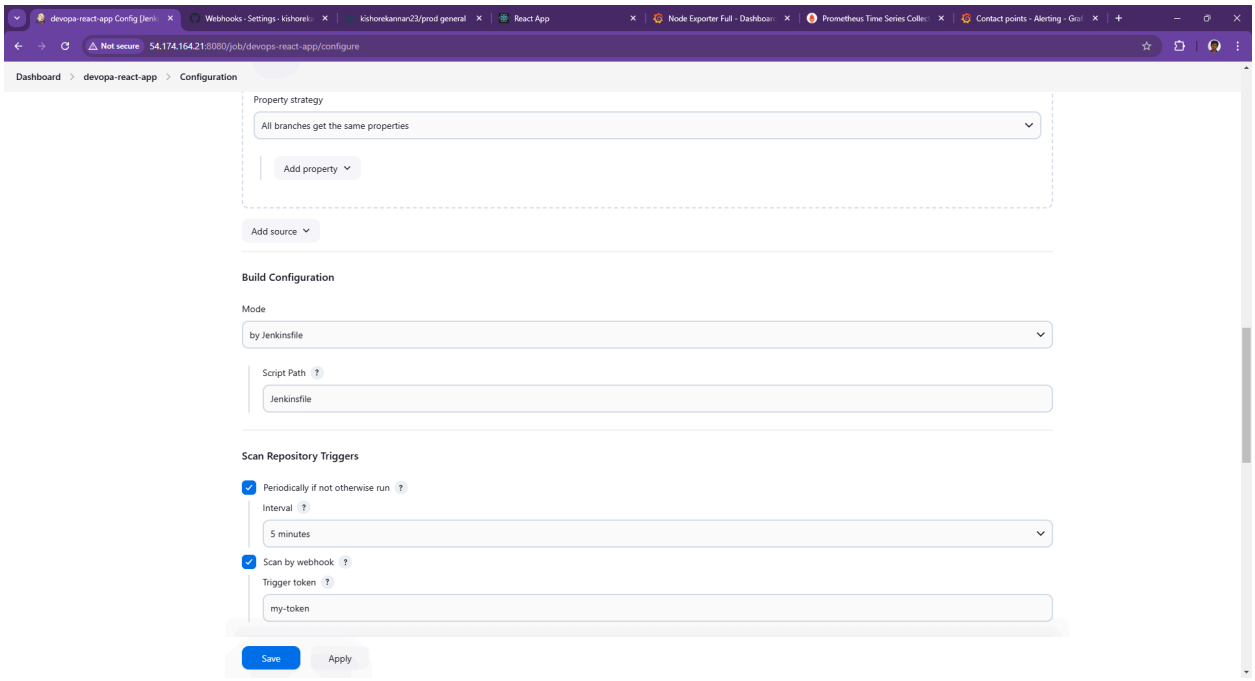


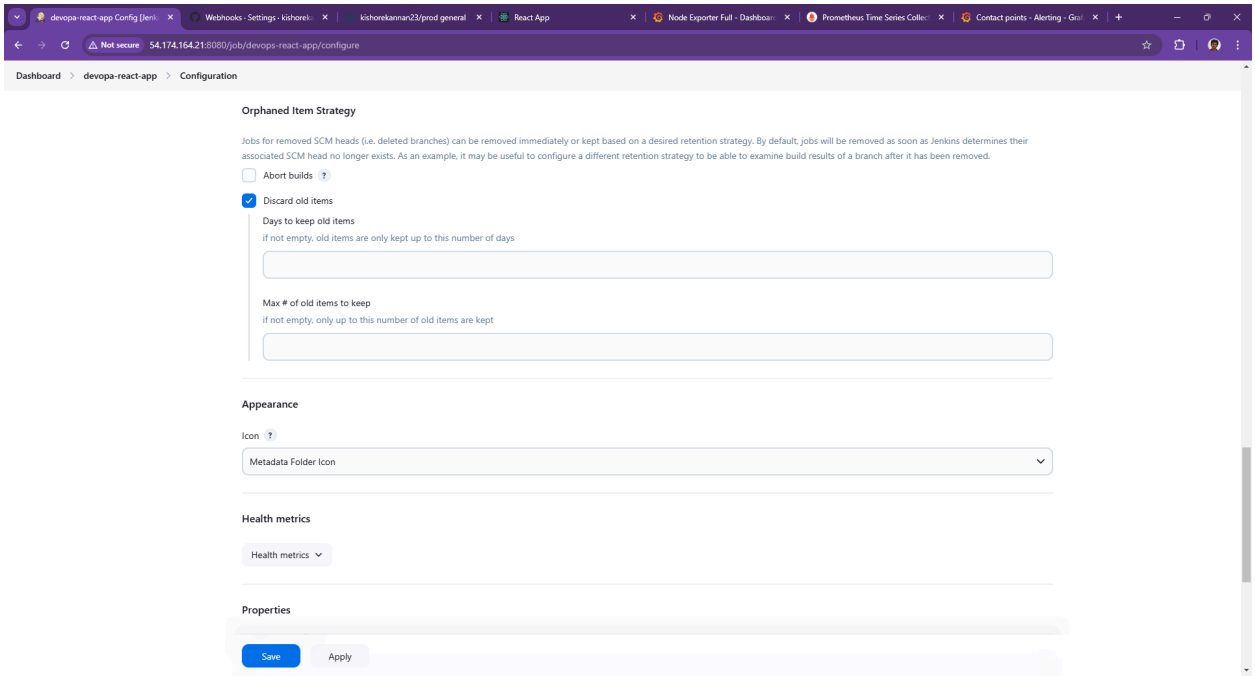
Multibranch configuration setting:

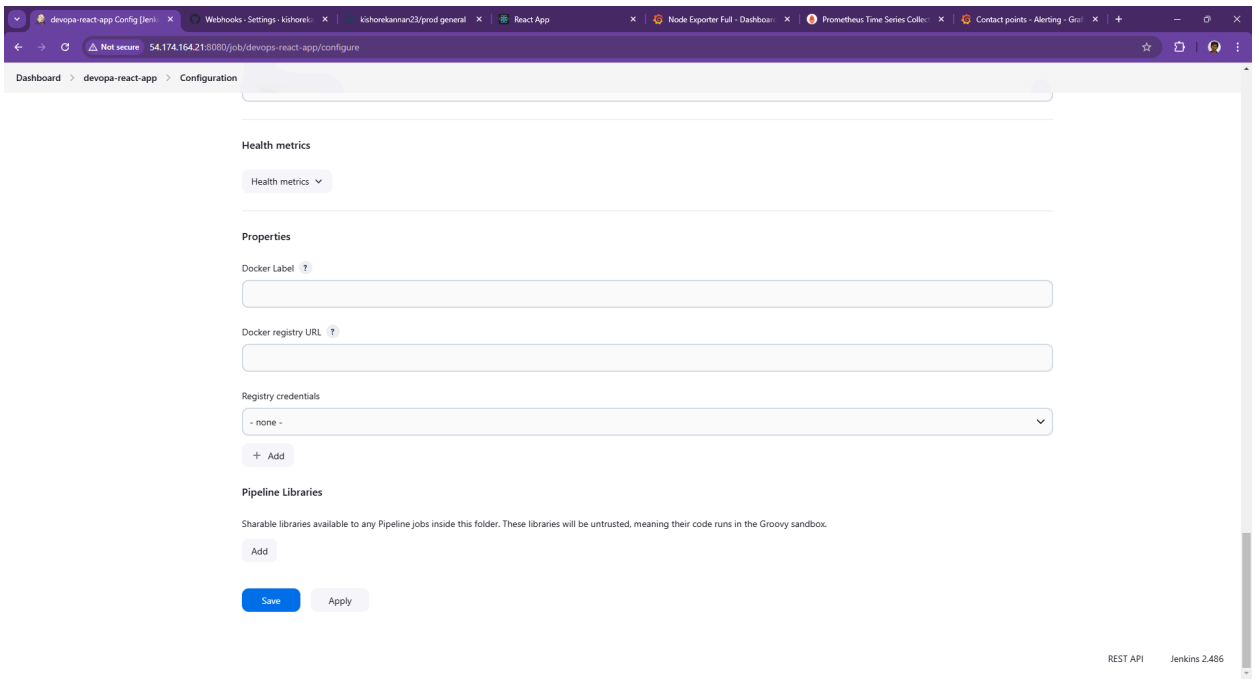




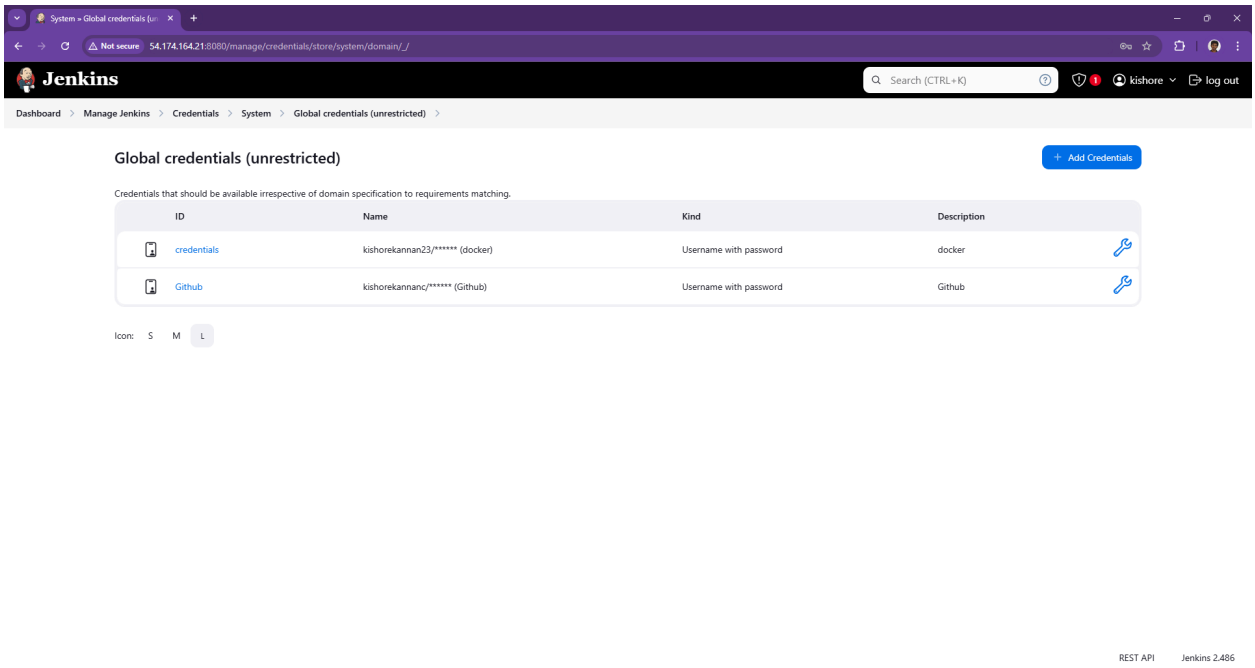

devopa-react-app Config [Jenk
Webhooks - Settings - kishorek
kishorekannan23/prod general
React App
Node Exporter Full - Dashboar
Prometheus Time Series Collec
Contact points - Alerting - Gra
Not secure
54.174.164.21:8080/job/devops-react-app/configure
Dashboard
devopa-react-app
Configuration
Behaviors
Delete
Discover branches
Strategy
Exclude branches that are also filed as PRs
Discover pull requests from origin
Strategy
The current pull request revision
Discover pull requests from forks
Strategy
The current pull request revision
Trust
From users with Admin or Write permission
May not be supported on older versions of GitHub Enterprise. See help button.
Add
Save
Apply


devopa-react-app Config [Jenk
Webhooks - Settings - kishorek
kishorekannan23/prod general
React App
Node Exporter Full - Dashboar
Prometheus Time Series Collec
Contact points - Alerting - Gra
Not secure
54.174.164.21:8080/job/devops-react-app/configure
Dashboard
devopa-react-app
Configuration
Property strategy
All branches get the same properties
Add property
Add source
Build Configuration
Mode
by Jenkinsfile
Script Path
Jenkinsfile
Scan Repository Triggers
Periodically if not otherwise run
Interval
5 minutes
Scan by webhook
Trigger token
my-token
Save
Apply

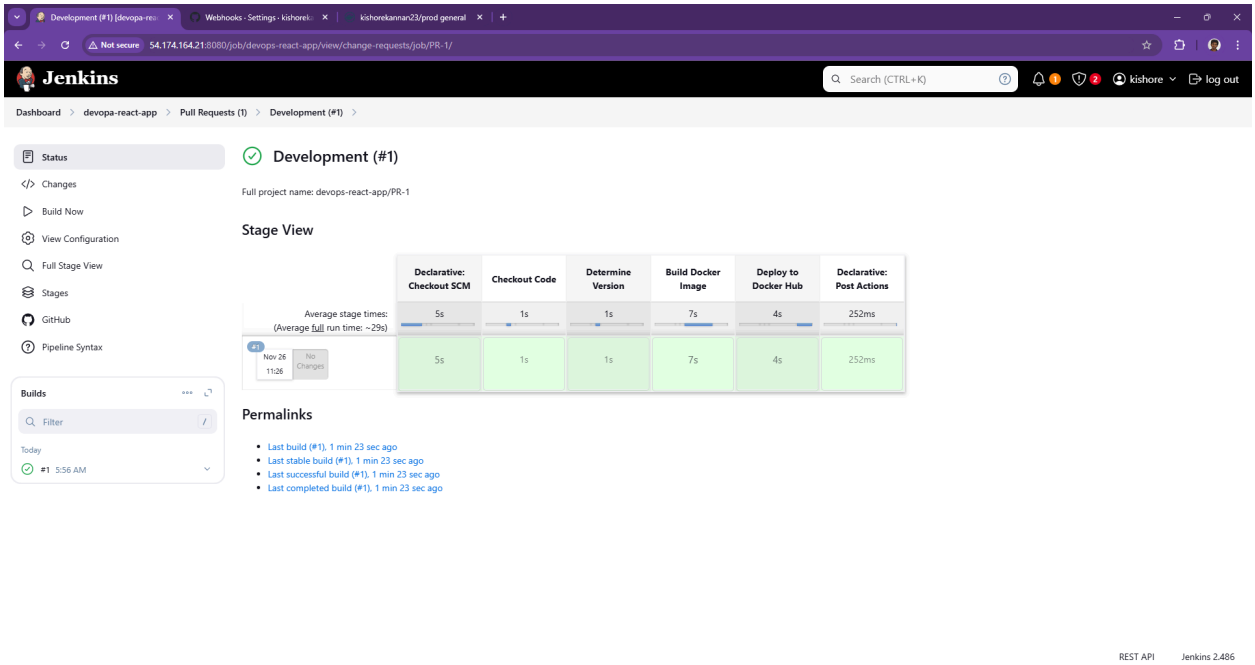

devopa-react-app Config [Jenk
Webhooks - Settings - kishorek
kishorekannan23/prod general
React App
Node Exporter Full - Dashboar
Prometheus Time Series Collec
Contact points - Alerting - Gra
Not secure
54.174.164.21:8080/job/devops-react-app/configure
Dashboard
devopa-react-app
Configuration
Orphaned Item Strategy
Jobs for removed SCM heads (i.e. deleted branches) can be removed immediately or kept based on a desired retention strategy. By default, jobs will be removed as soon as Jenkins determines their associated SCM head no longer exists. As an example, it may be useful to configure a different retention strategy to be able to examine build results of a branch after it has been removed.
Abort builds
Discard old items
Days to keep old items
if not empty, old items are only kept up to this number of days
Max # of old items to keep
if not empty, only up to this number of old items are kept
Appearance
Icon
Metadata Folder Icon
Health metrics
Health metrics
Properties
Save
Apply

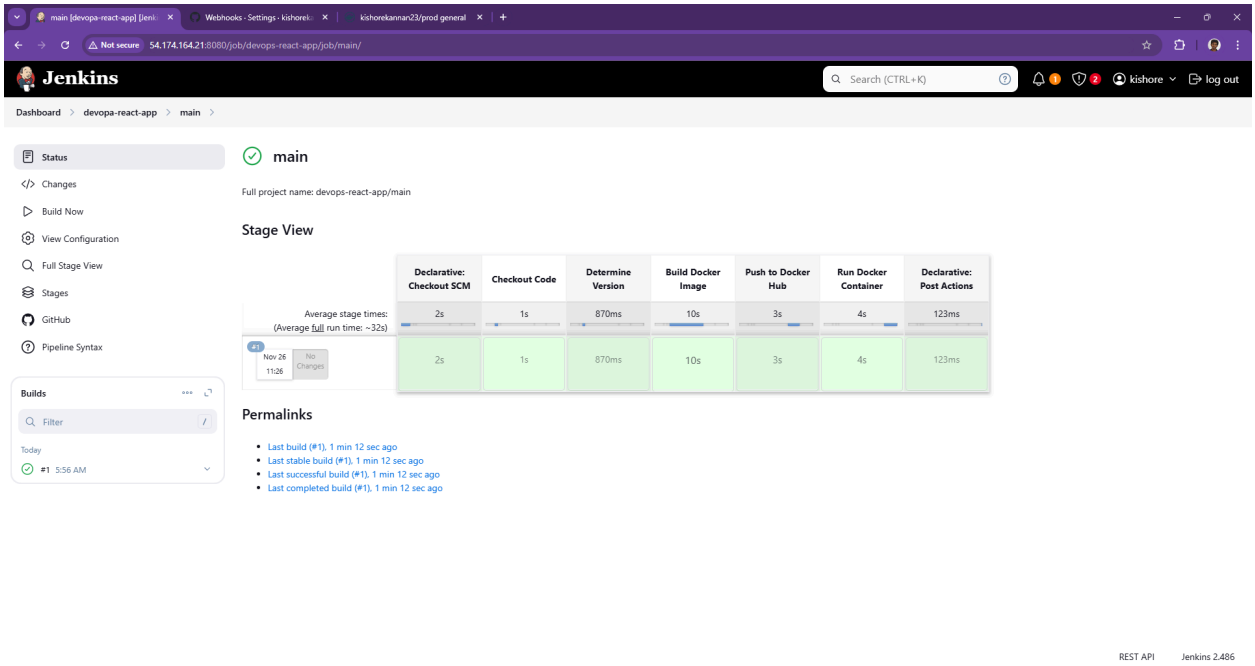

devopa-react-app Config [Jenk
Webhooks - Settings - kishorek
kishorekannan23/prod general
React App
Node Exporter Full - Dashboar
Prometheus Time Series Collec
Contact points - Alerting - Gra
Not secure
54.174.164.21:8080/job/devops-react-app/configure
Dashboard
devopa-react-app
Configuration
Health metrics
Health metrics
Properties
Docker Label
Docker registry URL
Registry credentials
- none -
Add
Pipeline Libraries
Sharable libraries available to any Pipeline jobs inside this folder. These libraries will be untrusted, meaning their code runs in the Groovy sandbox.
Add
Save
Apply
REST API
Jenkins 2.486

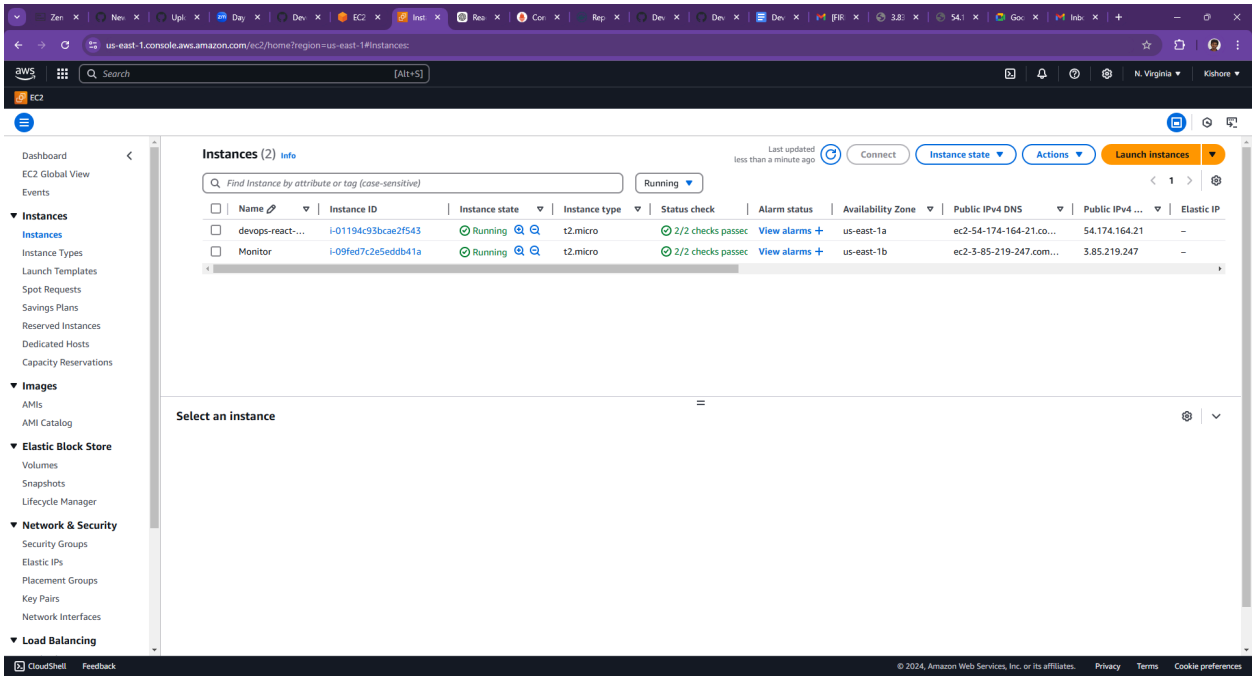
Credentials:

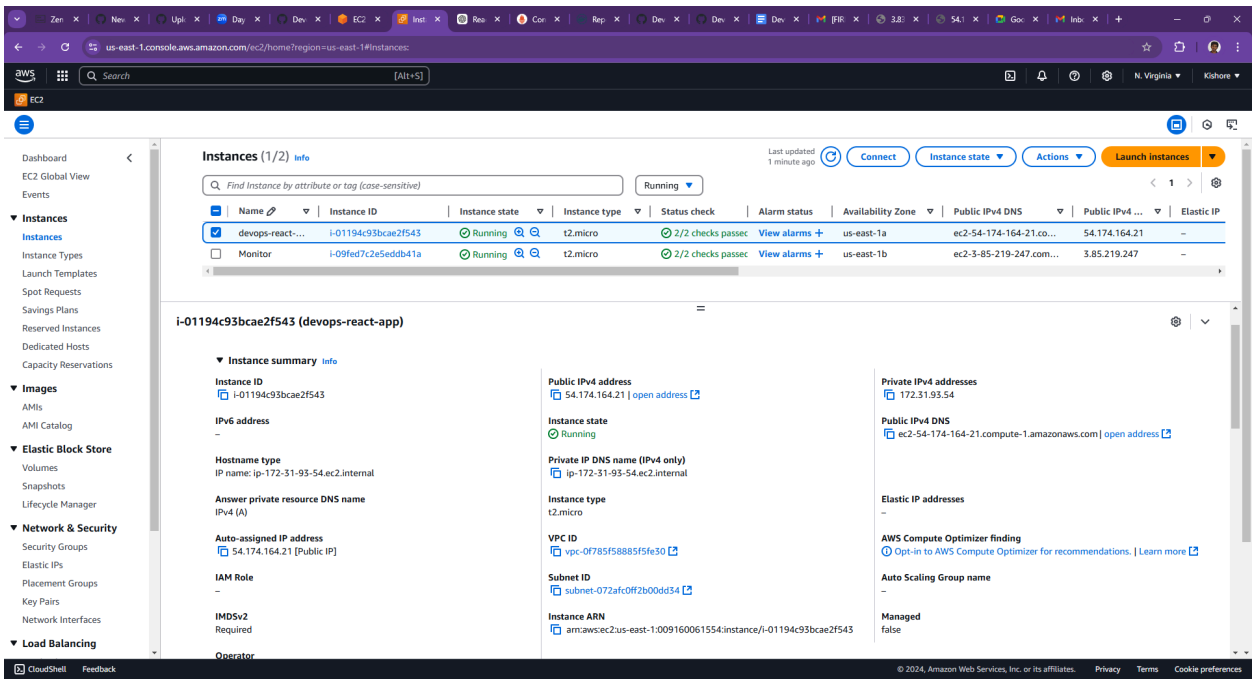


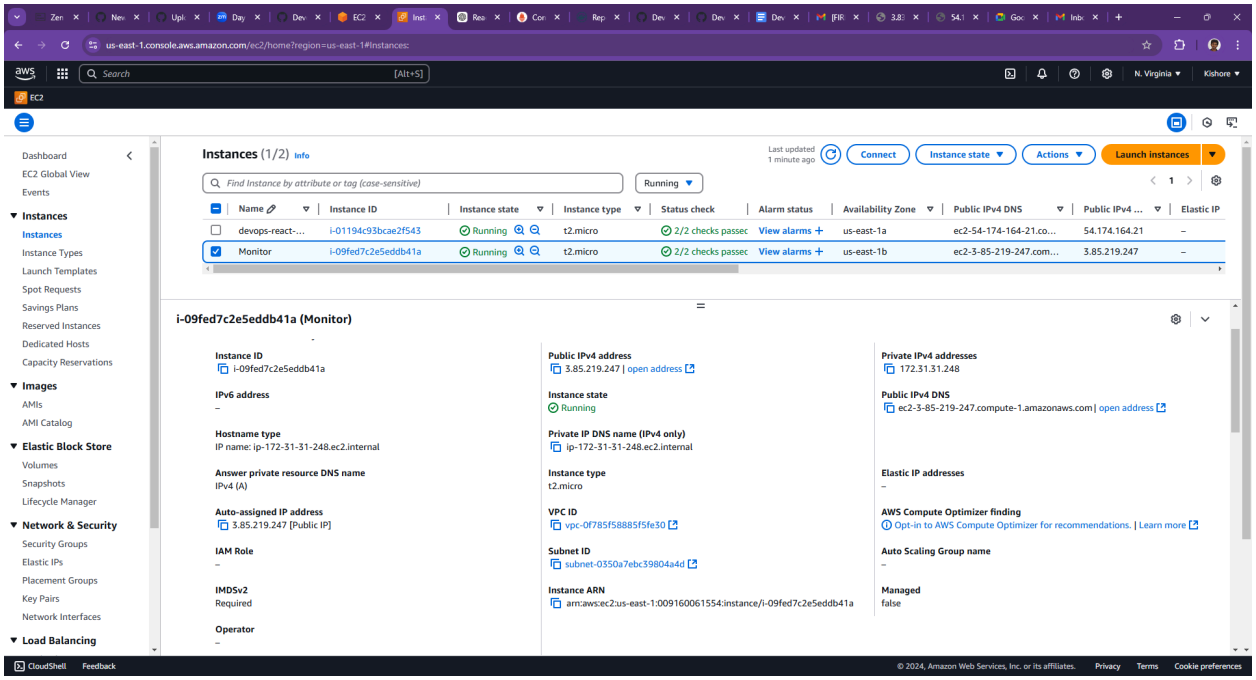
Build pipeline



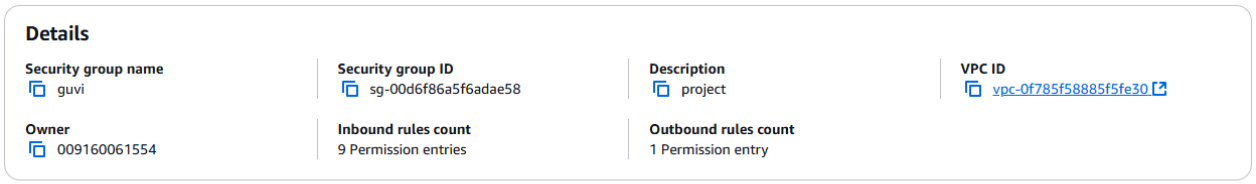



us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#Instances:
Search
[Alt+S]
N. Virginia
Kishore
EC2
Dashboard
EC2 Global View
Events
Instances
Instances
Instance Types
Launch Templates
Spot Requests
Savings Plans
Reserved Instances
Dedicated Hosts
Capacity Reservations
Images
AMIs
AMI Catalog
Elastic Block Store
Volumes
Snapshots
Lifecycle Manager
Network & Security
Security Groups
Elastic IPs
Placement Groups
Key Pairs
Network Interfaces
Load Balancing
Instances (2) Info
Last updated less than a minute ago
Connect
Instance state
Actions
Launch instances
Find Instance by attribute or tag (case-sensitive)
Running
Name
Instance ID
Instance state
Instance type
Status check
Alarm status
Availability Zone
Public IPv4 DNS
Public IPv4 ...
Elastic IP
devops-react-...
i-01194c93bcae2f543
Running
t2.micro
2/2 checks passed
View alarms
us-east-1a
ec2-54-174-164-21.co...
54.174.164.21
Monitor
i-09fed7c2e5eddb41a
Running
t2.micro
2/2 checks passed
View alarms
us-east-1b
ec2-3-85-219-247.com...
3.85.219.247
Select an instance
CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences


us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#Instances:
Search
[Alt+S]
N. Virginia
Kishore
EC2
Instances (1/2) Info
Last updated 1 minute ago
Connect
Instance state
Actions
Launch instances
Find Instance by attribute or tag (case-sensitive)
Running
devops-react-...
i-01194c93bcae2f543
Running
t2.micro
2/2 checks passed
View alarms
us-east-1a
ec2-54-174-164-21.co...
54.174.164.21
Monitor
i-09fed7c2e5eddb41a
Running
t2.micro
2/2 checks passed
View alarms
us-east-1b
ec2-3-85-219-247.com...
3.85.219.247
i-01194c93bcae2f543 (devops-react-app)
Instance summary Info
Instance ID
i-01194c93bcae2f543
IPv6 address
–
Hostname type
IP name: ip-172-31-93-54.ec2.internal
Answer private resource DNS name
IPv4 (A)
Auto-assigned IP address
54.174.164.21 [Public IP]
IAM Role
–
IMDSv2
Required
Operator
Public IPv4 address
54.174.164.21 | open address
Instance state
Running
Private IP DNS name (IPv4 only)
ip-172-31-93-54.ec2.internal
Instance type
t2.micro
VPC ID
vpc-0f785f58885f5fe30
Subnet ID
subnet-072afc0ff2b00dd34
Instance ARN
arn:aws:ec2:us-east-1:009160061554:instance/i-01194c93bcae2f543
Private IPv4 addresses
172.31.93.54
Public IPv4 DNS
ec2-54-174-164-21.compute-1.amazonaws.com | open address
Elastic IP addresses
–
AWS Compute Optimizer finding
Opt-in to AWS Compute Optimizer for recommendations. | Learn more
Auto Scaling Group name
–
Managed
false
CloudShell
Feedback
© 2024, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences



Security group:



Inbound rules | Outbound rules | Sharing - *new* | VPC associations - *new* | Tags

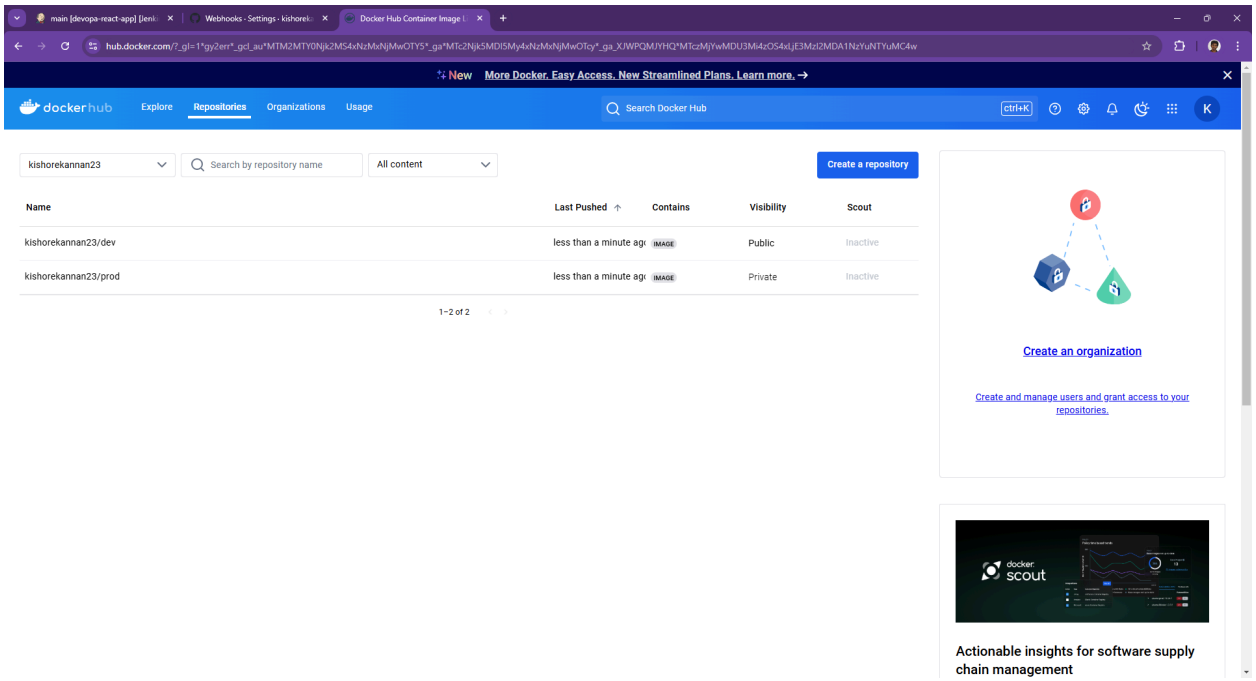
Inbound rules (9)

Manage tags | Edit inbound rules

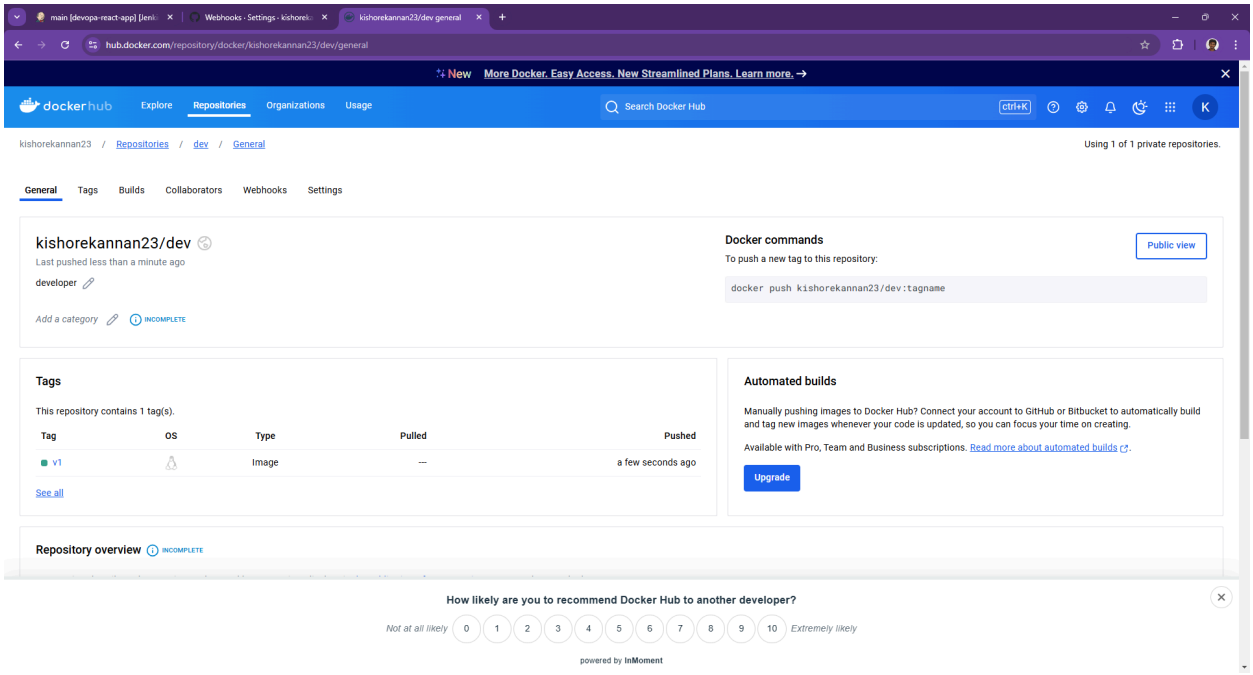
Search

Name	Security group rule ID	IP version	Type	Protocol	Port range
–	sgr-0b8941c2cde49ce2a	IPv4	HTTP	TCP	80
–	sgr-01a697ae01efa7d5e	IPv4	SSH	TCP	22
–	sgr-02bbc39b468dc7baf	IPv4	Custom TCP	TCP	8080
–	sgr-0d79576216f1a6773	IPv4	SMTPS	TCP	465
–	sgr-09ffcfec7a2125332	IPv4	SMTP	TCP	25
–	sgr-0d930fb5b7add59df	IPv4	Custom TCP	TCP	9093
–	sgr-0da9d4b99354a0dfe	IPv4	Custom TCP	TCP	9100
–	sgr-0261a71a9b7c4229a	IPv4	Custom TCP	TCP	3000
–	sgr-09e51486c786e3aa9	IPv4	Custom TCP	TCP	9090

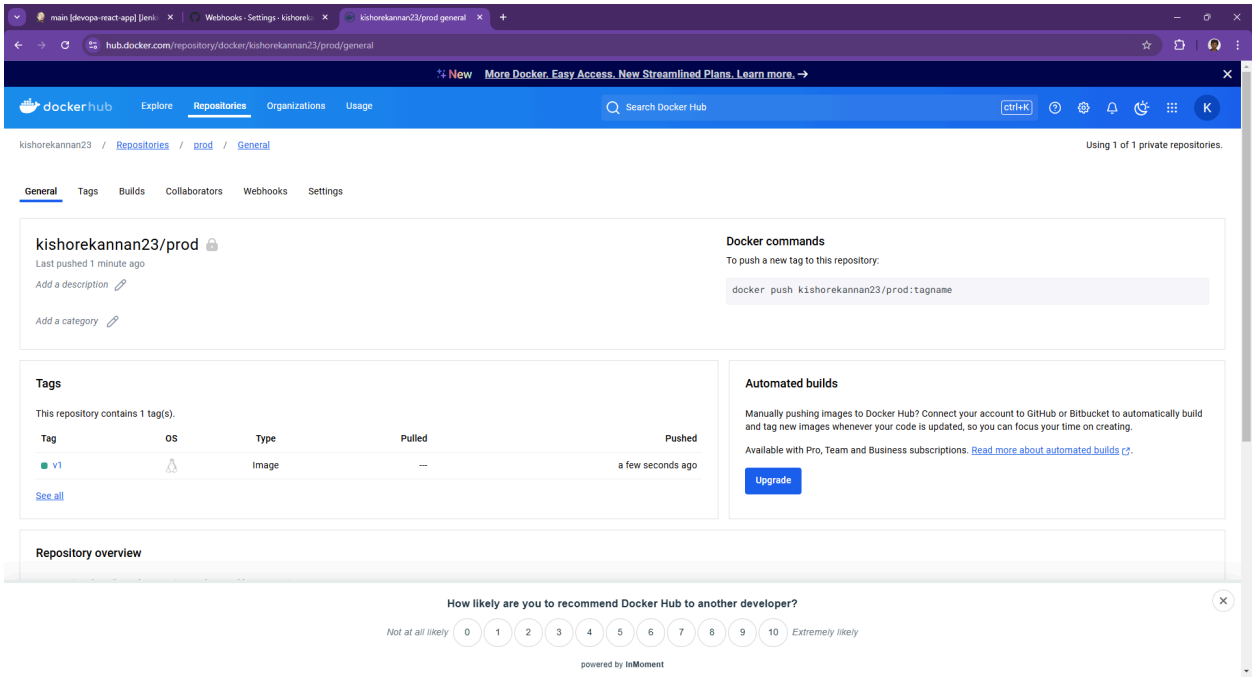
Docker hub images:



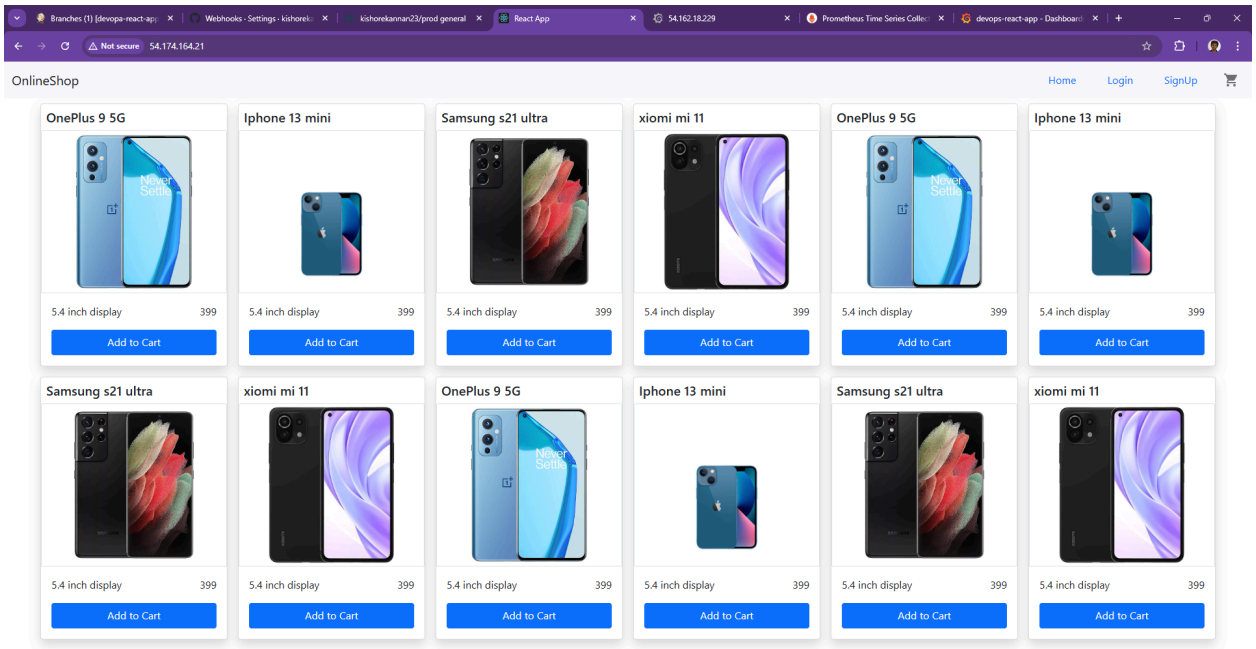
Public docker hub



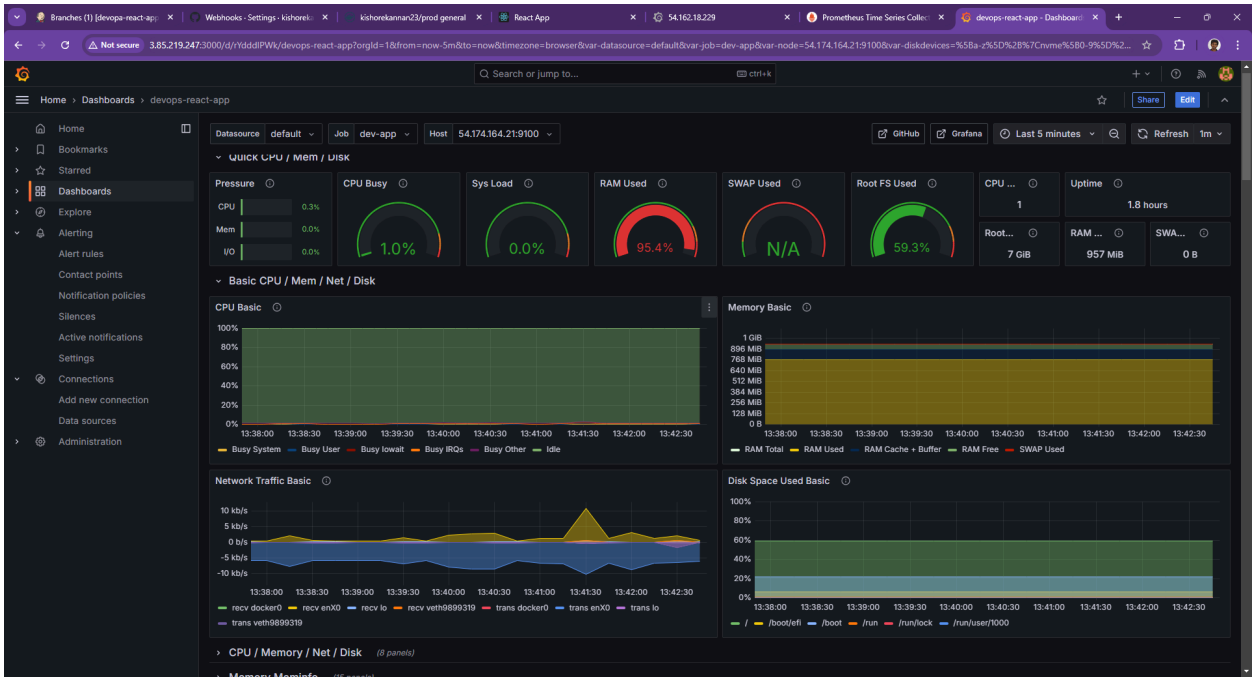
Private docker hub



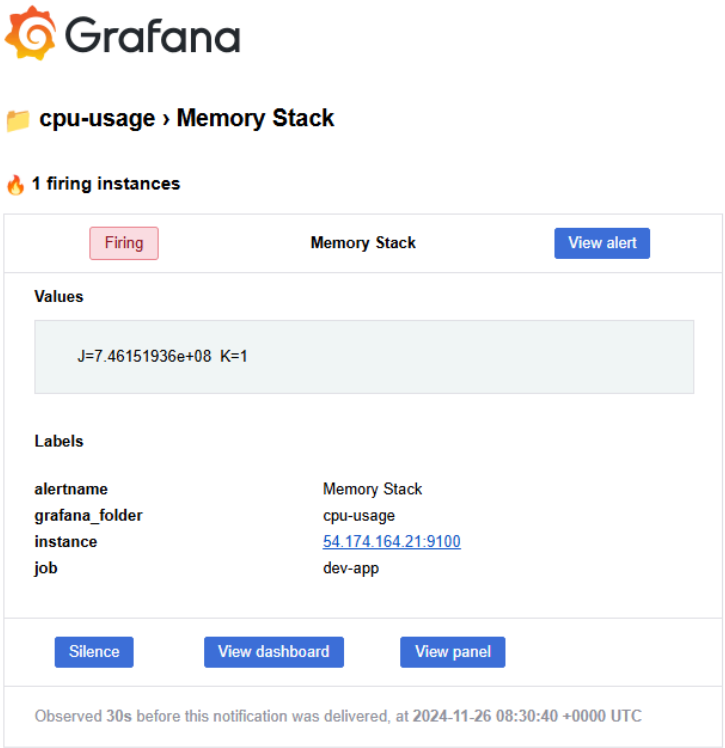
Site image:



Monitoring status



Email notification when they cross 80%



COMMANDS:

1.create a two instance one for monitoring and devops-app
2. In monitoring install prometheus and grafana ,in prometheus.yml file add the dev app ip and node and run the prometheus in the port of(monitoringIP:9090)
3. Install grafana and ans set smt congif in the grafana.in file and run the grafana
4. Open the grafana in web browser with monitoring-ip:3000
5.set dashboard and contact detail, alert detail ,save the all changes we done in dashboard.when is goes down below your threshold it will trigger the mail,

In devops-react-app instance

1. Install docker.docke-compose,jenkins ,openjdk

Commands:

Docker compose

```
  Sudo curl-L
"https://github.com/docker/compose/releases/latest/download/docker-compose-$(uname
-s)-$(uname -m)" -o /usr/local/bin/docker-compose
sudo chmod +x /usr/local/bin/docker-compose
docker-compose --version
```

Openjdk:

```
sudo apt update
sudo apt install fontconfig openjdk-17-jre
java -version
openjdk version "17.0.8" 2023-07-18
OpenJDK Runtime Environment (build 17.0.8+7-Debian-1deb12u1)
OpenJDK 64-Bit Server VM (build 17.0.8+7-Debian-1deb12u1, mixed mode, sharing)
sudo snap install openjdk
```

Jenkins:

```
sudo wget -O /usr/share/keyrings/jenkins-keyring.asc \
  https://pkg.jenkins.io/debian/jenkins.io-2023.key
echo "deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc]" \
```

https://pkg.jenkins.io/debian binary/ | sudo tee \
/etc/apt/sources.list.d/jenkins.list > /dev/null
sudo apt-get update
sudo apt-get install jenkins
Creating used and group
sudo usermod -aG docker ubuntu
sudo usermod -aG docker jenkins
newgrp docker

Start ,enable,restart the services
sudo systemctl start docker
sudo systemctl enable docker
sudo systemctl start jenkins
sudo systemctl enable jenkins
sudo systemctl restart jenkins

To view the jenkins password:

sudo cat /var/lib/jenkins/secrets/initialAdminPassword

Inside jenkins add essential plugs ins: docker,pipeline,github,multibranch

Webhook : enable the webhook with jenkins-url