

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

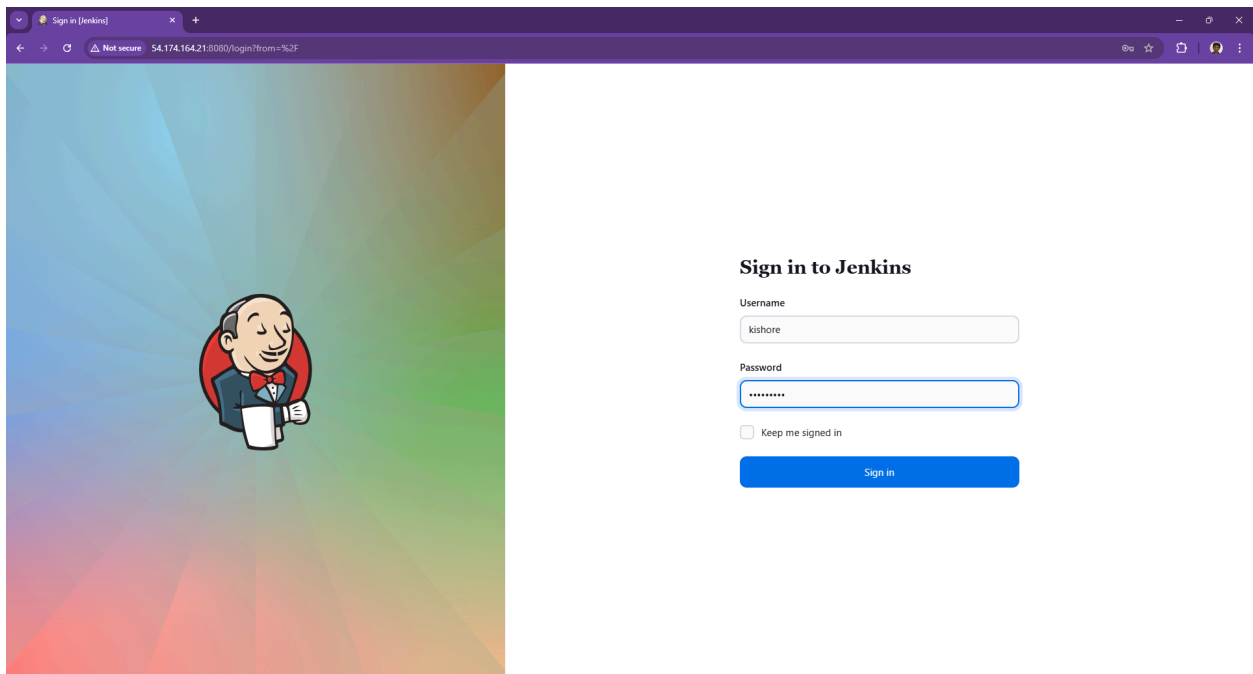
App-URL: <http://54.174.164.21/>

Docker images and container

```
ubuntu@ip-172-31-93-54:~$ docker images
REPOSITORY          TAG         IMAGE ID      CREATED       SIZE
kishorekannan23/dev  v1          ffd829b8e9e7  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:

Enter an item name

devops-react-app

Select an item type

- Freestyle project**
Classic, general-purpose job type that checks out from up to one SCM, executes build steps serially, followed by post-build steps like archiving artifacts and sending email notifications.
- Maven project**
Build a maven project. Jenkins takes advantage of your POM files and drastically reduces the configuration.
- Pipeline**
Orchestrates long-running activities that can span multiple build agents. Suitable for building pipelines (formerly known as workflows) and/or organizing complex activities that do not easily fit in free-style job type.
- Multi-configuration project**
Suitable for projects that need a large number of different configurations, such as testing on multiple environments, platform-specific builds, etc.
- Folder**
Creates a container that stores nested items in it. Useful for grouping things together. Unlike view, which is just a filter, a folder creates a separate namespace, so you can have multiple things of the same name as long as they are in different folders.
- Multibranch Pipeline**
Creates a set of Pipeline projects according to detected branches in one SCM repository.
- Organization Folder**
Creates a set of multibranch project subfolders by scanning for repositories.

OK

Configuration

General

Enabled

Display Name

devops-react-app

Description

Plain text Preview

Branch Sources

GitHub

Credentials

kishorekannan***** (Github)

+ Add

Repository HTTP(S) URL

Repository HTTP(S) URL

https://github.com/kishorekannan/devops-project.git

Validate

Repository Scan - Deprecated Visualization

Save Apply

devopa-react-app Config [Deny] | Webhooks - Settings - kishorek | kishorekannan23/prod general | React App | Node Exporter Full - Dashboard | Prometheus Time Series Coll... | Contact points - Alerting - Gr... | +

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 [Deny] | Webhooks - Settings - kishorek | kishorekannan23/prod general | React App | Node Exporter Full - Dashboard | Prometheus Time Series Coll... | Contact points - Alerting - Gr... | +

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 (Deni)Webhooks - Settings - kishorek...kishorekannan23/prod generalReact AppNode Exporter Full - DashboarPrometheus Time Series Coll...Contact points - Alerting - Gr...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

SaveApply

devopa-react-app Config (Deni)Webhooks - Settings - kishorek...kishorekannan23/prod generalReact AppNode Exporter Full - DashboarPrometheus Time Series Coll...Contact points - Alerting - Gr...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

SaveApply

REST APIJenkins 2.486

Credentials:

System - Global credentials [unrestricted]

54.174.164.21:8080/manage/credentials/store/system/domain/

Search [CTRL+K]

kishore

log out

DashboardManage JenkinsCredentialsSystemGlobal credentials (unrestricted)

Global credentials (unrestricted)

Add Credentials

Credentials that should be available irrespective of domain specification to requirements matching.

ID	Name	Kind	Description
credentials	kishorekannan23/***** (docker)	Username with password	docker
Github	kishorekannan23/***** (Github)	Username with password	Github

Icons

S

M

L

REST API

Jenkins 2.486

Build pipeline

Development (#1) [devops-react-app]

Webhooks - Settings - kishorek

kishorekannan23/prod general

54.174.164.21:8080/job/devops-react-app/view/change-requests/job/PR-1/

Search (CTRL+K)

kishore

log out

Dashboard > devops-react-app > Pull Requests (1) > Development (#1)

Status

Changes

Build Now

View Configuration

Full Stage View

Stages

GitHub

Pipeline Syntax

BUILDS

Filter

Today

#1 5:56 AM

Development (#1)

Full project name: devops-react-app-PR-1

Stage View

Average stage times:
(Average full run time: ~29s)

Declarative: Checkout SCM	Checkout Code	Determine Version	Build Docker Image	Deploy to Docker Hub	Declarative: Post Actions
5s	1s	1s	7s	4s	252ms
5s	1s	1s	7s	4s	252ms

Permalinks

- Last build (#1), 1 min 23 sec ago
- Last stable build (#1), 1 min 23 sec ago
- Last successful build (#1), 1 min 23 sec ago
- Last completed build (#1), 1 min 23 sec ago

REST API Jenkins 2.486

main [devops-react-app] [jenkins]

Webhooks - Settings - kishorek

kishorekannan23/prod general

54.174.164.21:8080/job/devops-react-app/job/main/

Search (CTRL+K)

kishore

log out

Dashboard > devops-react-app > main

Status

Changes

Build Now

View Configuration

Full Stage View

Stages

GitHub

Pipeline Syntax

BUILDS

Filter

Today

#1 5:56 AM

main

Full project name: devops-react-app/main

Stage View

Average stage times:
(Average full run time: ~32s)

Declarative: Checkout SCM	Checkout Code	Determine Version	Build Docker Image	Push to Docker Hub	Run Docker Container	Declarative: Post Actions
2s	1s	870ms	10s	3s	4s	123ms
2s	1s	870ms	10s	3s	4s	123ms

Permalinks

- Last build (#1), 1 min 12 sec ago
- Last stable build (#1), 1 min 12 sec ago
- Last successful build (#1), 1 min 12 sec ago
- Last completed build (#1), 1 min 12 sec ago

REST API Jenkins 2.486

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

Find Instance by attribute or tag (case-sensitive)

Running

Last updated less than a minute ago

Connect

Instance state

Actions

Launch instances

<input type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4 ...	Elastic IP
<input type="checkbox"/>	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	-
<input type="checkbox"/>	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

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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 (1/2) Info

Find Instance by attribute or tag (case-sensitive)

Running

Last updated 1 minute ago

Connect

Instance state

Actions

Launch instances

<input checked="" type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4 ...	Elastic IP
<input checked="" type="checkbox"/>	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	-
<input type="checkbox"/>	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

IPV6 address

Hostname type

Answer private resource DNS name

Auto-assigned IP address

IAM Role

IMDSv2

Operator

Public IPv4 address

Instance state

Private IP DNS name (IPv4 only)

Instance type

VPC ID

Subnet ID

Instance ARN

Private IPv4 addresses

Public IPv4 DNS

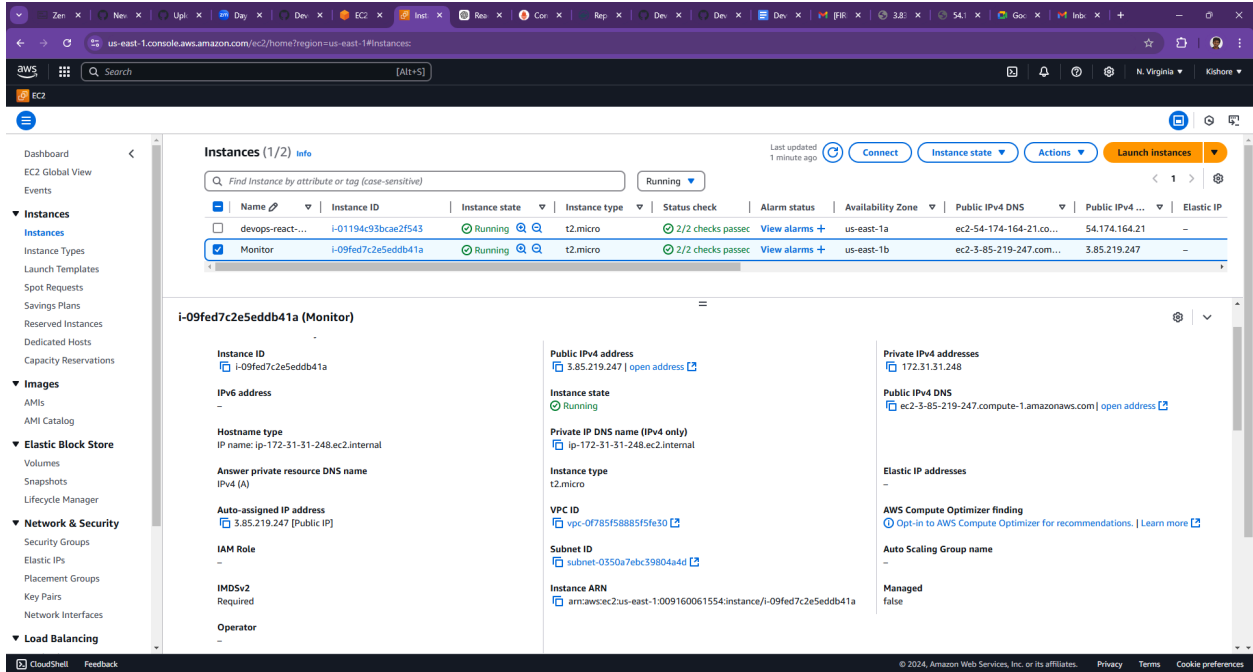
Elastic IP addresses

AWS Compute Optimizer finding

Auto Scaling Group name

Managed

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Security group:

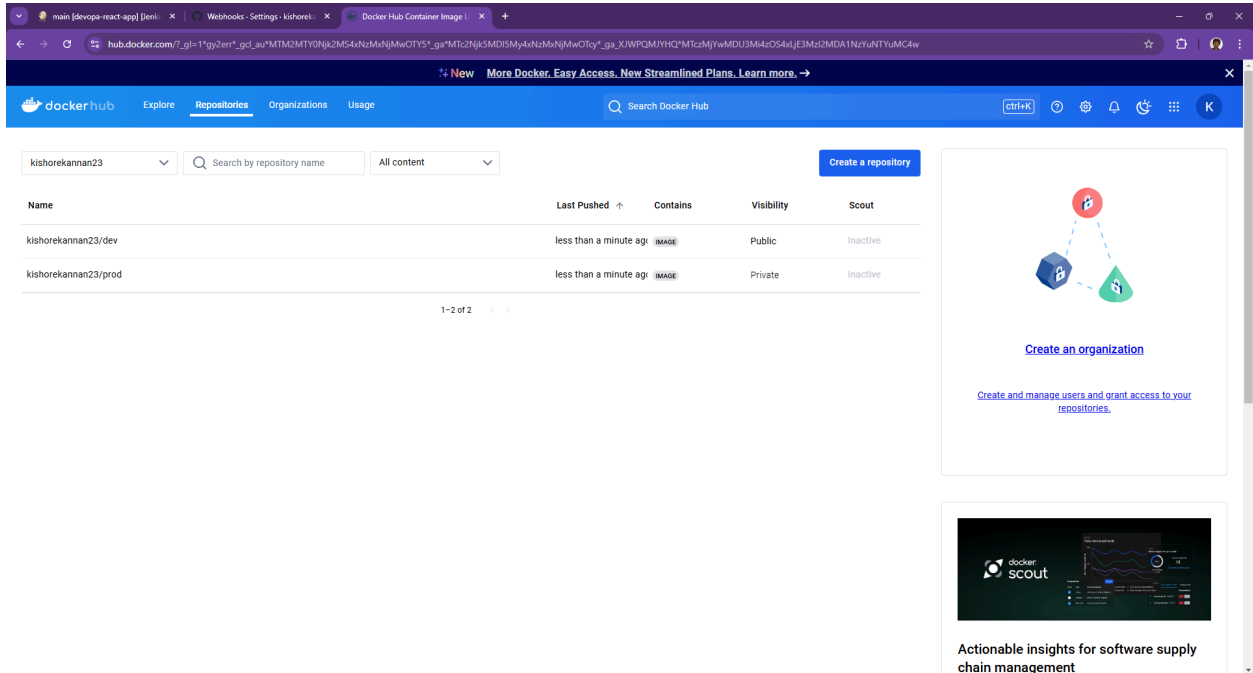
Details

Security group name guvi	Security group ID sg-00d6f86a5f6adae58	Description project	VPC ID vpc-0f785f58885f5fe30
Owner 009160061554	Inbound rules count 9 Permission entries	Outbound rules count 1 Permission entry	

[Inbound rules](#) | [Outbound rules](#) | [Sharing - new](#) | [VPC associations - new](#) | [Tags](#)

Inbound rules (9)								Manage tags Edit inbound rules	
<input type="text" value="Search"/>								1 Settings	
<input type="checkbox"/>	Name	Security group rule ID	IP version	Type	Protocol	Port range			
<input type="checkbox"/>	-	sgr-0b8941c2cde49ce2a	IPv4	HTTP	TCP	80			
<input type="checkbox"/>	-	sgr-01a697ae01efa7d5e	IPv4	SSH	TCP	22			
<input type="checkbox"/>	-	sgr-02bbc39b468dc7baf	IPv4	Custom TCP	TCP	8080			
<input type="checkbox"/>	-	sgr-0d79576216f1a6773	IPv4	SMTPS	TCP	465			
<input type="checkbox"/>	-	sgr-09ffcfec7a2125332	IPv4	SMTP	TCP	25			
<input type="checkbox"/>	-	sgr-0d930fb5b7add59df	IPv4	Custom TCP	TCP	9093			
<input type="checkbox"/>	-	sgr-0da9d4b99354a0dfe	IPv4	Custom TCP	TCP	9100			
<input type="checkbox"/>	-	sgr-0261a71a9b7c4229a	IPv4	Custom TCP	TCP	3000			
<input type="checkbox"/>	-	sgr-09e51486c786e3aa9	IPv4	Custom TCP	TCP	9090			

Docker hub images:



The screenshot shows the Docker Hub interface for the user 'kishorekannan23'. The 'Repositories' tab is active, displaying a table of repositories. The table has columns for Name, Last Pushed, Contains, Visibility, and Scout. Two repositories are listed: 'kishorekannan23/dev' (Public, Inactive) and 'kishorekannan23/prod' (Private, Inactive). On the right, there are promotional cards for 'Create an organization' and 'docker scout'.

Name	Last Pushed	Contains	Visibility	Scout
kishorekannan23/dev	less than a minute ago	IMAGE	Public	Inactive
kishorekannan23/prod	less than a minute ago	IMAGE	Private	Inactive

1-2 of 2

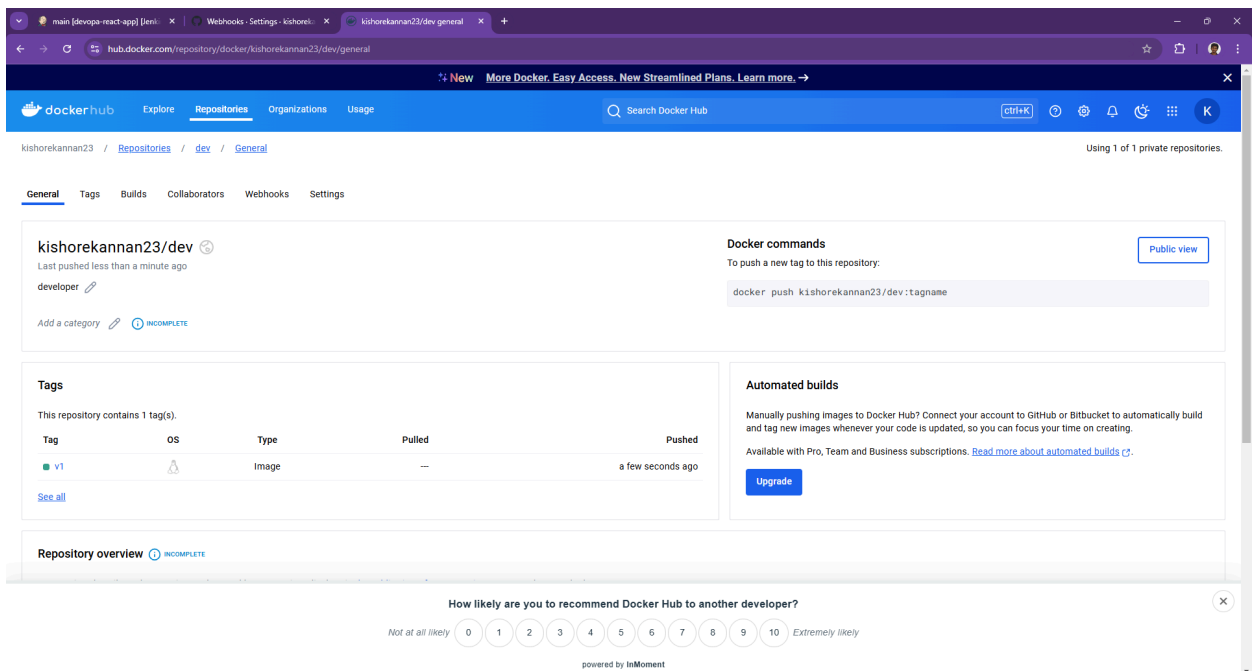
[Create an organization](#)

Create and manage users and grant access to your repositories.

[docker scout](#)

Actionable insights for software supply chain management

Public docker hub



The screenshot shows the Docker Hub repository page for 'kishorekannan23/dev'. The 'General' tab is active, displaying repository details, tags, and Docker commands. The repository is public and has one tag, 'v1'. The 'Docker commands' section shows the command to push a new tag. The 'Automated builds' section provides information on how to connect to GitHub or Bitbucket for automated builds. At the bottom, there is a survey question: 'How likely are you to recommend Docker Hub to another developer?' with a rating scale from 0 to 10.

kishorekannan23 / [Repositories](#) / [dev](#) / [General](#)

Using 1 of 1 private repositories.

[General](#) [Tags](#) [Builds](#) [Collaborators](#) [Webhooks](#) [Settings](#)

kishorekannan23/dev

Last pushed less than a minute ago

developer

[Add a category](#) INCOMPLETE

Tags

This repository contains 1 tag(s).

Tag	OS	Type	Pulled	Pushed
v1		Image	---	a few seconds ago

[See all](#)

Docker commands

To push a new tag to this repository:

```
docker push kishorekannan23/dev:tagname
```

[Public view](#)

Automated builds

Manually pushing images to Docker Hub? Connect your account to GitHub or Bitbucket to automatically build and tag new images whenever your code is updated, so you can focus your time on creating.

Available with Pro, Team and Business subscriptions. [Read more about automated builds](#).

[Upgrade](#)

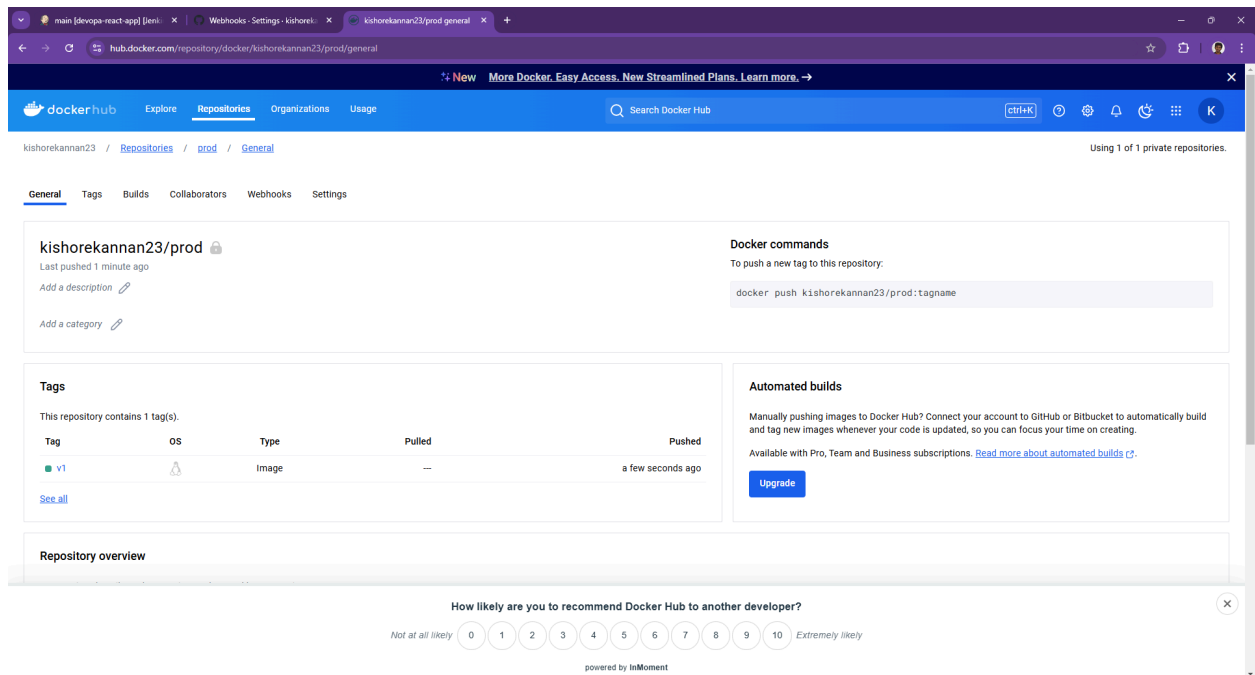
Repository overview INCOMPLETE

How likely are you to recommend Docker Hub to another developer?

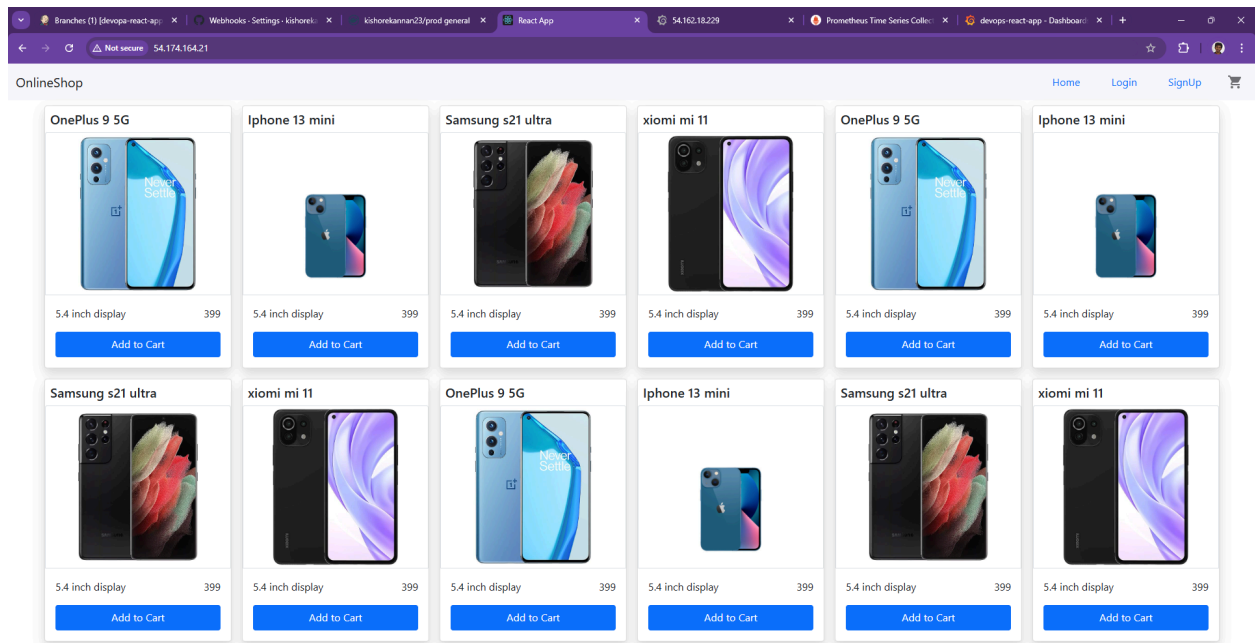
Not at all likely 0 1 2 3 4 5 6 7 8 9 10 Extremely likely

powered by InMoment

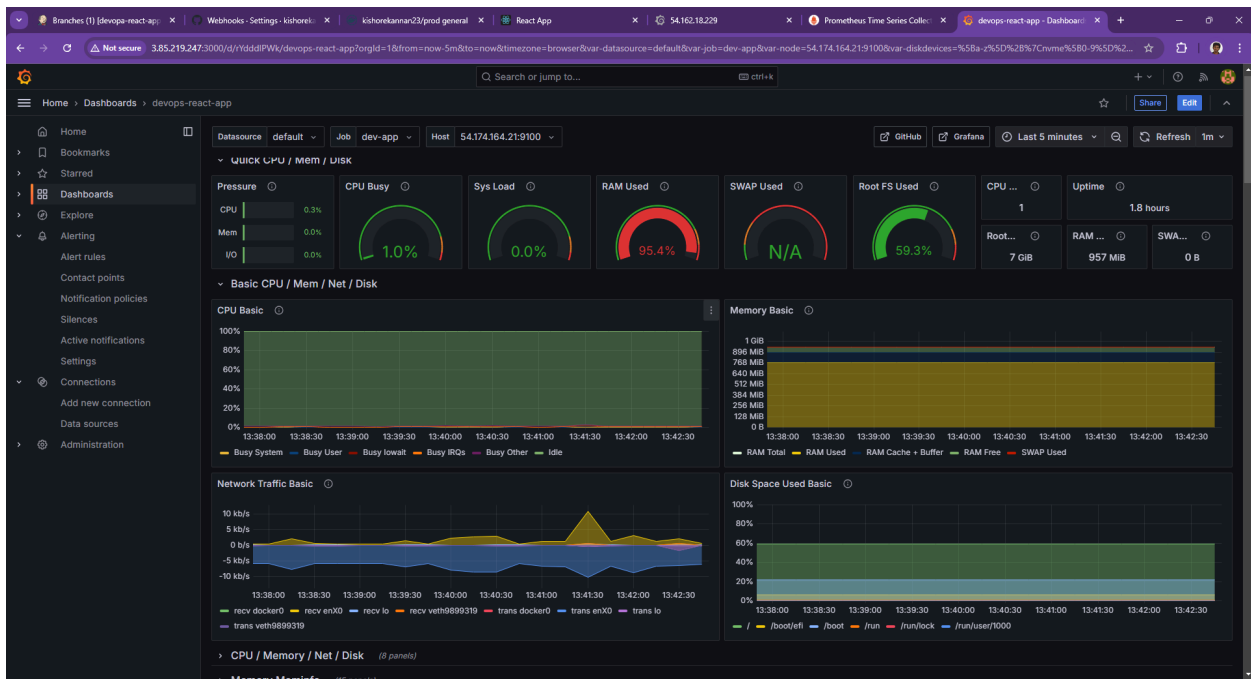
Private docker hub



Site image:



Monitoring status



Email notification when they cross 80%



cpu-usage › Memory Stack

1 firing instances

Firing

Memory Stack

View alert

Values

J=7.46151936e+08 K=1

Labels

alertname

grafana_folder

instance

job

Memory Stack

cpu-usage

54.174.164.21:9100

dev-app

Silence

View dashboard

View panel

Observed 30s before this notification was delivered, at 2024-11-26 08:30:40 +0000 UTC

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 user 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 plugins ins: docker,pipeline,github,multibranch

Webhook : enable the webhook with jenkins-url