

Application Deployment

(Deploy the given react application to a production ready state)

Application:

Clone the below mentioned repo and deploy the application. (Run the application in port 80 [HTTP])

Repo URL : <https://github.com/sriram-R-krishnan/devops-build>

Docker:

- Dockerize the application by creating a Dockerfile
- Create a docker-compose file to use the above image

Bash Scripting:

Write 2 scripts

- build.sh – for building docker images
- deploy.sh – for deploying the image to server

Version Control:

- Push the code to github to dev branch (use dockerignore & gitignore files)
- Note: Use only CLI for related git commands

Docker hub:

- Create 2 repos “dev” and “prod” to push images.
“Prod” repo must be private and “dev” repo can be public

Jenkins:

- Install and configure jenkins build step as per needs to build, push & deploy the application
- Connect jenkins to the github repo with auto build trigger from both dev & master branch
- If code pushed to dev branch, docker image must build and pushed to dev repo in docker hub
- If dev merged to master, then docker image must be pushed to prod repo in docker hub

AWS:

Launch t2.micro instance and deploy the create application.

Configure SG as below:

- Whoever has the ip address can access the application
- Login to server can should be made only from your ip address

Monitoring:

- Setup a monitoring system to check the health status of the application. (Open-source)
- Sending notifications only if the application goes down is highly appreciable

Submission:

- Github repo URL, deployed site URL, docker images name must be added in the submission
- Upload the screenshots of below mentioned to github repo:
 - Jenkins (login page, configuration settings, execute step commands)
 - AWS (EC2-Console, SG configs)
 - Docker hub repo with image tags
 - Deployed site page
 - Monitoring health check status

Project Submission

Github repo URL: <https://github.com/unjilani/build.git>

Deployed site URL: <http://18.226.96.210>

Docker Images name: unjilani24/dev:latest , unjilani24/prod:latest

unjilani24/dev:latest

MANIFEST DIGEST sha256:1a4b33cf7ea7c21c504f6dac2417d4827c6e6a617f4c8563473f27b83acdbc79 

OS/ARCH	COMPRESSED SIZE ⓘ	LAST PUSHED	TYPE	MANIFEST DIGEST
linux/amd64	5.89 MB	about 4 hours by unjilani24	Image	sha256:1a4b33cf...

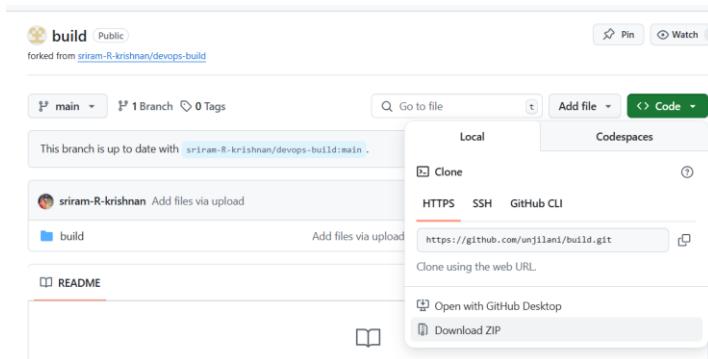
unjilani24/prod:latest

MANIFEST DIGEST sha256:ddad37ff7bab2f3a0ff6ffb09d97f0066f279b159410c2fb77af8aab55d764 

OS/ARCH	COMPRESSED SIZE ⓘ	LAST PUSHED	TYPE	MANIFEST DIGEST
linux/amd64	5.89 MB	3 days by unjilani24	Image	sha256:ddad37ff...

Application

1) Fork the project



2) Clone the fork repository

```
git clone https://github.com/unjlani/build.git
```

```
jilan@MyOffice MINGW64 /d/DevOPS-classes/DevOPS Projects/FinalProject-Jilani
● $ git clone https://github.com/unjlani/build.git
Cloning into 'build'...
remote: Enumerating objects: 21, done.
remote: Total 21 (delta 0), reused 0 (delta 0), pack-reused 21 (from 1)
Receiving objects: 100% (21/21), 720.09 KiB | 1014.00 KiB/s, done.
```

Docker

1) Dockerfile to containerize the application

```
DevOps Projects > FinalProject-Jilani > build > build > 🛡 dockerfile > ..
1  FROM nginx:alpine3.21-slim
2  COPY . /usr/share/nginx/html/
3  EXPOSE 80
```

2) Dockercompose file

3) Gitignore and dockerignore files

```
DevOPS Projects > FinalProject-Jilani > build > build > .gitignore
1 node_modules
2 src
3 .git
```

```
DevOPS Projects > FinalProject-Jilani > build > build > .dockerignore
1 node_modules
2 src
3 .git
4 build.sh
5 deploy.sh
```

4) Build.sh script

It build the image from dockerfile and push to dockerhub

```
DevOPS Projects > FinalProject-Jilani > build > $ build.sh > ...
1 #!/bin/bash
2 # Exit on error
3 set -e
4
5 Branch_Name=$1
6 echo "Current Branch: $Branch_Name"
7
8 if [ "$Branch_Name" == "dev" ]; then
9     echo "Building image from Dockerfile for Developer"
10    docker build -t unjilani24/dev:latest
11    echo "Pushing image to Docker Hub (Developer)"
12    docker push unjilani24/dev:latest
13
14 elif [ "$Branch_Name" == "main" ]; then
15     echo "Building image from Dockerfile for Production"
16    docker build -t unjilani24/prod:latest
17    echo "Pushing image to Docker Hub (Production)"
18    docker push unjilani24/prod:latest
19
20 else
21     echo "Unknown branch: $Branch_Name. No action taken."
22     exit 1
23 fi
```

5) Deploy.sh

It pull the image from dockerhub and build container using existing image and deploy into server

```

DevOPS Projects > FinalProject-Jilani > build > $ deploy.sh
1  #!/bin/bash
2
3  # Exit on error
4  set -e
5  docker stop react-application || true
6  docker rm react-application || true
7
8  Branch_Name=$1
9  echo "Current Branch: $Branch_Name"
10 if [ "$Branch_Name" == "dev" ]; then
11   docker pull unjilani24/dev:latest
12   docker run -d --name react-application -p 80:80 unjilani24/dev:latest
13   echo "Deployment finished successfully!"
14 elif [ "$Branch_Name" == "main" ]; then
15   docker pull unjilani24/prod:latest
16   docker run -d --name react-application -p 80:80 unjilani24/prod:latest
17   echo "Deployment finished successfully!"
18 else
19   echo "Unknown branch: $Branch_Name. No action taken."
20   exit 1
21 fi

```

6) Files included in build

```

jilan@MyOffice MINGW64 /d/DevOPS-Classes/DevOPS Projects/FinalProject-Jilani/build (main)
● $ ls
  build/  build.sh*  deploy.sh*  docker-compose.yml  dockerfile

```

Version Control

7) Push the files to github

```

jilan@MyOffice MINGW64 /d/DevOPS-Classes/DevOPS Projects/FinalProject-Jilani/build
● $ git checkout dev
Switched to branch 'dev'

jilan@MyOffice MINGW64 /d/DevOPS-Classes/DevOPS Projects/FinalProject-Jilani/build
● $ git status
On branch dev
Untracked files:
  (use "git add <file>..." to include in what will be committed)
    build.sh
    build/.dockerignore
    build/.gitignore
    deploy.sh
    docker-compose.yml
    dockerfile

jilan@MyOffice MINGW64 /d/DevOPS-Classes/DevOPS Projects/FinalProject-Jilani/build (dev)
$ git branch
* dev
  main

```

```
jilan@MyOffice MINGW64 /d/DevOPS-Classes/DevOPS Projects/FinalProject-Jilani/build (dev)
$ git add .

jilan@MyOffice MINGW64 /d/DevOPS-Classes/DevOPS Projects/FinalProject-Jilani/build (dev)
$ git commit -m "Final project for"
[dev 562e2f5] Final project for
 6 files changed, 66 insertions(+)
create mode 100644 build.sh
create mode 100644 build/.dockerignore
create mode 100644 build/.gitignore
create mode 100644 deploy.sh
create mode 100644 docker-compose.yml
create mode 100644 dockerfile

jilan@MyOffice MINGW64 /d/DevOPS-Classes/DevOPS Projects/FinalProject-Jilani/build (dev)
$ git status
On branch dev
nothing to commit, working tree clean
```

```
jilan@MyOffice MINGW64 /d/DevOPS-Classes/DevOPS Projects/FinalProject-Jilani/build (dev)
$ git push origin dev
Enumerating objects: 11, done.
Counting objects: 100% (11/11), done.
Delta compression using up to 8 threads
Compressing objects: 100% (7/7), done.
Writing objects: 100% (9/9), 1.29 KiB | 220.00 KiB/s, done.
Total 9 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
remote:
remote: Create a pull request for 'dev' on GitHub by visiting:
remote:   https://github.com/unjilani/build/pull/new/dev
remote:
To https://github.com/unjilani/build.git
 * [new branch]      dev -> dev
```

Dev branch

dev	2 Branches	0 Tags	<input type="text"/> Go to file	t	Add file	Code
					Contribute	Sync fork
unjilani Webhook triggered				7767fd2 · 3 hours ago	55 Commits	
build			Updated files of Build and Deployment			last week
.dockerignore			Updated files of Build and Deployment			last week
.gitignore			Updated files of Build and Deployment			last week
Jenkinsfile			Webhook triggered			3 hours ago
build.sh			Updated EC2			yesterday
deploy.sh			updated day 13 April			2 days ago
docker-compose.yml			Final project for			last week
dockerfile			Final project for			last week

Main branch

main	2 Branches	0 Tags	<input type="text"/> Go to file	<input type="button"/> Add file	<input type="button"/> Code
This branch is 48 commits ahead of sriram-R-krishnan/devops-build:main .			<input type="button"/> Contribute	<input type="button"/> Sync fork	
[REDACTED] updated jenkins file			71a80ba · 3 days ago	49 Commits	
build	Updated files of Build and Deployment				last week
.dockerignore	Updated files of Build and Deployment				last week
.gitignore	Updated files of Build and Deployment				last week
Jenkinsfile	updated jenkins file				3 days ago
build.sh	updated jenkins				3 days ago
deploy.sh	updated jenkins				3 days ago
docker-compose.yml	Final project for				last week
dockerfile	Final project for				last week

AWS

8) Launch EC2 instance t2-micro

9) EC2 instance

Launch an instance Info

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

Name and tags Info

Name

Jenkins-PC

Add additional tags

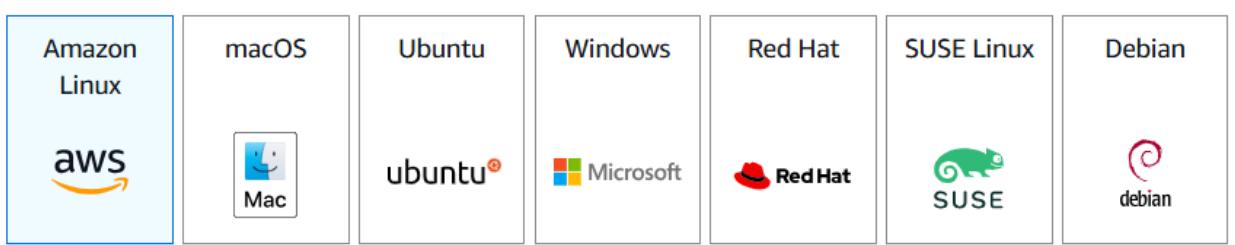
▼ Application and OS Images (Amazon Machine Image) Info

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

Search our full catalog including 1000s of application and OS images

Recents

Quick Start



Amazon Machine Image (AMI)

▼ Instance type [Info](#) | [Get advice](#)

Instance type

t2.micro

Free tier eligible

Family: t2 1 vCPU 1 GiB Memory Current generation: true

On-Demand Ubuntu Pro base pricing: 0.0134 USD per Hour

On-Demand Linux base pricing: 0.0116 USD per Hour On-Demand SUSE base pricing: 0.0116 USD per Hour

On-Demand Windows base pricing: 0.0162 USD per Hour On-Demand RHEL base pricing: 0.026 USD per Hour

[Additional costs apply for AMIs with pre-installed software](#)

▼ Key pair (login) [Info](#)

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair.

Key pair name - *required*

sshserver

Instances (1/1) [Info](#)

Last updated
less than a minute ago

[Connect](#)

[Instance state ▾](#)

[Actions ▾](#)

Find Instance by attribute or tag (case-sensitive)

All states ▾

Instance state = running

[Clear filters](#)

Jenkins-PC

Instance ID

i-060588eb47ebe9d3e

Instance state

Running

[?](#)

[Q](#)

[?](#)

t2.micro

2/2 checks passed

[View alarms +](#)

i-060588eb47ebe9d3e (Jenkins-PC)

[Details](#) | [Status and alarms](#) | [Monitoring](#) | [Security](#) | [Networking](#) | [Storage](#) | [Tags](#)

▼ Networking details [Info](#)

Public IPv4 address

[3.148.145.120](#) | [open address](#)

Private IPv4 addresses

[172.31.15.119](#)

VPC ID

[vpc-0ff3a929aecb6ec6a](#)

Public IPv4 DNS

[ec2-3-148-145-120.us-east-2.compute.amazonaws.com](#)
| [open address](#)

Private IP DNS name (IPv4 only)

[ip-172-31-15-119.us-east-2.compute.internal](#)
| [open address](#)

Subnet ID

IPv6 addresses

Secondary private IPv4 addresses

EC2 console

```
[ec2-user@ip-172-31-15-119 ~]$ hostname  
ip-172-31-15-119.us-east-2.compute.internal  
[ec2-user@ip-172-31-15-119 ~]$ ifconfig  
enX0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 9001  
      inet 172.31.15.119 netmask 255.255.240.0 broadcast 172.31.15.255  
        inet6 fe80::ce15:ff:fe58:c83f prefixlen 64 scopeid 0x20<link>  
          ether 02:ce:15:58:c8:3f txqueuelen 1000 (Ethernet)  
            RX packets 6536 bytes 37696645 (35.9 MiB)  
            RX errors 0 dropped 0 overruns 0 frame 0  
            TX packets 3162 bytes 289330 (282.5 KiB)  
            TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0  
  
lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536  
      inet 127.0.0.1 netmask 255.0.0.0  
        inet6 ::1 prefixlen 128 scopeid 0x10<host>  
          loop txqueuelen 1000 (Local Loopback)  
            RX packets 12 bytes 1020 (1020.0 B)  
            RX errors 0 dropped 0 overruns 0 frame 0  
            TX packets 12 bytes 1020 (1020.0 B)  
            TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

10) Security Group

Inbound rules (4)									 Manage tags	
<input type="checkbox"/>	Name	Security group r...	IP version	Type	Protocol	Port ra...	Source	Description		
<input type="checkbox"/>	-	sgr-0aed786f07a16...	IPv4	Custom TCP	TCP	8080	0.0.0.0/0	-		
<input type="checkbox"/>	-	sgr-0acf1e1a3a4f18...	IPv4	SSH	TCP	22	94.98.238.134/32	-		
<input type="checkbox"/>	-	sgr-0a0ff0c024b86c...	IPv4	HTTPS	TCP	443	0.0.0.0/0	-		
<input type="checkbox"/>	-	sgr-09e370d4b2474...	IPv4	HTTP	TCP	80	0.0.0.0/0	-		

Jenkins

11) install Jenkins on AWS

1. `sudo yum update -y`
2. `sudo wget -O /etc/yum.repos.d/jenkins.repo \`
<https://pkg.jenkins.io/redhat-stable/jenkins.repo>
3. `sudo rpm --import https://pkg.jenkins.io/redhat-stable/jenkins.io-2023.key`
4. `sudo yum upgrade`
5. `sudo yum install java-17-amazon-corretto -y`
6. `sudo yum install jenkins -y`
7. `sudo systemctl enable jenkins`
8. `sudo systemctl start jenkins`

```
cat /var/lib/jenkins/secrets/initialAdminPassword
```

```
f438824af7b94b1fac1234ca2c7be2d9
```

Jenkins service is running in AWS

```
root@ip-172-31-11-176:~# systemctl status jenkins
● jenkins.service - Jenkins Continuous Integration Server
   Loaded: loaded (/usr/lib/systemd/system/jenkins.service; enabled; preset: on)
   Active: active (running) since Wed 2025-04-09 21:36:54 UTC; 8min ago
     Main PID: 1997 (java)
        Tasks: 38 (limit: 1111)
       Memory: 459.3M
          CPU: 22.212s
        CGroup: /system.slice/jenkins.service
               └─1997 /usr/bin/java -Djava.awt.headless=true -jar /usr/share/java/jen

Apr 09 21:36:54 ip-172-31-11-176.us-east-2.compute.internal jenkins[1997]: 2025>
Apr 09 21:36:54 ip-172-31-11-176.us-east-2.compute.internal jenkins[1997]: 2025>
Apr 09 21:36:54 ip-172-31-11-176.us-east-2.compute.internal jenkins[1997]: 2025>
Apr 09 21:36:54 ip-172-31-11-176.us-east-2.compute.internal systemd[1]: Started Jenkins Continuous Integration Server.
Apr 09 21:36:58 ip-172-31-11-176.us-east-2.compute.internal jenkins[1997]: 2025>
Apr 09 21:36:59 ip-172-31-11-176.us-east-2.compute.internal jenkins[1997]: 2025>
Apr 09 21:36:59 ip-172-31-11-176.us-east-2.compute.internal jenkins[1997]: 2025>
Apr 09 21:37:00 ip-172-31-11-176.us-east-2.compute.internal jenkins[1997]: 2025>
Apr 09 21:37:00 ip-172-31-11-176.us-east-2.compute.internal jenkins[1997]: 2025>
Apr 09 21:37:24 ip-172-31-11-176.us-east-2.compute.internal jenkins[1997]: 2025>
root@ip-172-31-11-176:~#
```

Sign In Page

admin

⚠ Not secure 3.138.170.162:8080/login?from=%2F



Sign in to Jenkins

Username

Password

Keep me signed in

Sign in

Install Suggested plugins

Getting Started

Getting Started

✓ Folders	✓ OWASP Markup Formatter	✓ Build Timeout	⌚ Credentials Binding	** Ionicons API Folders OWASP Markup Formatter ** ASM API ** JSON Path API ** Structs ** Pipeline: Step API ** Token Macro Build Timeout ** bouncycastle API ** Credentials
⌚ Timestamper	⌚ Workspace Cleanup	⌚ Ant	⌚ Gradle	
⌚ Pipeline	⌚ GitHub Branch Source	⌚ Pipeline: GitHub Groovy Libraries	⌚ Pipeline Graph View	
⌚ Git	⌚ SSH Build Agents	⌚ Matrix Authorization Strategy	⌚ PAM Authentication	
⌚ LDAP	⌚ Email Extension	⌚ Mailer	⌚ Dark Theme	

Jenkins Location

Jenkins URL ?

http://3.138.170.162:8080/

Set threshold to 0 and bring the node back online

Node Properties

Disable deferred wipeout on this node ?

Disk Space Monitoring Thresholds

Free Disk Space Threshold ?
0

Free Disk Space Warning Threshold ?
0

Free Temp Space Threshold ?
0

Free Temp Space Warning Threshold ?
0

Environment variables

Nodes

S	Name	Architecture	Clock Difference	Free Disk Space	Free Swap Space	Free Temp Space	Response Time
	Built-In Node	Linux (amd64)	In sync	17.81 GiB	0 B	470.23 MiB	0ms
	Data obtained	7 min 59 sec	7 min 59 sec	7 min 59 sec	7 min 59 sec	7 min 59 sec	7 min 59 sec

Add credentials in Jenkins

Dashboard > Manage Jenkins > Credentials > System > Global credentials (unrestricted) >

Dashboard > Manage Jenkins > Credentials > System > Global credentials (unrestricted) > dockerhub-creds

Update credentials

Scope ?
Global (Jenkins, nodes, items, all child items, etc)

Username ?
wesley@ip-10-0-1-103.us-west-2.compute.internal

Treat username as secret ?

Password ?

ID ?
dockerhub-creds

Description ?

Dashboard > Manage Jenkins > Credentials > System > Global credentials (unrestricted) > githubapp

Update credentials

Scope ?
Global (Jenkins, nodes, items, all child items, etc)

Username ?
githubapp@github.com

Treat username as secret ?

Password ?

ID ?
githubapp

Description ?

Global credentials (unrestricted)

+ Add Credentials

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

ID	Name	Kind	Description
 githubapp	githubapp	Username with password	
 dockerhub-creds	dockerhub-creds	Username with password	

Installed plugins

Amazon EC2

Install Name ↓



Amazon EC2 1887.ve06a_75dcb_31f

Cloud Providers Cluster Management Agent Management spotinst aws

This plugin integrates Jenkins with Amazon EC2 or anything implementing the EC2 API's such as an Ubuntu.

Docker, Docker pipeline & Docker compose

Q Docker

Install Name ↓



Docker 1274.vc0203fdf2e74

Cloud Providers Cluster Management docker

This plugin integrates Jenkins with Docker



Docker Commons 451.vd12c371eeeb_3

Library plugins (for use by other plugins) docker

Provides the common shared functionality for various Docker-related plugins.



Docker Pipeline 611.v16e84da_6d3ff

pipeline DevOps Deployment docker

Build and use Docker containers from pipelines.



Docker Compose Build Step 1.0

Docker Compose plugin for Jenkins



Docker Slaves 1.0.7

Github integration

Q Github in

Install Name ↓



GitHub Integration 0.7.2

emailext Build Triggers

GitHub Integration Plugin for Jenkins

Multiple Pipeline

Pipeline: Multibranch 803.v08103b_87c280

Enhances Pipeline plugin to handle branches better by automatically grouping builds from different branches.

[Report an issue with this plugin](#)

Install docker and enable service

yum install docker

```
[ec2-user@ip-172-31-12-229 bin]$ sudo yum install docker
Last metadata expiration check: 0:16:24 ago on Sat Apr  5 10:46:51 2025.
Dependencies resolved:
=====
 Package           Architecture Version       Repository      Size
=====
 Installing:
 docker            x86_64      25.0.0-1.amzn2023.0.1  amazonlinux   44 M
 Installing dependencies:
 containerd         x86_64      1.7.27-1.amzn2023.0.1  amazonlinux   37 M
 iptables-libc     x86_64      1.8.8-3.amzn2023.0.2  amazonlinux   401 k
 iptables-nft      x86_64      1.8.8-3.amzn2023.0.2  amazonlinux   183 k
 libcgroup          x86_64      3.0-1.amzn2023.0.1   amazonlinux   75 k
 libnetfilter_conntrack x86_64      1.0.0-2.amzn2023.0.2  amazonlinux   58 k
 libnftnl           x86_64      1.2.2-2.amzn2023.0.2  amazonlinux   84 k
 pigz              x86_64      2.5-1.amzn2023.0.3   amazonlinux   83 k
 runc              x86_64      1.2.4-1.amzn2023.0.1  amazonlinux   3.4 M
 Transaction Summary
=====

```

sudo systemctl start docker

sudo systemctl enable docker

```
[root@ip-172-31-11-176 ~]# systemctl status docker
● docker.service - Docker Application Container Engine
   Loaded: loaded (/usr/lib/systemd/system/docker.service; enabled; preset: disabled)
   Active: active (running) since Wed 2025-04-09 21:36:29 UTC; 9min ago
     TriggeredBy: ● docker.socket
     Docs: https://docs.docker.com
    Process: 2195 ExecStartPre=/bin/mkdir -p /run/docker (code=exited, status=0/SUCCESS)
    Process: 2199 ExecStartPre=/usr/libexec/docker/docker-setup-runtimes.sh (code=exited, status=0/SUCCESS)
      Main PID: 2205 (dockerd)
        Tasks: 7
       Memory: 96.2M
         CPU: 419ms
        CGroup: /system.slice/docker.service
                  └─2205 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/containerd.sock --default-
Apr 09 21:36:26 ip-172-31-11-176.us-east-2.compute.internal systemd[1]: Starting docker.service - Docker Application Container Engine
Apr 09 21:36:27 ip-172-31-11-176.us-east-2.compute.internal dockerd[2205]: time="2025-04-09T21:36:27Z" level=info msg="Starting Docker daemon"
Apr 09 21:36:27 ip-172-31-11-176.us-east-2.compute.internal dockerd[2205]: time="2025-04-09T21:36:27Z" level=info msg="parsed command: dockerd"
Apr 09 21:36:27 ip-172-31-11-176.us-east-2.compute.internal dockerd[2205]: time="2025-04-09T21:36:27Z" level=info msg="Docker daemon is running"
Apr 09 21:36:28 ip-172-31-11-176.us-east-2.compute.internal dockerd[2205]: time="2025-04-09T21:36:28Z" level=info msg="Listening for Docker API on fd://"
Apr 09 21:36:29 ip-172-31-11-176.us-east-2.compute.internal dockerd[2205]: time="2025-04-09T21:36:29Z" level=info msg="Docker daemon is ready to receive API requests on fd://"
Apr 09 21:36:29 ip-172-31-11-176.us-east-2.compute.internal dockerd[2205]: time="2025-04-09T21:36:29Z" level=info msg="Starting containerd"
Apr 09 21:36:29 ip-172-31-11-176.us-east-2.compute.internal dockerd[2205]: time="2025-04-09T21:36:29Z" level=info msg="Starting containerd"
Apr 09 21:36:29 ip-172-31-11-176.us-east-2.compute.internal dockerd[2205]: time="2025-04-09T21:36:29Z" level=info msg="Docker daemon is ready to receive API requests on fd://"
Apr 09 21:36:29 ip-172-31-11-176.us-east-2.compute.internal dockerd[2205]: time="2025-04-09T21:36:29Z" level=info msg="Started docker.service - Docker Application Container Engine"
[root@ip-172-31-11-176 ~]#
```

sudo usermod -aG docker jenkins

sudo usermod -a -G docker ec2-user

cat /etc/group

```
ec2-user:x:1000:
jenkins:x:992:
docker:x:991:jenkins,ec2-user
```

```
cat /etc/passwd
```

```
ec2-user:x:1000:1000:EC2 Default User:/home/ec2-user:/bin/bash
jenkins:x:992:992:Jenkins Automation Server:/var/lib/jenkins:/bin/false
[ec2-user@ip-172-31-11-176 ~]$
```

Change ownership of ssh

```
[ec2-user@ip-172-31-11-176 .ssh]$ sudo chown -v ec2-user /root/.ssh/known_hosts
```

```
changed ownership of '/root/.ssh/known_hosts' from root to ec2-user
```

```
[ec2-user@ip-172-31-11-176 .ssh]$
```

```
sudo chmod 700 /root/.ssh/known_hosts
```

```
sudo chmod 600 /root/.ssh/
```

```
sudo chown -R ec2-user /root/.ssh/
```

```
sudo chgrp -R ec2-user /root/.ssh/known_hosts
```

after adding restart Jenkins

```
sudo systemctl restart jenkins
```

```

Apr 11 07:35:04 ip-172-31-11-176.us-east-2.compute.internal dockerd[1]
[root@ip-172-31-11-176 ~]# systemctl status jenkins
● jenkins.service - Jenkins Continuous Integration Server
   Loaded: loaded (/usr/lib/systemd/system/jenkins.service; enabled;
             Active: active (running) since Fri 2025-04-11 07:35:28 UTC; 7mi
               Main PID: 1997 (java)
                 Tasks: 39 (limit: 1111)
                Memory: 496.1M
                  CPU: 38.825s
                 CGroup: /system.slice/jenkins.service
                           └─1997 /usr/bin/java -Djava.awt.headless=true -jar /usr

Apr 11 07:35:28 ip-172-31-11-176.us-east-2.compute.internal jenkins[1]
Apr 11 07:35:28 ip-172-31-11-176.us-east-2.compute.internal systemd[1]
Apr 11 07:35:32 ip-172-31-11-176.us-east-2.compute.internal jenkins[1]
Apr 11 07:35:32 ip-172-31-11-176.us-east-2.compute.internal jenkins[1]
Apr 11 07:35:32 ip-172-31-11-176.us-east-2.compute.internal jenkins[1]
Apr 11 07:35:33 ip-172-31-11-176.us-east-2.compute.internal jenkins[1]
Apr 11 07:35:33 ip-172-31-11-176.us-east-2.compute.internal jenkins[1]
Apr 11 07:36:30 ip-172-31-11-176.us-east-2.compute.internal jenkins[1]
[root@ip-172-31-11-176 ~]# █

```

12) Configuring WebHook



By default

This plugin doesn't do anything with the GitHub API unless you add a configuration with credentials. So if you don't want to add any configuration, you can set up hooks for this Jenkins instance manually.

In this mode, in addition to configuring projects with "GitHub hook trigger for GITScm polling", you need to ensure that Jenkins gets a POST to its <http://3.135.220.61:8080/github-webhook/>.

If you set up credentials

From Github get key

The screenshot shows the GitHub 'Personal access tokens' page. On the left, there's a sidebar with 'GitHub Apps', 'OAuth Apps', and 'Personal access tokens' (which is expanded). Under 'Personal access tokens', there are 'Fine-grained tokens' and 'Tokens (classic)'. A note at the top says 'Edit personal access token (classic)'. Below it, a message says 'Make sure to copy your token now as you will not be able to see it again.' followed by a token value: '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'. A 'Note' section below contains 'AWS-CodeBuild-Deploy' and 'What's this token for?'

Goto ~~githubrepo~~ > settings > webhooks>add webhook>Jenkins url > application/json>just the push event

Webhook added in Github account and successfull

Webhooks

[Add webhook](#)

Webhooks allow external services to be notified when certain events happen. When the specified events happen, we'll send a POST request to each of the URLs you provide. Learn more in our [Webhooks Guide](#).

✓ <http://3.138.170.162:8080/github-w...> (push)

[Edit](#) [Delete](#)

Last delivery was successful.

Go to Jenkins and update the credentials of username/password as github global as per below path.

http://18.191.215.194:8080/manage/credentials/store/system/domain/_/credential/githubapp/

Docker HUB

13) Creating Repos in Docker Hub

Dev repo as public

```
docker push unjilani24/prod:tagname
```

Prod repo as private

```
docker push unjilani24/prod:tagname
```

Name	Last Pushed	Contains	Visibility	Scout
unjilani24/prod	2 days ago		Private	Inactive
unjilani24/dev	2 days ago		Public	Inactive

14) Creating Multipipeline Branch

Create a pipeline in Jenkins by using a Jenkins file which run triggers build.sh to push the image to dockerhub dev repo and it pulled and deployed in AWS.

When merge in main happens it push to prod repo in docker hub pull and deploy in AWS.

Jenkinsfile

```
DevOPS Projects > FinalProject-Jilani > build > Jenkinsfile
 1 pipeline {
 2   agent any
 3
 4   environment {
 5     Branch_Name="${env.Branch_Name}"
 6     DOCKER_CREDENTIALS = credentials('dockerhub-creds')
 7   }
 8
 9   stages {
10     stage('Checkout') {
11       steps {
12         checkout scm
13       }
14     }
15
16     stage('Login to DockerHub') {
17       steps [
18         sh ...
19         echo "${DOCKER_CREDENTIALS_PSW}" | docker login -u "${DOCKER_CREDENTIALS_USR}" --password-stdin
20
21       ]
22     }
23     stage('Build & Push Docker Image') {
24       steps [
25         echo "Branch name $Branch_Name"
26         sh "docker system prune -a -f"
27         sh 'chmod -R 777 ./build.sh'
28         sh "./build.sh $Branch_Name"
29       ]
30     }
31
32     stage('Pulled Image and Deploy to Server') {
33       steps [
34         sh "scp -o StrictHostKeyChecking=no -i /var/lib/jenkins/.ssh/jenkins.pem deploy.sh ec2-user@18.191.215.194:/home/ec2-user/"
35         sh "ssh -o StrictHostKeyChecking=no -i /var/lib/jenkins/.ssh/jenkins.pem ec2-user@18.191.215.194 chmod +x ./deploy.sh"
36         sh "ssh -o StrictHostKeyChecking=no -i /var/lib/jenkins/.ssh/jenkins.pem ec2-user@18.191.215.194 ./deploy.sh $Branch_Name"
37       ]
38     }
39   }
40
41   post {
42     success {
43       echo 'Deployment Successful!'
44     }
45   }
46 }
```

```
pipeline{
  agent any

  environment{
    Branch_Name="${env.Branch_Name}"
    DOCKER_CREDENTIALS = credentials('dockerhub-creds')
  }

  stages{
    stage('Checkout') {
      steps{
        checkout scm
      }
    }

    stage('Login to DockerHub') {
      steps{
```

```

        sh ""
        echo "${DOCKER_CREDENTIALS_PSW}" | docker login -u
"${DOCKER_CREDENTIALS_USR}" --password-stdin
        ...
    }
}

stage('Build & Push Docker Image') {
    steps {
        echo "Branch name $Branch_Name"
        sh "docker system prune -a -f"
        sh 'chmod -R 777 ./build.sh'
        sh "./build.sh $Branch_Name"
    }
}

stage('Pulled Image and Deploy to Server') {
    steps {
        sh "scp -o StrictHostKeyChecking=no -i /var/lib/jenkins/.ssh/jenkins.pem
deploy.sh ec2-user@18.191.215.194:/home/ec2-user/"
        sh "ssh -o StrictHostKeyChecking=no -i /var/lib/jenkins/.ssh/jenkins.pem
ec2-user@18.191.215.194 chmod +x ./deploy.sh"
        sh "ssh -o StrictHostKeyChecking=no -i /var/lib/jenkins/.ssh/jenkins.pem
ec2-user@18.191.215.194 ./deploy.sh $Branch_Name"
    }
}
}

post{
    success{
        echo '✅ Deployment Successful!'
    }
    failure{
        echo '❌ Deployment Failed.'
    }
}
}

```

15) Create Multibranch Pipeline

Enter an item name
React-Application

Select an item type

-  **Freestyle project**
Classic, general-purpose job type that checks out from up to one SCM, executes build steps like archiving artifacts and sending email notifications.
-  **Pipeline**
Orchestrates long-running activities that can span multiple build agents. Suitable for complex workflows and/or organizing complex activities that do not easily fit in free-style jobs.
-  **Multi-configuration project**
Suitable for projects that need a large number of different configurations, such as building platform-specific builds, etc.
-  **Folder**
Creates a container that stores nested items in it. Useful for grouping things together. A folder creates a separate namespace, so you can have multiple things of the same name in different folders.
-  **Multibranch Pipeline**
Creates a set of Pipeline projects according to detected branches in one SCM repository.

Github
Credentials ?
githubapp

+ Add

! Invalid credentials: {"message": "Requires authentication", "documentation_url": "https://docs.github.com/rest/users/users#get-the-authenticated-user", "status": "401"}

Repository HTTPS URL
Repository HTTPS URL ?
https://github.com/unjilani/build.git

Credentials ok. Connected to https://github.com/unjilani/build.

Validate

Scan Multibranch Pipeline Triggers

Periodically if not otherwise run [?](#)

Interval [?](#)

1 day

16) Make SSH directory

```
workspace
[root@ip-172-31-11-176 jenkins]# mkdir .ssh
[root@ip-172-31-11-176 jenkins]# pwd
/var/lib/jenkins
[root@ip-172-31-11-176 jenkins]# cd .ssh
[root@ip-172-31-11-176 .ssh]# pwd
/var/lib/jenkins/.ssh
[root@ip-172-31-11-176 .ssh]# 
```

Create file

```
/var/lib/jenkins/.ssh
[root@ip-172-31-11-176 .ssh]# vi jenkins.pem
[root@ip-172-31-11-176 .ssh]# 
```

Paste sshserver.pem key into it

```

-----BEGIN RSA PRIVATE KEY-----
MIIEvQIBAAKCAQDZcmpgt4KcRm36EIodHrzKxTOZapVXR7g2
6Q+YUAHHaWSNBzFdwU9N7ODWposbGGQuW
g/0GAbQHBE8WACBtUkqm7x4VpQ4spMnE/g/
sgYSXV7zTN534Xc0cLs7dOK1PB3T1buA9s9678ME1IbHH8yI6H333Z5w5EV44qe3
P3pdV8EtsY++H8J7aCiek4zO+WhNHhn64GIufIu61rWnvdeUJegdSEd0+gRMOeP
1R/Ze4UgIkKR0l1Q/cqmbDfvSid1Wq2XBByasqQIDAQABoIBAQCVWBzt9yiomhBS
t1IQmxZwVPCerjMD0NO3Ip0vz6XUFM3uRpssmpRHvEke3OhTKtW1MKzzbrmiSToVc
JADv4CWrvIw5PSWCLCs6rNLMvy9Rmwmuxa5YYhFNz3c/pcZZZI1q7HJy4DCLQkg+
T6JK6e5Yx76IjhN9taqEprEW7opwyRIW5KFODp1QVfnchur0EODiDs84AIWRutR1
gHXV2SNy+0rq8Mufh5w9aOxYeTd0RJmcJtSj8LhRLtEK0/lICcCGYNjAGn9gZ83A
NDkyyS5zC9oABGVKiSzBTsrqCFjBZkXSzvbtwt30tc/7PGfndif9cvRTThi7GJi
y0Phcch1AoGBAN7AZ+aDD5WDv6x7fu4J1HMrIQU4czKEihoe4SHe/FdoaxOqnQCm
LVnjSfM3UpWQFmujiZ5tMz/Tfx2QP3Aal8CciP76vo2q2b187Thfh6PjfR1UHJb
bvW93cX5SsZrTBnQCs iw2N/MQq6Zm3e8ZVfbXkruXoyW7fuYxY5UANW3AoGBAN6G
wEgnSmsCK9phshMnZ+bj+Pr+ZzUJxSZ0wGosIhNy2WcUfGWQ96zLXz/CWacL8ezV
8CIyXiWYRuSvO6wABC1V0fPsyzHTEIgZ0807B5jbWsuMgX1K2T1/RqR3w1VF0mCF
EurnHEyTZwDPb5B1zB5ZgPaKqCVif77vP+m47ZCfAoGAASpyoMM41qh83VM8Iadt
hDjKkHNuLuqAqohU10+KdI6oWM8AyVsVS64j2fEFLqE1bNTLSJf7t67MsIPrwRNy
jeCD3FIKNcsJdJ1+7AhUf4zaylepZx/RYdnfikS2vnkbSdtL4ycBy5IPEJDfPm4u
/Zm5UZ0Tw5qankF7bzZDVtsCgYEAl0+DYcytspO4Y/c4UgPi h8KOY4Ung o4RK7QJ
vnn iB515=LjnwY24rBtBnhYsBh+Oq/CnE53tCnT9FDwJIKQ1Qj+TwY= pq1TAZb
2i gqzvHnHnQVqH eHnQVqH MJ+7VGv wIcILPp
-----END RSA PRIVATE KEY-----

```

Change the permission

```

[root@ip-172-31-11-176 .ssh]# chmod 400 jenkins.pem
[root@ip-172-31-11-176 .ssh]# ls -al
total 20
drwxr-xr-x.  2 root      root          25 Apr 11 21:18 .
drwxr-xr-x. 19 jenkins   jenkins     16384 Apr 11 21:16 ..
-r-----.  1 root      root         1679 Apr 11 21:18 jenkins.pem
[root@ip-172-31-11-176 ssh]# █

```

Tested the connection

```
ssh -i /var/lib/jenkins/.ssh/jenkins.pem ec2-user@18.191.215.194
```

```
C:\Users\jilan>ssh -i /var/lib/jenkins/.ssh/jenkins.pem ec2-user@18.191.215.194
Warning: Identity file /var/lib/jenkins/.ssh/jenkins.pem not accessible: No such file or directory.
The authenticity of host '18.191.215.194 (18.191.215.194)' can't be established.
ED25519 key fingerprint is SHA256:6obVuLIPLLN9vliD9Vc8rf7I5GGuwUK0VSag6EjBGWE.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '18.191.215.194' (ED25519) to the list of known hosts.
ec2-user@18.191.215.194's password:
      _#
      \_###_      Amazon Linux 2023
      \####\_
      \###|
      \#/ ___ https://aws.amazon.com/linux/amazon-linux-2023
      \~' '-->
      /_
      \_/_/-
      _/m'/
Last login: Fri Apr 11 20:57:14 2025 from 94.98.238.134
[ec2-user@ip-172-31-11-176 ~]$ exit
```

17) Test the connection by making some change in Github in dev repo

jilan@MyOffice MINGW64 /d/DevOPS-Classes/DevOPS Projects/FinalProject-Jilani/build
(dev)

```
$ git commit --allow-empty -m "Webhook-Test22"
[dev e7d7268] Webhook-Test22
```

jilan@MyOffice MINGW64 /d/DevOPS-Classes/DevOPS Projects/FinalProject-Jilani/build
(dev)

```
$ git push origin dev
```

Enumerating objects: 1, done.

Counting objects: 100% (1/1), done.

Writing objects: 100% (1/1), 183 bytes | 183.00 KiB/s, done.

Total 1 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)

To https://github.com/unjilani/build.git

e0b8065..e7d7268 dev -> dev

```
jilan@MyOffice MINGW64 /d/DevOPS-Classes/DevOPS Projects/FinalProject-Jilani/build (dev)
● $ git commit --allow-empty -m "Webhook test 22"
[dev 22ebb31] Webhook test 22
 1 file changed, 3 insertions(+), 3 deletions(-)

jilan@MyOffice MINGW64 /d/DevOPS-Classes/DevOPS Projects/FinalProject-Jilani/build (dev)
● $ git push origin dev
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 8 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 299 bytes | 299.00 KiB/s, done.
Total 3 (delta 2), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (2/2), completed with 2 local objects.
To https://github.com/unjilani/build.git
 cd8b50a..22ebb31  dev -> dev
```

Webhooks / Manage webhook

Settings Recent Deliveries

✓  e40ec162-17cb-11f0-935e-98368873928b push 2025-04-12 21:28:12 ...

Request Response 200 Redeliver  Completed in 0.06 seconds.

Headers

```
Request URL: http://18.191.215.194:8080/github-webhook/
Request method: POST
Accept: /*
Content-Type: application/json
User-Agent: GitHub-Hookshot/959790a
X-GitHub-Delivery: e40ec162-17cb-11f0-935e-98368873928b
X-GitHub-Event: push
X-GitHub-Hook-ID: 540517162
X-GitHub-Hook-Installation-Target-ID: 961608882
X-GitHub-Hook-Installation-Target-Type: repository
X-Hub-Signature: sha1=d3f75f1926878d8a2b88c474cc7cbe8239f12eb4
X-Hub-Signature-256: sha256=c1a3668bf69e0e8f550807455bd6f0d1bdd88b59cd6ef6eaa47efcb77abdbad6
```

Build successfully

The screenshot shows the Jenkins Pipeline Overview for the 'reactapplication' project. It displays a summary table with columns: S (Status), W (Workflows), Name, Last Success, Last Failure, and Last Duration. The 'dev' workflow is listed with a status of 'Success' (green checkmark), last success at '1 min 13 sec #28', last failure at '13 min #26', and a duration of '14 sec'. Below this, the Jenkins logo and pipeline navigation are visible.

S	W	Name	Last Success	Last Failure	Last Duration
✓	Cloud icon	dev	1 min 13 sec #28	13 min #26	14 sec

Jenkins
Dashboard > reactapplication > dev > #28 > Pipeline Overview

Build #28

Pipeline

Start → Checkout SCM → Checkout → Build & Push Do... → Pulled Image an... → Post Actions → End

Details

- dev
- 22ebb31

Started 1 min 38 sec ago
Queued 8.2 sec
Took 14 sec

Verify docker running container

`docker ps`

```
[ec2-user@ip-172-31-11-176 ~]$ docker ps
CONTAINER ID        IMAGE               COMMAND             CREATED            STATUS              PORTS               NAMES
29e2f1b079c10      unijilani24/dev:latest   "/docker-entrypoint.sh"   About a minute ago   Up About a minute   0.0.0.0:80->80/tcp, ::1:80->80/tcp   react-application
```

Application is running

← → ⌛ Not secure 18.191.215.194

OnlineShop

Home Login SignUp

OnePlus 9 5G  5.4 inch display 399 Add to Cart	Iphone 13 mini  5.4 inch display 399 Add to Cart	Samsung s21 ultra  5.4 inch display 399 Add to Cart	xiami mi 11  5.4 inch display 399 Add to Cart	OnePlus 9 5G  5.4 inch display 399 Add to Cart	Iphone 13 mini  5.4 inch display 399 Add to Cart
Samsung s21 ultra  5.4 inch display 399 Add to Cart	xiami mi 11  5.4 inch display 399 Add to Cart	OnePlus 9 5G  5.4 inch display 399 Add to Cart	Iphone 13 mini  5.4 inch display 399 Add to Cart	Samsung s21 ultra  5.4 inch display 399 Add to Cart	xiami mi 11  5.4 inch display 399 Add to Cart

→ ⌛ Not secure 18.191.215.194/login

neShop



Login Into your account

Email address

Password

[Login](#)

Have an account? [Login In here](#)

⚠ Not secure 18.191.215.194/cart

Shopping Cart

#	Product	Price	Quantity	Total
1	 OnePlus 9 5G 5.4 inch display Remove	\$399	- 1 +	\$399

[Clear Cart](#)
SubTotal: \$399

Taxes and Shipping Calculated

[Login to CheckOut](#)
← Continue Shopping

Test Prod deployment

Git checkout main

```
jilan@MyOffice MINGW64 /d/DevOPS-Classes/DevOPS Projects/FinalProject-Jilani/build (dev)
$ git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.
```

Git merge dev

```
jilan@MyOffice MINGW64 /d/DevOPS-Classes/DevOPS Projects/FinalProject-Jilani/build (main)
$ git merge dev
Updating ef44730..22ebb31
Fast-forward
 .dockerignore      |  4 ++++
 .gitignore         |   3 ++
 Jenkinsfile       | 40 ++++++++++++++++++++++++
 build.sh           | 25 ++++++ ++
 deploy.sh          | 21 ++++++ ++
 docker-compose.yml| 12 ++++++++
 dockerfile          |   3 ++
 7 files changed, 108 insertions(+)
 create mode 100644 .dockerignore
 create mode 100644 .gitignore
 create mode 100644 Jenkinsfile
 create mode 100644 build.sh
 create mode 100644 deploy.sh
 create mode 100644 docker-compose.yml
 create mode 100644 dockerfile
```

Git push origin main

```
jilan@MyOffice MINGW64 /d/DevOPS-Classes/DevOPS Projects/FinalProject-Jilani/build (main)
$ git push origin main
Total 0 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/unjilani/build.git
  ef44730..22ebb31  main -> main
```

Webhook triggered

Webhooks / Manage webhook

Settings Recent Deliveries

✓  3bfc3aa2-17cd-11f0-87c9-c7e362793b6d push 2025-04-12 21:37:50 ...

Request Response 200 Redeliver Completed in 0.05 seconds.

Headers

```
Request URL: http://18.191.215.194:8080/github-webhook/
Request method: POST
Accept: */*
```

Dashboard > reactapplication > main > #3 > Pipeline Overview

Build #3

Pipeline



Details

- main
- 6d0685c

Started 27 sec ago
Queued 7.8 sec
Took 15 sec

reactapplication

Folder name: ReactApplication

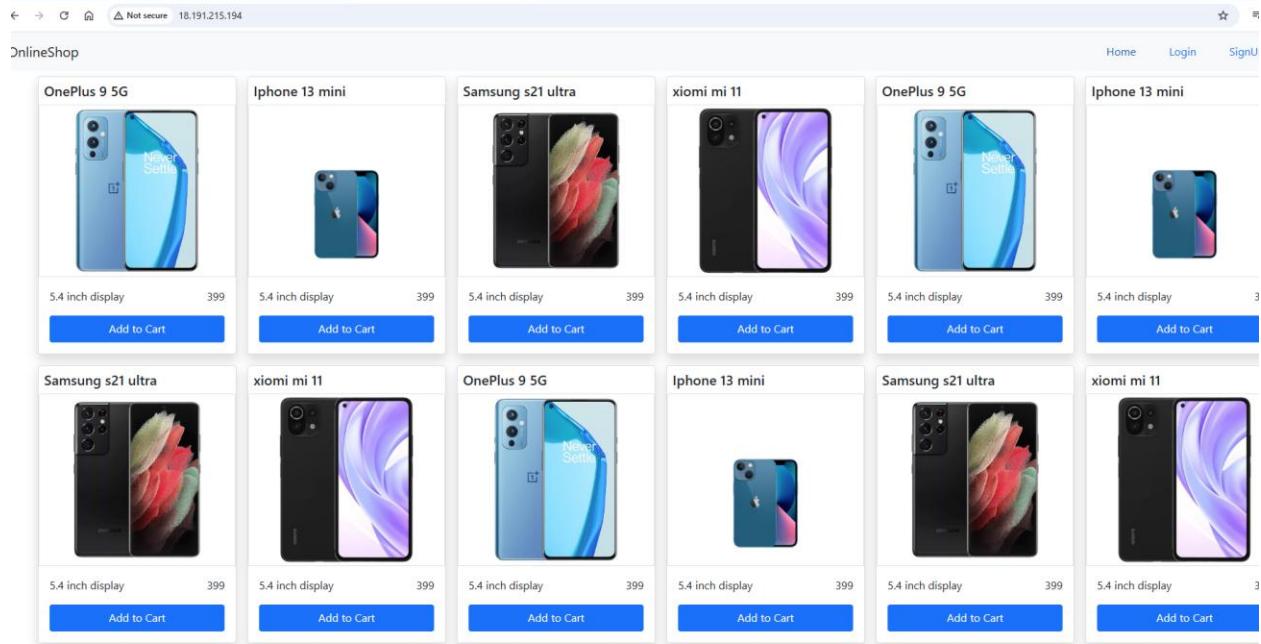
Branches (2) Pull Requests (0)

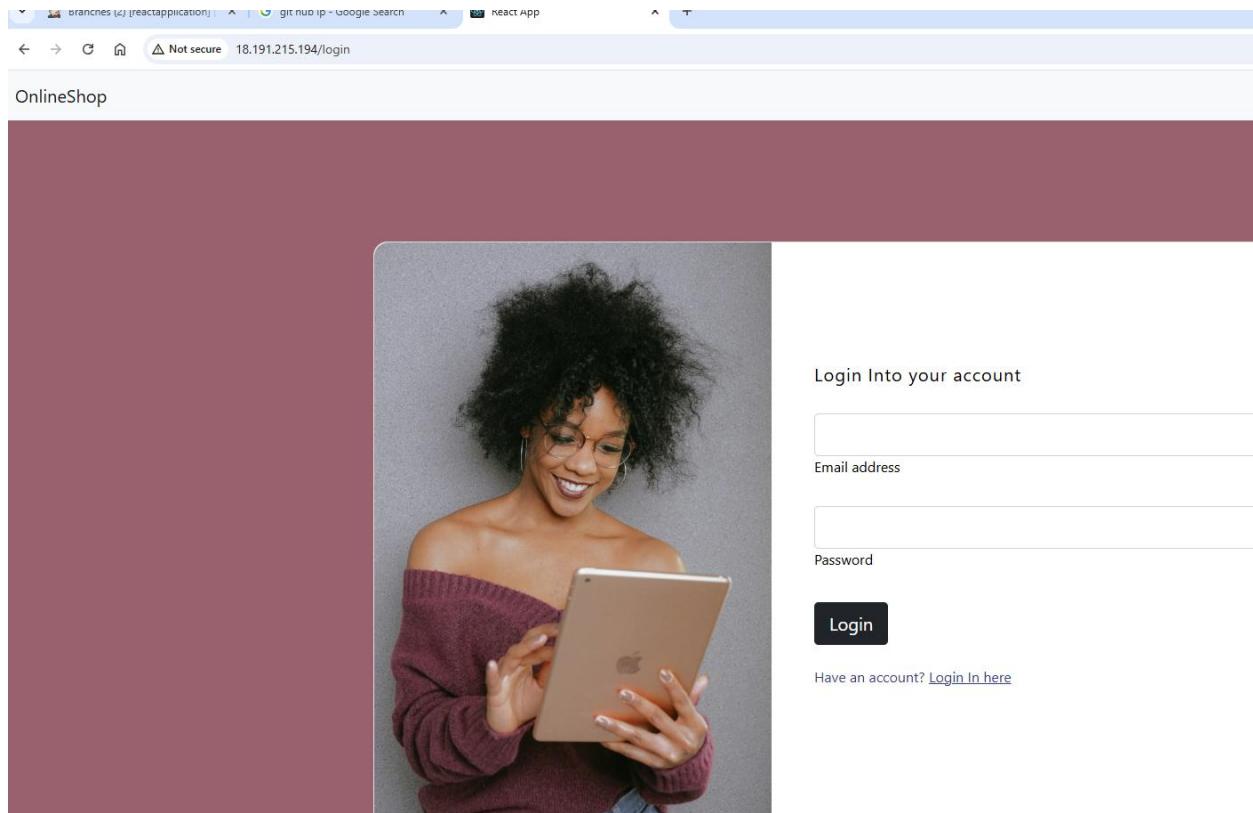
S	W	Name	Last Success	Last Failure	Last Duration	
		dev	10 min #30	42 min #26	1 min 22 sec	
		main	38 sec #3	7 min 48 sec #2	15 sec	

Docker ps

```
REPOSITORY TAG IMAGE ID CREATED SIZE
unjilani24/prod latest 8fcdb3e85f03 51 seconds ago 14.5MB
[ec2-user@ip-172-31-11-176 ~]$ docker ps
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
9c74a7e8d181 unjilani24/prod:latest "/docker-entrypoint.s" 46 seconds ago Up 43 seconds 0.0.0.0:80->80/tcp, :::80->80/tcp react-application
[ec2-user@ip-172-31-11-176 ~]$
```

React Application page is Accessible





Dockerhub repository updated

Images pushed to prod / dev repository auto triggered.

Repositories

All repositories within the `unjilani24` namespace.

Name	Last Pushed	Contains	Visibility	Scout
unjilani24/prod	2 minutes ago		Private	Inactive
unjilani24/dev	12 minutes ago		Public	Inactive

Monitoring : Using Prometheus , node exporter and alertmanager

Launch separate EC2 instance as Prometheus server in which the following services would be running

- a) Prometheus server : 9090
- b) Alertmanager: 9093
- c) Blackbox : 9115
- d) Grafana : 3000
- e) Node Exporter: 9100

Node Exporter is downloading and running on Server hosted React-Application to expose the metrics.

After launching Prometheus server do the following

After you're connected, enter the following commands one by one to create two Linux user accounts, prometheus and exporter.

- a) sudo useradd --no-create-home --shell /bin/false prometheus
- b) sudo useradd --no-create-home --shell /bin/false exporter

```
[ec2-user@ip-172-31-11-176 ~]$ sudo useradd --no-create-home --shell /bin/false Prometheus
[ec2-user@ip-172-31-11-176 ~]$ sudo useradd --no-create-home --shell /bin/false exporter
```

Enter the following commands one by one to create local system directories.

```
sudo mkdir /etc/prometheus
sudo mkdir /var/lib/Prometheus
sudo mkdir /etc/alertmanager/
sudo chown prometheus:prometheus /etc/prometheus
sudo chown prometheus:prometheus /var/lib/prometheus
```

Download latest promethues & alertmanager

```
wget https://github.com/prometheus/prometheus/releases/download/v3.3.0-rc.1/prometheus-3.3.0-rc.1.linux-amd64.tar.gz
```

wget

```
https://github.com/prometheus/alertmanager/releases/download/v0.28.1/alertmanager-0.28.1.linux-amd64.tar.gz
```

tar xvzf prometheus-3.3.0-rc.1.linux-amd64.tar.gz

```
[ec2-user@ip-172-31-11-176 ~]$ tar xvzf prometheus-3.3.0-rc.1.linux-amd64.tar.gz
prometheus-3.3.0-rc.1.linux-amd64/
prometheus-3.3.0-rc.1.linux-amd64/LICENSE
prometheus-3.3.0-rc.1.linux-amd64/promtool
prometheus-3.3.0-rc.1.linux-amd64/prometheus.yaml
prometheus-3.3.0-rc.1.linux-amd64/prometheus
prometheus-3.3.0-rc.1.linux-amd64/NOTICE
[ec2-user@ip-172-31-11-176 ~]$ █
```

tar xvzf alertmanager-0.28.1.linux-amd64.tar.gz

```
[ec2-user@ip-172-31-11-176 ~]$ tar xvzf alertmanager-0.28.1.linux-amd64.tar.gz
alertmanager-0.28.1.linux-amd64/
alertmanager-0.28.1.linux-amd64/LICENSE
alertmanager-0.28.1.linux-amd64/alertmanager
alertmanager-0.28.1.linux-amd64/alertmanager.yaml
alertmanager-0.28.1.linux-amd64/actool
alertmanager-0.28.1.linux-amd64/NOTICE
[ec2-user@ip-172-31-11-176 ~]$ █
```

[Copy prometheus into local/bin](#)

```
sudo cp -p ./prometheus-3.3.0-rc.1.linux-amd64/prometheus /usr/local/bin/
```

```
sudo cp -p ./prometheus-3.3.0-rc.1.linux-amd64/promtool /usr/local/bin/
```

```
[ec2-user@ip-172-31-11-176 ~]$ sudo cp -p ./prometheus-3.3.0-rc.1.linux-amd64/prometheus /usr/local/bin/
[ec2-user@ip-172-31-11-176 ~]$ sudo cp -p ./prometheus-3.3.0-rc.1.linux-amd64/promtool /usr/local/bin/
[ec2-user@ip-172-31-11-176 ~]$ █
```

Change owner to Prometheus user created

```
sudo chown prometheus:prometheus /usr/local/bin/prom*
```

copy folders

```
sudo cp -r ./prometheus-3.3.0-rc.1.linux-amd64/* /etc/prometheus/
```

change ownership

```
sudo chown -R prometheus:prometheus /etc/prometheus/*
```

copy folder

```
sudo cp -p ./node_exporter-1.9.1.linux-amd64/node_exporter /usr/local/bin/
```

Alert manager

```
sudo mv alertmanager-0.28.1.linux-amd64/* /etc/alertmanager/
```

backup copy of Prometheus.yml

```
sudo cp /etc/prometheus/prometheus.yml /etc/prometheus/prometheus.yml.backup
```

configure the Prometheus.yml file

update alertmanager / Prometheus ip

```
[ec2-user@ip-172-31-35-132 prometheus]$ cat prometheus.yml
# my global config
global:
  scrape_interval: 15s # Set the scrape interval to every 15 seconds. Default is every 1 minute.
  evaluation_interval: 15s # Evaluate rules every 15 seconds. The default is every 1 minute.
  # scrape_timeout is set to the global default (10s).

# Alertmanager configuration
alerting:
  alertmanagers:
    - static_configs:
        - targets: ["18.119.12.123:9093"]
          # - targets: ["13.58.129.251:80"]
          # - alertmanager:9093

# Load rules once and periodically evaluate them according to the global 'evaluation_interval'.
rule_files:
  - "alert.rules.yml"
  # - "first_rules.yml"
  # - "second_rules.yml"

# A scrape configuration containing exactly one endpoint to scrape:
# Here it's Prometheus itself.
scrape_configs:

  - job_name: "react-application-metrics"
    static_configs:
      - targets: ["18.226.96.216:9100"]
        labels:
          app: "react-application"

  - job_name: 'blackbox'
    metrics_path: /probe
    params:
      module: [http_2xx]
    static_configs:
      - targets:
          - http://18.226.96.216
    relabel_configs:
      - source_labels: [__address__]
        target_label: __param_target
      - source_labels: [__param_target]
        target_label: instance
      - target_label: __address__
        replacement: 18.119.12.123:9115 # Blackbox Exporter address
    # The job name is added as a label `job=<job_name>` to any timeseries scraped from this config.
    - job_name: "prometheus"

    # metrics_path defaults to '/metrics'
    # scheme defaults to 'http'.

    static_configs:
      - targets: ["18.119.12.123:9090"]
        # The label name is added as a label `label_name=<label_value>` to any timeseries scraped from this config.
        labels:
          app: "prometheus"
```

```
[ec2-user@ip-172-31-35-132 prometheus]$ cat prometheus.yml
# my global config
global:
  scrape_interval: 15s # Set the scrape interval to every 15 seconds. Default is every 1 minute.
  evaluation_interval: 15s # Evaluate rules every 15 seconds. The default is every 1 minute.
  # scrape_timeout is set to the global default (10s).

# Alertmanager configuration
alerting:
  alertmanagers:
    - static_configs:
        - targets: ["18.119.12.123:9093"]
          # - targets: ["13.50.129.251:80"]
          # - alertmanager:9093

# Load rules once and periodically evaluate them according to the global 'evaluation_interval'.
rule_files:
  - "alert.rules.yml"
  # - "first_rules.yml"
  # - "second_rules.yml"

# A scrape configuration containing exactly one endpoint to scrape:
# Here it's Prometheus itself.
scrape_configs:
  - job_name: "react-application-metrics"
    static_configs:
      - targets: ["18.226.96.216:9100"]
        labels:
          app: "react-application"

  - job_name: 'blackbox'
    metrics_path: /probe
    params:
      module: [http_2xx]
    static_configs:
      - targets:
          - http://18.226.96.216
    relabel_configs:
      - source_labels: [__address__]
        target_label: __param_target
      - source_labels: [__param_target]
        target_label: instance
      - target_label: __address__
        replacement: 18.119.12.123:9115 # Blackbox Exporter address
    # The job name is added as a label 'job=<job_name>' to any timeseries scraped from this config.
  - job_name: 'prometheus'
    # metrics_path defaults to '/metrics'
    # scheme defaults to 'http'.

    static_configs:
      - targets: ["18.119.12.123:9090"]
        # The label name is added as a label 'label_name=<label_value>' to any timeseries scraped from this config.
        labels:
          app: "prometheus"
```

Start Prometheus service to accept the prometheus

```
sudo -u prometheus /usr/local/bin/prometheus --config.file
/etc/prometheus/prometheus.yml --storage.tsdb.path /var/lib/prometheus
```

A screenshot of a web browser window titled "Prometheus Time Series Collector". The address bar shows "Not secure 18.218.130.210:9090/query". The main content area is a Prometheus query editor. At the top, there are tabs for "Query" (which is selected), "Alerts", and "Status". Below the tabs is a search bar with placeholder text "Enter expression (press Shift+Enter for newlines)". Underneath the search bar are three buttons: "Table", "Graph", and "Explain" (the latter is underlined). A "Evaluation time" dropdown menu is open, showing arrows to navigate through time intervals. Below this, a message says "No data queried yet". At the bottom left is a blue button labeled "+ Add query".

Now configure alert.rules.yml so it can trigger an email when alert receive

```
[ec2-user@ip-172-31-35-132 prometheus]$ cat alert.rules.yml
groups:
- name: ApplicationAlerts
  rules:
    - alert: ReactApplicationDown
      expr: up{app="react-application"} == 0
      for: 1m
      labels:
        severity: critical
      annotations:
        summary: "App is Down"
        description: "The application is not responding."
    - alert: ReactAppDown
      expr: probe_success{job='blackbox'} == 0
      for: 1m
      labels:
        severity: critical
      annotations:
        summary: "React App is Down"
        description: "React app on port 80 is not responding to HTTP probe"
```

Files related to Prometheus

```
[ec2-user@ip-172-31-35-132 prometheus]$ ls
LICENSE NOTICE alert.rules.yml prometheus prometheus.yml.prometheus.yml.backup promtool
[ec2-user@ip-172-31-35-132 prometheus]$ pwd
/etc/prometheus
[ec2-user@ip-172-31-35-132 prometheus]$ █
```

Cd /etc/alertmanager

```
sudo mkdir -p /etc/alertmanager/data
```

```
sudo chown -R ec2-user:ec2-user /etc/alertmanager/data/
```

```
sudo vim alertmanager.yml
```

Now configure alertmanager

```
[ec2-user@ip-172-31-35-132 alertmanager]$ cat alertmanager.yml
```

```
route:
  receiver: "email"
```

```
receivers:
```

```
  - name: "email"
    email_configs:
      - to: "-----@gmail.com"
        from: "-----@gmail.com"
        smarthost: "smtp.gmail.com:587"
        auth_username: "-----@gmail.com"
        auth_password: "-----"
        require_tls: true
```

```
[ec2-user@ip-172-31-35-132 alertmanager]$ cat alertmanager.yml
route:
  receiver: "email"
```

```
receivers:
```

```
  - name: "email"
    email_configs:
      - to: "-----@gmail.com"
        from: "-----@gmail.com"
        smarthost: "smtp.gmail.com:587"
        auth_username: "-----@gmail.com"
        auth_password: "-----"
        require_tls: true
```

```
[ec2-user@ip-172-31-35-132 alertmanager]$ ^C
```

Files of alermanager

```
[ec2-user@ip-172-31-35-132 prometheus]$ cd /etc/alertmanager/
[ec2-user@ip-172-31-35-132 alertmanager]$ ls
LICENSE NOTICE alertmanager alertmanager.yml amtool data
[ec2-user@ip-172-31-35-132 alertmanager]$ █
```

Run the alertmanager

```
./alertmanager --config.file=alertmanager.yml
```

Install Prometheus plugin and restart Jenkins

The screenshot shows the Jenkins Plugin Manager interface. The URL in the address bar is 13.58.129.251:8080/manage/pluginManager/available. The page title is "Jenkins". The navigation path is "Dashboard > Manage Jenkins > Plugins". On the left, there is a sidebar with options: "Updates" (18), "Available plugins" (selected), "Installed plugins", and "Advanced settings". On the right, a search bar contains the text "prometheus". Below it, a table lists available plugins:

	Install	Name ↓
<input checked="" type="checkbox"/>	Prometheus metrics	819.v50953a_c560dd monitoring Miscellaneous Jenkins Prometheus Plugin expose an endpoint (default /prometheus) with metrics where a
<input type="checkbox"/>	Otel agent host metrics monitoring	1.4.1 monitoring observability This plugin allows monitoring of Jenkins agents by deploying Prometheus node exporters to gather metrics.
<input type="checkbox"/>	Cortex Metrics	1.0.1 Adds the ability to publish run results to Cortex directly using the Prometheus push endpoint

Node-exporter on EC2 hosting React Application

Node exporter is required to scrape metrics for react applications

Prometheus cannot monitor the matrix eventually. That is the reason Node exporter is coming to the picture.

- a) sudo useradd --no-create-home --shell /bin/false exporter

Download and install Node exporter to another EC2 server hosted React Application

wget

https://github.com/prometheus/node_exporter/releases/download/v1.9.1/node_exporter-1.9.1.linux-amd64.tar.gz

tar xvzf node_exporter-1.9.1.linux-amd64.tar.gz

```
[ec2-user@ip-172-31-11-176 ~]$ tar xvzf node_exporter-1.9.1.linux-amd64.tar.gz
node_exporter-1.9.1.linux-amd64/
node_exporter-1.9.1.linux-amd64/LICENSE
node_exporter-1.9.1.linux-amd64/NOTICE
node_exporter-1.9.1.linux-amd64/node_exporter
[ec2-user@ip-172-31-11-176 ~]$ ls
```

change ownership

sudo chown exporter:exporter /usr/local/bin/node_exporter

Run Node_exporter

./node_exporter &

```
[ec2-user@ip-172-31-35-132 ~]$ cd /usr/local/bin/
[ec2-user@ip-172-31-35-132 bin]$ ls
node_exporter prometheus protool
[ec2-user@ip-172-31-35-132 bin]$ cd node_exporter
[bash: cd: node_exporter: Not a directory]
[ec2-user@ip-172-31-35-132 bin]$ ./node_exporter &
[1] 6279
[ec2-user@ip-172-31-35-132 bin]$ time=2025-04-13T22:02:08.776Z level=INFO source=node_exporter.go:216 msg="Starting node_exporter" version="1.9.1" branch="HEAD" revision="f2ec547b49af5381503ba50265aa2adcc275959"
time=2025-04-13T22:02:08.776Z level=INFO source=node_exporter.go:217 msg="Build context" build_context="(go=gol 23.7, platform=linux/amd64, date=2025/04/13 18:19:01 +0000 UTC, build=623bea4c-13722-02-08-770Z, tags=unknown)" flags="{}"
time=2025-04-13T22:02:08.776Z level=INFO source=diskstats_common.go:110 msg="Parsed flag --collector.diskstats.device-exclude" collector_diskstats_device_exclude="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:265 msg="Parsed flag --collector.filesystem.mount-points-exclude" filesystem_mount_points_exclude="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:294 msg="Parsed flag --collector.filesystem.fs-types-exclude" filesystem_fs_types_exclude="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:295 msg="Parsed flag --collector.filesystem.devtmpfs.mounts" filesystem_devtmpfs_mounts="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:296 msg="Parsed flag --collector.filesystem.debugfs.mounts" filesystem_debugfs_mounts="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:297 msg="Parsed flag --collector.filesystem.hugepages.mounts" filesystem_hugepages_mounts="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:298 msg="Parsed flag --collector.filesystem.queues.mounts" filesystem_queues_mounts="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:299 msg="Parsed flag --collector.filesystem.overlay.mounts" filesystem_overlay_mounts="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:300 msg="Parsed flag --collector.procfs.mounts" filesystem_procfs_mounts="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:301 msg="Parsed flag --collector.mountstats.mounts" filesystem_mountstats_mounts="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:302 msg="Parsed flag --collector.mountstats.devices" filesystem_mountstats_devices="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:303 msg="Parsed flag --collector.mountstats.mounts" filesystem_mountstats_mounts="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:304 msg="Parsed flag --collector.mountstats.devices" filesystem_mountstats_devices="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:305 msg="Parsed flag --collector.mountstats.mounts" filesystem_mountstats_mounts="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:306 msg="Parsed flag --collector.mountstats.devices" filesystem_mountstats_devices="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:307 msg="Parsed flag --collector.mountstats.mounts" filesystem_mountstats_mounts="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:308 msg="Parsed flag --collector.mountstats.devices" filesystem_mountstats_devices="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:309 msg="Parsed flag --collector.mountstats.mounts" filesystem_mountstats_mounts="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:310 msg="Parsed flag --collector.mountstats.devices" filesystem_mountstats_devices="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:311 msg="Parsed flag --collector.mountstats.mounts" filesystem_mountstats_mounts="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:312 msg="Parsed flag --collector.mountstats.devices" filesystem_mountstats_devices="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:313 msg="Parsed flag --collector.mountstats.mounts" filesystem_mountstats_mounts="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:314 msg="Parsed flag --collector.mountstats.devices" filesystem_mountstats_devices="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:315 msg="Parsed flag --collector.mountstats.mounts" filesystem_mountstats_mounts="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:316 msg="Parsed flag --collector.mountstats.devices" filesystem_mountstats_devices="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:317 msg="Parsed flag --collector.mountstats.mounts" filesystem_mountstats_mounts="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:318 msg="Parsed flag --collector.mountstats.devices" filesystem_mountstats_devices="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:319 msg="Parsed flag --collector.mountstats.mounts" filesystem_mountstats_mounts="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:320 msg="Parsed flag --collector.mountstats.devices" filesystem_mountstats_devices="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:321 msg="Parsed flag --collector.mountstats.mounts" filesystem_mountstats_mounts="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:322 msg="Parsed flag --collector.mountstats.devices" filesystem_mountstats_devices="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:323 msg="Parsed flag --collector.mountstats.mounts" filesystem_mountstats_mounts="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:324 msg="Parsed flag --collector.mountstats.devices" filesystem_mountstats_devices="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:325 msg="Parsed flag --collector.mountstats.mounts" filesystem_mountstats_mounts="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:326 msg="Parsed flag --collector.mountstats.devices" filesystem_mountstats_devices="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:327 msg="Parsed flag --collector.mountstats.mounts" filesystem_mountstats_mounts="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:328 msg="Parsed flag --collector.mountstats.devices" filesystem_mountstats_devices="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:329 msg="Parsed flag --collector.mountstats.mounts" filesystem_mountstats_mounts="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:330 msg="Parsed flag --collector.mountstats.devices" filesystem_mountstats_devices="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:331 msg="Parsed flag --collector.mountstats.mounts" filesystem_mountstats_mounts="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:332 msg="Parsed flag --collector.mountstats.devices" filesystem_mountstats_devices="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:333 msg="Parsed flag --collector.mountstats.mounts" filesystem_mountstats_mounts="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:334 msg="Parsed flag --collector.mountstats.devices" filesystem_mountstats_devices="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:335 msg="Parsed flag --collector.mountstats.mounts" filesystem_mountstats_mounts="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:336 msg="Parsed flag --collector.mountstats.devices" filesystem_mountstats_devices="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:337 msg="Parsed flag --collector.mountstats.mounts" filesystem_mountstats_mounts="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:338 msg="Parsed flag --collector.mountstats.devices" filesystem_mountstats_devices="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:339 msg="Parsed flag --collector.mountstats.mounts" filesystem_mountstats_mounts="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:340 msg="Parsed flag --collector.mountstats.devices" filesystem_mountstats_devices="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:341 msg="Parsed flag --collector.mountstats.mounts" filesystem_mountstats_mounts="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:342 msg="Parsed flag --collector.mountstats.devices" filesystem_mountstats_devices="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:343 msg="Parsed flag --collector.mountstats.mounts" filesystem_mountstats_mounts="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:344 msg="Parsed flag --collector.mountstats.devices" filesystem_mountstats_devices="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:345 msg="Parsed flag --collector.mountstats.mounts" filesystem_mountstats_mounts="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:346 msg="Parsed flag --collector.mountstats.devices" filesystem_mountstats_devices="{}"
time=2025-04-13T22:02:08.780Z level=INFO source=filesystem_common.go:347 msg="Listening on" address=[::]:9100
time=2025-04-13T22:02:08.780Z level=INFO source=tls_config.go:350 msg="TLS is disabled." http2=false address=[::]:9100
```

```
time=2025-04-13T20:26:06.232Z level=INFO source=node_exporter.go:141 msg=tapesstats
time=2025-04-13T20:26:06.232Z level=INFO source=node_exporter.go:141 msg=textfile
time=2025-04-13T20:26:06.232Z level=INFO source=node_exporter.go:141 msg=thermal_zone
time=2025-04-13T20:26:06.232Z level=INFO source=node_exporter.go:141 msg=timezone
time=2025-04-13T20:26:06.232Z level=INFO source=node_exporter.go:141 msg=timex
time=2025-04-13T20:26:06.232Z level=INFO source=node_exporter.go:141 msg=udp_queues
time=2025-04-13T20:26:06.232Z level=INFO source=node_exporter.go:141 msg=uname
time=2025-04-13T20:26:06.232Z level=INFO source=node_exporter.go:141 msg=vmsstat
time=2025-04-13T20:26:06.232Z level=INFO source=node_exporter.go:141 msg=watchdog
time=2025-04-13T20:26:06.232Z level=INFO source=node_exporter.go:141 msg=xfs
time=2025-04-13T20:26:06.235Z level=INFO source=node_exporter.go:141 msg=zfs
time=2025-04-13T20:26:06.235Z level=INFO source=tls_config.go:347 msg="Listening on" address=[::]:9100
time=2025-04-13T20:26:06.235Z level=INFO source=tls_config.go:350 msg="TLS is disabled." http2=false address=[::]:9100
```

```
--2025-04-13 22:45:58--  https://github.com/prometheus/node_exporter/releases/download/v1.9.1/node_exporter-1.9.1.linux-amd64.tar.gz
Resolving github.com (github.com)... 140.82.113.4
Connecting to github.com (github.com)|140.82.113.4|:443... connected.
HTTP request sent, awaiting response... 302 Found
Location: https://objects.githubusercontent.com/github-production-release-asset-2e65be/9524057/dc8ec09c-2975-9591-57dd1ff7b7?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=releaseassetproduction%2F20250413%2Fus-east-2%2Faws4_request&X-Amz-Date=20250413T224558Z&X-Amz-Expires=3000X-Amz-Signature=5d025873d37ebdc9bdb5265fa6abcd1eaedfe0a8649e86861279c85953&X-Amz-SignedHeaders=host&response-content-disposition=attachment%3B%20filename=node_exporter-1.9.1.linux-amd64.tar.gz&response-content-type=application%2Foctet-stream [following]
--2025-04-13 22:45:58--  https://objects.githubusercontent.com/github-production-release-asset-2e65be/9524057/c09c-2975-42a2-9591-57dd1ff7b7?X-Amz-Algorithm=AWS4-HMAC-SHA256X-Amz-Credential=releaseassetproduction%2F20250413%2Fus-east-1%2Faws4_request&X-Amz-Date=20250413T224558Z&X-Amz-Expires=3000X-Amz-Signature=5d025873d37ebdb5265fa6021c8abcd1eaedfe0a8649e86861279c85953&X-Amz-SignedHeaders=host&response-content-disposition=attachment%20filename%3Dnode_exporter-1.9.1.linux-amd64.tar.gz&response-content-type=application%2Foctet-stream
Resolving objects.githubusercontent.com (objects.githubusercontent.com)... 185.199.111.133, 185.199.109.133, 99.110.133, ...
Connecting to objects.githubusercontent.com (objects.githubusercontent.com)|185.199.111.133|:443... connected
HTTP request sent, awaiting response... 200 OK
Length: 11582410 (11M) [application/octet-stream]
Saving to: 'node_exporter-1.9.1.linux-amd64.tar.gz'

node_exporter-1.9.1.linux-am 100%[=====] 11.04M 71.4MB/s in 0.2s
```

File of node exporter

```
[ec2-user@ip-172-31-38-31 ~]$ ls
node_exporter-1.9.1.linux-amd64.tar.gz
[ec2-user@ip-172-31-38-31 ~]$ tar xvzf node_exporter-1.9.1.linux-amd64.tar.gz
node_exporter-1.9.1.linux-amd64/
node_exporter-1.9.1.linux-amd64/LICENSE
node_exporter-1.9.1.linux-amd64/NOTICE
node_exporter-1.9.1.linux-amd64/node_exporter
[ec2-user@ip-172-31-38-31 ~]$ 
[ec2-user@ip-172-31-38-31 ~]$ ^C
[ec2-user@ip-172-31-38-31 ~]$ ^C
```

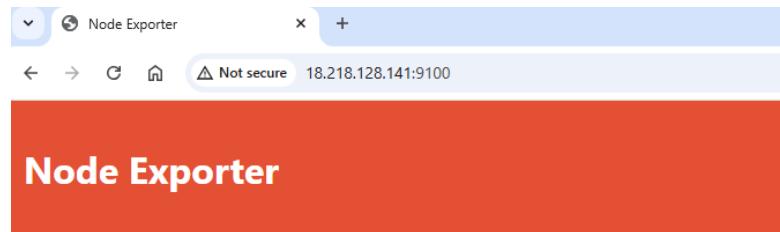
Run the node_exporter

```
cd /node_exporter
```

```
./node_exporter
```

```
time=2025-04-13T22:49:39.096Z level=INFO source=node_exporter.go:141 msg=tls
time=2025-04-13T22:49:39.097Z level=INFO source=tls_config.go:347 msg="Listening on" address=[::]:9100
time=2025-04-13T22:49:39.097Z level=INFO source=tls_config.go:350 msg="TLS is disabled." http2=false address=[::]:9100
```

Access node_exporter port 9100



Prometheus Node Exporter

Version: (version=1.9.1, branch=HEAD, revision=f2ec547b49af53815038a50265aa2adcd12759!)

- [Metrics](#)

Download a detailed report of resource usage (pprof format, from the Go runtime):

- [heap usage \(memory\)](#)
- [CPU usage \(60 second profile\)](#)

To visualize and share profiles you can upload to [pprof.me](#)

To verify rule run below command

```
promtool check rules alert.rules.yml
```

```
[ec2-user@ip-172-31-35-132 prometheus]$ promtool check rules alert.rules.yml
Checking alert.rules.yml
  SUCCESS: 1 rules found
[ec2-user@ip-172-31-35-132 prometheus]$
```

Prometheus Server – Target health

The screenshot shows the Prometheus Target health interface. At the top, there are three dropdown menus: 'Select scrape pool', 'Filter by target health', and 'Filter by endpoint or labels'. Below these are two sections for targets:

- prometheus**: Shows one target at <http://localhost:9090/metrics>. Labels: app="prometheus", instance="localhost:9090", job="prometheus". Last scrape: 15.122s ago, 7ms. State: UP.
- react-application**: Shows one target at <http://18.216.176.63:9100/metrics>. Labels: app="react-application", instance="18.216.176.63:9100", job="react-application". Last scrape: 12.811s ago, 19ms. State: UP.

Alert is in pending state

The screenshot shows the Prometheus Alerts interface. At the top, there are two dropdown menus: 'Filter by rule state' and 'Filter by rule name or labels'. Below is a section for alerts:

- ApplicationAlerts** (</etc/prometheus/alert.rules.yml>):
 - ReactApplicationDown**:
 - Query: up{app="react-application"} == 0
 - For: 1m
 - Severity: critical
 - Description: The application is not responding.
 - Summary: App is Down
 - Alert labels:

Label	Value	State	Active Since	Value
alertname	"ReactApplicationDown"	PENDING	44.619s	0
 - Description: The application is not responding.
 - Summary: App is Down

Alertmanager

The screenshot shows two screenshots of the Alertmanager web interface. The top screenshot is the 'Alerts' page, featuring a navigation bar with 'Alertmanager', 'Alerts', 'Silences', 'Status', 'Settings', and 'Help'. A 'New Silence' button is in the top right. Below is a search/filter section with 'Filter' and 'Group' tabs, a 'Custom matcher' input, and a '+' button. A 'Silence' button is also present. A message 'No alert groups found' is displayed. The bottom screenshot is the 'Status' page, showing a header with '18.223.123.15:9093/#/status' and a navigation bar identical to the Alerts page.

Status

Uptime: 2025-04-14T23:58:38.136Z

Cluster Status

Name: 01JRVBV71P9DC839FQGGFBWS31

Status: ready

Peers:

- Name:** 01JRVBV71P9DC839FQGGFBWS31
Address: 172.31.35.132:9094

Version Information

Branch: HEAD

BuildDate: 20250307-15:05:18

BuildUser: root@fa3ca569dfe4

GoVersion: go1.23.7

Revision: b2099eaa2c9ebc25edb26517cb9c732738e93910

Version: 0.28.1

Now stop the React Application

```
docker ps
```

```
[root@ip-172-31-11-176 ~]# docker ps
CONTAINER ID        IMAGE               COMMAND             CREATED            STATUS              PORTS
f89f1d9db87b        unjilani24/dev:latest   "/docker-entrypoint.1"   About an hour ago   Up About an hour   0.0.0.0:80->80/tcp, :::80->80/tcp
react-application
```

Docker stop

```
docker stop f89f1d9db87b
```

The screenshot shows the Prometheus web interface with two sections of target health data.

prometheus section:

Endpoint	Labels	Last scrape	State
http://localhost:9090/metrics	app="prometheus", instance="localhost:9090", job="prometheus"	2.814s ago	UP

react-application section:

Endpoint	Labels	Last scrape	State
http://18.216.176.63:9100/metrics	app="react-application", instance="18.216.176.63:9100", job="react-application"	502ms ago	DOWN

A red warning box highlights an error for the react-application target: "⚠ Error scraping target: Get \"http://18.216.176.63:9100/metrics\": dial tcp 18.216.176.63:9100: connect: connection refused".

Alert generated

ure 18.223.123.15:9093/#/alerts

The screenshot shows the Alertmanager interface with the following details:

- Header:** Alertmanager, Alerts, Silences, Status, Settings, Help, New Silence
- Filter:** Filter, Group, Custom matcher, e.g. env="production"
- Receiver:** All, Silenced, Inhibited, Muted
- Alert Summary:** 1 alert
- Alert Details:** email, Not grouped, 1 alert, 2025-04-15T00:10:57.085Z, Info, Source, Silence, Link
- Labels:** alertname="ReactApplicationDown", app="react-application", instance="18.216.176.63:9100", job="react-application", severity="critical"

Email received

me [FIRING:1] (ReactApplicationDown react-application 18.216.176.63 react-application critical) - 1 alert for View in Alertmanager [1] Firing Labels alertname = ReactApplicationDown app = react-application instance = 18.216.176.63:9100 job = react-application severity = critical

me [FIRING:1] (ReactApplicationDown react-application 18.216.176.63:80 react-application critical) - 1 alert for View in Alertmanager [1] Firing Labels alertname = ReactApplicationDown app = react-application instance = 18.216.176.63:80 job = react-application severity = critical

1 alert for

[View In Alertmanager](#)

[1] Firing

Labels

alertname = ReactApplicationDown
app = react-application
instance = 18.216.176.63
job = react-application
severity = critical

Annotations

description = The application is not responding.
summary = App is Down

[Source](#)

Monitoring using Grafana Dashboard / Blackbox Exporter / Prometheus / Node Exporter

Install Blackbox Exporter

```
sudo useradd --no-create-home --shell /bin/false blackbox_exporter
```

Download Blackbox

```
wget
```

```
https://github.com/prometheus/blackbox\_exporter/releases/download/v0.14.0/blackbox\_exporter-0.14.0.linux-amd64.tar.gz
```

```
tar -xvf blackbox_exporter-0.14.0.linux-amd64.tar.gz
```

Move Binaries to system directory

```
sudo cp blackbox_exporter-0.14.0.linux-amd64/blackbox_exporter /usr/local/bin/  
sudo chown blackbox_exporter:blackbox_exporter /usr/local/bin/blackbox_exporter
```

Create Configuration directory

```
sudo mkdir /etc/blackbox_exporter  
sudo vim /etc/blackbox_exporter/blackbox.yml
```

paste below

```
modules:  
http_2xx:  
prober: http  
timeout: 5s  
http:  
valid_status_codes: [] # Defaults to 2xx  
method: GET
```

```
sudo chown blackbox_exporter:blackbox_exporter /etc/blackbox_exporter/blackbox.yml
```

Create a system file to run as a service

```
sudo vim /etc/systemd/system/blackbox_exporter.service
```

paste below

```
[Unit]
Description=Blackbox Exporter
Wants=network-online.target
After=network-online.target

[Service]
User=blackbox_exporter
Group=blackbox_exporter
Type=simple
ExecStart=/usr/local/bin/blackbox_exporter --config.file
/etc/blackbox_exporter/blackbox.yml

[Install]
WantedBy=multi-user.target
```

Reload system and start blackbox

```
sudo systemctl daemon-reload
sudo systemctl start blackbox_exporter
```

Verify services

```
sudo systemctl status blackbox_exporter  
sudo systemctl enable blackbox_exporter
```

Install Grafana on EC2 instance same Prometheus server for Visualization

Add Port 3000 for our inbound rules pointing to all CIDR ranges.

```
wget https://dl.grafana.com/enterprise/release/grafana-enterprise-11.6.0.linux-amd64.tar.gz  
tar -zvxf grafana-enterprise-11.6.0.linux-amd64.tar.gz
```

create a user

```
sudo useradd -r -s /bin/false grafana
```

Move the unpacked binary to /usr/local/grafana:

```
sudo mv grafana-v11.6.0/ /usr/local/grafana  
sudo chown -R grafana:users /usr/local/Grafana
```

```
sudo vim /etc/systemd/system/grafana-server.service
```

below config to paste

```
[Unit]  
Description=Grafana Server  
After=network.target  
  
[Service]  
Type=simple  
User=grafana  
Group=users  
ExecStart=/usr/local/grafana/bin/grafana server --config=/usr/local/grafana/conf/grafana.ini --  
homepath=/usr/local/grafana  
Restart=on-failure  
  
[Install]  
WantedBy=multi-user.target
```

Run the grafana

```
sudo /usr/local/grafana/bin/grafana-server --homepath /usr/local/grafana
```

press `ctrl+c` to stop the running Grafana then change the permission again

```
sudo chown -R grafana:users /usr/local/grafana
```

Run the Grafana

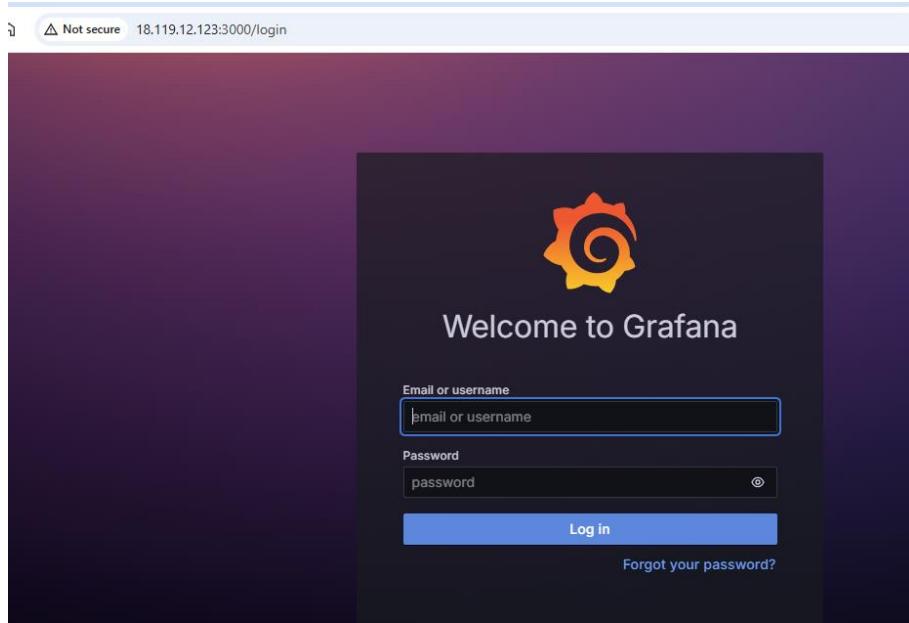
```
sudo /usr/local/grafana/bin/grafana-server --homepath /usr/local/Grafana
```

```
[10 9 8] [http] section
[INFO] [04-15|21:57:10] Sending alerts to local notifier
[INFO] [04-15|21:58:10] Sending alerts to local notifier
[INFO] [04-15|21:58:33] Completed cleanup jobs
[INFO] [04-15|21:58:34] Update check succeeded
[INFO] [04-15|22:00:10] Detected stale state entry
...
[INFO] [04-15|22:00:10] Sending alerts to local notifier
[FERROR] [04-15|22:00:40] Notify for alerts failed -1 err="ReactApplication-Grafana-Alert/email[0]: notify retry canceled due to unrecoverable error after 1 attempts: SMTP not configured. check via's [mailto] section"
[INFO] [04-15|22:01:10] Sending alerts to local notifier
[ERROR] [04-15|22:01:40] Notify for alerts failed -1 err="ReactApplication-Grafana-Alert/email[0]: notify retry canceled due to unrecoverable error after 1 attempts: SMTP not configured. check via's [mailto] section"
[INFO] [04-15|22:02:10] Sending alerts to local notifier
[INFO] [04-15|22:03:00] Sending alerts to local notifier
[INFO] [04-15|22:03:58] Initialized channel handler
[INFO] [04-15|22:04:10] Sending alerts to local notifier
[INFO] [04-15|22:04:10] Sending alerts to local notifier
[FERROR] [04-15|22:05:40] Notify for alerts failed -1 err="ReactApplication-Grafana-Alert/email[0]: notify retry canceled due to unrecoverable error after 1 attempts: SMTP not configured. check via's [mailto] section"
[INFO] [04-15|22:06:46] Request Completed 4.98.206.238 - "POST /api/dashboards/db/1289909399999999?from=now-1h&orgId=1&refresh=1s&vars=None" [9.19ms] duration=7.81815ms size=35 referer="http://10.119.12.123:3000/d/rpmFz7z/prometheus-stats?from=now-1h&orgId=1&refresh=1s&vars=None"
[INFO] [04-15|22:06:50] Sending alerts to local notifier
[INFO] [04-15|22:07:10] Sending alerts to local notifier
[INFO] [04-15|22:08:10] Successful Logout
[INFO] [04-15|22:08:11] Request Completed
[INFO] [04-15|22:08:46] Request Completed 4.98.206.238 - "GET /api/logout status=302 referer="http://10.119.12.123:3000/d/ej0wetgnyjyof/reactapp?from=now-15m&orgId=1&refresh=10s&tmeZone=Asia/Kolkata"
[INFO] [04-15|22:08:47] Completed cleanup jobs
[INFO] [04-15|22:08:34] Update check succeeded
[INFO] [04-15|22:09:00] Sending alerts to local notifier
[INFO] [04-15|22:10:10] Sending alerts to local notifier
[INFO] [04-15|22:10:40] Notify for alerts failed -1 err="ReactApplication-Grafana-Alert/email[0]: notify retry canceled due to unrecoverable error after 1 attempts: SMTP not configured. check via's [mailto] section"
[INFO] [04-15|22:11:10] Sending alerts to local notifier
[INFO] [04-15|22:12:10] Sending alerts to local notifier
[INFO] [04-15|22:13:10] Sending alerts to local notifier
[logger=ngalert.sender.router rule_id=bej0wvoqfuh4d org_id=1 count=1
logger=ngalert.sender.router rule_id=bej0wvoqfuh4d org_id=1 count=1
logger=ngalert.sender.router rule_id=bej0wvoqfuh4d org_id=1 count=1
logger=cleanup duration=2.580746ms
logger=plugins.update.checker duration=0.879797ms
logger=ngalert.state_manager rule_id=bej0wvoqfuh4d org_id=1 cacheID=e114c538cd
...
logger=ngalert.sender.router rule_id=bej0wvoqfuh4d org_id=1 count=1
logger=ngalert.notify.alertmanager.org=1 component=alertmanager.orgID=1 component
logger=ngalert.sender.router rule_id=bej0wvoqfuh4d org_id=1 count=1
logger=ngalert.notify.alertmanager.org=1 component=alertmanager.orgID=1 component
logger=ngalert.sender.router rule_id=bej0wvoqfuh4d org_id=1 count=1
logger=ngalert.notify.alertmanager.org=1 component=alertmanager.orgID=1 component
logger=ngalert.notify.alertmanager.org=1 component=alertmanager.orgID=1 component
logger=ngalert.notify.alertmanager.org=1 component=alertmanager.orgID=1 component
logger=ngalert.sender.router rule_id=bej0wvoqfuh4d org_id=1 count=1
logger=ngalert.sender.router rule_id=bej0wvoqfuh4d org_id=1 count=1
logger=ngalert.live.channel.grafana/dashboard?uid=rpmFz7z address=grafana/dashboard?uid=rpmFz7z
logger=ngalert.sender.router rule_id=bej0wvoqfuh4d org_id=1 count=1
logger=ngalert.sender.router rule_id=bej0wvoqfuh4d org_id=1 count=1
logger=ngalert.sender.router rule_id=bej0wvoqfuh4d org_id=1 count=1
logger=http.server id=user1
logger=context user_id=1 org_id=1 name=admin method=POST path=/api/dashboards/db/1289909399999999?from=now-1h&orgId=1&refresh=1s&vars=None
logger=cleanup duration=2.761136ms
logger=plugins.update.checker duration=40.449039ms
logger=ngalert.sender.router rule_id=bej0wvoqfuh4d org_id=1 count=1
logger=ngalert.sender.router rule_id=bej0wvoqfuh4d org_id=1 count=1
logger=ngalert.sender.router rule_id=bej0wvoqfuh4d org_id=1 count=1
logger=ngalert.notify.alertmanager.org=1 component=alertmanager.orgID=1 component
logger=ngalert.notify.alertmanager.org=1 component=alertmanager.orgID=1 component
...
logger=ngalert.sender.router rule_id=bej0wvoqfuh4d org_id=1 count=1
logger=ngalert.sender.router rule_id=bej0wvoqfuh4d org_id=1 count=1
logger=ngalert.sender.router rule_id=bej0wvoqfuh4d org_id=1 count=1]
```

Figure 1 Grafana Service is running

Open the browser of Grafana below url

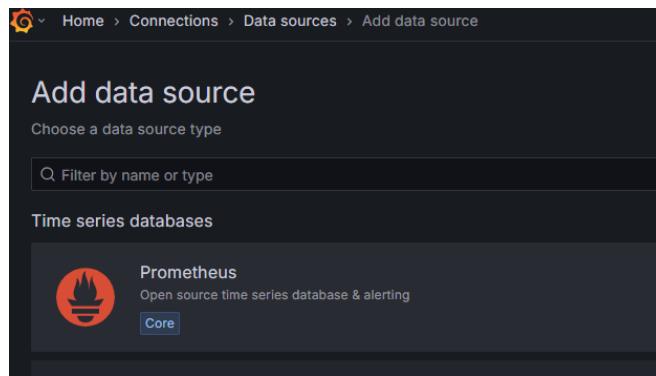
Login with admin/admin and change the password after that



Updated with new: M4vBvm8LfJxmucy

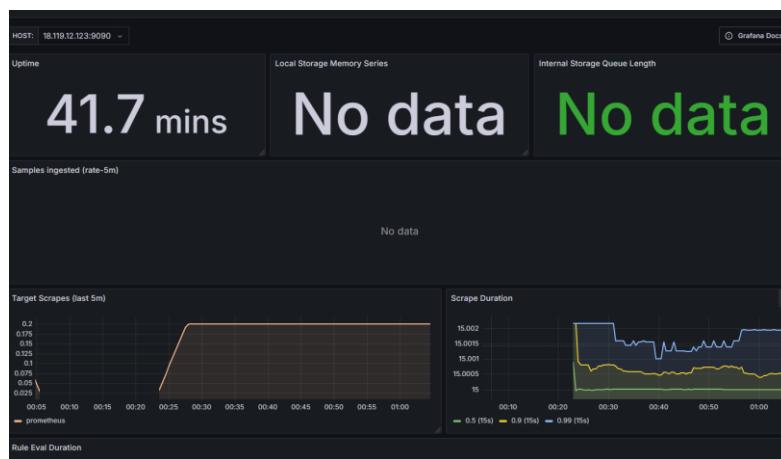
Add data source -> prometheus

A screenshot of a web browser showing the Grafana dashboard creation interface. The address bar at the top shows 'Not secure' and the URL '18.119.12.123:3000/?orgId=1&from=now-6h&to=now&timezone=browser'. The main content area has a dark background with a purple-to-black gradient. At the top left, there is a navigation bar with 'Home > Dashboards > Home'. On the right side of the top bar are links for 'Need help?', 'Documentation', 'Tutorials', 'Community', 'Public Dashboards', and a search bar. Below the navigation bar, the text 'Welcome to Grafana' is displayed. To the right, there is a 'Remove this dashboard' link. The main content area is divided into several sections: 'Basic' (with a note about finishing setup), 'TUTORIAL DATA SOURCE AND DASHBOARDS' (with 'Grafana fundamentals' and a description of the tutorial), 'DATA SOURCES' (with 'Add your first data source' and a 'Learn how in the docs' link), and 'DASHBOARDS' (with 'Create your first dashboard' and a 'Learn how in the docs' link). The overall design is clean and modern, with a focus on user guidance and quick setup.



A screenshot of the Grafana 'prometheus' data source configuration page. The top navigation bar shows 'Home > Connections > Data sources > prometheus'. The main title is 'prometheus' with its icon. The 'Type' is listed as 'Prometheus'. Below are tabs for 'Settings' (which is active) and 'Dashboards'. A search bar shows 'Name: prometheus' and a 'Default' toggle switch which is turned on. A note says 'Before you can use the Prometheus data source, you must configure it below or in the configuration file.' A note also states 'Fields marked with * are required'. The 'Connection' section shows the 'Prometheus server URL *' input field containing 'http://18.119.12.123:9090/'.

Prometheus Server stats



Add Query to retrieve the stats from React-Application

The screenshot shows the Grafana query editor interface. At the top, there are tabs for 'Queries' (1), 'Transformations' (0), and 'Alert' (1). Below that, it says 'Data source: prometheus'. The main area contains a query input field with the text 'probe_success{job="blackbox"}'. There are buttons for 'Run queries', 'Builder', and 'Code'. Below the input field, there are options for 'Metrics browser', 'Options', 'Legend: Auto', 'Format: Time series', 'Step: auto', 'Type: Range', and 'Exemplars: false'. At the bottom, there are buttons for '+ Add query' and '+ Expression'.

Add alert

The screenshot shows the Grafana alert panel. At the top, there are tabs for 'Queries' (1), 'Transformations' (0), and 'Alert' (0). A message 'There are no alert rules linked to this panel.' is displayed. Below it is a blue button labeled 'New alert rule'.

The screenshot shows the Grafana dashboard edit mode. On the left is a chart titled 'React-Application Status' showing a single metric over time. The chart has a y-axis from 0 to 2 and an x-axis from 00:00 to 00:55. The metric name is 'probe_success'. On the right is a configuration sidebar for the panel. It includes sections for 'Time series' (with 'Search options' and 'All' selected), 'Panel options' (with 'Title' set to 'React-Application Status' and 'Description' empty), and 'Panel links' (with 'Repeat options'). The sidebar also shows 'Save dashboard' at the top right.

Stop the application

```
0/tcp react-application
[ec2-user@ip-172-31-11-176 ~]$ docker stop d0bebbfffb6ce
d0bebbfffb6ce
[ec2-user@ip-172-31-11-176 ~]$
```

Blackbox Exporter receive metrics of Uptime React applications

← → ⌛ Not secure 18.119.12.123:9115

Blackbox Exporter

[Probe prometheus.io for http_2xx](#)

[Debug probe prometheus.io for http_2xx](#)

[Metrics](#)

[Configuration](#)

Recent Probes

Module	Target	Result	Debug
http_2xx	http://18.226.96.216	Failure	Logs
http_2xx	http://18.226.96.216	Failure	Logs
http_2xx	http://18.226.96.216	Success	Logs
http_2xx	http://18.226.96.216	Success	Logs
http_2xx	http://18.226.96.216	Success	Logs
http_2xx	http://18.226.96.216	Success	Logs
http_2xx	http://18.226.96.216	Success	Logs
http_2xx	http://18.226.96.216	Success	Logs
...

Blackbox alert

ReactAppDown

PENDING (1)

```
probe_success{job="blackbox"} == 0
for: 1m
severity="critical"
```

description React app on port 80 is not responding to HTTP probe
summary React App is Down

Alert labels	State	Active Since	Value
alertername="ReactAppDown" instance="http://18.226.96.216" job="blackbox" severity="critical"	PENDING	53.424s	0

description React app on port 80 is not responding to HTTP probe
summary React App is Down

ReactAppDown	FIRING (1)
<pre>probe_success{job="blackbox"} == 0</pre>	
🕒 for: 1m	
severity="critical"	
description React app on port 80 is not responding to HTTP probe	
summary React App is Down	
Alert labels	
alertrname="ReactAppDown" instance="http://18.226.96.216" job="blackbox" severity="critical"	State FIRING Active Since 1m 26.635s Value 0
description React app on port 80 is not responding to HTTP probe	
summary React App is Down	

Alertmanager alert firing up

ure 18.119.12.123:9093/#/alerts

Alertmanager Alerts Silences Status Settings Help New Silence

Filter Group Receiver: All Silenced Inhibited Muted

Custom matcher, e.g. env="production" + Silence

+ Expand all groups

- email Not grouped 1 alert

2025-04-15T21:59:27.085Z + Info Source Silence Link

alertrname="ReactAppDown" + instance="http://18.226.96.216" + job="blackbox" + severity="critical" +

Email received

me [FIRING:1] (ReactAppDown http://18.226.96.216 blackbox critical) - 1 alert for View in Alertmanager [1] Firing Labels alertrname = ReactAppDown instance = http://18.226.96.216 job = bla...

[FIRING:1] (ReactAppDown http://18.226.96.216 blackbox critical) Inbox ×

1 alert for

[View In Alertmanager](#)

[1] Firing

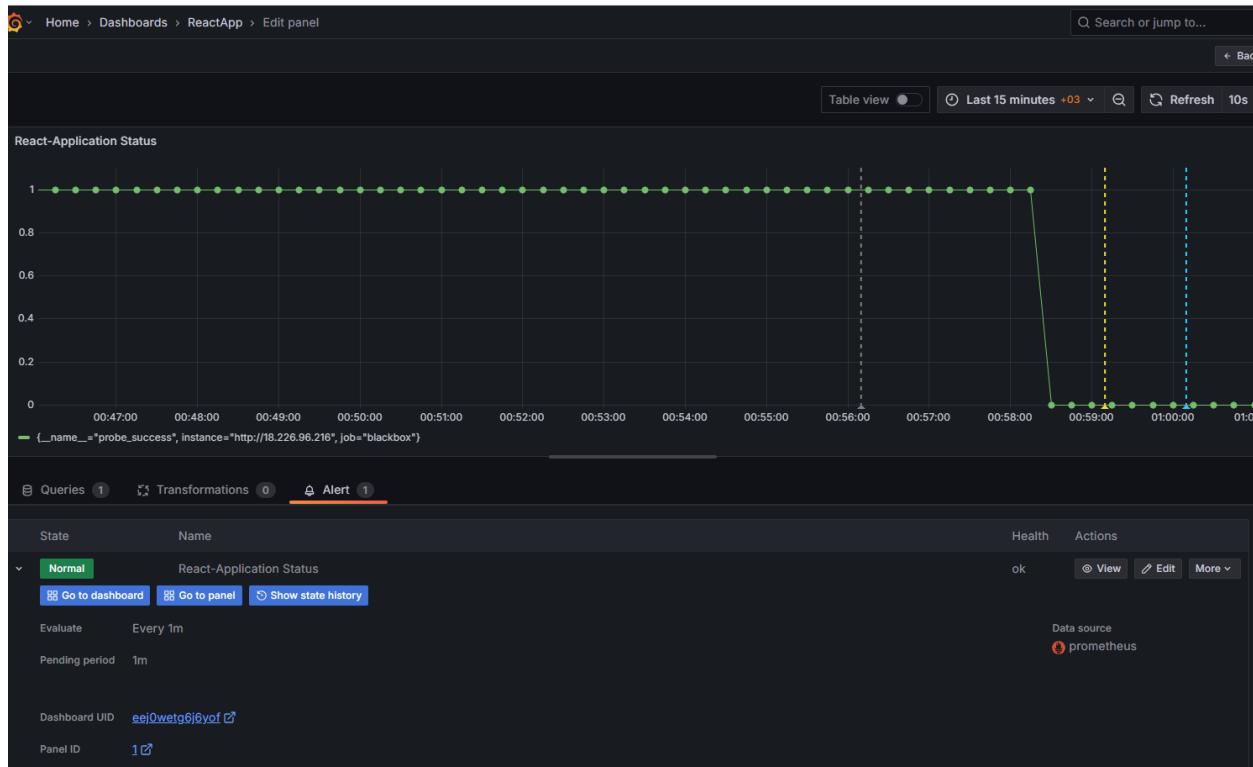
Labels

```
alernname = ReactAppDown
instance = http://18.226.96.216
job = blackbox
severity = critical
```

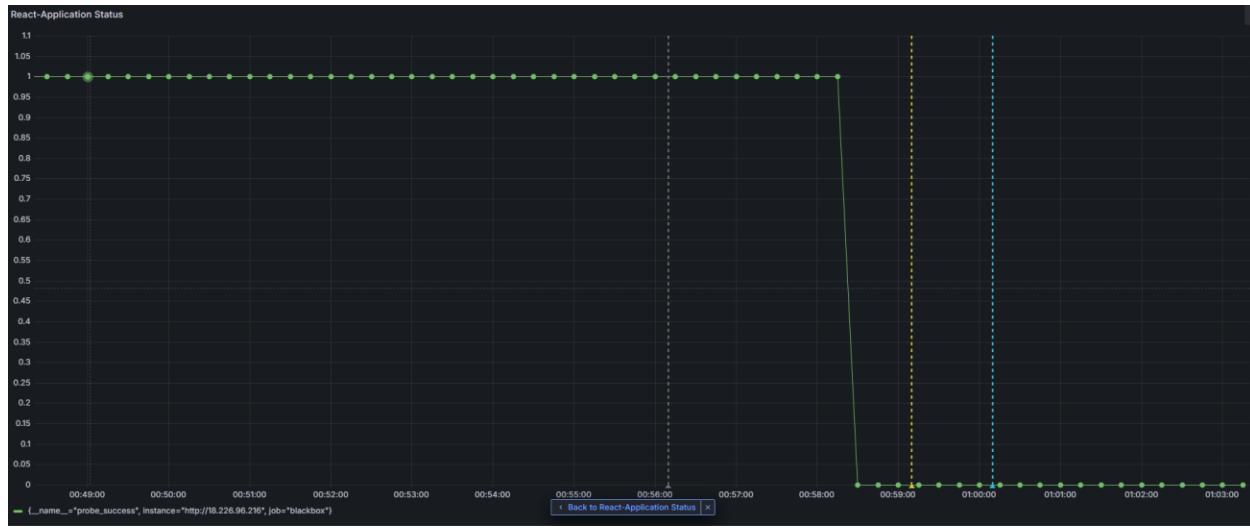
Annotations

```
description = React app on port 80 is not responding to HTTP probe
summary = React App is Down
Source
```

Grafana stats



Grafana graph of React Application (green line shows UP and then it down at 12:58)



Alert status in Grafana Dashboard

State history		
Filter group		Time
{alertname=React-Application Status, datasource_uid=fej0u1wjdy9z4a, grafana_folder=reactapp, ref_id=A}		
State		
Normal (Missingseries)	React-Application Status -	2025-04-16 01:00:00
Nodata	React-Application Status - No data	2025-04-16 00:56:00
{alertname=React-Application Status, grafana_folder=reactapp, instance=http://18.226.96.216, job=blackbox}		
State		
Alerting	React-Application Status - A=0.000000, C=1.000000	2025-04-16 01:00:00
Pending	React-Application Status - A=0.000000, C=1.000000	2025-04-16 00:59:00

Deployed Site tree

