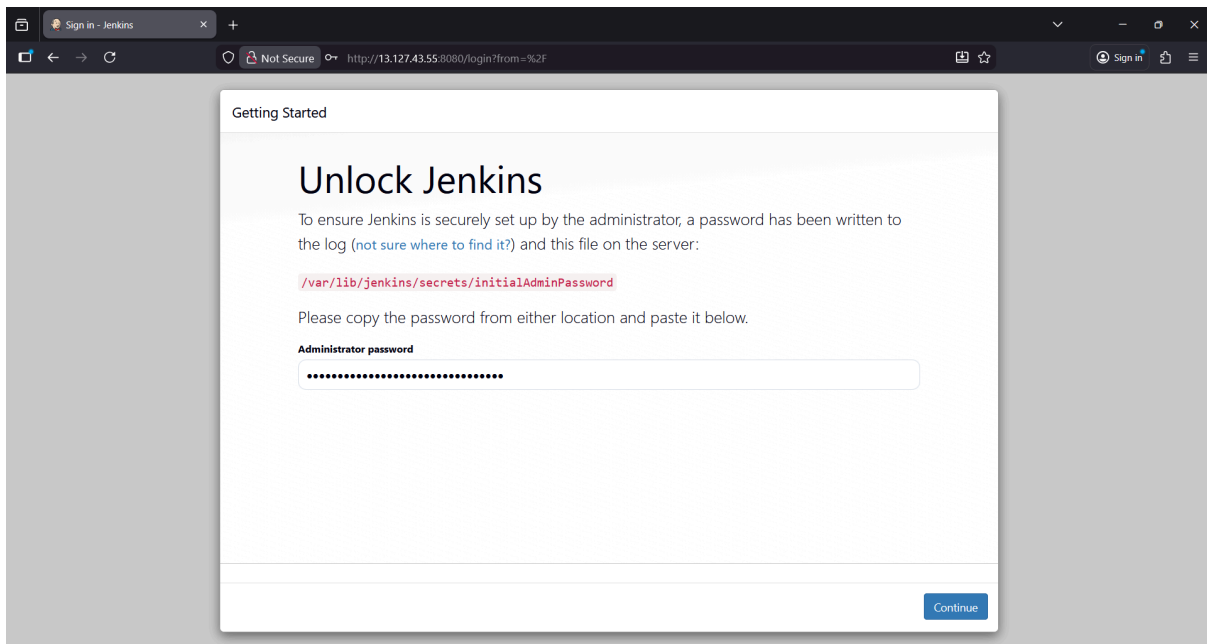


# Application Deployment

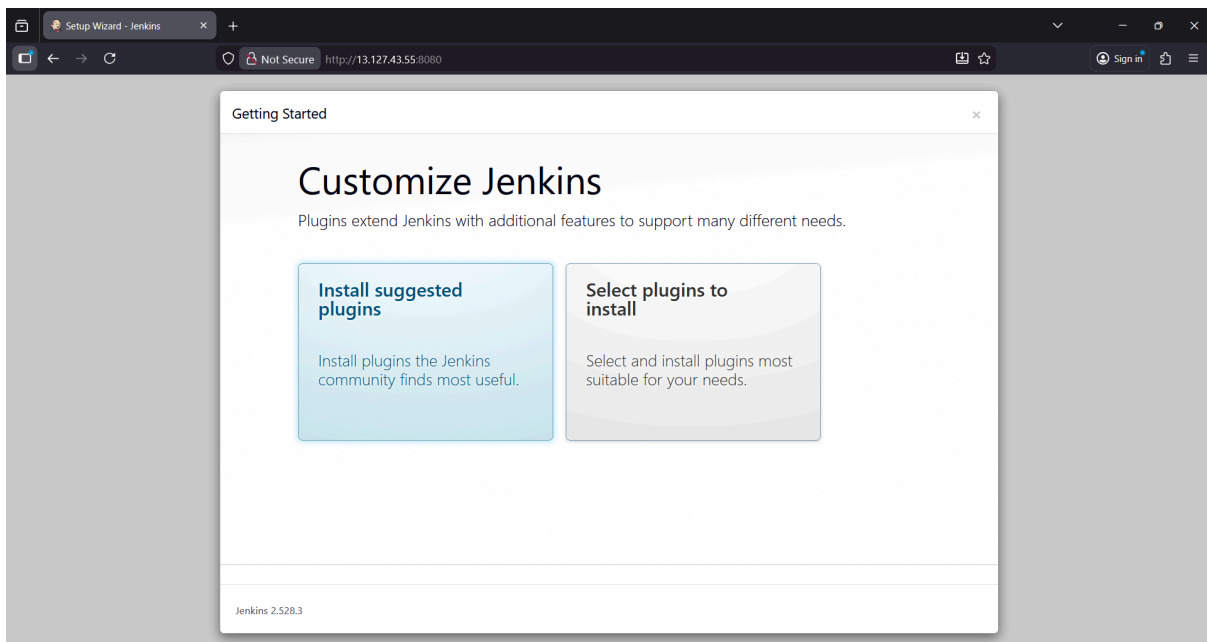
Jenkins :

## JENKINS UI ACCESS & INITIAL UNLOCK



```
[ec2-user@ip-172-31-0-234 ~]$ sudo cat /var/lib/jenkins/secrets/initialAdminPassword  
c1fb0aff543640bfa5386c2cae9bdc72
```

## Install Plugins-Jenkins



## Create First Admin User

The screenshot shows the 'Getting Started' section of the Jenkins Setup Wizard. The main heading is 'Create First Admin User'. Below it are five input fields: 'Username' (containing 'bhavadesh'), 'Password' (masked with dots), 'Confirm password' (masked with dots), 'Full name' (containing 'Bhavadesh'), and 'E-mail address' (containing 'bhavadesharul@gmail.com'). At the bottom, there is a 'Jenkins 2.528.3' label, a 'Skip and continue as admin' link, and a 'Save and Continue' button.

Getting Started

### Create First Admin User

Username  
bhavadesh

Password  
••••••••

Confirm password  
••••••••

Full name  
Bhavadesh

E-mail address  
bhavadesharul@gmail.com

Jenkins 2.528.3

[Skip and continue as admin](#) [Save and Continue](#)

## Instance Configuration

The screenshot shows the 'Getting Started' section of the Jenkins Setup Wizard. The main heading is 'Instance Configuration'. Below it is a 'Jenkins URL:' label followed by an input field containing 'http://13.127.43.55:8080/'. Below the input field is a paragraph of text explaining the Jenkins URL. At the bottom, there is a 'Jenkins 2.528.3' label, a 'Not now' link, and a 'Save and Finish' button.

Getting Started

### Instance Configuration

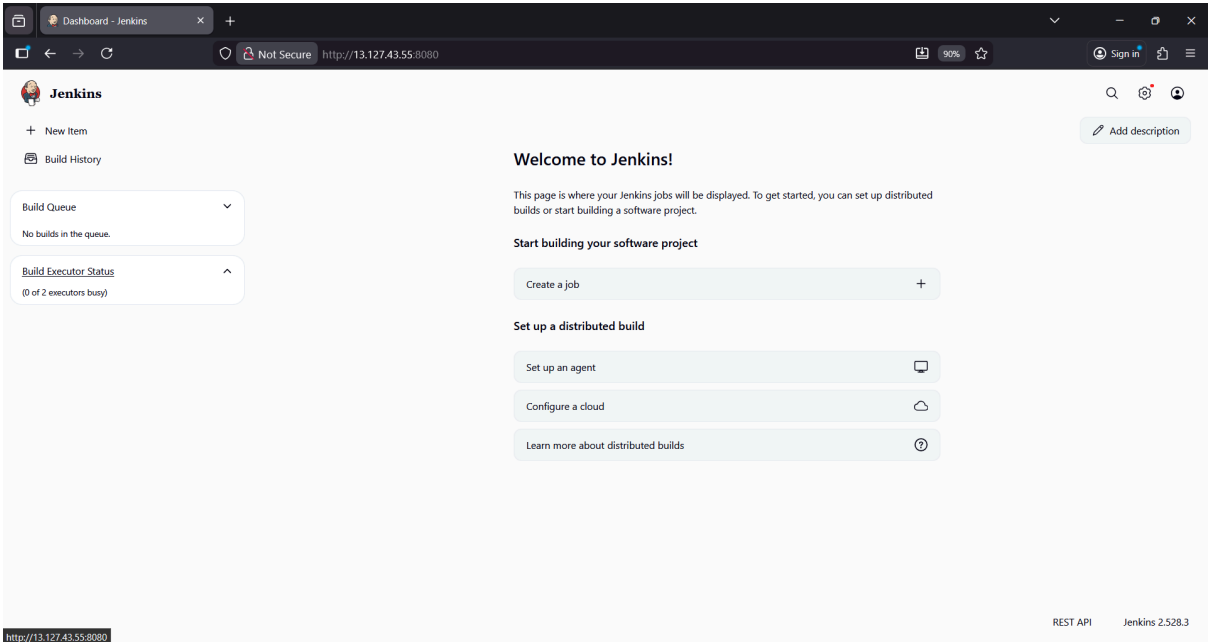
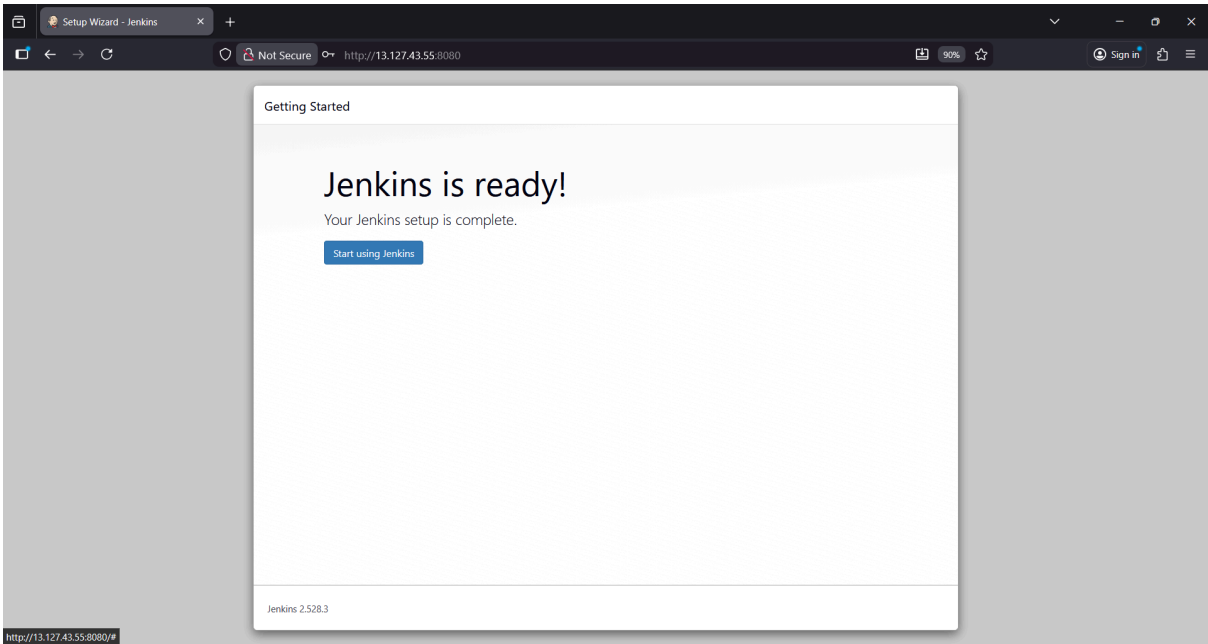
Jenkins URL:

The Jenkins URL is used to provide the root URL for absolute links to various Jenkins resources. That means this value is required for proper operation of many Jenkins features including email notifications, PR status updates, and the BUILD\_URL environment variable provided to build steps.

The proposed default value shown is **not saved yet** and is generated from the current request, if possible. The best practice is to set this value to the URL that users are expected to use. This will avoid confusion when sharing or viewing links.

Jenkins 2.528.3

[Not now](#) [Save and Finish](#)



## AWS EC2 & Security Group :

### Ec2 setup-1

This screenshot shows the 'Launch an instance' page in the AWS Management Console. The 'Name and tags' section is active, with the instance name 'jenkins-devops-server' entered. The 'Application and OS Images (Amazon Machine Image)' section shows a 'Quick Start' tab with various AMIs like Amazon Linux, macOS, Ubuntu, Windows, Red Hat, SUSE Linux, and Debian. The 'Summary' panel on the right shows 1 instance, Amazon Linux 2023 AMI, t2.micro instance type, and 1 volume (8 GiB). The 'Launch instance' button is visible.

**Name and tags** [Info](#)

Name  
jenkins-devops-server [Add additional tags](#)

**Application and OS Images (Amazon Machine Image)** [Info](#)

An AMI contains the operating system, application server, and applications for your instance. If you don't see a suitable AMI below, use the search field or choose [Browse more AMIs](#).

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

Recents **Quick Start**

Amazon Linux macOS Ubuntu Windows Red Hat SUSE Linux Debian

[Browse more AMIs](#)  
Including AMIs from AWS, Marketplace and the Community

**Amazon Machine Image (AMI)**

Amazon Linux 2023 kernel-6.1 AMI

**Summary**

Number of instances [Info](#)  
1

**Software Image (AMI)**  
Amazon Linux 2023 AMI 2023.9.2...[read more](#)  
ami-00ca570c1b6d79f36

**Virtual server type (instance type)**  
t2.micro

**Firewall (security group)**  
New security group

**Storage (volumes)**  
1 volume(s) - 8 GiB

[Cancel](#) [Launch instance](#) [Preview code](#)

This screenshot shows the 'Launch an instance' page in the AWS Management Console, Step 2. The 'Instance type' section shows 't2.micro' selected. The 'Key pair (login)' section shows 'jenkins-key' selected. The 'Network settings' section shows 'vpc-06a880ca5064577ef' selected. The 'Summary' panel on the right shows 1 instance, Amazon Linux 2023 AMI, t2.micro instance type, and 1 volume (8 GiB). The 'Launch instance' button is visible.

**Instance type** [Info](#) [Get advice](#)

Instance type  
t2.micro  
Family: t2 1 vCPU 1 GiB Memory Current generation: true On-Demand Windows base pricing: 0.017 USD per Hour  
On-Demand RHEL base pricing: 0.0268 USD per Hour On-Demand Linux base pricing: 0.0124 USD per Hour  
On-Demand Ubuntu Pro base pricing: 0.0142 USD per Hour On-Demand SUSE base pricing: 0.0124 USD per Hour  
Free tier eligible  
All generations [Compare instance types](#)

**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 before you launch the instance.

Key pair name - *required*  
jenkins-key [Create new key pair](#)

**Network settings** [Info](#)

VPC - *required* [Info](#)  
vpc-06a880ca5064577ef (default) [Create new VPC](#)

Subnet [Info](#)  
No preference [Create new subnet](#)

**Availability Zone** [Info](#)  
us-east-1a

**Summary**

Number of instances [Info](#)  
1

**Software Image (AMI)**  
Amazon Linux 2023 AMI 2023.9.2...[read more](#)  
ami-00ca570c1b6d79f36

**Virtual server type (instance type)**  
t2.micro

**Firewall (security group)**  
New security group

**Storage (volumes)**  
1 volume(s) - 8 GiB

[Cancel](#) [Launch instance](#) [Preview code](#)

This screenshot shows the 'Launch an instance' page in the AWS Management Console, Step 3. The 'Firewall (security groups)' section shows 'Create security group' selected. The 'Summary' panel on the right shows 1 instance, Amazon Linux 2023 AMI, t2.micro instance type, and 1 volume (8 GiB). The 'Launch instance' button is visible.

**Firewall (security groups)** [Info](#)

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

☒ Create security group ☐ Select existing security group

Security group name - *required*  
jenkins-sg

Description - *required* [Info](#)  
launch-wizard-1 created 2026-01-04T07:03:40.963Z

**Inbound Security Group Rules**

Security group rule 1 (TCP, 22, 223.178.83.49/32) [Remove](#)

Type [Info](#) Protocol [Info](#) Port range [Info](#)  
ssh TCP 22

Source type [Info](#) Name [Info](#) Description - *optional* [Info](#)  
My IP [Add CIDR, prefix list or security group](#) e.g. SSH for admin desktop  
223.178.83.49/32

Security group rule 2 (TCP, 80, 0.0.0.0/0) [Remove](#)

Type [Info](#) Protocol [Info](#) Port range [Info](#)  
HTTP TCP 80

**Summary**

Number of instances [Info](#)  
1

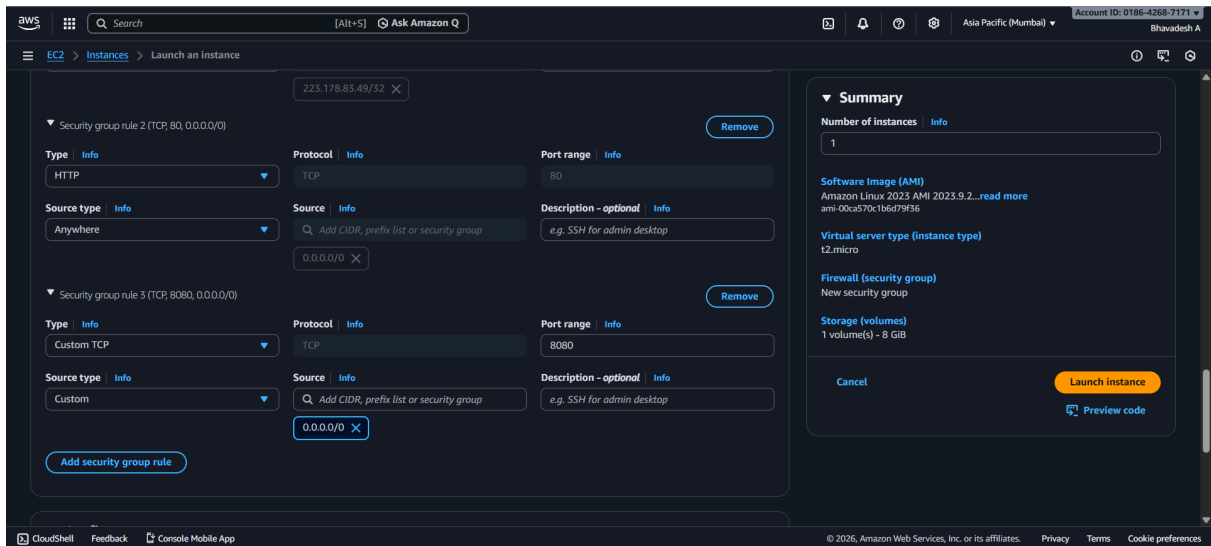
**Software Image (AMI)**  
Amazon Linux 2023 AMI 2023.9.2...[read more](#)  
ami-00ca570c1b6d79f36

**Virtual server type (instance type)**  
t2.micro

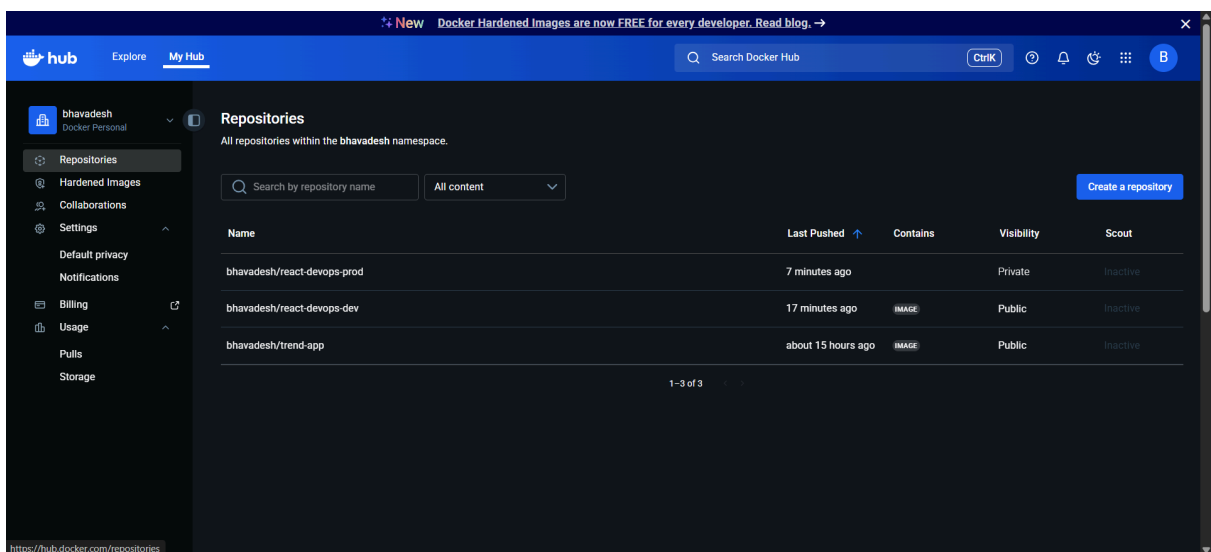
**Firewall (security group)**  
New security group

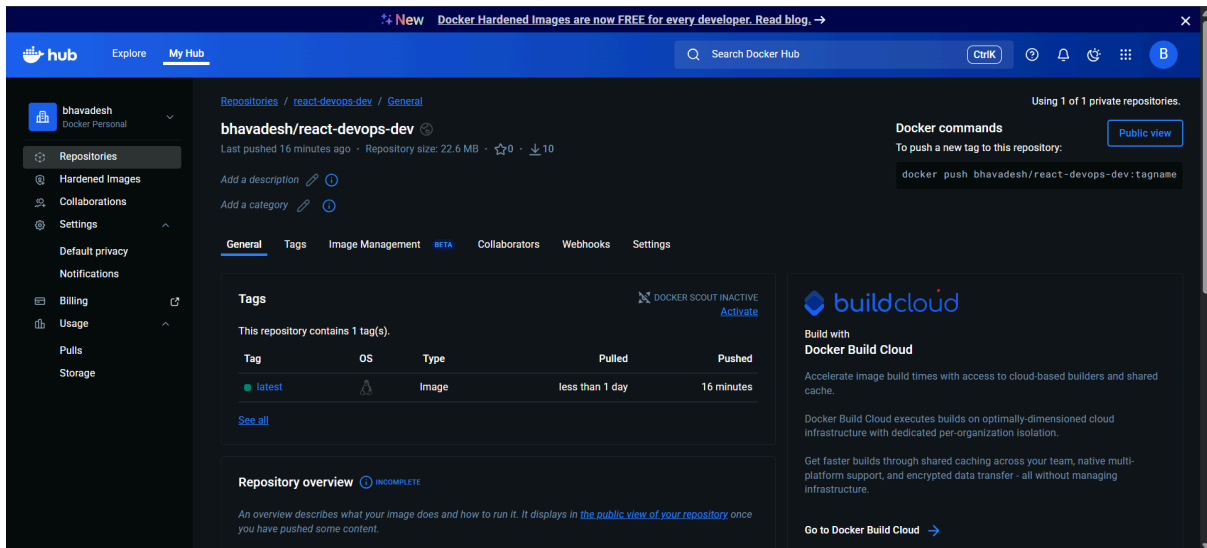
**Storage (volumes)**  
1 volume(s) - 8 GiB

[Cancel](#) [Launch instance](#) [Preview code](#)



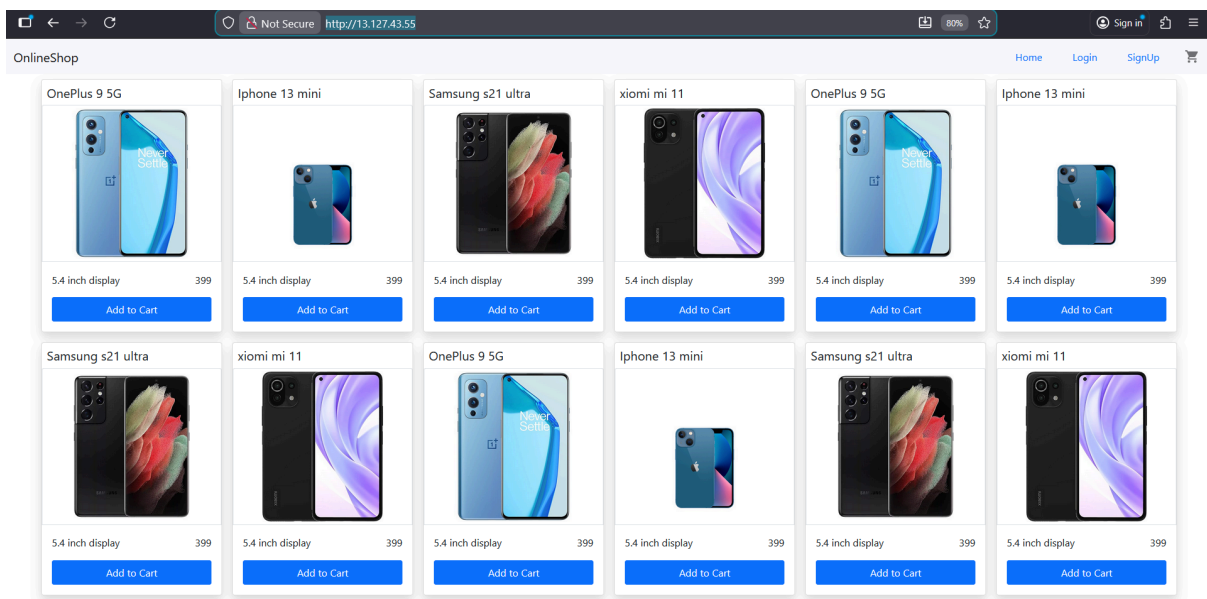
Docker Hub : Repo - dev (public) - Prod (private)



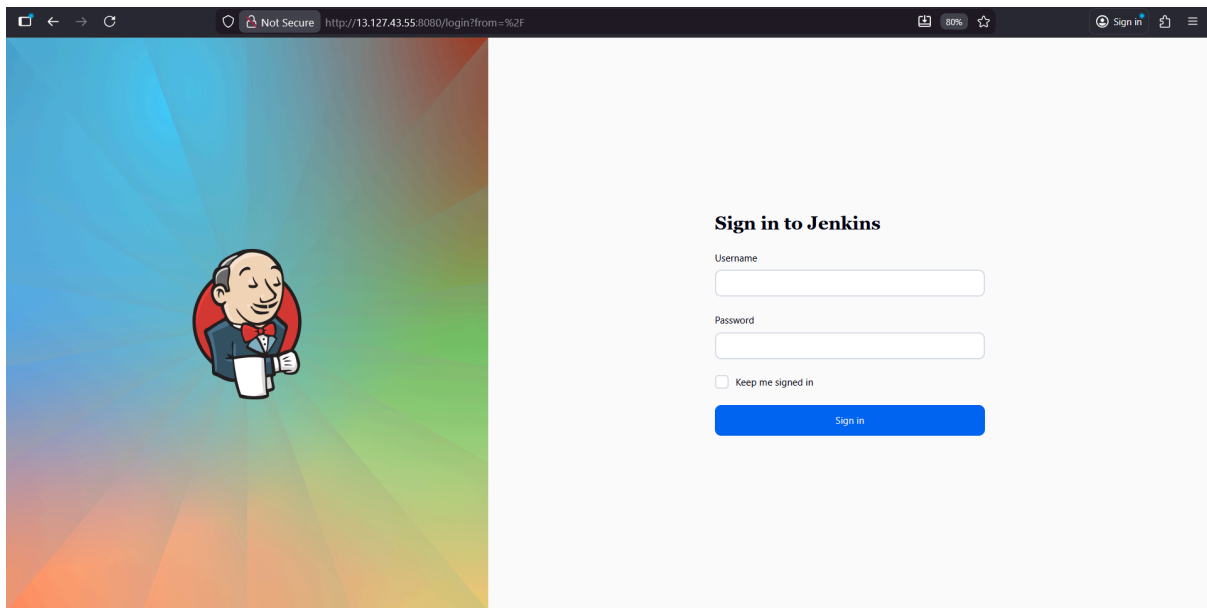


Deployed Application :

<http://13.127.43.55/>



Accessing Jenkins: <http://13.127.43.55:8080/>



Monitoring :

```
[ec2-user@ip-172-31-0-234 react-devops-pipeline]$ sudo vim /opt/app_health_check.sh
[ec2-user@ip-172-31-0-234 react-devops-pipeline]$ sudo chmod +x /opt/app_health_check.sh
[ec2-user@ip-172-31-0-234 react-devops-pipeline]$ cat /opt/app_health_check.sh
#!/bin/bash

APP_URL="http://localhost"
STATUS_CODE=$(curl -o /dev/null -s -w "%{http_code}" $APP_URL)

if [ "$STATUS_CODE" -ne 200 ]; then
    echo "❌ Application DOWN at $(date)" >> /var/log/app_health.log
else
    echo "✅ Application UP at $(date)" >> /var/log/app_health.log
fi

[ec2-user@ip-172-31-0-234 react-devops-pipeline]$
```

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS  GITLENS

* * * * * /bin/bash /opt/app_health_check.sh

~
~
~
~
~
~
~
~
~
~
```

```
[ec2-user@ip-172-31-0-234 react-devops-pipeline]$ sudo tail -n 10 /var/log/app_health.log
✓ Application UP at Sun Jan 4 16:55:01 UTC 2026
✓ Application UP at Sun Jan 4 16:56:01 UTC 2026
✓ Application UP at Sun Jan 4 16:57:02 UTC 2026
✓ Application UP at Sun Jan 4 16:58:01 UTC 2026
✓ Application UP at Sun Jan 4 16:59:01 UTC 2026
✓ Application UP at Sun Jan 4 17:00:02 UTC 2026
✓ Application UP at Sun Jan 4 17:01:01 UTC 2026
✓ Application UP at Sun Jan 4 17:02:02 UTC 2026
✓ Application UP at Sun Jan 4 17:03:01 UTC 2026
✓ Application UP at Sun Jan 4 17:04:01 UTC 2026
```

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Full project execution screenshots are available here : [🔗 Clink Me - 😊](#)

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