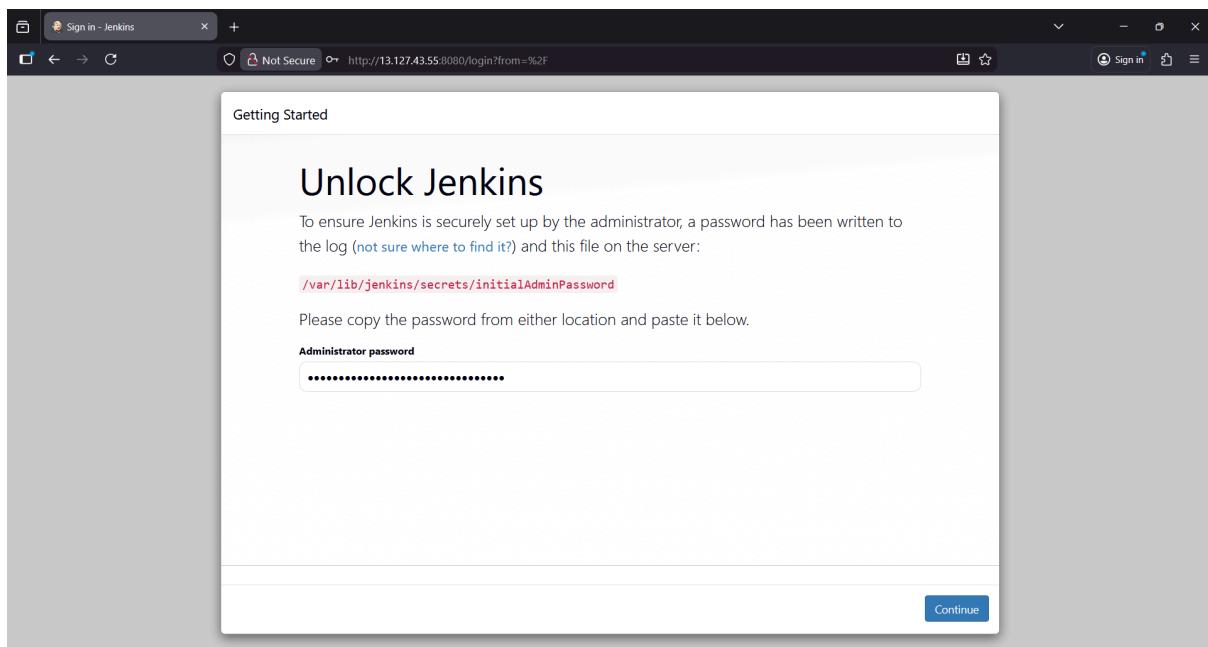


# Application Deployment

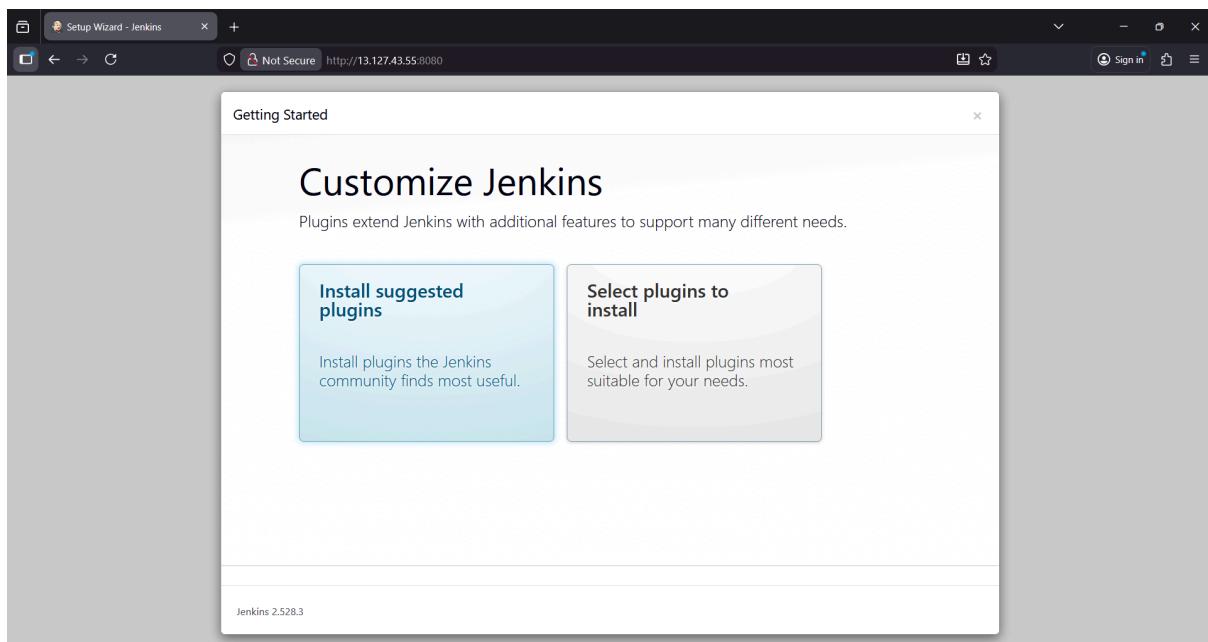
Jenkins :

## 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 'Create First Admin User' step of the Jenkins Setup Wizard. It features a form with five fields: 'Username' (bhavadesh), 'Password' (a masked password), 'Confirm password' (a masked password), 'Full name' (Bhavadesh), and 'E-mail address' (bhavadesharul@gmail.com). At the bottom right are two buttons: 'Skip and continue as admin' and 'Save and Continue'. The URL in the browser is <http://13.127.43.55:8080/>.

## Instance Configuration

The screenshot shows the 'Instance Configuration' step of the Jenkins Setup Wizard. It has a single field 'Jenkins URL' containing the value <http://13.127.43.55:8080/>. Below the field is a detailed description of what the Jenkins URL is used for. At the bottom right are two buttons: 'Not now' and 'Save and Finish'. The URL in the browser is <http://13.127.43.55:8080/>.

The image shows two screenshots of a web browser displaying the Jenkins interface.

**Setup Wizard - Jenkins**

This screenshot shows the "Getting Started" page after setup is complete. It features a large heading "Jenkins is ready!", a subtext "Your Jenkins setup is complete.", and a blue "Start using Jenkins" button. At the bottom, it displays "Jenkins 2.528.3".

**Dashboard - Jenkins**

This screenshot shows the main Jenkins dashboard. It includes:

- A sidebar with "New Item" and "Build History" buttons.
- A main area with the heading "Welcome to Jenkins!" and a subtext: "This page is where your Jenkins jobs will be displayed. To get started, you can set up distributed builds or start building a software project."
- A "Start building your software project" button.
- A "Create a job" button with a "+" icon.
- A section titled "Set up a distributed build" with three buttons: "Set up an agent", "Configure a cloud", and "Learn more about distributed builds".
- Navigation icons at the top right.
- Page footer with "REST API" and "Jenkins 2.528.3".

## AWS EC2 & Security Group :

### Ec2 setup-1

**Name and tags**

Name: jenkins-devops-server

**Application and OS Images (Amazon Machine Image)**

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

**Recent** **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

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**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

All generations

**Key pair (login)**

Key pair name - required jenkins-key

Create new key pair

**Network settings**

VPC - required

vpc-06a880ca5064577ef (default)

Subnet - Info

No preference

Create new subnet

Availability Zone

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**Firewall (security groups)**

Create security group Select existing security group

Security group name - required jenkins-sg

This security group will be added to all network interfaces. The name can't be edited after the security group is created. Max length is 255 characters. Valid characters: a-z, A-Z, 0-9, spaces, and \_-~!@#\$%^&\*()

Description - required

launch-wizard-1 created 2026-01-04T07:03:40.965Z

**Inbound Security Group Rules**

Security group rule 1 (TCP, 22, 223.178.83.49/52)

Type	Protocol	Port range
ssh	TCP	22

Source type

Name

Description - optional

e.g. SSH for admin desktop

223.178.83.49/32

Security group rule 2 (TCP, 80, 0.0.0.0/0)

Type	Protocol	Port range
HTTP	TCP	80

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The screenshot shows the AWS EC2 'Launch an instance' wizard. On the left, under 'Security group rule 2 (TCP, 80, 0.0.0.0/0)', it lists:

- Type: HTTP
- Protocol: TCP
- Port range: 80
- Source type: Anywhere

On the right, under 'Summary', it shows:

- Number of instances: 1
- Software Image (AMI): Amazon Linux 2023 AMI 2023.9.2... (ami-00ca570c1b6d79f36)
- Virtual server type (instance type): t2.micro
- Firewall (security group): New security group
- Storage (volumes): 1 volume(s) - 8 GiB

At the bottom, there are 'Cancel', 'Launch instance', and 'Preview code' buttons.

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

The screenshot shows the Docker Hub interface for the user 'bhavadesh'. The sidebar on the left includes sections for Repositories, Hardened Images, Collaborations, Settings, Default privacy, Notifications, Billing, Usage, Pulls, and Storage. The main area displays the 'Repositories' section with the following details:

- Repositories**: All repositories within the 'bhavadesh' namespace.
- Search bar**: Search by repository name.
- Create a repository** button.
- Table of repositories**:

Name	Last Pushed	Contains	Visibility	Scout
bhavadesh/react-devops-prod	7 minutes ago	IMAGE	Private	Inactive
bhavadesh/react-devops-dev	17 minutes ago	IMAGE	Public	Inactive
bhavadesh/trend-app	about 15 hours ago	IMAGE	Public	Inactive

The screenshot shows the Docker Hub interface for a repository. The top navigation bar includes a 'New' badge for Docker Hardened Images, a search bar, and various user and repository management links. On the left, a sidebar for the user 'bhavadev' lists sections like Repositories, Hardened Images, Collaborations, Settings, Billing, Usage, Pulls, and Storage. The main content area displays the repository 'bhavadev/react-devops-dev' under the 'General' tab. It shows the last push was 16 minutes ago, the repository size is 22.6 MB, and there are 0 stars. There are options to add a description or category. The repository has one private tag, 'latest'. Below this, the 'Tags' section lists the single tag. The 'Repository overview' section is incomplete. A sidebar on the right shows 'Using 1 of 1 private repositories' and provides Docker command options to push a new tag. A 'Public view' button is also present. At the bottom, a callout for 'buildcloud' offers to build with Docker Build Cloud.

Repositories / react-devops-dev / General

bhavadev/react-devops-dev ⓘ

Last pushed 16 minutes ago · Repository size: 22.6 MB · ⭐0 · ↓10

Add a description ⓘ

Add a category ⓘ

General Tags Image Management BETA Collaborators Webhooks Settings

Tags

This repository contains 1 tag(s).

Tag	OS	Type	Pulled	Pushed
latest	🐧	Image	less than 1 day	16 minutes

See all

Repository overview ⓘ INCOMPLETE

An overview describes what your image does and how to run it. It displays in the public view of your repository once you have pushed some content.

Using 1 of 1 private repositories.

Docker commands

To push a new tag to this repository:

```
docker push bhavadev/react-devops-dev:tagname
```

buildcloud

Build with Docker Build Cloud

Accelerate image build times with access to cloud-based builders and shared cache.

Docker Build Cloud executes builds on optimally-dimensioned cloud infrastructure with dedicated per-organization isolation.

Get faster builds through shared caching across your team, native multi-platform support, and encrypted data transfer - all without managing infrastructure.

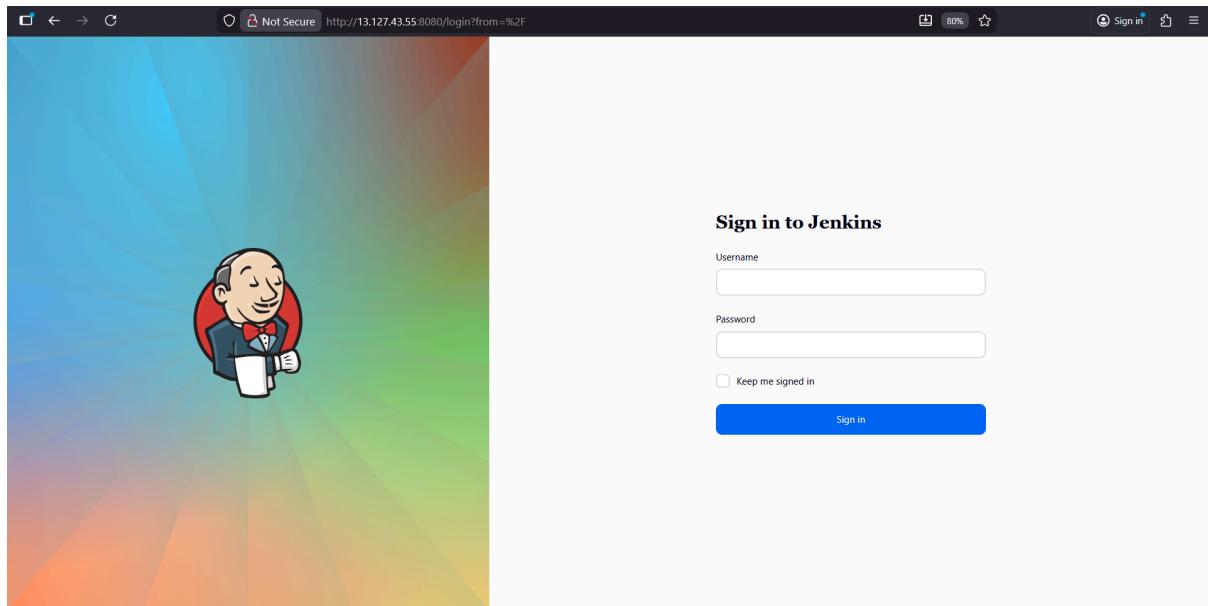
Go to Docker Build Cloud →

## Deployed Application :

<http://13.127.43.55/>

OnlineShop		Home		Login		SignUp	
OnePlus 9 5G		Iphone 13 mini		Samsung s21 ultra		xiom mi 11	
5.4 inch display	399						
<a href="#">Add to Cart</a>		<a href="#">Add to Cart</a>		<a href="#">Add to Cart</a>		<a href="#">Add to Cart</a>	
OnePlus 9 5G		Iphone 13 mini		Samsung s21 ultra		xiom mi 11	
5.4 inch display	399						
<a href="#">Add to Cart</a>		<a href="#">Add to Cart</a>		<a href="#">Add to Cart</a>		<a href="#">Add to Cart</a>	
Samsung s21 ultra		xiom mi 11		OnePlus 9 5G		Iphone 13 mini	
5.4 inch display	399						
<a href="#">Add to Cart</a>		<a href="#">Add to Cart</a>		<a href="#">Add to Cart</a>		<a href="#">Add to Cart</a>	
Samsung s21 ultra		xiom mi 11		OnePlus 9 5G		Iphone 13 mini	
5.4 inch display	399						
<a href="#">Add to Cart</a>		<a href="#">Add to Cart</a>		<a href="#">Add to Cart</a>		<a href="#">Add to Cart</a>	

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]$
```

```
* * * * * /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
```

---

---

Full project execution screenshots are available here : [!\[\]\(d263118e0bfd47dc6bc704167d936b83\_img.jpg\) Click Me - 😊](#)

---