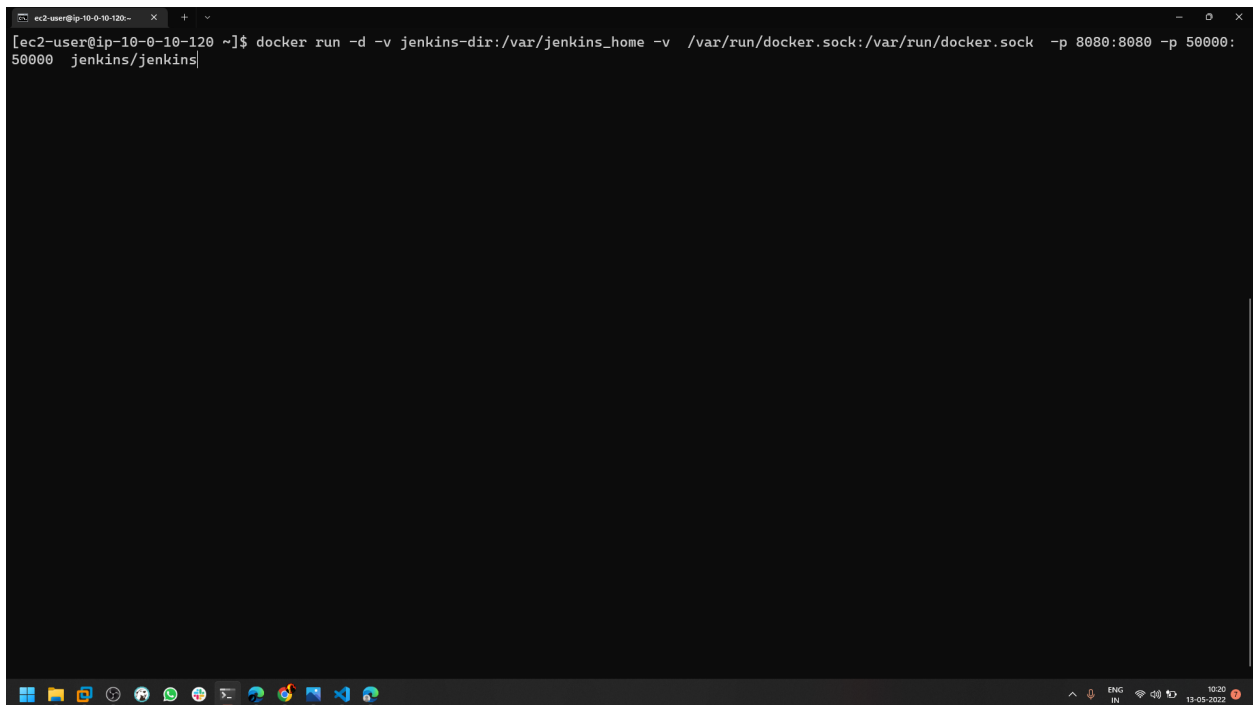


# Access Docker Host from Jenkins Container

Command:

```
docker run -d -v jenkins-dir:/var/jenkins_home -v  
/var/run/docker.sock:/var/run/docker.sock -p 8080:8080 -p 50000:50000 jenkins/jenkins
```

A screenshot of a Windows terminal window. The title bar shows 'ec2-user@ip-10-0-10-120 ~'. The command prompt shows the user is at the root directory (~). The command entered is: `docker run -d -v jenkins-dir:/var/jenkins_home -v /var/run/docker.sock:/var/run/docker.sock -p 8080:8080 -p 50000:50000 jenkins/jenkins`. The command has been executed successfully, and the prompt is now `50000 jenkins/jenkins|`. The terminal background is black, and the text is white. The Windows taskbar is visible at the bottom with various icons and a system clock showing 10:20 on 11-02-2022.

Now open jenkins in the browser and install the default suggested plugin.

Getting Started

# Getting Started

✓ Folders	✓ OWASP Markup Formatter	✓ Build Timeout	✓ Credentials Binding
✓ Timestampers	✓ Workspace Cleanup	✓ Ant	✓ Gradle
✓ Pipeline	✓ GitHub Branch Source	✓ Pipeline: GitHub Groovy Libraries	✓ Pipeline: Stage View
✓ Git	✓ SSH Build Agents	✓ Matrix Authorization Strategy	✓ RAM Authentication
✓ LDAP	✓ Email Extension	✓ Mailer	

Timestampers

- \*\* Caffeine API
- \*\* Script Security
- \*\* JAXB
- \*\* SnakeYAML API
- \*\* Jackson 2 API
- \*\* Plugin Utilities API
- \*\* Fast Autozone API
- \*\* Popper.js 2 API
- \*\* Bootstrap 5 API
- \*\* JQuery3 API
- \*\* Charts API
- \*\* Display URL API
- \*\* Pipeline: Supporting APIs
- \*\* Checks API
- \*\* JUnit
- \*\* Matrix Project
- \*\* Resource Disposer

Workspace Cleanup

Ant

- \*\* Durable Task
- \*\* Pipeline: Nodes and Processes
- \*\* Oracle Java SE Development Kit Installer
- \*\* Command Agent Launcher
- \*\* Bouncycastle API
- \*\* JavaScript GUI Lib: ACE Editor bundle
- \*\* Pipeline: SCM Step
- \*\* Pipeline: Groovy
- \*\* Pipeline: Job
- \*\* Apache HadoopComponents Client 4.x API

Mailer

- \*\* Pipeline: Basic Steps
- \*\* - required dependency

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https://ap-south-1.console.aws.amazon.com/ec2/v2/connect/ec2-user/i-025b238c5ddac9ccd

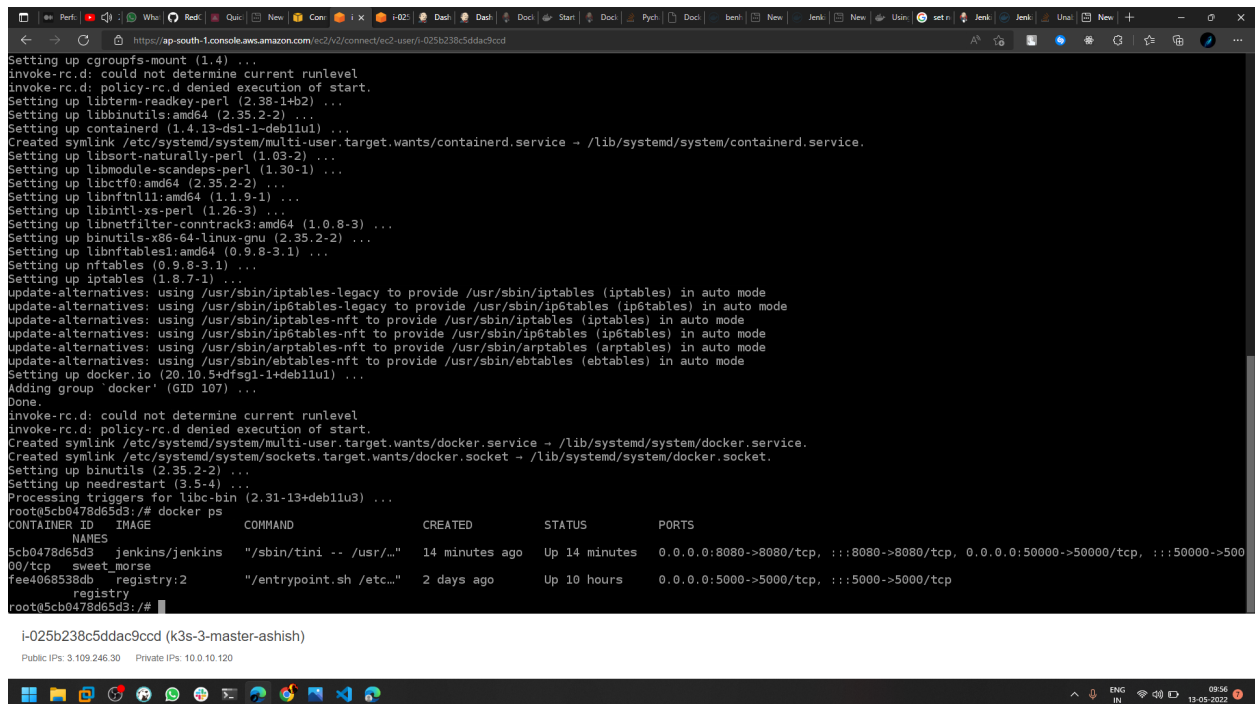
```
[ec2-user@ip-10-0-10-120 ~]$ docker exec -it --user=root 5cb0478d65d3 bash
```

i-025b238c5ddac9ccd (k3s-3-master-ashish)

Public IPs: 3.109.246.30 Private IPs: 10.0.10.120

## Command to run inside jenkins container

1. apt update
2. apt install docker.io
3. If needed than run
  - a. usermod -aG docker jenkins
  - b. chown jenkins /var/run/docker.sock



```
Setting up cgroups-mount (1.4) ...
invoke-rc.d: could not determine current runlevel
invoke-rc.d: policy-rc.d denied execution of start.
Setting up libterm-readkey-perl (2.38-1+b2) ...
Setting up libbinutils:amd64 (2.35.2-2) ...
Setting up containerd (1.4.13-0~deb11u1) ...
Created symlink /etc/systemd/system/multi-user.target.wants/containerd.service -> /lib/systemd/system/containerd.service.
Setting up libsort-naturally-perl (1.03-2) ...
Setting up libmodule-scandeps-perl (1.30-1) ...
Setting up libctf0:amd64 (2.35.2-2) ...
Setting up libnftnl11:amd64 (1.1.9-1) ...
Setting up libintl-xs-perl (1.26-3) ...
Setting up libnetfilter-conntrack3:amd64 (1.0.8-3) ...
Setting up binutils-x86-64-linux-gnu (2.35.2-2) ...
Setting up libnftables1:amd64 (0.9.8-3.1) ...
Setting up nftables (0.9.8-3.1) ...
Setting up iptables (1.8.7-1) ...
update-alternatives: using /usr/sbin/iptables-legacy to provide /usr/sbin/iptables (iptables) in auto mode
update-alternatives: using /usr/sbin/iptables-legacy to provide /usr/sbin/ip6tables (ip6tables) in auto mode
update-alternatives: using /usr/sbin/iptables-nft to provide /usr/sbin/iptables (iptables) in auto mode
update-alternatives: using /usr/sbin/ip6tables-nft to provide /usr/sbin/ip6tables (ip6tables) in auto mode
update-alternatives: using /usr/sbin/arptables-nft to provide /usr/sbin/arptables (arptables) in auto mode
update-alternatives: using /usr/sbin/ebtables-nft to provide /usr/sbin/ebtables (ebtables) in auto mode
Setting up docker.io (20.10.5+dfsg1-1+deb11u1) ...
Adding group 'docker' (GID 107) ...
Done.
invoke-rc.d: could not determine current runlevel
invoke-rc.d: policy-rc.d denied execution of start.
Created symlink /etc/systemd/system/multi-user.target.wants/docker.service -> /lib/systemd/system/docker.service.
Created symlink /etc/systemd/system/sockets.target.wants/docker.socket -> /lib/systemd/system/docker.socket.
Setting up binutils (2.35.2-2) ...
Setting up needrestart (3.5-4) ...
Processing triggers for libc-bin (2.31-13+deb11u3) ...
root@5cb0478d65d3:/# docker ps
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS
5cb0478d65d3	jenkins/jenkins	"/sbin/tini -- /usr/..."	14 minutes ago	Up 14 minutes	0.0.0.0:8080->8080/tcp, :::8080->8080/tcp, 0.0.0.0:50000->50000/tcp, :::50000->50000/tcp
00/tcp	sweet_morse				
fee4068538db	registry:2	"/entrypoint.sh /etc..."	2 days ago	Up 10 hours	0.0.0.0:5000->5000/tcp, :::5000->5000/tcp
root@5cb0478d65d3:/#					

i-025b238c5ddac9ccd (k3s-3-master-ashish)

Public IPs: 3.109.246.30 Private IPs: 10.0.10.120

## Setup the cloud:

The screenshot shows the Jenkins 'Manage Jenkins' page. At the top, there's a yellow banner with the text: 'Building on the built-in node can be a security issue. You should set up distributed builds. See the documentation.' Below this, the page is divided into three main sections: System Configuration, Security, and Status Information. The System Configuration section includes links for Configure System, Global Tool Configuration, Manage Plugins, and Manage Nodes and Clouds. The Security section includes links for Configure Global Security, Manage Credentials, Configure Credential Providers, and Manage Users. The Status Information section includes links for System Information, System Log, Load Statistics, and About Jenkins. The left sidebar contains navigation links for New Item, People, Build History, Manage Jenkins, My Views, Lockable Resources, and New View. The bottom of the page shows the 'Build Queue' and 'Build Executor Status' sections.

### Manage Jenkins

Building on the built-in node can be a security issue. You should set up distributed builds. See the documentation.

#### System Configuration

- Configure System: Configure global settings and paths.
- Global Tool Configuration: Configure tools, their locations and automatic installers.
- Manage Plugins: Add, remove, disable or enable plugins that can extend the functionality of Jenkins.
- Manage Nodes and Clouds: Add, remove, control and monitor the various nodes that Jenkins runs jobs on.

#### Security

- Configure Global Security: Secure Jenkins; define who is allowed to access/use the system.
- Manage Credentials: Configure credentials.
- Configure Credential Providers: Configure the credential providers and types.
- Manage Users: Create/delete/modify users that can log in to this Jenkins.

#### Status Information

- System Information: Displays various environmental information to assist trouble-shooting.
- System Log: System log captures output from java.util.logging output related to Jenkins.
- Load Statistics: Check your resource utilization and see if you need more computers for your builds.
- About Jenkins: See the version and license information.

### Manage nodes and clouds

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S	Name	Architecture	Clock Difference	Free Disk Space	Free Swap Space	Free Temp Space	Response Time
	Built-In Node	Linux (amd64)	In sync	178.69 GB	0 B	178.69 GB	0ms
	Data obtained	15 min	15 min	15 min	15 min	15 min	15 min

