

Jenkins CICD - Whiteboard — Mozilla Firefox

Areez01/class Jenkins CICD - Whiteboard Sign in [Jenkins]

https://www.canva.com/design/DAFb9wHUIdA/1bvGdz2P8oqQj02IS8rvLA/edit 80%

Home File Resize Jenkins CICD Try Canva Pro AA + Share

```
graph LR; Dev[Developer] -- CODE --> GitHub; GitHub -- Pull Code --> Jenkins; Jenkins -- Deploy --> APACHE_NGINX[APACHE / NGINX]; APACHE_NGINX -- End User --> EndUser[End User];
```

Notes Timer Page 1 of 1 47%

9:46 PM 1/3/23

Webhook - http://3.109.209.85:8080

github.com/DiliipKumar/my-app/settings/hooks/491544320

github.com / DiliipKumar / my-app

CodeIssuesPull requestsActionsProjectsWikiSecurityInsightsSettings

General

Access

Collaborators

Moderation options

Code and automation

Branches

Tags

Rules

Actions

Webhooks

Environments

Codespaces

Pages

Security

Code security and analysis

Deploy keys

Secrets and variables

Webhooks / Manage webhook

SettingsRecent Deliveries

We'll send a POST request to the URL below with details of any subscribed events. You can also specify which data format you'd like to receive (JSON, `x-www-form-urlencoded`, etc). More information can be found in [our developer documentation](#).

Payload URL *

http://3.109.209.85:8080/github-webhook/

Content type *

application/x-www-form-urlencoded

Secret

SSL verification

By default, we verify SSL certificates when delivering payloads.

☒ Enable SSL verification ☐ Disable (not recommended)

Which events would you like to trigger this webhook?

SH85 / Hosur M... Construction

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Webhook - http://3.109.209.85:8080/React-app job Config [Jenkins]

13.201.22.27:8080/job/React-app%20job/configure

Dashboard > React-app job > Configuration

Configure

General

Advanced Project Options

Pipeline

☐ GitHub project

☐ Pipeline speed/durability override ?

☐ Preserve stashes from completed builds ?

☐ This project is parameterized ?

☐ Throttle builds ?

Build Triggers

☐ Build after other projects are built ?

☐ Build periodically ?

☒ GitHub hook trigger for GITScm polling ?

☐ Poll SCM ?

☐ Quiet period ?

☐ Trigger builds remotely (e.g., from scripts) ?

Advanced Project Options

SaveApply

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Configure

- General
- Advanced Project Options
- Pipeline

Definition

Pipeline script

Script ?

```
1 pipeline {
2   agent any
3
4   stages {
5     stage('Checkout') {
6       steps {
7         git url: 'https://github.com/Diliipkumar/my-app', branch: 'master'
8       }
9     }
10
11    stage('Install Dependencies') {
12      steps {
13        sh 'npm install'
14      }
15    }
16
17    stage('Build') {
```

☒ Use Groovy Sandbox ?

[Pipeline Syntax](#)

Save

Apply

REST API Jenkins 2.452.3

Webhook - http://3.109.209.85:8080/React-app job Config [Jenkins]Saved MessagesLinux

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> User Documentation Home

User Handbook

- User Handbook Overview
- Installing Jenkins
 - Docker
 - Kubernetes
 - Linux
 - macOS
 - Windows
 - Other Systems
 - WAR file
 - Other Servlet Containers
 - Offline Installations
 - Initial Settings
- Platform Information
- Using Jenkins
- Pipeline
- Blue Ocean
- Managing Jenkins
- Securing Jenkins
- System Administration
- Scaling Jenkins
- Troubleshooting Jenkins
- Glossary

Tutorials

Here, "8081" was chosen but you can put another port available.

Installation of Java

Jenkins requires Java to run, yet not all Linux distributions include Java by default. Additionally, not all Java versions are compatible with Jenkins.

There are multiple Java implementations which you can use. [OpenJDK](#) is the most popular one at the moment, we will use it in this guide.

Update the Debian apt repositories, install OpenJDK 17, and check the installation with the commands:

```
sudo apt update
sudo apt install fontconfig openjdk-17-jre
java -version
openjdk version "17.0.8" 2023-07-18
OpenJDK Runtime Environment (build 17.0.8+7-Debian-1deb12u1)
OpenJDK 64-Bit Server VM (build 17.0.8+7-Debian-1deb12u1, mixed mode, sharing)
```

i Why use `apt` and not `apt-get` or another command? The `apt` command has been available since 2014. It has a command structure that is similar to `apt-get` but was created to be a more pleasant experience for typical users. Simple software management tasks like install, search and remove are easier with `apt`.

Fedora

You can install Jenkins through `dnf`. You need to add the Jenkins repository from the Jenkins website to the package manager first.

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 - Kubernetes
 - Linux
 - macOS
 - Windows
 - Other Systems
 - WAR file
 - Other Servlet Containers
 - Offline Installations
 - Initial Settings
- Platform Information
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- Pipeline
- Blue Ocean
- Managing Jenkins
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- Glossary

Tutorials

- For Linux operating system: [Linux Support Policy](#)
- For servlet containers: [Servlet Container Support Policy](#)

Debian/Ubuntu

On Debian and Debian-based distributions like Ubuntu you can install Jenkins through [apt](#).

i

With the release of [Debian 12](#), [OpenJDK 11](#) is **no longer** included. It has been replaced with [OpenJDK 17](#), which is reflected in the instructions below.

Long Term Support release

A [LTS \(Long-Term Support\) release](#) is chosen every 12 weeks from the stream of regular releases as the stable release for that time period. It can be installed from the [debian-stable apt repository](#).

```
sudo wget -O /usr/share/keyrings/jenkins-keyring.asc \
  https://pkg.jenkins.io/debian-stable/jenkins.io-2023.key
echo "deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc] \
  https://pkg.jenkins.io/debian-stable binary/" | sudo tee \
  /etc/apt/sources.list.d/jenkins.list > /dev/null
sudo apt-get update
sudo apt-get install jenkins
```

Weekly release

A new release is produced weekly to deliver bug fixes and features to users and plugin developers. It can be installed from the [debian apt repository](#).

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React-app job Config [Jenkins]

Saved Messages

Linux

Jenkins NPM Not Found

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chatgpt.com/c/5883c7f7-e003-4134-84ab-eb5510be949e

ChatGPT

ChatGPT

Slide Maker: PowerP...

Explore GPTs

Today

Introduction to Shell Scripting

Deploying React App Summary

Jenkins NPM Not Found

Yesterday

Jenkins Deployment Permission

SSH Connection Timeout Trouble

Experience Update Request

Full Stack MERN Developer

Resume Summary Review

Resume Hearing Update

Upgrade plan

Get GPT-4, DALL-E, and more

• Edit the `sudoers` file:

Open the `sudoers` file using `visudo` (which safely edits the `sudoers` file):

```
bash
sudo visudo
```

• Add the following line to the `sudoers` file:

```
bash
jenkins ALL=(ALL) NOPASSWD: /bin/cp, /bin/chown, /bin/systemctl
```

This line allows the `jenkins` user to run the `cp`, `chown`, and `systemctl` commands with `sudo` without needing a password.

2. Update Your Jenkins Pipeline

Since you've made `sudo` commands passwordless, you can safely remove the `sudo` commands from your script or ensure that they do not require interaction:

Message ChatGPT

ChatGPT can make mistakes. Check important info.

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iam-veeramalla/Jenkins-Zero-To-Hero

github.com/iam-veeramalla/Jenkins-Zero-To-Hero/tree/main

VPN

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Docker Slave Configuration

Run the below command to Install Docker

```
sudo apt update
sudo apt install docker.io
```

Grant Jenkins user and Ubuntu user permission to docker daemon.

```
sudo su -
usermod -aG docker jenkins
usermod -aG docker ubuntu
systemctl restart docker
```

Once you are done with the above steps, it is better to restart Jenkins.

```
http://<ec2-instance-public-ip>:8080/restart
```

The docker agent configuration is now successful.

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```
// Verify the build directory exists and has files
sh 'if [ ! -d build ]; then echo "Build directory does not exist"; exit 1; fi'

// Check if the target directory exists
sh 'if [ ! -d /usr/share/nginx/html ]; then echo "Nginx target directory does not exist"; exit 1; fi'

// Copy build files to Nginx directory
sh 'sudo cp -r build/* /usr/share/nginx/html/ || { echo "Failed to copy build files"; exit 1; }'

// Adjust ownership to the correct user and group
sh 'sudo chown -R www-data:www-data /usr/share/nginx/html/ || { echo "Failed to change ownership"; exit 1; }'

// Done! We're ready to go!
```

```
ubuntu@ip-172-31-0-185: ~  
ubuntu@ip-172-31-0-185:~$ sudo cat /etc/nginx/sites-available/default  
##  
# You should look at the following URL's in order to grasp a solid understanding  
# of Nginx configuration files in order to fully unleash the power of Nginx.  
# https://www.nginx.com/resources/wiki/start/  
# https://www.nginx.com/resources/wiki/start/topics/tutorials/config_pitfalls/  
# https://wiki.debian.org/Nginx/DirectoryStructure  
#  
# In most cases, administrators will remove this file from sites-enabled/ and  
# leave it as reference inside of sites-available where it will continue to be  
# updated by the nginx packaging team.  
#  
# This file will automatically load configuration files provided by other  
# applications, such as Drupal or Wordpress. These applications will be made  
# available underneath a path with that package name, such as /drupal8.  
#  
# Please see /usr/share/doc/nginx-doc/examples/ for more detailed examples.  
##  
  
# Default server configuration  
#  
server {  
    listen 80 default_server;  
    listen [::]:80 default_server;  
  
    # SSL configuration  
    #  
    # listen 443 ssl default_server;  
    # listen [::]:443 ssl default_server;  
    #  
    # Note: You should disable gzip for SSL traffic.  
    # See: https://bugs.debian.org/773332  
    #  
    # Read up on ssl_ciphers to ensure a secure configuration.  
    # See: https://bugs.debian.org/765782  
    #  
    # Self signed certs generated by the ssl-cert package  
    # Don't use them in a production server!  
    #  
    include snippets/snakeoil.conf;  
}
```

Webhook - http://3.109.2...React-app job Config [Jenkins]LinuxJenkins NPM Not FoundConnect to instance | EC2JENKINS END TO END CI...iam-veeramalla/Jenkins

github.com/iam-veeramalla/Jenkins-Zero-To-Hero/tree/main

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```
/usr/share/keyrings/jenkins-keyring.asc > /dev/null
echo deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc] \
https://pkg.jenkins.io/debian binary/ | sudo tee \
/etc/apt/sources.list.d/jenkins.list > /dev/null
sudo apt-get update
sudo apt-get install jenkins
```

****Note:**** By default, Jenkins will not be accessible to the external world due to the inbound traffic restriction by AWS. Open port 8080 in the inbound traffic rules as show below.

- EC2 > Instances > Click on
- In the bottom tabs -> Click on Security
- Security groups
- Add inbound traffic rules as shown in the image (you can just allow TCP 8080 as well, in my case, I allowed `All traffic`).

Inbound rules (4)

Filter security group rules

1

<input type="checkbox"/>	Name	Security group rule...	IP version	Type	Protocol	Port range	Source	Description
<input type="checkbox"/>	-	sg-0ba0d61401a5517...	IPv4	HTTP	TCP	80	0.0.0.0/0	-
<input type="checkbox"/>	-	sg-026c9081e05740f19	IPv4	All traffic	All	All	0.0.0.0/0	-
<input type="checkbox"/>	-	sg-0594f720a00a30b...	IPv4	HTTPS	TCP	443	0.0.0.0/0	-

Login to Jenkins using the below URL:

http://8080 [You can get the ec2-instance-public-ip-address from your AWS EC2 console page]

Note: If you are not interested in allowing `All Traffic` to your EC2 instance 1. Delete the inbound traffic rule for your instance 2. Edit the inbound traffic rule to only allow custom TCP port `8080`

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```
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```

The docker agent configuration is now successful.

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```
# Self signed certs generated by the ssl-cert package
# Don't use them in a production server!
#
# include snippets/snakeoil.conf;

root /usr/share/nginx/html;

# Add index.php to the list if you are using PHP
```