

Assignment 1

Create a simple FreeStyle Job To Install Nginx on the server

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JENKINS

- Jenkins is an open-source automation server used for **Continuous Integration (CI) and Continuous Deployment (CD)**.
- It helps automate the process of building, testing, and deploying applications, making software development faster and more reliable.

Key Features of Jenkins

- **Automation:** Automates repetitive tasks like builds and deployments
- **Plugins:** Supports 1,800+ plugins for integration with tools like Git, Docker, Kubernetes
- **Pipeline Support:** Allows scripting build workflows using **Jenkins Pipeline** (Groovy-based)
- **Distributed Builds:** Can run jobs on multiple machines to improve efficiency
- **Easy Integration:** Works with version control systems (Git, GitHub, GitLab, Bitbucket)

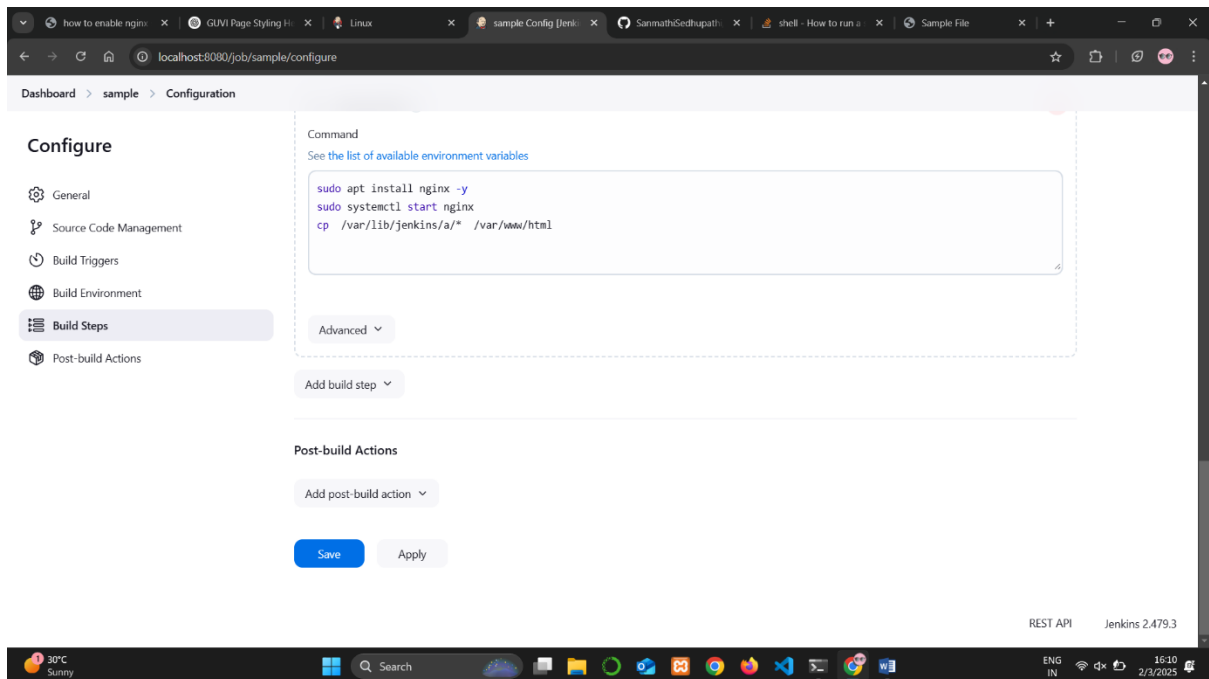
Steps to Create a Freestyle Job to Install Nginx

1. Open Jenkins Dashboard and click on "New Item"
2. Enter a job name and select Freestyle Project, then click OK
3. Navigate to the Build section and select "Execute shell"
4. Enter the following shell script to install Nginx:

```
sudo apt update  
  
sudo apt install -y nginx  
  
sudo systemctl start nginx  
  
sudo systemctl enable nginx
```

5. Click **Save** and then **Build Now** to execute the job

1. Installing Nginx



2. Updating Access for Jenkins

```
#Defaults:%sudo env_keep += "EMAIL DEBEMAIL DEBFULLNAME"

# "sudo scp" or "sudo rsync" should be able to use your SSH agent.
#Defaults:%sudo env_keep += "SSH_AGENT_PID SSH_AUTH_SOCK"

# Ditto for GPG agent
#Defaults:%sudo env_keep += "GPG_AGENT_INFO"

# Host alias specification

# User alias specification

# Cmnd alias specification

# User privilege specification
root    ALL=(ALL:ALL) ALL
jenkins ALL=(ALL) NOPASSWD:ALL
# Members of the admin group may gain root privileges
%admin  ALL=(ALL) ALL

# Allow members of group sudo to execute any command
%sudo   ALL=(ALL:ALL) ALL

# See sudoers(5) for more information on "@include" directives:

@include /etc/sudoers.d

jenkins ALL=(ALL) NOPASSWD: /usr/bin/apt, /usr/bin/systemctl
'/etc/sudoers" [readonly] 59L, 1892B
```

Console output

how to enable nginx

GUI Page Styling H

Linux

sample #34 Console

SanmathiSedhupati

shell - How to run a

Sample File

localhost:8080/job/sample/34/console

Jenkins

Search (CTRL+K)

Sanmathi S

log out

Dashboard

sample

#34

Console Output

Status

Changes

Console Output

Edit Build Information

Delete build '#34'

Timings

Previous Build

Console Output

Download

Copy

View as plain text

Started by user Sanmathi S

Running as SYSTEM

Building in workspace /var/lib/jenkins/workspace/sample

[sample] \$ /bin/sh -xe /tmp/jenkins16286610778793449018.sh

+ sudo apt install nginx -y

WARNING: apt does not have a stable CLI interface. Use with caution in scripts.

Reading package lists...

Building dependency tree...

Reading state information...

nginx is already the newest version (1.24.0-2ubuntu7.1).

0 upgraded, 0 newly installed, 0 to remove and 82 not upgraded.

+ sudo systemctl start nginx

+ cp /var/lib/jenkins/a/index.html /var/www/html/

Finished: SUCCESS

REST API

Jenkins 2.479.3

Chrome output

how to enable nginx

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sample Config (Deni

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shell - How to run a

Sample File

localhost

This is a Sample file created using Jenkins by Sanmathi S

Welcome to the Jenkins demo!

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30°C

Sunny

Search

ENG

IN

16:23

2/3/2025