Building using Maven

Objective

Maven is like a project manager for Java applications. Just like a manager organizes tasks, resources, and deadlines, Maven organizes dependencies, builds, tests, and deployments, ensuring everything runs smoothly and efficiently.

Procedure

Step 1: Install Java and Maven on Ubuntu
Step 2: Fork the eKart Repository on GitHub
Step 3: Configure Jenkins Create
a New Job in Jenkins

1. Open Jenkins in your browser.
2. Click on New Item → Select Freestyle Project → Name it Maven_task5 → Click OK.
Configure the Job •
Set up Build Tools:
o Under Global Tool Configuration, add Java and Maven if not configured.
• Set GitHub Repository:
o Go to Source Code Management → Select Git.
o Paste the forked repository URL. o Set the
branch to main.
• Add Build Command:
o Go to Build → Add Build Step → Select Invoke top-level Maven
targets.
o Enter: clean package -DskipTests o Then Build Now.

Step 4: Navigate to Jenkins Workspace cd
/var/lib/jenkins/workspace ls # List
available projects cd Maven_task5 cd
target ls # Verify generated artifacts (e.g.,
.jar file)

Step 5: Check Docker Image and Kubernetes Deployment docker build -t test -f
docker/Dockerfile docker push subiksha17/password kubectl create deployment
maven --image=test –port 80 kubectl expose deployment maven --
type=NodePort --port=80 --target-port=8070 docker images | grep
subiksha17/mave # Verify Docker image is built kubectl get pods # Check
running pods minikube service maven # Get the service URL

```
hp@LAPTOP-9EU7EI28 MINGW64 ~/Downloads/infosys-petclinic
$ mvn clean
[INFO] Scanning for projects...
[INFO]
[INFO] -------< org.springframework.samples:spring-framework-petclinic >-------
[INFO] Building Spring Framework Petclinic 5.3.13
[INFO]   from pom.xml
[INFO] --------------------------------[ war ]---------------------------------
[INFO]
[INFO] --- clean:3.2.0:clean (default-clean) @ spring-framework-petclinic ---
[INFO] Deleting C:\Users\hp\Downloads\infosys-petclinic\target
[INFO] ------------------------------------------------------------------------
[INFO] BUILD SUCCESS
[INFO] ------------------------------------------------------------------------
[INFO] Total time:  0.881 s
[INFO] Finished at: 2025-02-08T09:08:26+05:30
[INFO] ------------------------------------------------------------------------
```

```
jenkins@LAPTOP-9EU7EI28:~$ kubectl port-forward svc/ekartdep2 8070:8070
Forwarding from 127.0.0.1:8070 -> 8070
Forwarding from [::1]:8070 -> 8070
Handling connection for 8070
Handling connection for 8070
Handling connection for 8070
Handling connection for 8070
```

ragavit/docker_jenkins

Last pushed 16 minutes ago • Repository size: 260.6 MB

Add a description

Add a category

Docker commands

To push a new tag to this repository:

Public view

```
docker push ragavit/docker_jenkins:tagname
```

General | Tags | Builds | Collaborators | Webhooks | Settings

Tags

This repository contains 2 tag(s).

Tag	OS	Type	Pulled	Pushed
ekart		Image	14 minutes ago	16 minutes ago
latest		Image	26 minutes ago	3 days ago

See all

Automated builds

Manually pushing images to Docker Hub? Connect your account to GitHub or Bitbucket to automatically build and tag new images whenever your code is updated, so you can focus your time on creating.

Available with Pro, Team and Business subscriptions. Read more about automated builds.

Upgrade

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.

Dashboard > Task05 > Configuration

Configure

- General
- Source Code Management
- Build Triggers
- Build Environment
- Build Steps
- Post-build Actions

Goals

clean package -DskipTests

Advanced

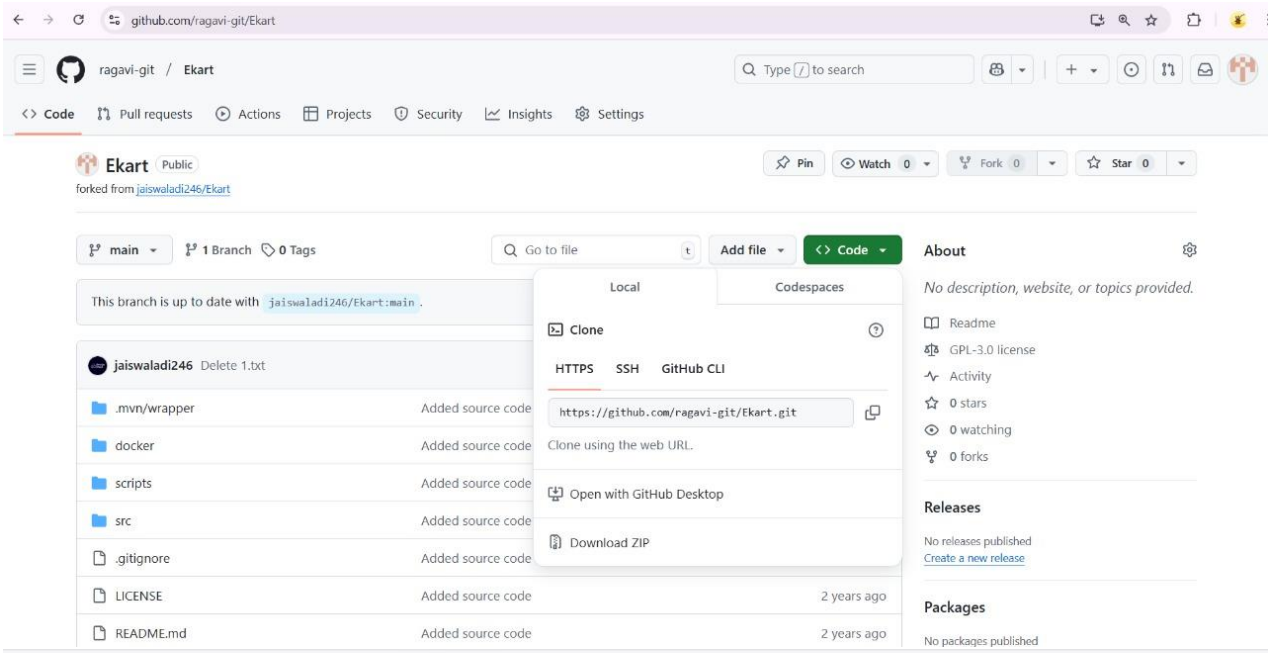
Execute shell

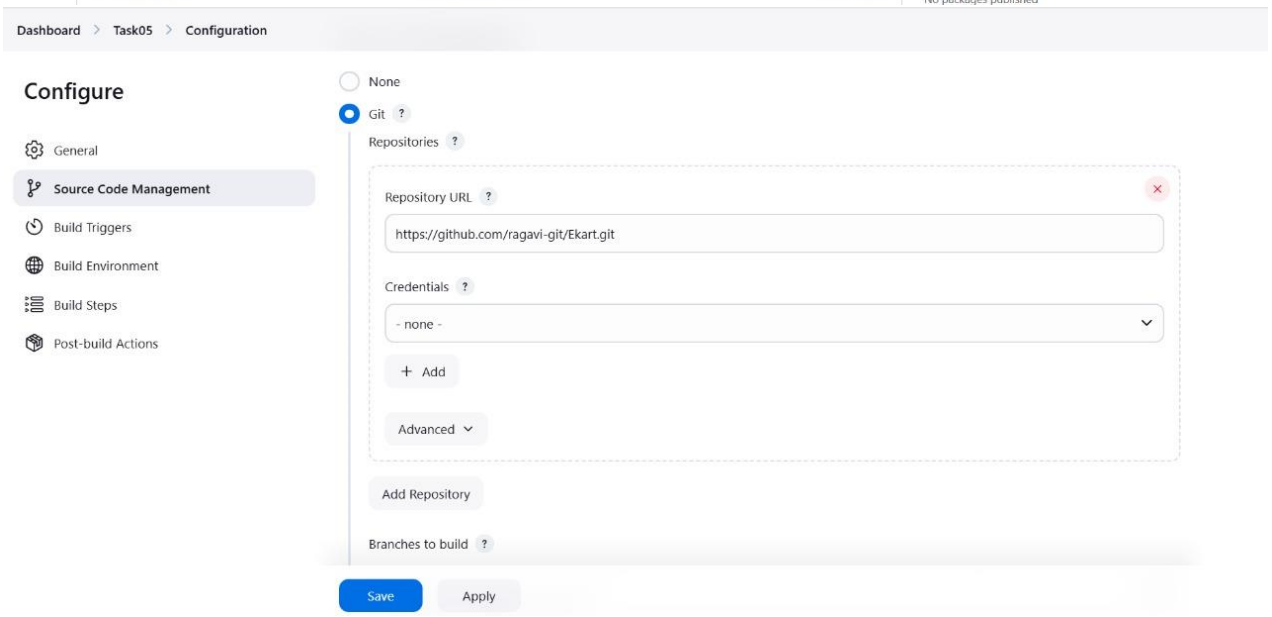
Command

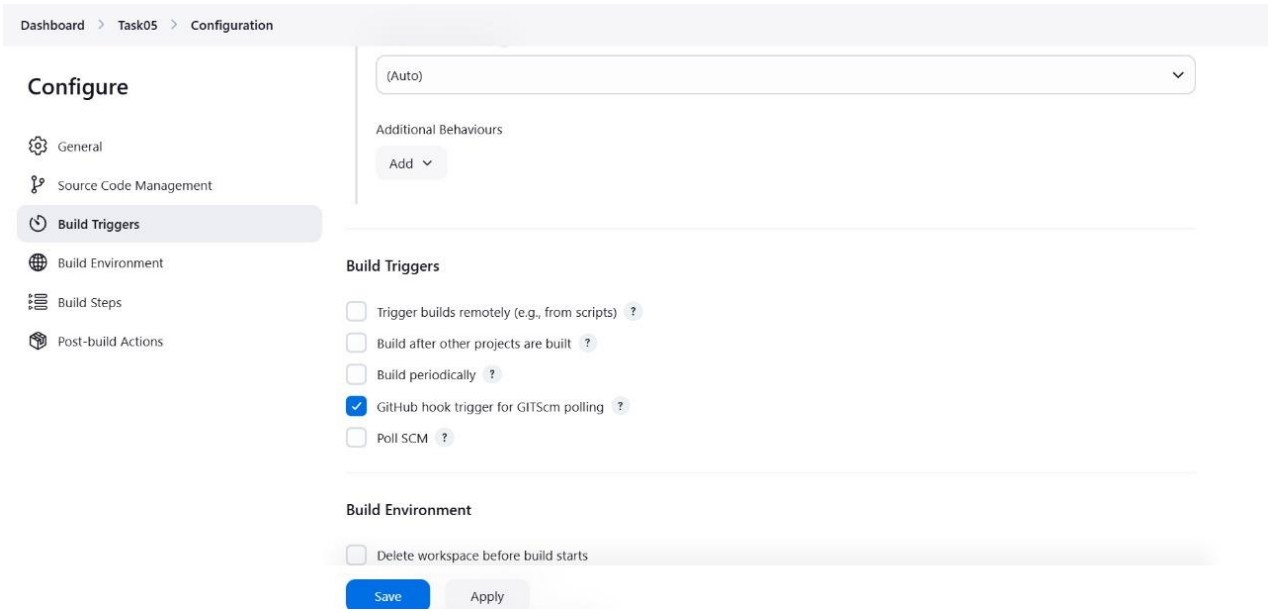
See the list of available environment variables

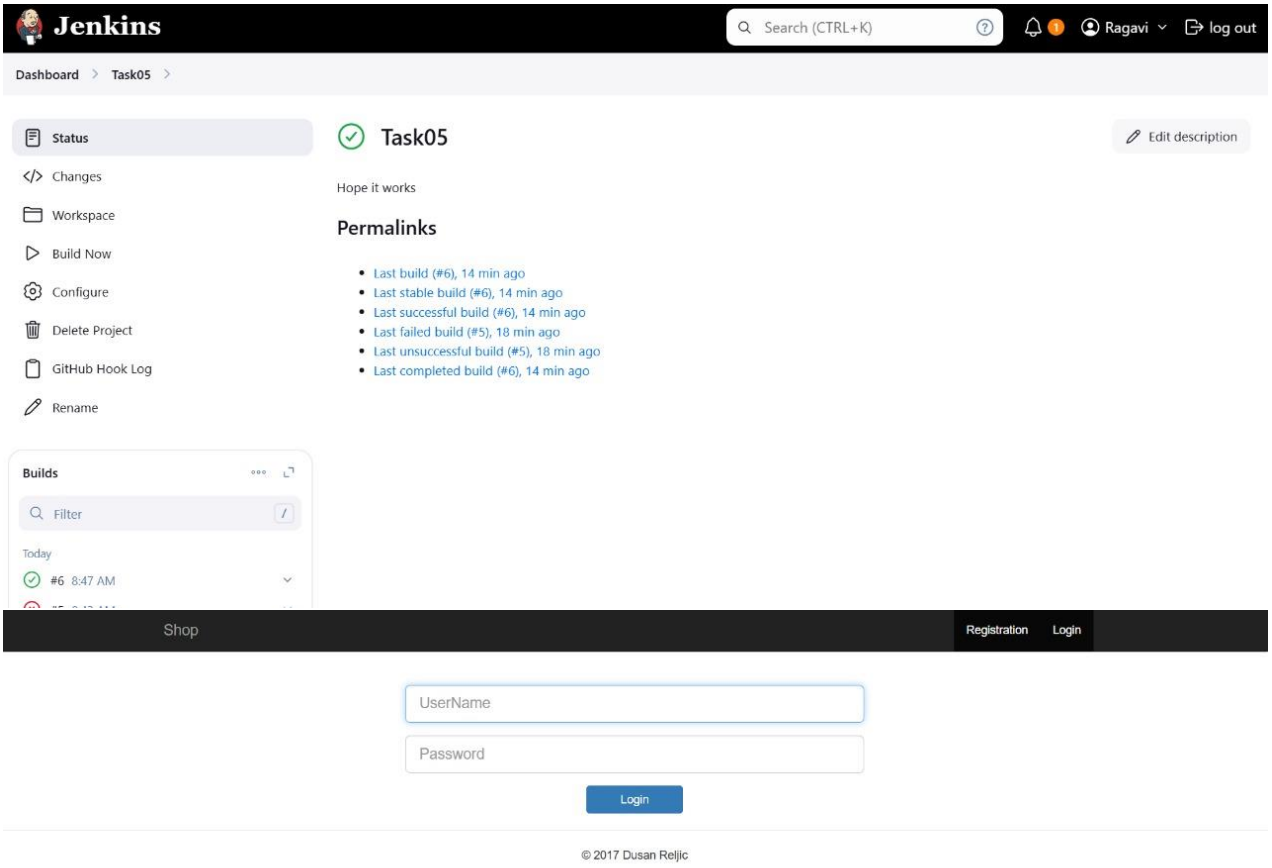
```
docker build -t ekartimage -f docker/Dockerfile .
docker login -u ragavit -p dckr_pat_7glyS1G-yP9TFsEDbbyt_xddhHY
docker tag ekartimage ragavit/docker_jenkins:ekart
docker push ragavit/docker_jenkins:ekart
minikube stop
minikube delete
minikube start
kubectl create deployment ekartdep2 --image=ragavit/docker_jenkins:ekart --port=8070
kubectl expose deployment ekartdep2 --type=NodePort --port=8070
```

Save | Apply


github.com/ragavi-git/Ekart
ragavi-git / Ekart
Type / to search
Code
Pull requests
Actions
Projects
Security
Insights
Settings
Ekart
Public
forked from jaiswaladi246/Ekart
Pin
Watch 0
Fork 0
Star 0
main
1 Branch
0 Tags
Go to file
Add file
Code
This branch is up to date with jaiswaladi246/Ekart:main .
Local
Codespaces
Clone
HTTPS
SSH
GitHub CLI
https://github.com/ragavi-git/Ekart.git
Clone using the web URL.
Open with GitHub Desktop
Download ZIP
jaiswaladi246 Delete 1.txt
.mvn/wrapper Added source code
docker Added source code
scripts Added source code
src Added source code
.gitignore Added source code
LICENSE Added source code 2 years ago
README.md Added source code 2 years ago
About
No description, website, or topics provided.
Readme
GPL-3.0 license
Activity
0 stars
0 watching
0 forks
Releases
No releases published
Create a new release
Packages
No packages published


Dashboard
Task05
Configuration
Configure
General
Source Code Management
Build Triggers
Build Environment
Build Steps
Post-build Actions
None
Git
Repositories
Repository URL
https://github.com/ragavi-git/Ekart.git
Credentials
- none -
Add
Advanced
Add Repository
Branches to build
Save
Apply


Dashboard > Task05 > Configuration
Configure
General
Source Code Management
Build Triggers
Build Environment
Build Steps
Post-build Actions
(Auto)
Additional Behaviours
Add
Build Triggers
Trigger builds remotely (e.g., from scripts)
Build after other projects are built
Build periodically
GitHub hook trigger for GITScm polling
Poll SCM
Build Environment
Delete workspace before build starts
Save
Apply


Jenkins
Search (CTRL+K)
Ragavi
log out
Dashboard
Task05
Status
Changes
Workspace
Build Now
Configure
Delete Project
GitHub Hook Log
Rename
Task05
Edit description
Hope it works
Permalinks
Last build (#6), 14 min ago
Last stable build (#6), 14 min ago
Last successful build (#6), 14 min ago
Last failed build (#5), 18 min ago
Last unsuccessful build (#5), 18 min ago
Last completed build (#6), 14 min ago
Builds
Filter
Today
#6 8:47 AM

Shop
Registration
Login
UserName
Password
Login
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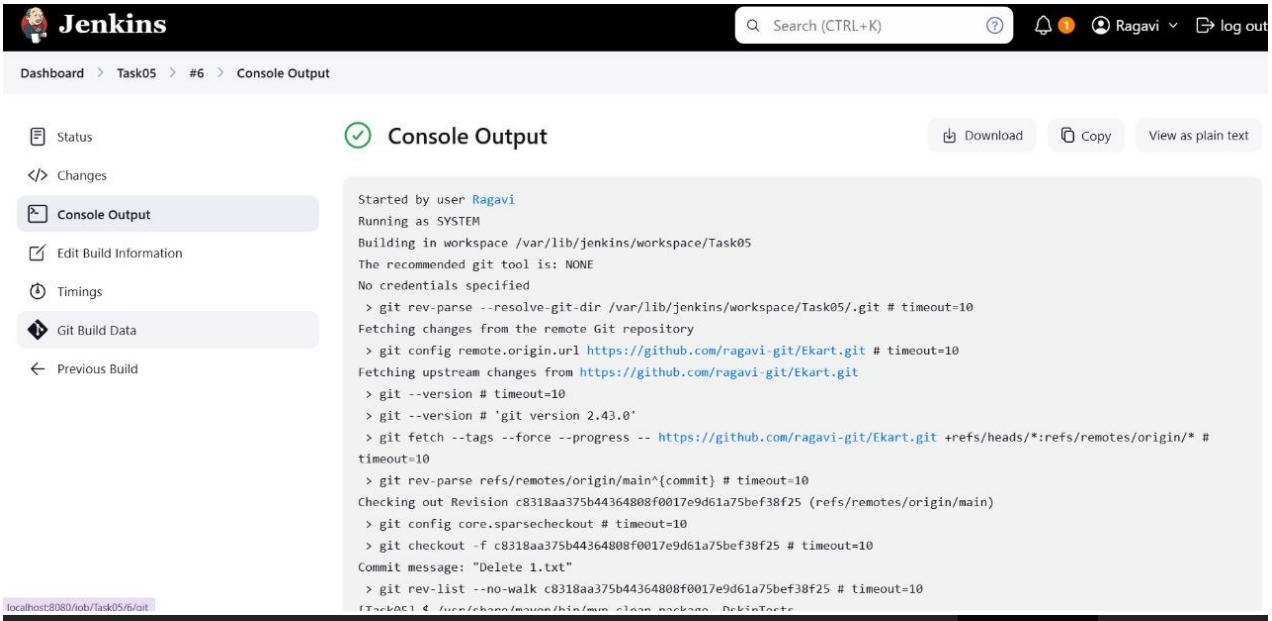
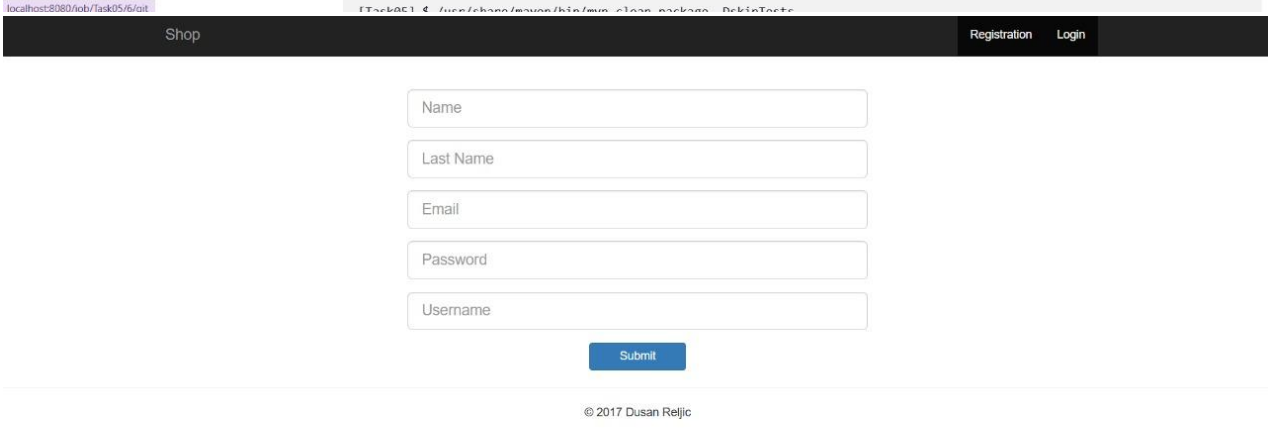

Jenkins
Search (CTRL+K)
Ragavi
log out
Dashboard > Task05 > #6 > Console Output
Status
Changes
Console Output
Edit Build Information
Timings
Git Build Data
Previous Build
Console Output
Download
Copy
View as plain text
Started by user Ragavi
Running as SYSTEM
Building in workspace /var/lib/jenkins/workspace/Task05
The recommended git tool is: NONE
No credentials specified
> git rev-parse --resolve-git-dir /var/lib/jenkins/workspace/Task05/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/ragavi-git/Ekart.git # timeout=10
Fetching upstream changes from https://github.com/ragavi-git/Ekart.git
> git --version # timeout=10
> git --version # 'git version 2.43.0'
> git fetch --tags --force --progress -- https://github.com/ragavi-git/Ekart.git +refs/heads/*:refs/remotes/origin/* # timeout=10
> git rev-parse refs/remotes/origin/main^{commit} # timeout=10
Checking out Revision c8318aa375b44364808f0017e9d61a75bef38f25 (refs/remotes/origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f c8318aa375b44364808f0017e9d61a75bef38f25 # timeout=10
Commit message: "Delete 1.txt"
> git rev-list --no-walk c8318aa375b44364808f0017e9d61a75bef38f25 # timeout=10


Shop
Registration
Login
Name
Last Name
Email
Password
Username
Submit
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