Jenkins CICD Pipeline Setup, Plugin Management, Freestyle Job, and Dockerized Web Deployment

1. Jenkins Server Setup, Initial Jenkins Configuration, Plugin Management.

2. Create a Freestyle Job and Configure the Job.

New Item

Enter an item name

Automated-CI-CD-Pipeline

Select an item type

Freestyle project
Classic, general-purpose job type that checks out from up to one SCM, executes build steps serially, followed by post-build steps like archiving artifacts and sending email notifications.

Pipeline
Orchestrates long-running activities that can span multiple build agents. Suitable for building pipelines (formerly known as workflows) and/or organizing complex activities that do not easily fit in free-style job type.

Multi-configuration project
Suitable for projects that need a large number of different configurations, such as testing on multiple environments, platform-specific builds, etc.

Folder
Creates a container that stores nested items in it. Useful for grouping things together. Unlike view, which is just a filter, a folder creates a separate namespace, so you can have multiple things of the same name as long as they are in different folders.

OK

Advanced ∨

Configure

- ⚙ General
- ⎇ Source Code Management
- ⏱ Triggers
- 🌐 Environment
- ≣ Build Steps
- 🗁 Post-build Actions

Source Code Management

Connect and manage your code repository to automatically pull the latest code for your builds.

○ None

● Git ?

Repositories ?

Repository URL ?

https://github.com/sham9394/cafe_baristha.git

🛈 Please enter Git repository.

Credentials ?

- none -

+ Add

Advanced ∨

Save   Apply

Build Steps.

Configure

- ⚙ General
- ⎇ Source Code Management
- ⏱ Triggers
- 🌐 Environment
- ≣ Build Steps
- 🗁 Post-build Actions

≣ **Execute Windows batch command** ?

Command
See the list of available environment variables

```
docker build -t cafe_baristha .
```

Advanced ∨

≣ **Execute Windows batch command** ?

Command
See the list of available environment variables

```
docker run -d -p 80:80 cafe_baristha
```

Advanced ∨

Save   Apply

Output

Jenkins

🔍 🛡️1 👤 sham chaudhari ∨ ⤷ log out

Dashboard >

| ➕ New Item | | | | | | ✏️ Add description |

All +

S	W	Name ↓	Last Success	Last Failure	Last Duration	F
✅	☁️	Automated-CI-CD-Pipeline	3 min 28 sec #2	17 min #1	44 sec	▷ ⭐

| Build Queue | ∨ |
| No builds in the queue. |

Icon: S M L

⬤⬤⬤

| Build Executor Status | 0/2 ∨ |

Jenkins

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Dashboard > sham chaudhari > My Views > All >

| ➕ New Item | | | | | | ✏️ Add description |
| 📥 Build History |

All +

| Build Queue | ∨ |
| No builds in the queue. |

S	W	Name ↓	Last Success	Last Failure	Last Duration	F
✅	☁️	Automated-CI-CD-Pipeline	4 min 29 sec #2	18 min #1	44 sec	▷ ⭐

| Build Executor Status | 0/2 ∨ |

Icon: S M L

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Jenkins

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Dashboard > Automated-CI-CD-Pipeline >

| 📄 Status |
| </> Changes |
| 📁 Workspace |
| ▷ Build Now |
| ⚙️ Configure |
| 🗑️ Delete Project |
| ⭐ Favorite |
| 🔵 Open Blue Ocean |
| ✏️ Rename |

✅ **Automated-CI-CD-Pipeline**   ✏️ Add description

Permalinks

- Last build (#2), 2 min 44 sec ago
- Last stable build (#2), 2 min 44 sec ago
- Last successful build (#2), 2 min 44 sec ago
- Last failed build (#1), 16 min ago
- Last unsuccessful build (#1), 16 min ago
- Last completed build (#2), 2 min 44 sec ago

| Builds | ⬤⬤⬤ ⟲ |
| 🔍 Filter | / |

Today
- ✅ #2 12:25 ∨
- ❌ #1 12:11 ∨

✅ **Console Output**

⬇️ Download   📋 Copy   View as plain text

```
Started by user sham chaudhari
Running as SYSTEM
Building in workspace C:\ProgramData\Jenkins\.jenkins\workspace\Automated-CI-CD-Pipeline
The recommended git tool is: NONE
No credentials specified
 > git.exe rev-parse --resolve-git-dir C:\ProgramData\Jenkins\.jenkins\workspace\Automated-CI-CD-Pipeline\.git # timeout=10
Fetching changes from the remote Git repository
 > git.exe config remote.origin.url https://github.com/sham9394/cafe_baristha.git # timeout=10
Fetching upstream changes from https://github.com/sham9394/cafe_baristha.git
 > git.exe --version # timeout=10
 > git --version # 'git version 2.50.0.windows.2'
 > git.exe fetch --tags --force --progress -- https://github.com/sham9394/cafe_baristha.git +refs/heads/*:refs/remotes/origin/* # timeout=10
 > git.exe rev-parse "refs/remotes/origin/main^{commit}" # timeout=10
Checking out Revision 900076ffbfb7254d6fc108d14e810f18e80678ea (refs/remotes/origin/main)
 > git.exe config core.sparsecheckout # timeout=10
 > git.exe checkout -f 900076ffbfb7254d6fc108d14e810f18e80678ea # timeout=10
Commit message: "Update index.html"
 > git.exe rev-list --no-walk 900076ffbfb7254d6fc108d14e810f18e80678ea # timeout=10
[Automated-CI-CD-Pipeline] $ cmd /c call C:\WINDOWS\TEMP\jenkins15166076923470831294.bat

C:\ProgramData\Jenkins\.jenkins\workspace\Automated-CI-CD-Pipeline>docker build -t cafe_baristha .
#0 building with "default" instance using docker driver
```

```
#7 exporting attestation manifest sha256:0f75c35ba27a13a8db867125872ef61b20c75ad365c8b44e39d5fbb07a0bc9f8
#7 exporting attestation manifest sha256:0f75c35ba27a13a8db867125872ef61b20c75ad365c8b44e39d5fbb07a0bc9f8 0.1s done
#7 exporting manifest list sha256:383a34af19532a2a17e3571f7c8ef982baaeb3f10c3c462619fdf06a19cc90da 0.1s done
#7 naming to docker.io/library/cafe_baristha:latest 0.0s done
#7 unpacking to docker.io/library/cafe_baristha:latest
#7 unpacking to docker.io/library/cafe_baristha:latest 0.7s done
#7 DONE 2.9s

C:\ProgramData\Jenkins\.jenkins\workspace\Automated-CI-CD-Pipeline>exit 0
[Automated-CI-CD-Pipeline] $ cmd /c call C:\WINDOWS\TEMP\jenkins12307353232910563591.bat

C:\ProgramData\Jenkins\.jenkins\workspace\Automated-CI-CD-Pipeline>docker run -d -p 80:80 cafe_baristha
e88b30e1e437ba6b8cfe89c8dbd4d41ae31495d734d5e749a13fcb65657523f9

C:\ProgramData\Jenkins\.jenkins\workspace\Automated-CI-CD-Pipeline>exit 0
[Automated-CI-CD-Pipeline] $ cmd /c call C:\WINDOWS\TEMP\jenkins16807905434008090775.bat

C:\ProgramData\Jenkins\.jenkins\workspace\Automated-CI-CD-Pipeline>docker images
REPOSITORY       TAG      IMAGE ID       CREATED         SIZE
cafe_baristha    latest   383a34af1953   7 seconds ago   299MB

C:\ProgramData\Jenkins\.jenkins\workspace\Automated-CI-CD-Pipeline>docker ps
CONTAINER ID   IMAGE          COMMAND               CREATED        STATUS        PORTS                                NAMES
e88b30e1e437   cafe_baristha  "/docker-entrypoint.…" 3 seconds ago  Up 2 seconds  0.0.0.0:80->80/tcp, [::]:80->80/tcp  quirky_lewin

C:\ProgramData\Jenkins\.jenkins\workspace\Automated-CI-CD-Pipeline>exit 0
Finished: SUCCESS
```