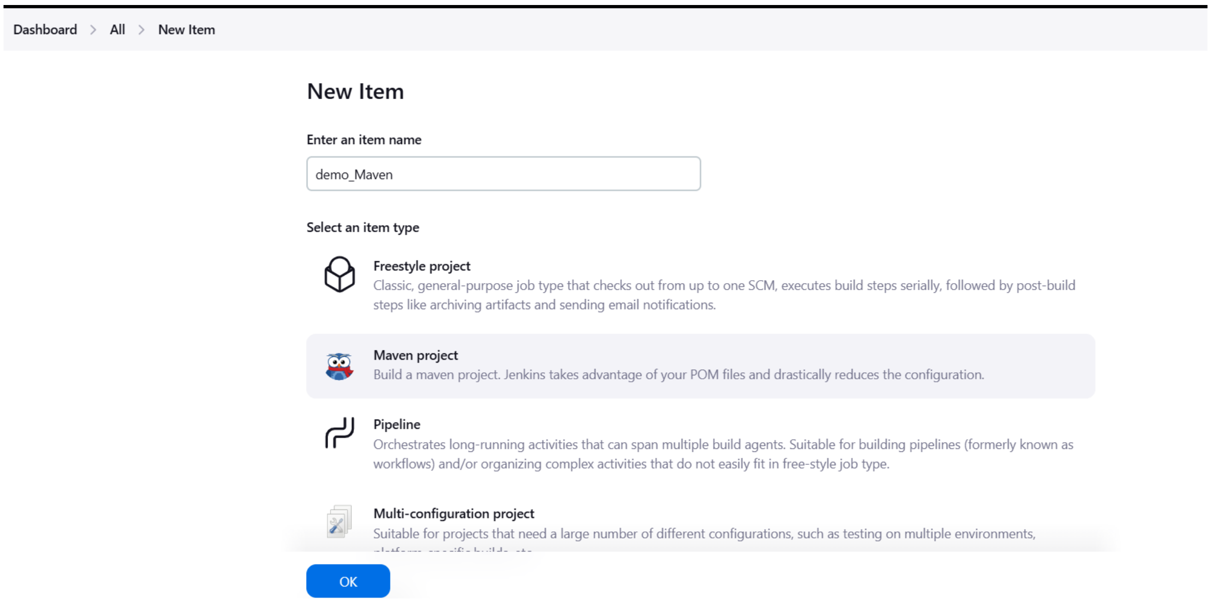
Sakshi Shirure(11-10-2024)

Maven Job

1)Create maven job(demo_Maven) in jenkins


Dashboard > All > New Item

New Item

Enter an item name

demo_Maven

Select an item type

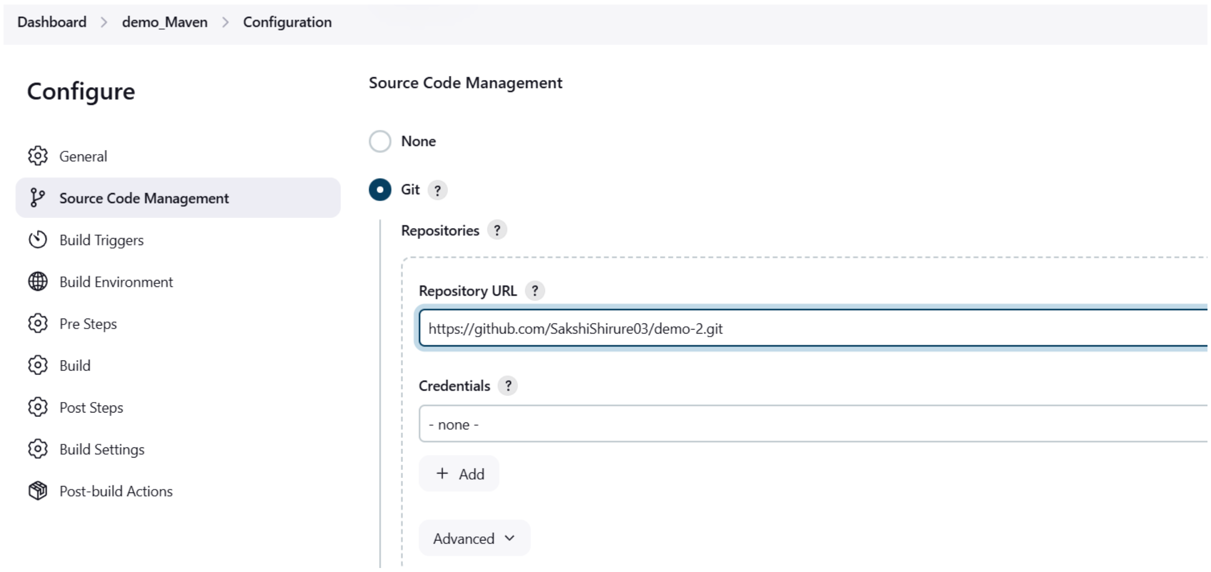
Freestyle project
Classic, general-purpose job type that checks out from up to one SCM, executes build steps serially, followed by post-build steps like archiving artifacts and sending email notifications.

Maven project
Build a maven project. Jenkins takes advantage of your POM files and drastically reduces the configuration.

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.

2)add url of your repository


Dashboard > demo_Maven > Configuration

Configure

Source Code Management

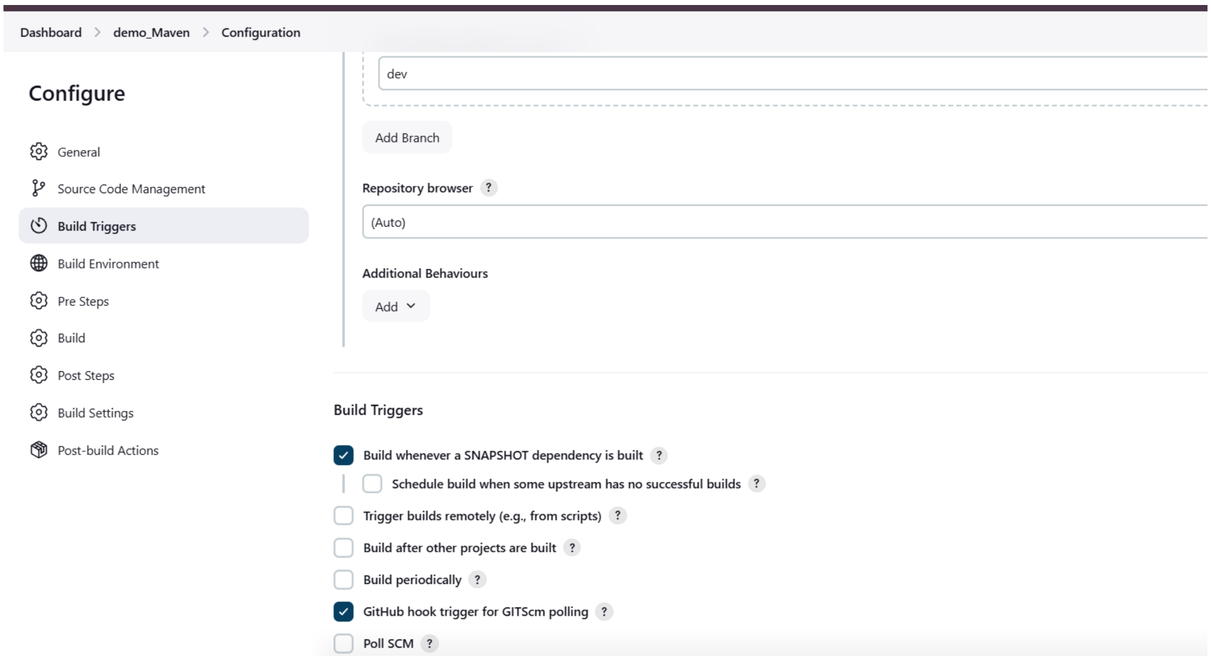
None [✓ Git]

Repositories

Repository URL: https://github.com/SakshiShirure03/demo-2.git

Credentials: - none -

3)provide branch (dev) it means when we do any changes in dev branch job will be run


Dashboard > demo_Maven > Configuration

Configure

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

dev

Add Branch

Repository browser ?

(Auto)

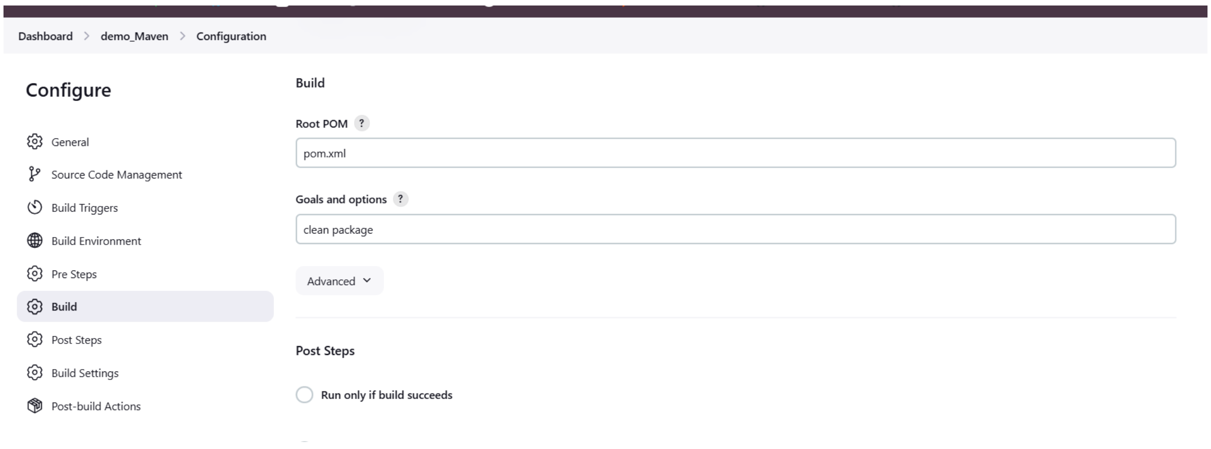
Additional Behaviours

Add

Build Triggers

- [x] Build whenever a SNAPSHOT dependency is built ?
  - [ ] Schedule build when some upstream has no successful builds ?
- [ ] Trigger builds remotely (e.g., from scripts) ?
- [ ] Build after other projects are built ?
- [ ] Build periodically ?
- [x] GitHub hook trigger for GITScm polling ?
- [ ] Poll SCM ?

4)give gols as “clean package” –it will compile and package code


Dashboard > demo_Maven > Configuration

Configure

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

Build

Root POM ?

pom.xml

Goals and options ?

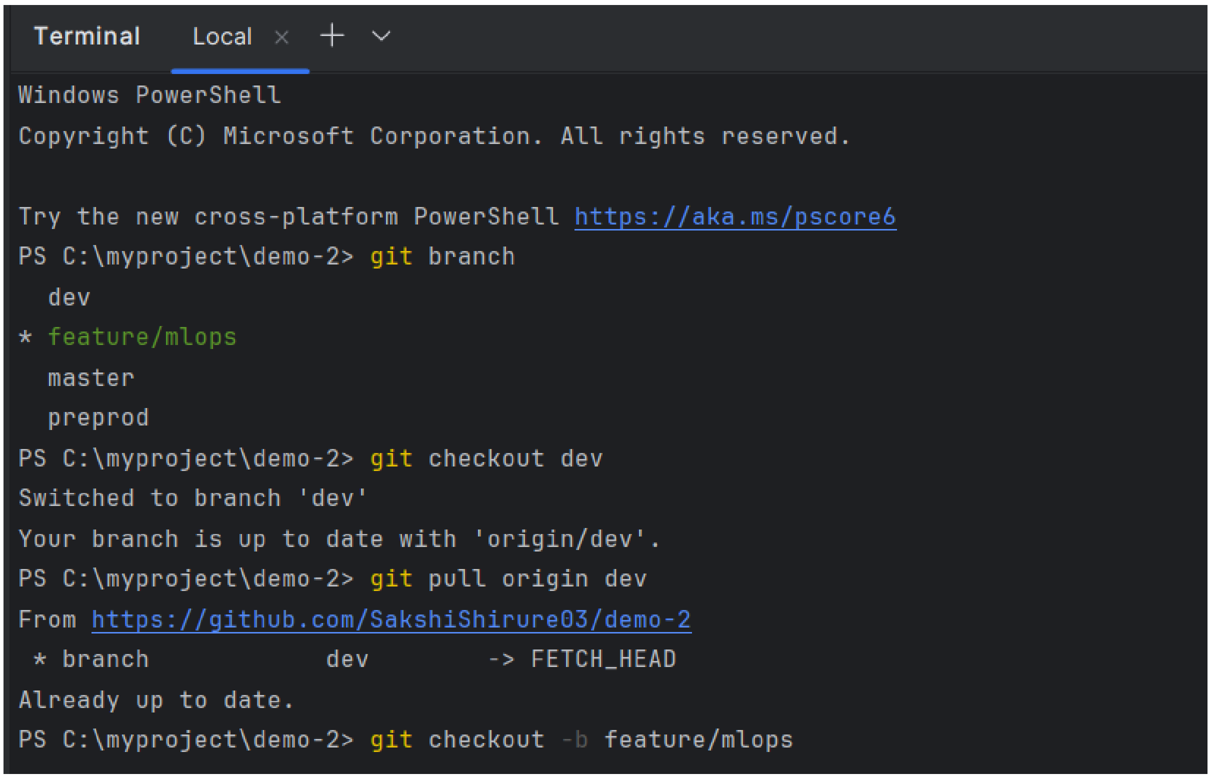
clean package

Advanced

Post Steps

- ( ) Run only if build succeeds

5)Now, open Intellji and check in which branch we are currently move to dev branch

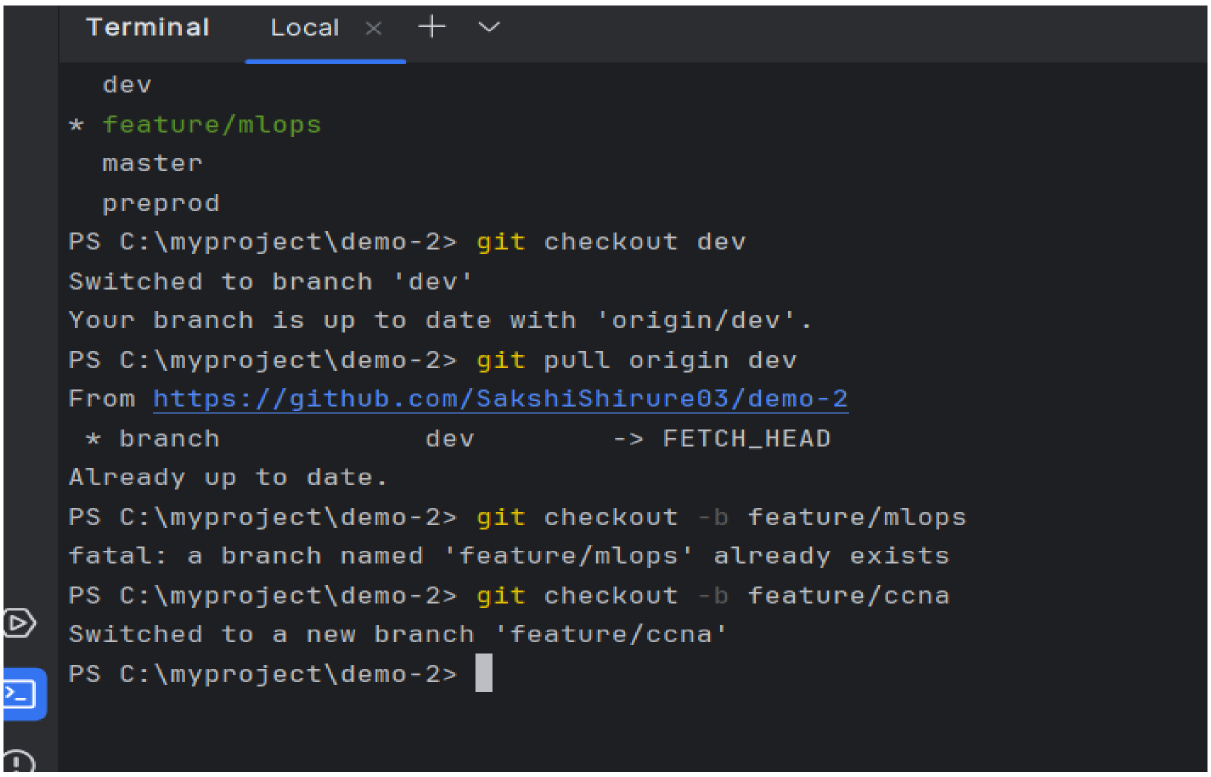


Terminal Local

```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6
PS C:\myproject\demo-2> git branch
  dev
* feature/mlops
  master
  preprod
PS C:\myproject\demo-2> git checkout dev
Switched to branch 'dev'
Your branch is up to date with 'origin/dev'.
PS C:\myproject\demo-2> git pull origin dev
From https://github.com/SakshiShirure03/demo-2
 * branch            dev        -> FETCH_HEAD
Already up to date.
PS C:\myproject\demo-2> git checkout -b feature/mlops
```

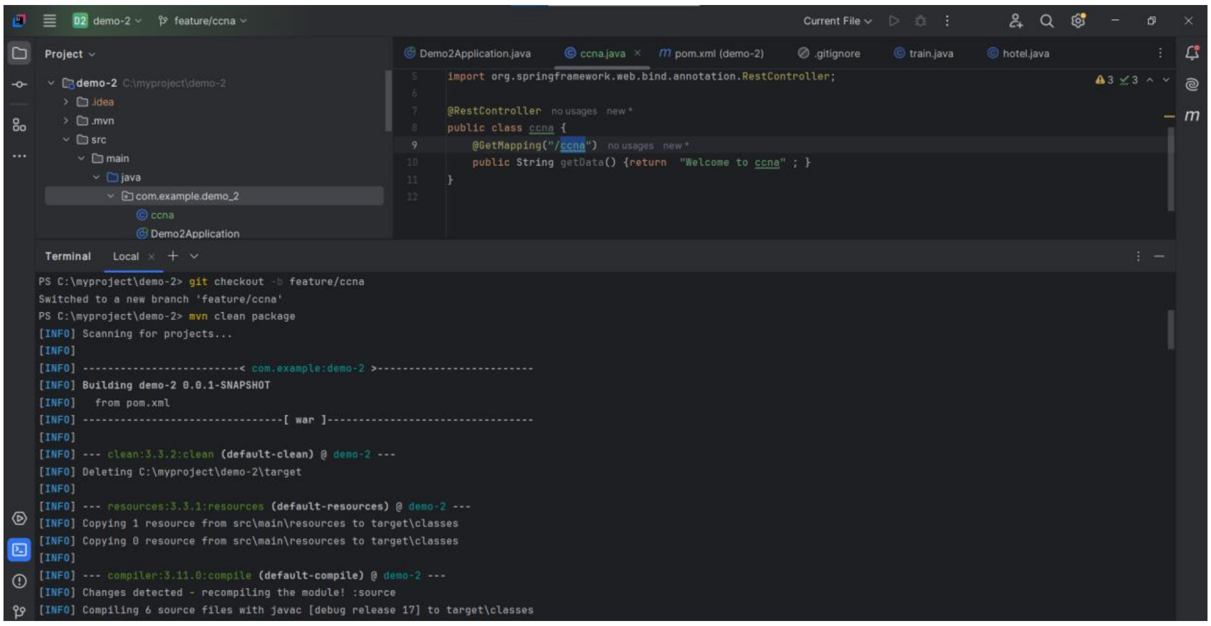
6) Create one new branch as “feature/ccna” and create one java class for same.



Terminal Local

```
  dev
* feature/mlops
  master
  preprod
PS C:\myproject\demo-2> git checkout dev
Switched to branch 'dev'
Your branch is up to date with 'origin/dev'.
PS C:\myproject\demo-2> git pull origin dev
From https://github.com/SakshiShirure03/demo-2
 * branch            dev        -> FETCH_HEAD
Already up to date.
PS C:\myproject\demo-2> git checkout -b feature/mlops
fatal: a branch named 'feature/mlops' already exists
PS C:\myproject\demo-2> git checkout -b feature/ccna
Switched to a new branch 'feature/ccna'
PS C:\myproject\demo-2>
```

7)Check git status and do mvn clean package command, It will copile successfully

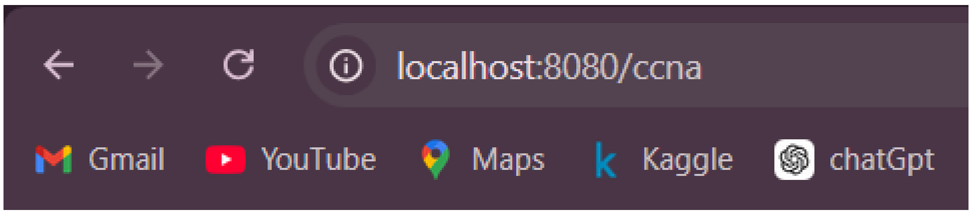


```java
import org.springframework.web.bind.annotation.RestController;

@RestController
public class ccna {
    @GetMapping("/ccna")
    public String getData() {return  "Welcome to ccna" ; }
}
```

```
PS C:\myproject\demo-2> git checkout -b feature/ccna
Switched to a new branch 'feature/ccna'
PS C:\myproject\demo-2> mvn clean package
[INFO] Scanning for projects...
[INFO]
[INFO] ------------------------< com.example:demo-2 >------------------------
[INFO] Building demo-2 0.0.1-SNAPSHOT
[INFO]   from pom.xml
[INFO] --------------------------------[ war ]---------------------------------
[INFO]
[INFO] --- clean:3.3.2:clean (default-clean) @ demo-2 ---
[INFO] Deleting C:\myproject\demo-2\target
[INFO]
[INFO] --- resources:3.3.1:resources (default-resources) @ demo-2 ---
[INFO] Copying 1 resource from src\main\resources to target\classes
[INFO] Copying 0 resource from src\main\resources to target\classes
[INFO]
[INFO] --- compiler:3.11.0:compile (default-compile) @ demo-2 ---
[INFO] Changes detected - recompiling the module! :source
[INFO] Compiling 6 source files with javac [debug release 17] to target\classes
```

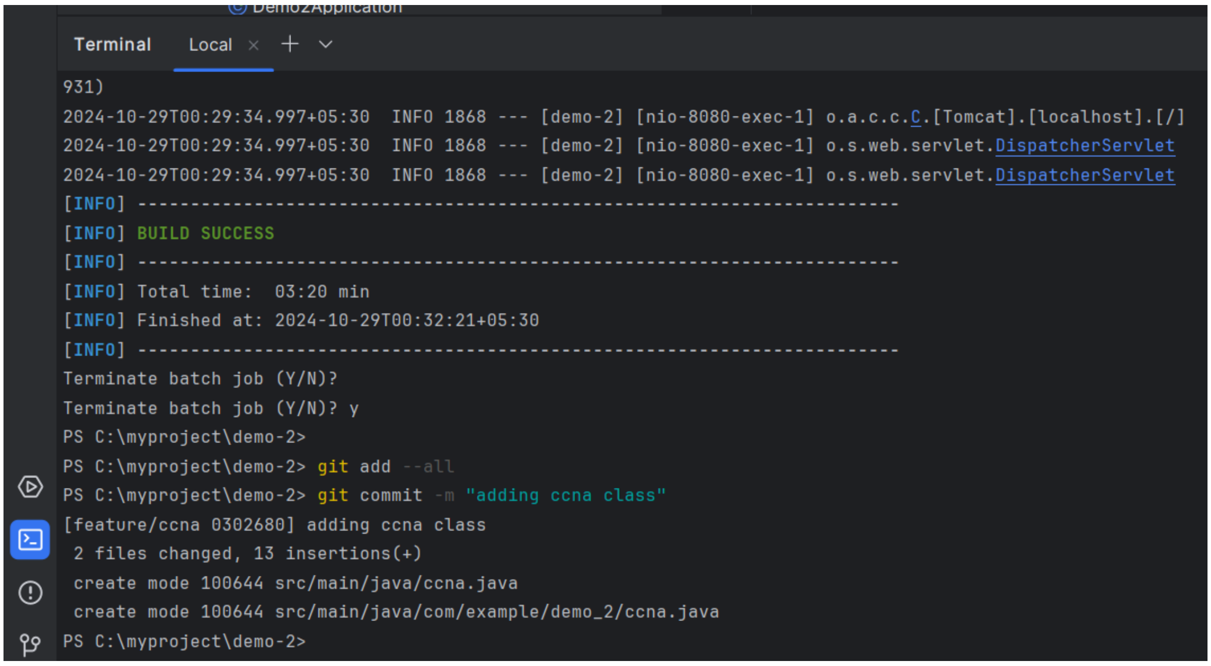
8) We can see output here



localhost:8080/ccna

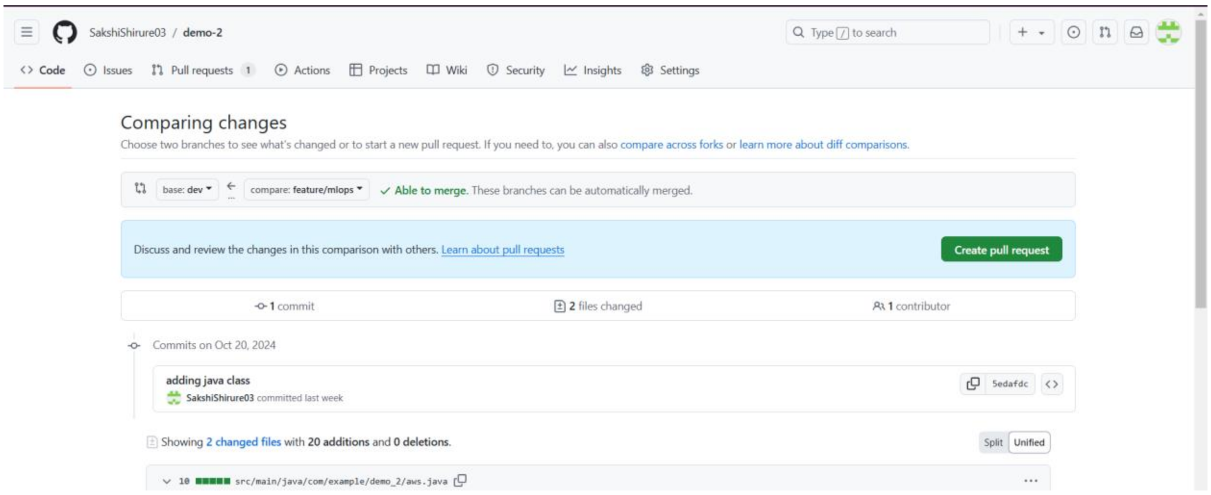
Welcome to ccna

9)Now pass one message and push code to “feature/ccna”



```
931)
2024-10-29T00:29:34.997+05:30  INFO 1868 --- [demo-2] [nio-8080-exec-1] o.a.c.c.C.[Tomcat].[localhost].[/]
2024-10-29T00:29:34.997+05:30  INFO 1868 --- [demo-2] [nio-8080-exec-1] o.s.web.servlet.DispatcherServlet
2024-10-29T00:29:34.997+05:30  INFO 1868 --- [demo-2] [nio-8080-exec-1] o.s.web.servlet.DispatcherServlet
[INFO] ------------------------------------------------------------------------
[INFO] BUILD SUCCESS
[INFO] ------------------------------------------------------------------------
[INFO] Total time:  03:20 min
[INFO] Finished at: 2024-10-29T00:32:21+05:30
[INFO] ------------------------------------------------------------------------
Terminate batch job (Y/N)?
Terminate batch job (Y/N)? y
PS C:\myproject\demo-2>
PS C:\myproject\demo-2> git add --all
PS C:\myproject\demo-2> git commit -m "adding ccna class"
[feature/ccna 0302680] adding ccna class
 2 files changed, 13 insertions(+)
 create mode 100644 src/main/java/ccna.java
 create mode 100644 src/main/java/com/example/demo_2/ccna.java
PS C:\myproject\demo-2>
```

10)Here we can get popup and create pull request of (dev⇓feature/mlogs)



Comparing changes

Choose two branches to see what's changed or to start a new pull request. If you need to, you can also compare across forks or learn more about diff comparisons.

✓ Able to merge. These branches can be automatically merged.

Discuss and review the changes in this comparison with others. Learn about pull requests

1 commit | 2 files changed | 1 contributor

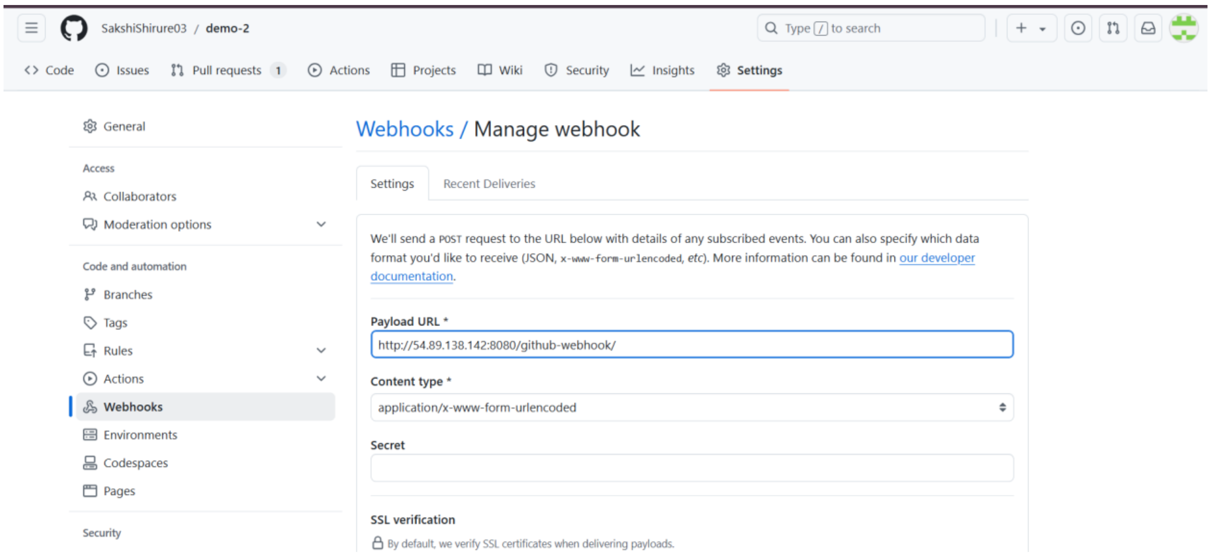
Commits on Oct 20, 2024

adding java class
SakshiShirure03 committed last week
5edafdc

Showing 2 changed files with 20 additions and 0 deletions.

10 src/main/java/com/example/demo_2/aws.java

11)Now, Create workbooks to access code in Jenkins application



Webhooks / Manage webhook

Settings | Recent Deliveries

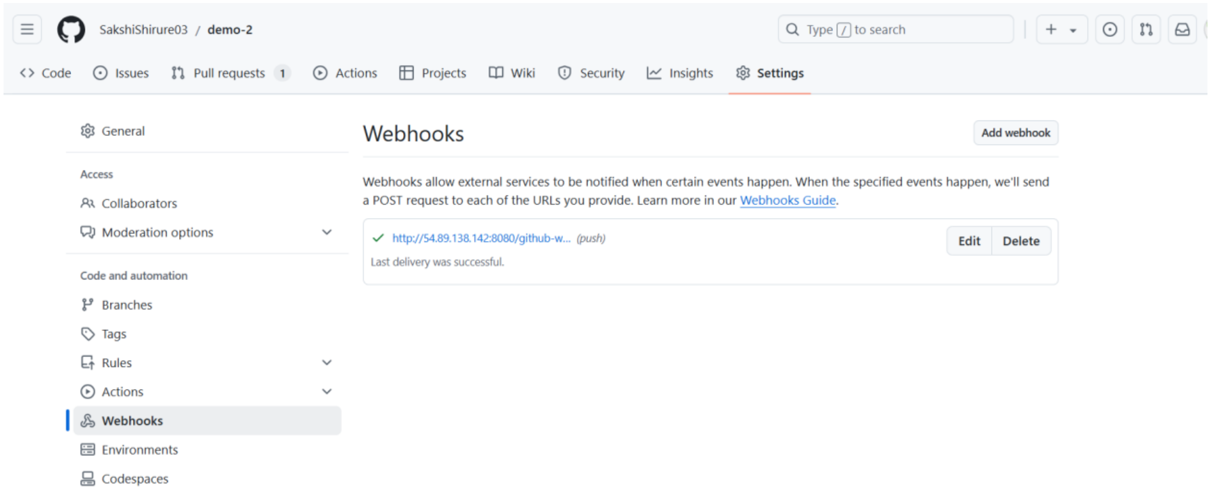
We'll send a POST request to the URL below with details of any subscribed events. You can also specify which data format you'd like to receive (JSON, x-www-form-urlencoded, etc). More information can be found in our developer documentation.

Payload URL *
http://54.89.138.142:8080/github-webhook/

Content type *
application/x-www-form-urlencoded

Secret

SSL verification
By default, we verify SSL certificates when delivering payloads.

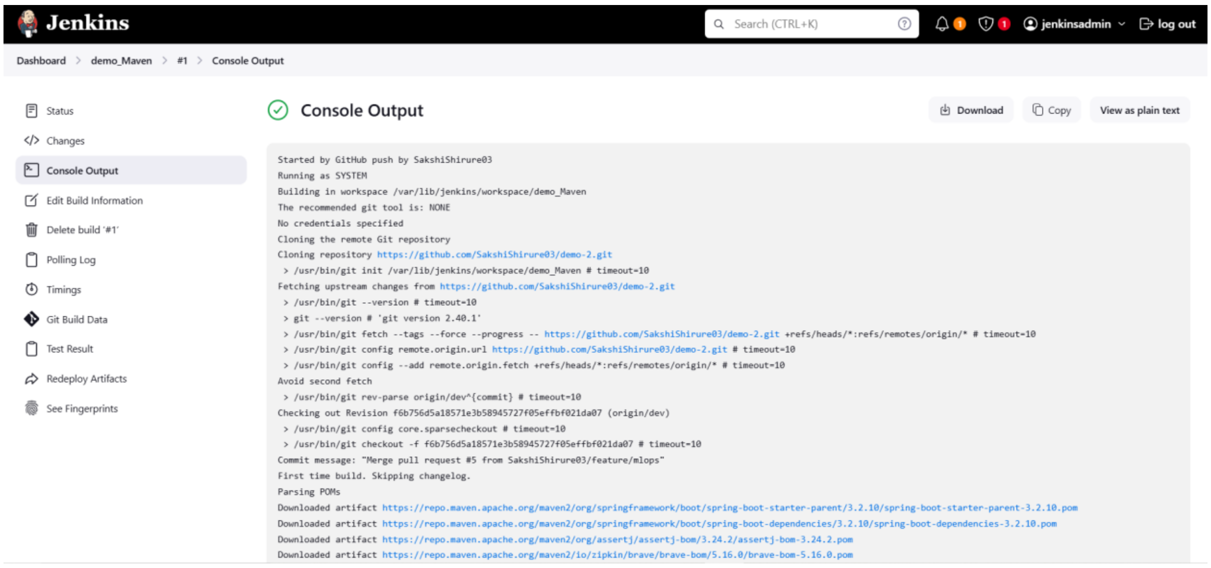


Webhooks

Webhooks allow external services to be notified when certain events happen. When the specified events happen, we'll send a POST request to each of the URLs you provide. Learn more in our Webhooks Guide.

✓ http://54.89.138.142:8080/github-w... (push)
Last delivery was successful.

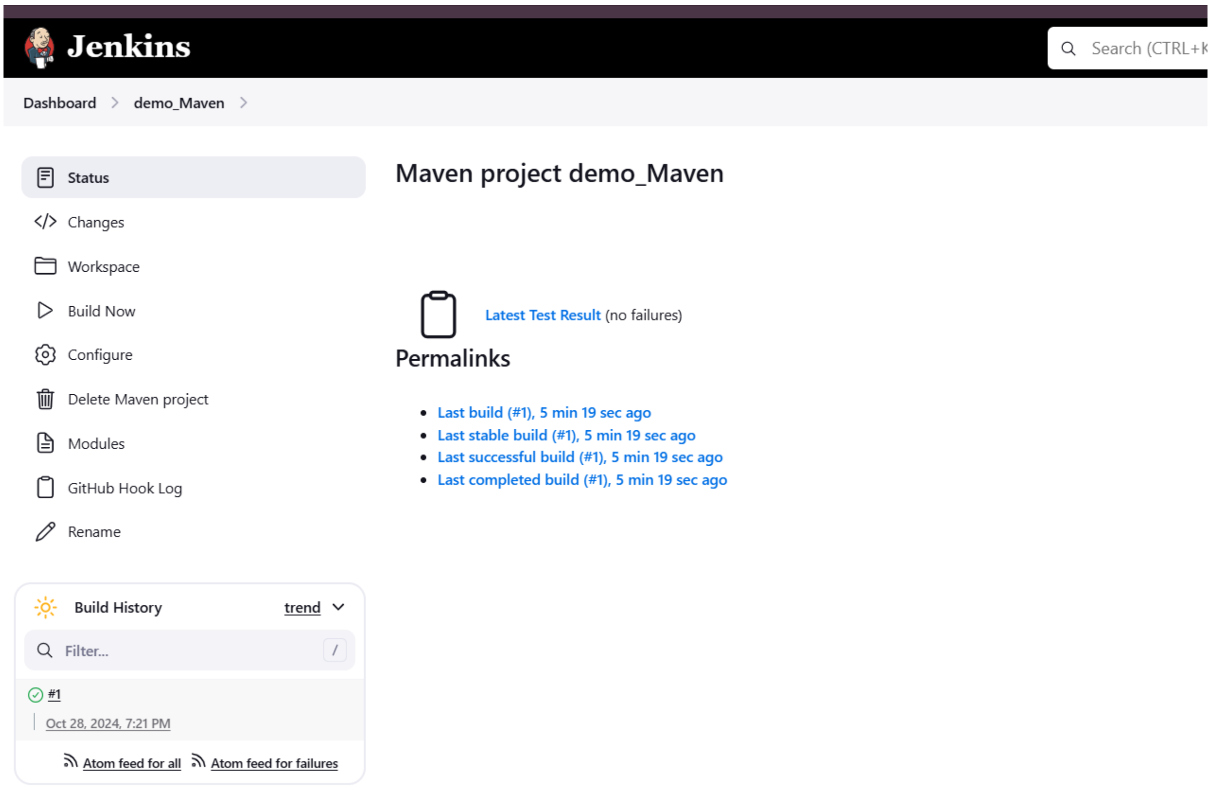
13)after that when we merge branch job should run/trigger



Console Output

```
Started by GitHub push by SakshiShirure03
Running as SYSTEM
Building in workspace /var/lib/jenkins/workspace/demo_Maven
The recommended git tool is: NONE
No credentials specified
Cloning the remote Git repository
Cloning repository https://github.com/SakshiShirure03/demo-2.git
 > /usr/bin/git init /var/lib/jenkins/workspace/demo_Maven # timeout=10
Fetching upstream changes from https://github.com/SakshiShirure03/demo-2.git
 > /usr/bin/git --version # timeout=10
 > git --version # 'git version 2.40.1'
 > /usr/bin/git fetch --tags --force --progress -- https://github.com/SakshiShirure03/demo-2.git +refs/heads/*:refs/remotes/origin/* # timeout=10
 > /usr/bin/git config remote.origin.url https://github.com/SakshiShirure03/demo-2.git # timeout=10
 > /usr/bin/git config --add remote.origin.fetch +refs/heads/*:refs/remotes/origin/* # timeout=10
Avoid second fetch
 > /usr/bin/git rev-parse origin/dev^{commit} # timeout=10
Checking out Revision f6b756d5a18571e3b58945727f05effbf021da07 (origin/dev)
 > /usr/bin/git config core.sparsecheckout # timeout=10
 > /usr/bin/git checkout -f f6b756d5a18571e3b58945727f05effbf021da07 # timeout=10
Commit message: "Merge pull request #5 from SakshiShirure03/feature/mlops"
First time build. Skipping changelog.
Parsing POMs
Downloaded artifact https://repo.maven.apache.org/maven2/org/springframework/boot/spring-boot-starter-parent/3.2.10/spring-boot-starter-parent-3.2.10.pom
Downloaded artifact https://repo.maven.apache.org/maven2/org/springframework/boot/spring-boot-dependencies/3.2.10/spring-boot-dependencies-3.2.10.pom
Downloaded artifact https://repo.maven.apache.org/maven2/org/assertj/assertj-bom/3.24.2/assertj-bom-3.24.2.pom
Downloaded artifact https://repo.maven.apache.org/maven2/io/zipkin/brave/brave-bom/5.16.0/brave-bom-5.16.0.pom
```

14)We can see in Jenkins your job have run



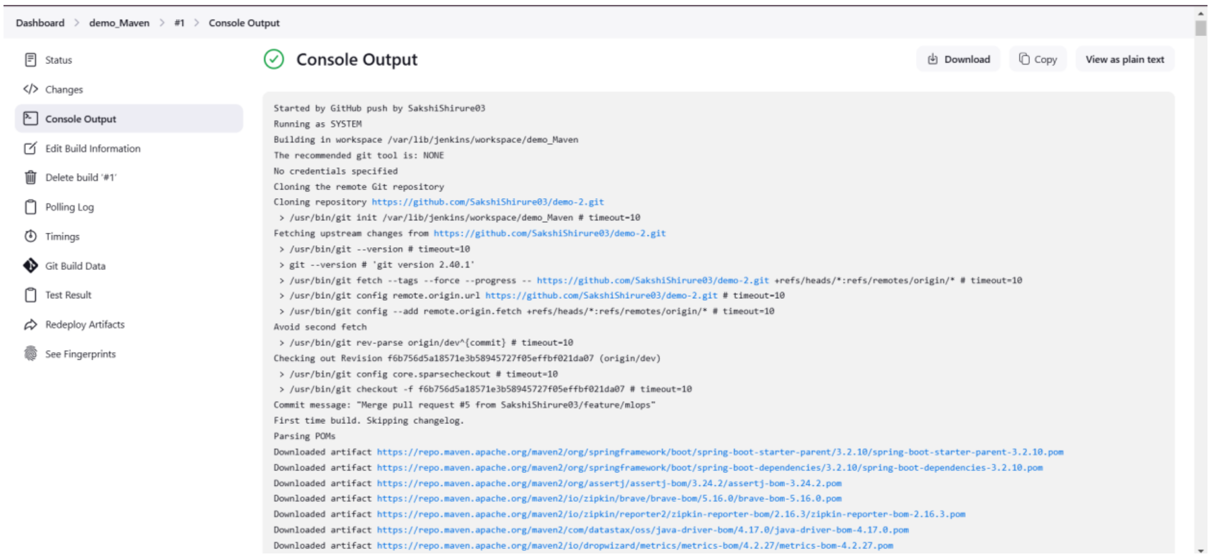
Maven project demo_Maven

Latest Test Result (no failures)

Permalinks

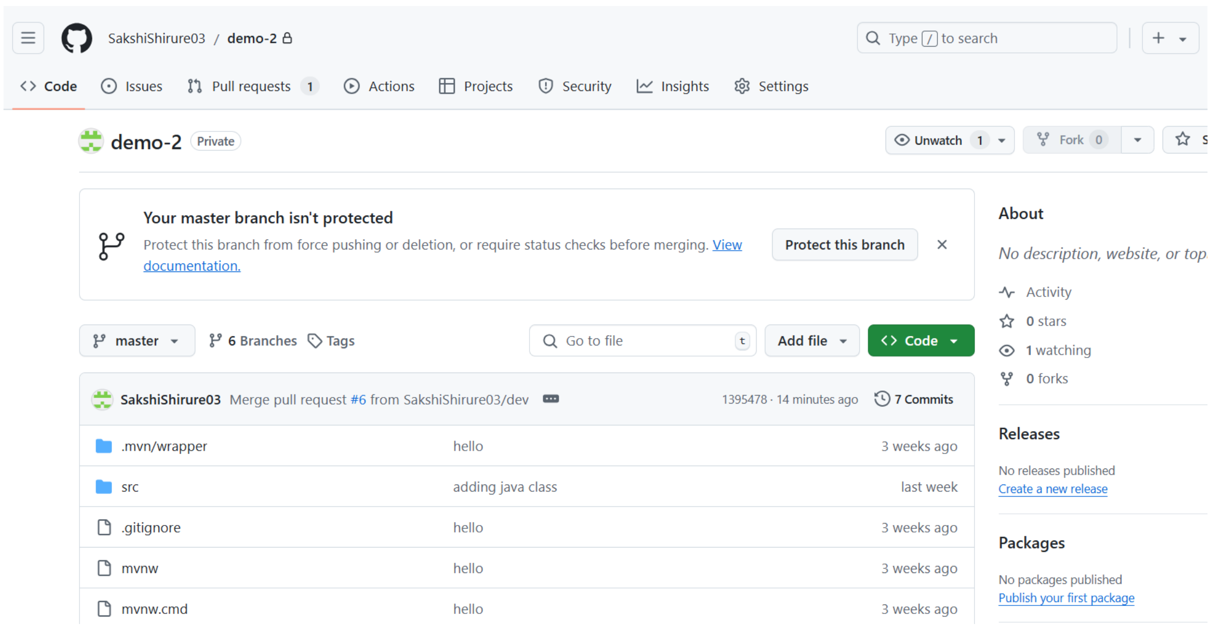
- Last build (#1), 5 min 19 sec ago
- Last stable build (#1), 5 min 19 sec ago
- Last successful build (#1), 5 min 19 sec ago
- Last completed build (#1), 5 min 19 sec ago

15)see logs of output



```
Started by GitHub push by SakshiShirure03
Running as SYSTEM
Building in workspace /var/lib/jenkins/workspace/demo_Maven
The recommended git tool is: NONE
No credentials specified
Cloning the remote Git repository
Cloning repository https://github.com/SakshiShirure03/demo-2.git
 > /usr/bin/git init /var/lib/jenkins/workspace/demo_Maven # timeout=10
Fetching upstream changes from https://github.com/SakshiShirure03/demo-2.git
 > /usr/bin/git --version # timeout=10
 > git --version # 'git version 2.40.1'
 > /usr/bin/git fetch --tags --force --progress -- https://github.com/SakshiShirure03/demo-2.git +refs/heads/*:refs/remotes/origin/* # timeout=10
 > /usr/bin/git config remote.origin.url https://github.com/SakshiShirure03/demo-2.git # timeout=10
 > /usr/bin/git config --add remote.origin.fetch +refs/heads/*:refs/remotes/origin/* # timeout=10
Avoid second fetch
 > /usr/bin/git rev-parse origin/dev^{commit} # timeout=10
Checking out Revision f6b756d5a18571e3b58945727f05effbf021da07 (origin/dev)
 > /usr/bin/git config core.sparsecheckout # timeout=10
 > /usr/bin/git checkout -f f6b756d5a18571e3b58945727f05effbf021da07 # timeout=10
Commit message: "Merge pull request #5 from SakshiShirure03/feature/mlops"
First time build. Skipping changelog.
Parsing POMs
Downloaded artifact https://repo.maven.apache.org/maven2/org/springframework/boot/spring-boot-starter-parent/3.2.10/spring-boot-starter-parent-3.2.10.pom
Downloaded artifact https://repo.maven.apache.org/maven2/org/springframework/boot/spring-boot-dependencies/3.2.10/spring-boot-dependencies-3.2.10.pom
Downloaded artifact https://repo.maven.apache.org/maven2/org/assertj/assertj-bom/3.24.2/assertj-bom-3.24.2.pom
Downloaded artifact https://repo.maven.apache.org/maven2/io/zipkin/brave/brave-bom/5.16.0/brave-bom-5.16.0.pom
Downloaded artifact https://repo.maven.apache.org/maven2/io/zipkin/reporter2/zipkin-reporter-bom/2.16.3/zipkin-reporter-bom-2.16.3.pom
Downloaded artifact https://repo.maven.apache.org/maven2/com/datastax/oss/java-driver-bom/4.17.0/java-driver-bom-4.17.0.pom
Downloaded artifact https://repo.maven.apache.org/maven2/io/dropwizard/metrics/metrics-bom/4.2.27/metrics-bom-4.2.27.pom
```

16)Now, we will made repository as private


SakshiShirure03 / demo-2

Code | Issues | Pull requests 1 | Actions | Projects | Security | Insights | Settings

demo-2 Private

Unwatch 1 | Fork 0

Your master branch isn't protected

Protect this branch from force pushing or deletion, or require status checks before merging. View documentation.

Protect this branch

master | 6 Branches | Tags | Go to file | Add file | Code

SakshiShirure03 Merge pull request #6 from SakshiShirure03/dev 1395478 · 14 minutes ago 7 Commits

.mvn/wrapper	hello	3 weeks ago
src	adding java class	last week
.gitignore	hello	3 weeks ago
mvnw	hello	3 weeks ago
mvnw.cmd	hello	3 weeks ago

About

No description, website, or top

Activity
0 stars
1 watching
0 forks

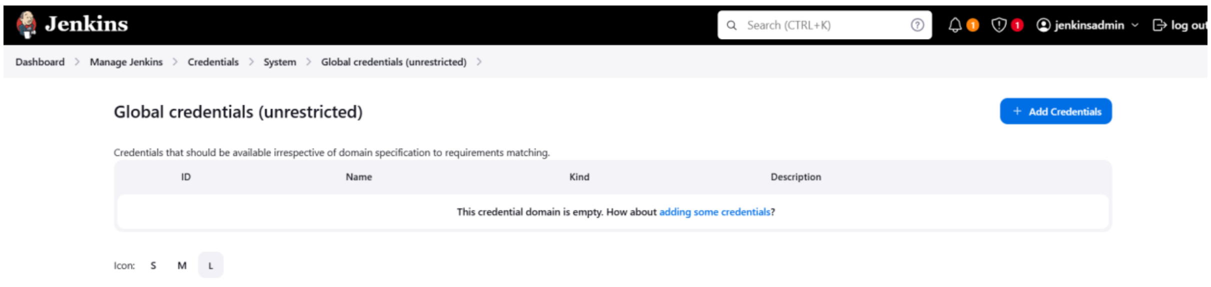
Releases

No releases published
Create a new release

Packages

No packages published
Publish your first package

17)when we make repo as private we cannot access in Jenkins for that we need to create creds


Jenkins | Search (CTRL+K) | jenkinsadmin | log out

Dashboard > Manage Jenkins > Credentials > System > Global credentials (unrestricted) >

Global credentials (unrestricted)

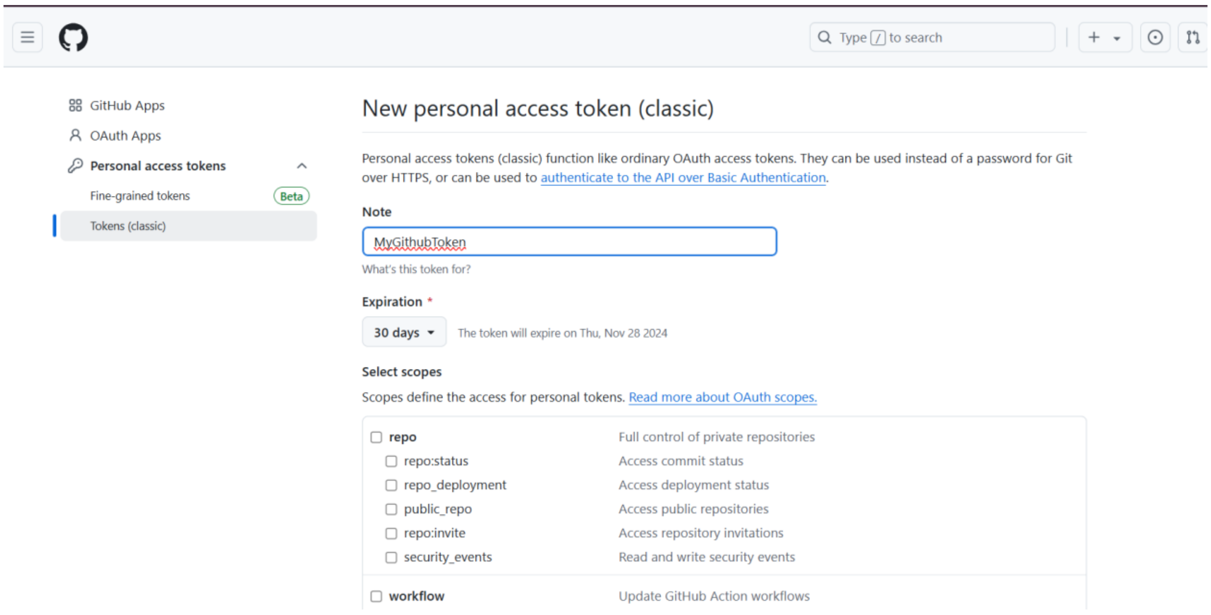
+ Add Credentials

Credentials that should be available irrespective of domain specification to requirements matching.

ID	Name	Kind	Description
This credential domain is empty. How about adding some credentials?			

Icon: S M L

18)From Github we will create one Token


GitHub Apps
OAuth Apps
Personal access tokens
Fine-grained tokens Beta
Tokens (classic)

New personal access token (classic)

Personal access tokens (classic) function like ordinary OAuth access tokens. They can be used instead of a password for Git over HTTPS, or can be used to authenticate to the API over Basic Authentication.

Note

MyGithubToken

What's this token for?

Expiration *

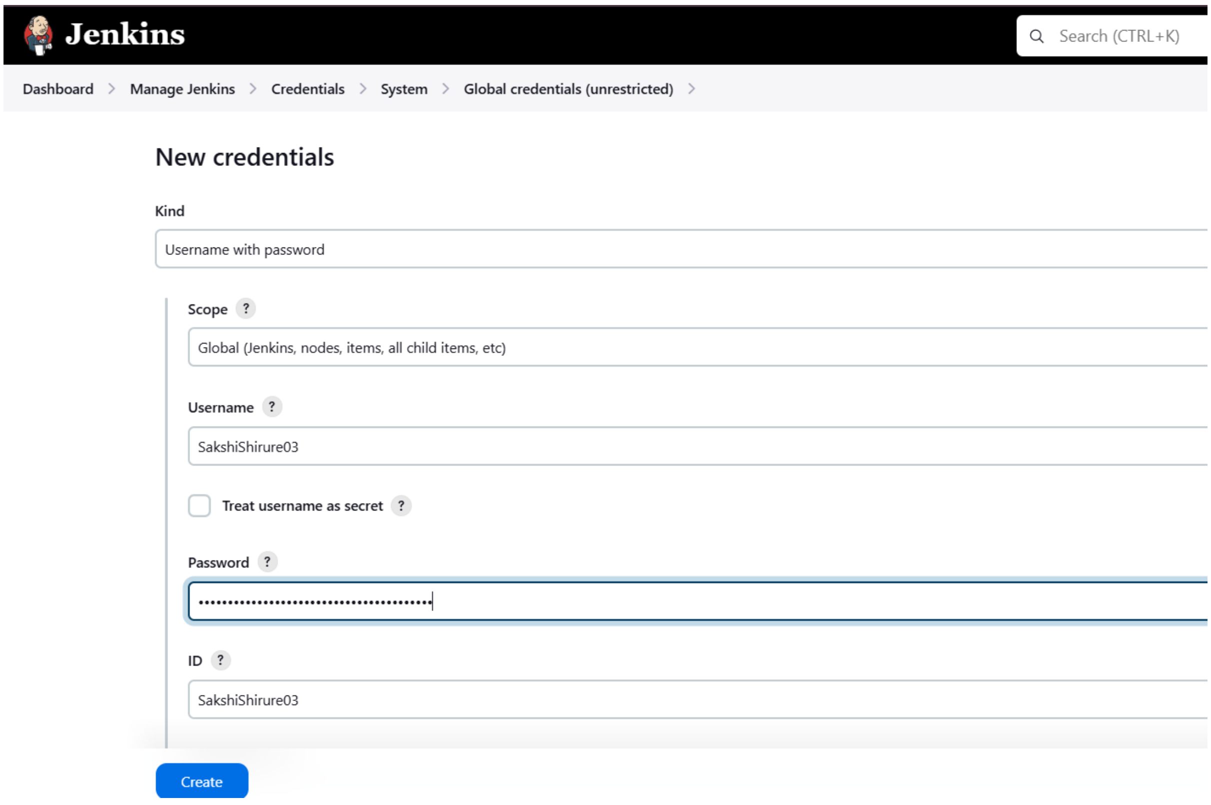
30 days The token will expire on Thu, Nov 28 2024

Select scopes

Scopes define the access for personal tokens. Read more about OAuth scopes.

☐ repo	Full control of private repositories
☐ repo:status	Access commit status
☐ repo_deployment	Access deployment status
☐ public_repo	Access public repositories
☐ repo:invite	Access repository invitations
☐ security_events	Read and write security events
☐ workflow	Update GitHub Action workflows

19)paste here password which we get from Token


Jenkins

Search (CTRL+K)

Dashboard > Manage Jenkins > Credentials > System > Global credentials (unrestricted) >

New credentials

Kind

Username with password

Scope ?

Global (Jenkins, nodes, items, all child items, etc)

Username ?

SakshiShirure03

Treat username as secret ?

Password ?

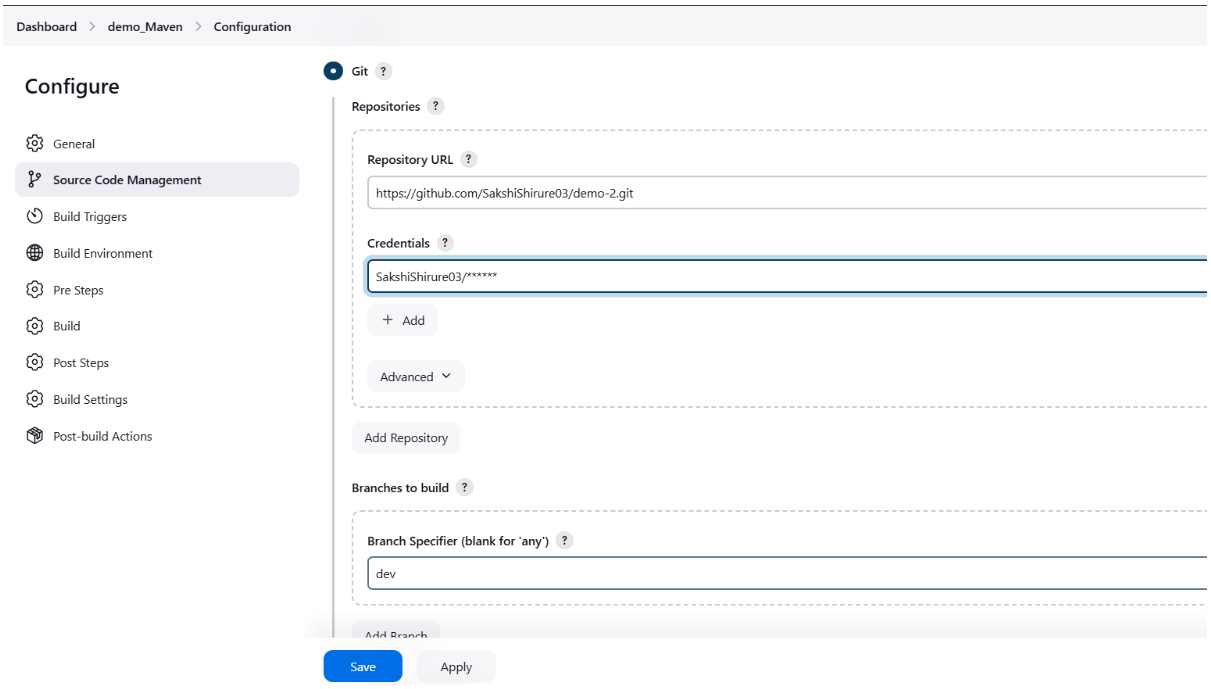
•••••••••••••••••••••••••••••••••••••••

ID ?

SakshiShirure03

Create

20)Now we can add creds in Jenkins job


Dashboard > demo_Maven > Configuration

Configure

General

Source Code Management

Build Triggers

Build Environment

Pre Steps

Build

Post Steps

Build Settings

Post-build Actions

Git ?

Repositories ?

Repository URL ?

https://github.com/SakshiShirure03/demo-2.git

Credentials ?

SakshiShirure03/******

+ Add

Advanced

Add Repository

Branches to build ?

Branch Specifier (blank for 'any') ?

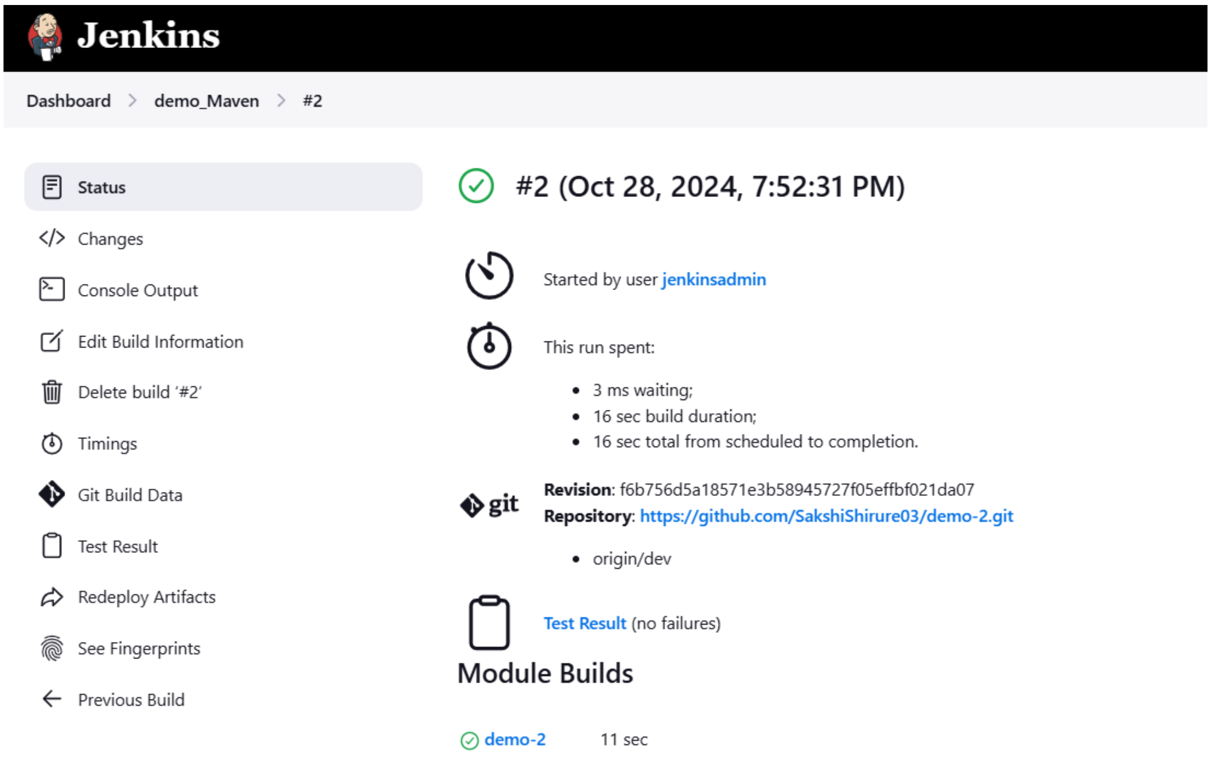
dev

Add Branch

Save

Apply

21) Job have been run successfully



#2 (Oct 28, 2024, 7:52:31 PM)

Started by user jenkinsadmin

This run spent:

- 3 ms waiting;
- 16 sec build duration;
- 16 sec total from scheduled to completion.

Revision: f6b756d5a18571e3b58945727f05effbf021da07
Repository: https://github.com/SakshiShirure03/demo-2.git

- origin/dev

Test Result (no failures)

Module Builds

demo-2 11 sec

Thank you!!!