

1. Create one Declarative pipeline job

<https://github.com/betawins/hiring-app.git>

stages:

- a. Git Clone
- b. SonarQube Integration
- c. Maven Compilation
- d. Nexus Artifactory
- e. Slack Notification
- f. Deploy On tomcat

a. Git clone:

Click on new item enter name as declarative-pipeline and select type as pipeline.

Jenkins / All ▾ / New Item

New Item

Enter an item name

declarative-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.



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

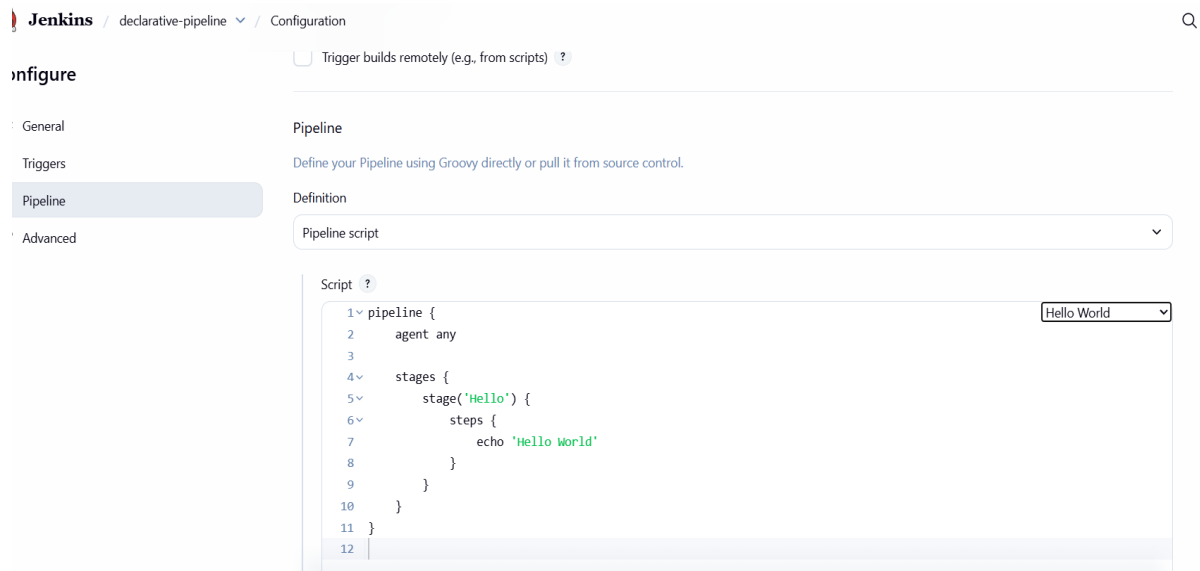
Suitable for projects that need a large number of different configurations, such as testing on multiple environments, platform-specific builds, etc.



Folder

OK

- Select pipeline for pipeline script and select helloworld.
- In scm select git and give your repository and click on save.



Click on pipeline syntax

- select git Git
- Give repository URL

← → ↻ ⚠ Not secure 23.23.26.147:8080/job/declarative-pipeline/pipeline-syntax/

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Jenkins / declarative-pipeline ▾ / Pipeline Syntax

🔍 Online Documentation
🔍 Examples Reference
🔍 IntelliJ IDEA GDSDL

Sample Step

git: Git

git ?

Repository URL ?
https://github.com/betawins/hiring-app.git

Branch ?
main

Credentials ?
- none -

☒ Include in polling? ?
☒ Include in changelog? ?

Generate Pipeline Script

git branch: 'main', url: ' https://github.com/betawins/hiring-app.git'

Click on generate pipeline script.it will create a link.

Jenkins / declarative-pipeline ▾ / Pipeline Syntax

Credentials ?
- none -

☒ Include in polling? ?
☒ Include in changelog? ?

Generate Pipeline Script

git branch: 'main', url: ' https://github.com/betawins/hiring-app.git'

📄

git branch: 'main', url: ' https://github.com/betawins/hiring-app.git'

add this link in the script.

Jenkins / declarative-pipeline / Configuration

Configure

- General
- Triggers
- Pipeline**
- Advanced

Define your Pipeline using Groovy directly or pull it from source control.

Definition

Pipeline script

Script ?

```
1 pipeline {
2   agent any
3
4   stages {
5     stage('Checkout') {
6       steps {
7         git url: 'https://github.com/betawins/hiring-app.git', branch: 'main'
8       }
9     }
10  }
11 }
12
```

☒ Use Groovy Sandbox ?

Click on build now.

← → ↻ ⚠ Not secure 23.23.26.147:8080/job/declarative-pipeline/

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Jenkins / declarative-pipeline

- Status**
- Changes
- Build Now
- Configure
- Delete Pipeline
- Full Stage View
- Stages
- Rename
- Pipeline Syntax
- Credentials

declarative-pipeline

Stage View

Average stage times: (full run time: ~1s)		Checkout
#27 Nov 06 21:31 No Changes		478ms
#26 Nov 06 21:29 No Changes		
#25 Nov 06 21:27 No Changes		

Builds

Filter

Git has cloned successfully.

```
[root@ip-172-31-50-64 workspace]# ls
declarative-pipeline  declarative-pipeline@tmp  hiring-app
[root@ip-172-31-50-64 workspace]# cd declarative-pipeline
[root@ip-172-31-50-64 declarative-pipeline]# ls
Jenkinsfile  Service-API.dockerfile  XMLSave.txt  build.xml  sonar-project.properties
README.md    WebContent              build         pom.xml    src
```

b. Maven Compilation:

give mvn location script should be like.

```
pipeline {  
    agent any  
  
    tools{  
        maven "MVN_HOME"  
    }  
  
    stages {  
        stage('checkout') {  
            steps {  
                https://github.com/betawins/hiring-app.git  
            }  
        }  
  
        stage('build'){  
            steps{  
                sh "mvn clean install -f pom.xml"  
            }  
        }  
    }  
}
```

}

← → ↻ Not secure 23.23.26.147:8080/job/declarative-pipeline/configure

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Jenkins / declarative-pipeline ▾ / Configuration

Configure

Define your Pipeline using Groovy directly or pull it from source control.

Definition

Pipeline script

Script ?

```
1 pipeline {
2   agent any
3
4   tools {
5     maven 'MVN_HOME'
6   }
7
8   stages {
9
10    stage('Checkout') {
11      steps {
12        git branch: 'main', url: 'https://github.com/betawins/hiring-app.git'
13      }
14    }
15  }
```

Click on build now.

← → ↻ Not secure 23.23.26.147:8080/job/declarative-pipeline/

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Jenkins / declarative-pipeline

Status

</> Changes

▶ Build Now

⚙️ Configure

🗑️ Delete Pipeline

🔍 Full Stage View

📁 Stages

✎ Rename

❓ Pipeline Syntax

📁 Credentials

declarative-pipeline

declarative-pipeline

Stage View

	Declarative: Tool Install	Checkout	Build
Average stage times: (full run time: ~6s)	100ms	426ms	5s
#29 Nov 06 21:38 No Changes	100ms	426ms	5s
#28 Nov 06 21:35 No Changes			

Permalinks

- Last build (#29), 2 min 13 sec ago
- Last stable build (#29), 2 min 13 sec ago

Builds ...

🔍 Filter /

Today

🟢 #29 4:08 PM ▾

```
[root@ip-172-31-50-64 ~]# cd /var/lib/jenkins/workspace
[root@ip-172-31-50-64 workspace]# ls
declarative-pipeline  hiring-app  parameterized-job  scripted-pipeline
declarative-pipeline@tmp  multi-stage-pipeline  parameterized-pipeline  scripted-pipeline@tmp
helloworld  multi-stage-pipeline@tmp  parameterized-pipeline@tmp
[root@ip-172-31-50-64 workspace]# cd hiring-app/
[root@ip-172-31-50-64 hiring-app]# ls
Dockerfile  Jenkinsfile  README.md  'Untitled Diagram.drawio'  jenkinsfile-cicd  pom.xml  src  target
[root@ip-172-31-50-64 hiring-app]# cd target/
[root@ip-172-31-50-64 target]# ls
hiring  hiring.war  maven-archiver
[root@ip-172-31-50-64 target]#
```

c. Sonar integration:

go to pipeline syntax and select with sonarqube env:prepare sonarqube scanner environment click generate pipeline script it will give you script add that in the declarative pipeline script.

[declarative-pipeline](#) / [Pipeline Syntax](#)

Snippet Generator

- Declarative Directive Generator
- Declarative Online Documentation
- Steps Reference
- Global Variables Reference
- Online Documentation
- Examples Reference
- IntelliJ IDEA GDSL

Overview

This **Snippet Generator** will help you learn the Pipeline Script code which can be used to define various steps. Pick **Generate Pipeline Script**, and you will see a Pipeline Script statement that would call the step with that configuration or pick up just the options you care about. (Most parameters are optional and can be omitted in your script, leaving them as-is.)

Steps

Sample Step

withSonarQubeEnv: Prepare SonarQube Scanner environment

withSonarQubeEnv ?

Server authentication token

SonarQube authentication token. Mandatory when anonymous access is disabled. Will default to the one defined in the Jenkinsfile.

- none -

[Generate Pipeline Script](#)

```
withSonarQubeEnv {
    // some block
}
```

```
withSonarQubeEnv {
```

```
    // some block
```

}

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Jenkins / declarative-pipeline / Configuration

Configure

- General
- Triggers
- Pipeline
- Advanced

Script ?

```
11  steps {
12      git branch: 'main', url: 'https://github.com/betawins/hiring-app.git'
13  }
14  }
15
16  stage('Build') {
17      steps {
18          withSonarQubeEnv("sonarqube") {
19              sh 'mvn clean install -f pom.xml'
20          }
21      }
22  }
23
24  }
25  }
```

☒ Use Groovy Sandbox ?

click on build now.

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Jenkins / declarative-pipeline

Status

declarative-pipeline

declarative-pipeline

Stage View

	Declarative: Tool Install	Checkout	Build
Average stage times: (full run time: ~7s)	126ms	561ms	2min 55s
#31 Nov 06 21:59 No Changes	160ms	833ms	6s
#30 Nov 06 21:49 No Changes	119ms	426ms	8min 34s
#29 Nov 06 21:38 No Changes	100ms	426ms	5s

Builds

Filter /

Today

d. Nexus Artifactory:

←

→

↻

⚠ Not secure

54.208.94.198:8080/job/declarative-pipeline/pipeline-syntax/


1

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Gmail

YouTube

Maps

 **Jenkins**

declarative-pipeline ▾ / Pipeline Syntax

nexusArtifactUploader

Nexus Details

Nexus Version

NEXUS3

Protocol

HTTP

Nexus URL ?

54.81.238.177:8081

Credentials

admin/***** (nexus) ▾

+ Add

GroupId

in.javahome

←

→

↻

⚠ Not secure


54.208.94.198:8080/job/declarative-pipeline/pipeline-syntax/

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Maps

 **Jenkins**

declarative-pipeline ▾ / Pipeline Syntax

Credentials

admin/***** (nexus)

GroupId

in.javahome

Version

0.1

Repository ?

hiring-app

← → ↺ Not secure 54.208.94.198:8080/job/declarative-pipeline/pipeline-syntax/ ☆

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Jenkins / declarative-pipeline / Pipeline Syntax

Artifact

ArtifactId

hiring

Type ?

war

Classifier ?

File ?

/var/lib/jenkins/workspace/hiring-app/target/hiring.war

+ Add

It will give a script add that in the script.

Jenkins / declarative-pipeline / Pipeline Syntax 🔍 ⚙️

/var/lib/jenkins/workspace/hiring-app/target/hiring.war

+ Add

Generate Pipeline Script

nexusArtifactUploader artifacts: [[artifactId: 'hiring', classifier: '', file: '/var/lib/jenkins/workspace/hiring-app/target/hiring.war', type: 'war']], credentialsId: 'nexus', groupId: 'in.javahome', nexusUrl: '54.81.238.177:8081', nexusVersion: 'nexus3', protocol: 'http', repository: 'hiring-app', version: '0.1'


📄

Global Variables

There are many features of the Pipeline that are not steps. These are often exposed via global variables, which are not supported by the snippet generator. See the [Global Variables Reference](#) for details.

```
nexusArtifactUploader artifacts: [[artifactId: 'hiring', classifier:
'', file: '/var/lib/jenkins/workspace/hiring-
app/target/hiring.war', type: 'war']], credentialsId: 'nexus',
groupId: 'in.javahome', nexusUrl: '54.81.238.177:8081',
```

nexusVersion: 'nexus3', protocol: 'http', repository: 'hiring-app', version: '0.1'

 **Jenkins** / declarative-pipeline ▾ / Configuration

Configure

- General
- Triggers
- Pipeline**
- Advanced

Define your Pipeline using Groovy directly or pull it from source control.

Definition


Pipeline script

Script ?

```
22     }
23
24     stage('Upload to Nexus') {
25         steps {
26             script {
27                 nexusArtifactUploader artifacts: [[
28                     artifactId: 'hiring',
29                     classifier: '',
30                     file: '/var/lib/jenkins/workspace/hiring-app/target/hiring.war',
31                     type: 'war'
32                 ]],
33                 credentialsId: 'nexus',
34                 groupId: 'in.javahome',
35                 nexusUrl: '54.81.238.177:8081',
36                 nexusVersion: 'nexus3',
```

☒ Use Groovy Sandbox ?

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 **Jenkins** / declarative-pipeline ▾ / Configuration

Configure

- General
- Triggers
- Pipeline**
- Advanced

Script ?

```
31         type: 'war'
32     ]],
33     credentialsId: 'nexus',
34     groupId: 'in.javahome',
35     nexusUrl: '54.81.238.177:8081',
36     nexusVersion: 'nexus3',
37     protocol: 'http',
38     repository: 'hiring-app',
39     version: "0.1"
40     }
41     }
42     }
43 }
44 }
45
```

☒ Use Groovy Sandbox ?

[Pipeline Syntax](#)

Click on build now.

← → ↻ ⚠ Not secure 54.196.31.127:8080/job/declarative-pipeline/

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Jenkins / declarative-pipeline

Status

Changes

Build Now

Configure

Delete Pipeline

Full Stage View

Stages

Rename

Pipeline Syntax

Credentials

declarative-pipeline

declarative-pipeline

Stage View

	Declarative: Tool Install	Checkout	Build	Upload to Nexus
Average stage times: (full run time: ~8s)	131ms	610ms	1min 47s	4min 15s
#33 Nov 06 22:44 No Changes	178ms	821ms	6s	925ms
#32 Nov 06 22:25 No Changes	101ms	546ms	5s	8min 30s aborted

Builds

Sonatype Nexus Repository Manager
OSS 3.19.1-01

Browse

Welcome

Search

Browse

Upload

Browse / hiring-app

Upload component HTML View

in

javahome

hiring

0.1

hiring-0.1.war


hiring-0.1.war.md5

hiring-0.1.war.sha1

f . Deploy On tomcat:

← → ↻ ⚠ Not secure 54.196.31.127:8080/job/declarative-pipeline/pipeline-syntax/

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 **Jenkins** / declarative-pipeline ▾ / Pipeline Syntax

🔍 Global Variables Reference

🔍 Online Documentation

🔍 Examples Reference

🔍 IntelliJ IDEA GDSL

Sample Step

deploy: Deploy war/ear to a container

deploy

WAR/EAR files ?

`**/*.war`

Context path ?

Containers

☰ **Tomcat 9.x Remote**

Credentials


deployer/***** (tomcat-server)

Tomcat URL ?

`http://98.87.16.156:8080/`

← → ↻ ⚠ Not secure 54.196.31.127:8080/job/declarative-pipeline/pipeline-syntax/ ☆ 🔗

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 **Jenkins** / declarative-pipeline ▾ / Pipeline Syntax 🔍 🔗

`http://98.87.16.156:8080/`

Advanced ▾

+ Add Container

☒ Deploy on failure

Generate Pipeline Script

deploy adapters: [tomcat9(alternativeDeploymentContext: "", credentialsId: 'tomcat-server', path: "", url: 'http://98.87.16.156:8080/'), contextPath: null, war: '**/*.war']

📄

Global Variables

```
deploy adapters: [tomcat9(alternativeDeploymentContext: "",
credentialsId: 'tomcat-server', path: "", url:
'http://98.87.16.156:8080/'), contextPath: null, war:
'**/*.war']
```



Configure

- General
- Triggers
- Pipeline
- Advanced

Script ?

```

46 script {
47     deploy adapters: [tomcat9(
48         alternativeDeploymentContext: '',
49         credentialsId: 'tomcat-server',
50         path: '',
51         url: 'http://98.87.16.156:8080/'
52     )],
53     contextPath: null,
54     war: '**/*.war'
55 }
56 }
57 }
58 }
59 }
60

```

Click on build now.



Status

declarative-pipeline

Changes

Build Now

Configure

Delete Pipeline

Full Stage View

Stages

Rename

Pipeline Syntax

Credentials

Builds

Filter

Today

Stage View

	Declarative: Tool Install	Checkout	Build	Upload to Nexus	Deploy to Tomcat
Average stage times: (full run time: ~8s)	129ms	603ms	1min 30s	2min 50s	1s
#34 Nov 06 22:53 No Changes	120ms	566ms	5s	603ms	1s
#33 Nov 06 22:44 No Changes	178ms	821ms	6s	925ms	
#32 Nov 06 22:25 No Changes	101ms	546ms	5s	8min 30s	aborted

```

[root@ip-172-31-111-184 bin]# cd webapps
-bash: cd: webapps: No such file or directory
[root@ip-172-31-111-184 bin]# cd /opt
[root@ip-172-31-111-184 opt]# ls
apache-tomcat-9.0.111  apache-tomcat-9.0.111.tar.gz  aws
[root@ip-172-31-111-184 opt]# cd apache-tomcat-9.0.111/
[root@ip-172-31-111-184 apache-tomcat-9.0.111]# ls
BUILDING.txt  CONTRIBUTING.md  LICENSE  NOTICE  README.md  RELEASE-NOTES  RUNNING.txt  bin  conf  lib  logs  temp  webapps  work
[root@ip-172-31-111-184 apache-tomcat-9.0.111]# cd webapps/
[root@ip-172-31-111-184 webapps]# ls
ROOT                                     SimpleCustomerApp-12-SNAPSHOT          SimpleCustomerApp-13-SNAPSHOT.war  SimpleCustomerApp-21-SNAPSHOT          examples  host-manager
SimpleCustomerApp-10-SNAPSHOT            SimpleCustomerApp-12-SNAPSHOT.war      SimpleCustomerApp-20-SNAPSHOT       SimpleCustomerApp-21-SNAPSHOT.war      hiring   manager
SimpleCustomerApp-10-SNAPSHOT.war        SimpleCustomerApp-13-SNAPSHOT          SimpleCustomerApp-20-SNAPSHOT.war    docs                                    hiring.war
[root@ip-172-31-111-184 webapps]#

```

f. Slack Notification:



Jenkins / declarative-pipeline ▾ / Pipeline Syntax



Snippet Generator



Declarative Directive Generator



Declarative Online Documentation



Steps Reference



Global Variables Reference



Online Documentation



Examples Reference



IntelliJ IDEA GDSL

Overview

This **Snippet Generator** will help you learn the Pipeline Script **Generate Pipeline Script**, and you will see a Pipeline Script or pick up just the options you care about. (Most parameters

Steps

Sample Step

slackSend: Send Slack Message

slackSend ?

Channel ?

jenkins-integration

Message ?

Declarative pipeline executed


Advanced ^

Edited

Color ?

→ ↻ ⚠ Not secure 35.173.132.241:8080/job/declarative-pipeline/pipeline-syntax/

Gmail YouTube Maps

 **Jenkins** / declarative-pipeline ▾ / Pipeline Syntax

Credential ?

slack_integration

☐ Custom slack app bot user ?

☐ Notify Committers? ?

Icon Emoji ?

Username ?

Shaik Mohammad Mujaheed-15

Override url ?

☐ Fail On Error ?

[Generate Pipeline Script](#)

slackSend channel: 'jenkins-integration', message: 'Declarative pipeline executed', t

slackSend channel: 'jenkins-integration', message: 'Declarative pipeline executed', tokenCredentialId: 'slack_integration', username: 'Shaik Mohammad Mujaheed-15'

 **Jenkins** / declarative-pipeline ▾ / Configuration

Configure

General

Triggers

Pipeline

Advanced

Definition

Pipeline script

Script ?

```
55     }
56   }
57 }
58
59 stage('Slack Notification') {
60   steps {
61     slackSend(
62       channel: 'jenkins-integration',
63       message: "🎉 Declarative pipeline executed successfully – Build #${BUILD_NUMBER}",
64       tokenCredentialId: 'slack_integration',
65       username: 'Shaik Mohammad Mujaheed-15'
66     )
67   }
68 }
69 }
```

[try sample Pipeline...](#)

☒ Use Groovy Sandbox ?

click on build now.

The screenshot shows the Jenkins web interface for a job named 'declarative-pipeline'. The 'Stage View' table displays the following data:

	Declarative: Tool Install	Checkout	Build	Upload to Nexus	Deploy to Tomcat	Slack Notification
Average stage times: (full run time: ~10s)	178ms	879ms	6s	734ms	540ms	810ms
#21 Nov 04 17:57 No Changes	179ms	1s	6s	359ms	357ms	810ms
#20 Nov 04 17:40 No Changes	115ms	435ms	6s	422ms	724ms	
#19 Nov 04 16:51 No Changes	240ms	942ms	6s	1s		

Below the table, a notification from the Jenkins APP at 5:57 PM states: "Declarative pipeline executed successfully — Build #21".

pipeline {

agent any

tools {

maven 'MVN_HOME'

}

stages {

stage('Checkout') {

steps {

```
        git branch: 'main', url:
'https://github.com/betawins/hiring-app.git'
    }
}
```

```
stage('Build') {
    steps {
        withSonarQubeEnv("sonarqube") {
            sh 'mvn clean install -f pom.xml'
        }
    }
}
```

```
stage('Upload to Nexus') {
    steps {
        script {
            nexusArtifactUploader artifacts: [[
                artifactId: 'hiring',
                classifier: '',
                file: '/var/lib/jenkins/workspace/hiring-
app/target/hiring.war',
```

```
        type: 'war'
    ]],
    credentialsId: 'nexus',
    groupId: 'in.javahome',
    nexusUrl: '54.81.238.177:8081',
    nexusVersion: 'nexus3',
    protocol: 'http',
    repository: 'hiring-app',
    version: "0.1"
}
}
}
```

```
stage('Deploy to Tomcat') {
    steps {
        script {
            deploy adapters: [tomcat9(
                alternativeDeploymentContext: "",
                credentialsId: 'tomcat-server',
                path: "",
                url: 'http://98.87.16.156:8080/'
```

```
    ]],  
    contextPath: null,  
    war: '**/*.war'  
  }  
}  
}  
}  
}
```

2. Setup a Jenkins CI/CD pipeline using Scripted pipeline using <https://github.com/betawins/hiring-app.git>

stages:

- a. Git Clone**
- b. SonarQube Integration**
- c. Maven Compilation**
- d. Nexus Artifactory**
- e. Slack Notification**
- f. Deploy On tomcat**

a. git clone:

go to Jenkins add new item name as scripted pipeline select type as pipeline.

←

→

↻

⚠ Not secure


35.173.132.241:8080/view/all/newJob

☰

[Gmail](#)

[YouTube](#)

[Maps](#)


 **Jenkins** / All ▾ / New Item


New Item


Enter an item name


scripted-pipeline


Select an item type

 **Freestyle project**
Classic, general-purpose job type that checks out from steps like archiving artifacts and sending email notifications

 **Maven project**
Build a maven project. Jenkins takes advantage of your

 **Pipeline**
Orchestrates long-running activities that can span multiple workflows) and/or organizing complex activities that do

 **Multi-configuration project**
Suitable for projects that need a large number of different platform-specific builds, etc.

 **Folder**

OK

scripted-pipeline / Configuration

Pipeline

Define your Pipeline using Groovy directly or pull it from source control.

Definition

Pipeline script

Script

```
1 node{
2   stage("Git clone"){
3   }
4 }
```

try sample Pipeline...

Save Apply

Jenkins / scripted-pipeline / Pipeline Syntax

Online Documentation

Examples Reference

IntelliJ IDEA GDSDL

Sample Step

git: Git

git

Repository URL

https://github.com/betawins/hiring-app.git

Branch

main

Credentials

- none -

☒ Include in polling?

☒ Include in changelog?

Generate Pipeline Script

git branch: 'main', url: ' https://github.com/betawins/hiring-app.git '

git branch: 'main', url: ' https://github.com/betawins/hiring-app.git '

add this in script.

← → ↻ ⚠ Not secure 98.91.216.236:8080/job/scripted-pipeline/configure

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Jenkins / scripted-pipeline ▾ / Configuration

Configure

- ⚙ General
- 🕒 Triggers
- 🔧 Pipeline
- 🔑 Advanced

Script ?

```
1 node {
2   stage("Git Clone") {
3     git(' https://github.com/betawins/hiring-app.git ')
4   }
5 }
```

← → ↻ ⚠ Not secure 98.91.216.236:8080/job/scripted-pipeline/

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Jenkins / scripted-pipeline

- 📄 Status
- </> Changes
- ▶ Build Now
- ⚙ Configure
- 🗑 Delete Pipeline
- 🔍 Full Stage View
- 📁 Stages
- ✎ Rename
- ❓ Pipeline Syntax
- 📱 Credentials

✅ scripted-pipeline

Stage View

Average stage times:
(full run time: ~20s)

	Git Clone
#15 Nov 07 12:26 No Changes	489ms
#14 Nov 07 12:25 No Changes	537ms
#13 Nov 07 No Changes	

Builds

🔍 Filter

b. maven compailation:

← → ↻ Not secure 98.91.216.236:8080/job/scripted-pipeline/configure

📏 Gmail YouTube Maps

Jenkins / scripted-pipeline ▾ / Configuration

Configure

- ⚙️ General
- ⌚ Triggers
- 🔧 Pipeline**
- 🔗 Advanced

Script ?

```

1 node {
2     def mvnHome = tool "MVN_HOME"
3     stage("Git Clone") {
4         git(' https://github.com/betawins/hiring-app.git ')
5     }
6     stage("maven build"){
7         sh "${mvnHome}/bin/mvn clean install -f pom.xml"
8     }
9 }

```

click on build now.

← → ↻ Not secure 98.91.216.236:8080/job/scripted-pipeline/

📏 Gmail YouTube Maps

Jenkins / scripted-pipeline

📄 Status

✓ scripted-pipeline

</> Changes

▶ Build Now

⚙️ Configure

🗑️ Delete Pipeline

🔍 Full Stage View

📁 Stages

✎ Rename

❓ Pipeline Syntax

🔑 Credentials

Stage View

Average stage times:
(full run time: ~4s)

	Git Clone	maven build
#16 Nov 07 12:32 No Changes	207ms	6s
#15 Nov 07 12:26 No Changes	537ms	
#14		

c. sonarqube integration:

click on pipeline syntax and add with sonarqube env click on generate pipeline syntax.add the syntax in the script.

Snippet Generator

- Declarative Directive Generator
- Declarative Online Documentation
- Steps Reference
- Global Variables Reference
- Online Documentation
- Examples Reference
- IntelliJ IDEA GDSL

Overview

This **Snippet Generator** will help you learn the Pipeline Script code which can be used to define various steps. Pick a step you are interested in from the list, config **Generate Pipeline Script**, and you will see a Pipeline Script statement that would call the step with that configuration. You may copy and paste the whole statement or pick up just the options you care about. (Most parameters are optional and can be omitted in your script, leaving them at default values.)

Steps

Sample Step

withSonarQubeEnv: Prepare SonarQube Scanner environment ▾

withSonarQubeEnv ?

Server authentication token

SonarQube authentication token. Mandatory when anonymous access is disabled. Will default to the one defined in the SonarQube installation.

- none - ▾

+ Ac

Generate Pipeline Script

```
withSonarQubeEnv {
    // some block
}
```

```
withSonarQubeEnv {
    // some block
}
```

← → ↺ ⚠ Not secure 54.172.130.57:8080/job/scripted-pipeline/configure 🔍

📱 | 📧 Gmail 📺 YouTube 📍 Maps

Configure

- General
- Triggers
- Pipeline
- Advanced

Pipeline script

Script ?

```
1 node {
2     def mvnHome = tool "MVN_HOME"
3     stage("Git Clone") {
4         git branch: 'main', url: 'https://github.com/betawins/hiring-app.git'
5     }
6     stage("Maven Build") {
7         sh "${mvnHome}/bin/mvn clean install -f pom.xml"
8     }
9     stage("SonarQube Analysis") {
10        withSonarQubeEnv('sonarqube') {
11            sh "${mvnHome}/bin/mvn sonar:sonar -f pom.xml -Dsonar.qualitygate.wait=false"
12        }
13    }
14 }
15
```

☒ Use Groovy Sandbox ?

Click on build now.

Jenkins / scripted-pipeline

Status

</> Changes

▷ Build Now

⚙️ Configure

🗑️ Delete Pipeline

🔍 Full Stage View

📶 SonarQube

📁 Stages

✎ Rename

❓ Pipeline Syntax

👤 Credentials

scripted-pipeline

Stage View

	Git Clone	Maven Build	SonarQube Analysis
Average stage times: (full run time: ~21s)			
#22 Nov 07 13:25 No Changes	453ms	5s	7min 19s
#21 Nov 07 13:11 No Changes	631ms	5s	14s
#20 Nov 07 No Changes	274ms	5s	13min 38s aborted
	616ms	5s	3min 1s

d. Nexus Artifactory:

create a repository with scripted pipeline name.

Sonatype Nexus Repository Manager
OSS 3.19.1-01

Search components

Administration

Repository

Repositories

Blob Stores

Content Selectors

Cleanup Policies

Routing Rules

Security

Privileges

Roles

Users

Anonymous

LDAP

Realms

SSL Certificates

IQ Server

Support

Repositories

Select Recipe

Create Repository: maven2 (hosted)

Name: A unique identifier for this repository

Online: ☒ If checked, the repository accepts incoming requests

Maven 2

Version policy:
What type of artifacts does this repository store?

Layout policy:
Validate that all paths are maven artifact or metadata paths

Storage

Blob store:
Blob store used to store repository contents

Strict Content Type Validation:
☒ Validate that all content uploaded to this repository is of a MIME type appropriate for the repository format

Hosted



- Global Variables Reference
- Online Documentation
- Examples Reference
- IntelliJ IDEA GDSDL

Steps

Sample Step

nexusArtifactUploader: Nexus Artifact Uploader

nexusArtifactUploader

Nexus Details

Nexus Version

NEXUS3

Protocol

HTTP

Nexus URL ?

23.22.130.233:8081

← → ↻ ⚠ Not secure 54.172.130.57:8080/job/scripted-pipeline/pipeline-syntax/

📦 | 📧 Gmail | 📺 YouTube | 🗺 Maps



Nexus URL ?

23.22.130.233:8081

Credentials

admin/***** (nexus)

GroupId

in.javahome

Version

0.1

Repository ?


scripted-pipeline

Artifacts

≡ Artifact

← → ↻ ⚠ Not secure 52.90.162.68:8080/job/scripted-pipeline/pipeline-syntax/

📧 Gmail 📺 YouTube 📍 Maps

 **Jenkins** / scripted-pipeline ▾ / Pipeline Syntax


Artifact

ArtifactId

Type ?

Classifier ?

File ?

 **Jenkins** / scripted-pipeline ▾ / Pipeline Syntax 🔍 ⚙️

File ?

+ Add

Generate Pipeline Script

```
nexusArtifactUploader artifacts: [[artifactId: 'hiring', classifier: '', file: '/var/lib/jenkins/workspace/hiring-app/hiring.war', type: 'war']], credentialsId: 'nexus', groupId: 'in.javahome', nexusUrl: '23.22.130.233:8081', nexusVersion: 'nexus3', protocol: 'http', repository: 'scripted-pipeline', version: '0.1'
```

nexusArtifactUploader artifacts: [[artifactId: 'hiring', classifier: '', file: '/var/lib/jenkins/workspace/ scripted-pipeline/hiring.war', type: 'war']], credentialsId: 'nexus', groupId: 'in.javahome', nexusUrl: '23.22.130.233:8081', nexusVersion: 'nexus3', protocol: 'http', repository: 'scripted-pipeline', version: '0.1'

← → ↻ 98.86.226.194:8080/job/scripted-pipeline/configure

📁 Gmail 📺 YouTube 📍 Maps

Jenkins / scripted-pipeline / Configuration

Configure

- General
- Triggers
- Pipeline**
- Advanced

```
5 }
6 stage("Maven Build") {
7   sh "${mvnHome}/bin/mvn clean install -f pom.xml"
8 }
9 stage("SonarQube Analysis") {
10  withSonarQubeEnv('sonarqube') {
11    sh "${mvnHome}/bin/mvn sonar:sonar -f pom.xml -Dsonar.qualitygate.wait=false"
12  }
13 }
14 stage("Nexus Upload") {
15   nexusArtifactUploader artifacts: [[artifactId: 'hiring', classifier: '', file: '/var/lib/jenkins,
16 }
17 }
18 }
```

☒ Use Groovy Sandbox ?

[Pipeline Syntax](#)

Click on build now.

📁 Gmail 📺 YouTube 📍 Maps

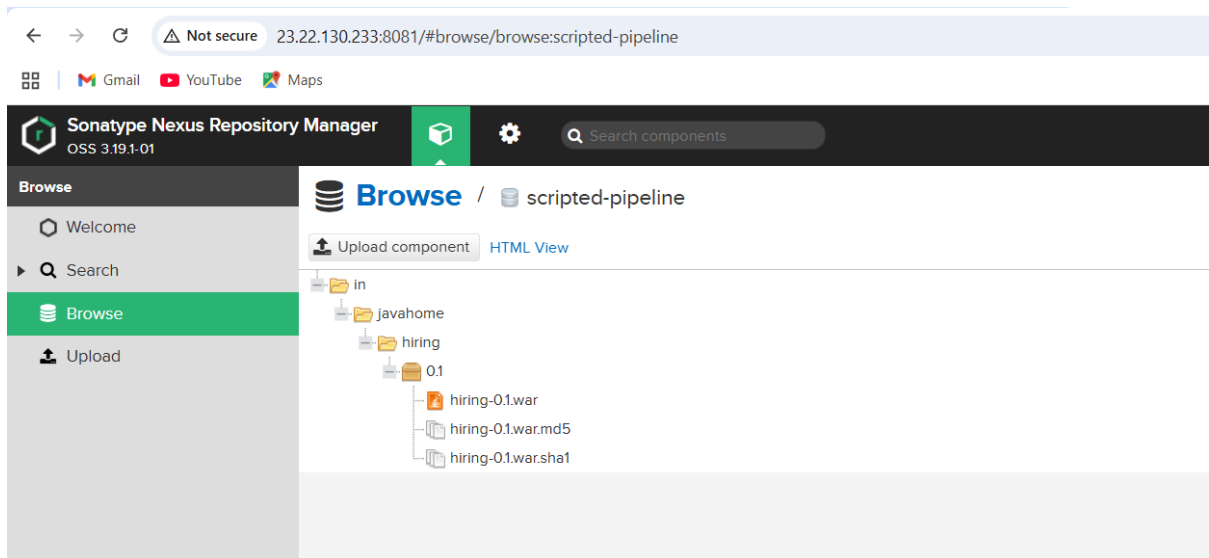
Jenkins / scripted-pipeline

- Status**
- Changes
- Build Now
- Configure
- Delete Pipeline
- Full Stage View
- SonarQube
- Stages
- Rename
- Pipeline Syntax
- Credentials

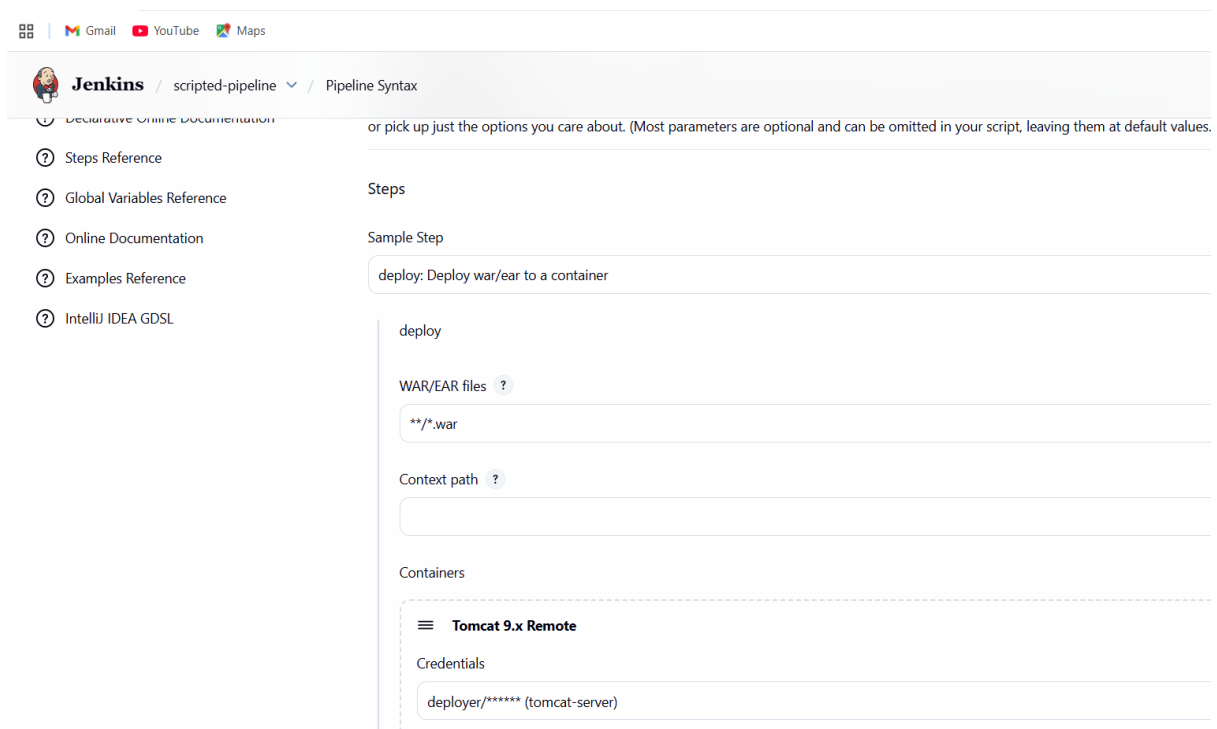
✅ scripted-pipeline

Stage View

	Git Clone	Maven Build	SonarQube Analysis	Nexus Upload
Average stage times: (full run time: ~21s)	419ms	5s	5min 18s	257ms
#28 Nov 07 15:35 No Changes	670ms	6s	12s	733ms
#27 Nov 07 15:24 No Changes	279ms	5s	9min 32s aborted	
#26 Nov 07 15:17 No Changes	290ms	5s	12s	80ms



e. deploy to tomcat:



← → ↻ Not secure 98.86.226.194:8080/job/scripted-pipeline/pipeline-syntax/

Google Gmail YouTube Maps

Jenkins / scripted-pipeline / Pipeline Syntax

Tomcat 9.x Remote

Credentials
deployer/***** (tomcat-server) + Add

Tomcat URL ?
http://23.20.83.85:8080/

Advanced ▾

+ Add Container

☒ Deploy on failure

Generate Pipeline Script

deploy adapters: [tomcat9(alternativeDeploymentContext: '', credentialsId: 'tomcat-server', path: '', url: 'http://23.20.83.85:8080/'), contextPath: null, war: '**/*.war']

deploy adapters: [tomcat9(alternativeDeploymentContext: '',
credentialsId: 'tomcat-server', path: '', url:
'http://23.20.83.85:8080/']], contextPath: null, war:
'**/*.war'

← → ↻ Not secure 3.88.69.231:8080/job/scripted-pipeline/configure

Google Gmail YouTube Maps

Jenkins / scripted-pipeline / Configuration

Configure

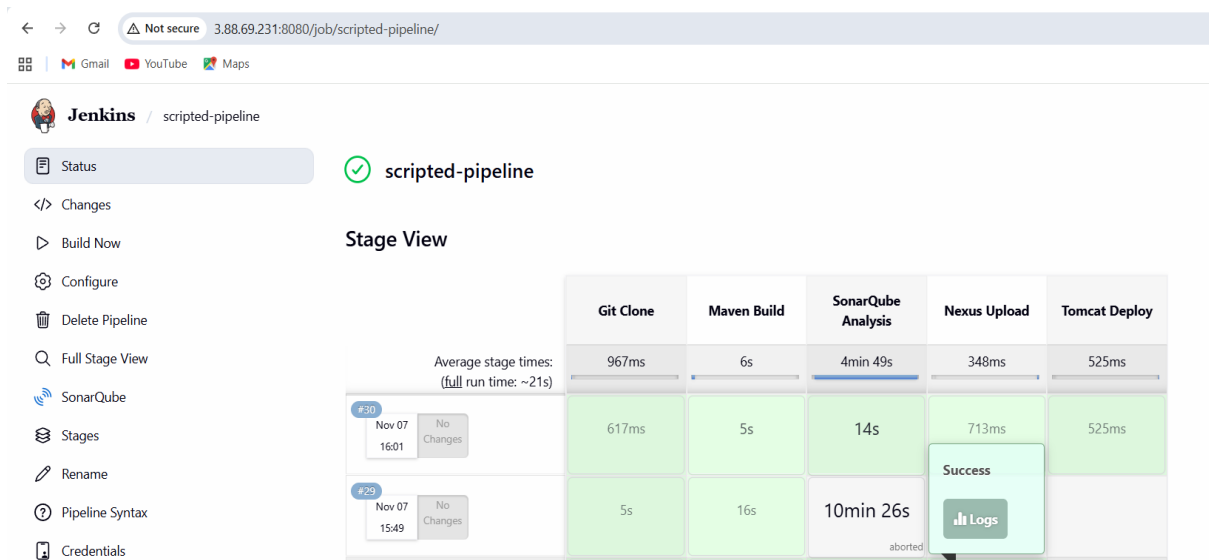
- General
- Triggers
- Pipeline
- Advanced

Script


```
8 }  
9 stage("SonarQube Analysis") {  
10   withSonarQubeEnv("sonarqube") {  
11     sh "${mvnHome}/bin/mvn sonar:sonar -f pom.xml -Dsonar.qualitygate.wait=false"  
12   }  
13 }  
14 stage("Nexus Upload") {  
15   nexusArtifactUploader artifacts: [[artifactId: 'hiring', classifier: '', file: '/var/lib/jenkins/workspace/sc  
16 ]  
17 stage("Tomcat Deploy") {  
18   deploy adapters: [tomcat9(alternativeDeploymentContext: '', credentialsId: 'tomcat-server', path: '', url: 'h  
19 ]  
20 }  
21
```

☒ Use Groovy Sandbox

Click on build now.



f. slack integration:

 **Jenkins** / scripted-pipeline ▾ / Pipeline Syntax

⚙️ Snippet Generator

⚙️ Declarative Directive Generator

❓ Declarative Online Documentation

❓ Steps Reference

❓ Global Variables Reference

❓ Online Documentation

❓ Examples Reference

❓ IntelliJ IDEA GDSL

Overview

This **Snippet Generator** will help you learn the Pipeline Script code which can be used to define various steps. You can **Generate Pipeline Script**, and you will see a Pipeline Script statement that would call the step with that color or pick up just the options you care about. (Most parameters are optional and can be omitted in your script)

Steps

Sample Step

slackSend: Send Slack Message

slackSend ?

Channel ?

jenkins-integration

Message ?

scripted pipeline executed


Advanced ^

✎ Edited

Color ?

← → ↻ ⚠ Not secure 13.217.115.239:8080/job/scripted-pipeline/pipeline-syntax/

📏 | 📧 Gmail | 📺 YouTube | 📍 Maps

 **Jenkins** / scripted-pipeline ▾ / Pipeline Syntax

Credential ?

slack_integration ▾

☐ Custom slack app bot user ?

☐ Notify Committers? ?

Icon Emoji ?

Username ?

shaik mohammad mujaheed-15

Override url ?

☐ Fail On Error ?


[Generate Pipeline Script](#)

slackSend channel: 'jenkins-integration', message: 'scripted pipeline executed', tokenCredentialId: 'slack_integration', username: 'shaik mohammad mujaheed-15'

slackSend channel: 'jenkins-integration', message: 'scripted pipeline executed', tokenCredentialId: 'slack_integration', username: 'shaik mohammad mujaheed-15'

← → ↻ ⚠ Not secure 34.229.41.116:8080/job/scripted-pipeline/configure

📏 | 📧 Gmail | 📺 YouTube | 📍 Maps

 **Jenkins** / scripted-pipeline ▾ / Configuration

Configure

⚙ General

⌚ Triggers

📜 Pipeline

🔧 Advanced

Script ?

```
57
58 stage("Slack Notification") {
59     echo "📢 Sending Slack notification..."
60     slackSend(
61         channel: 'jenkins-integration',
62         message: "✅ scripted pipeline executed successfully for *SimpleCustomerApp* (Build #${BUILD_NUMBER})"
63         tokenCredentialId: 'slack_integration',
64         username: 'Shaik Mohammad Mujaheed-15'
65     )
66 }
67
68 } catch (err) {
69     // Send failure message to Slack if any stage fails
70     slackSend(
71         channel: 'jenkins-integration'
```

☒ Use Groovy Sandbox ?

[Pipeline Syntax](#)

Jenkins / scripted-pipeline / Configuration

Configure

- General
- Triggers
- Pipeline
- Advanced

Script ?

```

66     }
67
68     } catch (err) {
69         // Send failure message to Slack if any stage fails
70         slackSend(
71             channel: 'jenkins-integration',
72             message: "❌ Scripted pipeline *FAILED* for *SimpleCustomerApp* (Build #${BUILD_NUMBER})\nError: ${err}"
73             tokenCredentialId: 'slack_integration',
74             username: 'Shaik Mohammad Mujaheed-15'
75         )
76         throw err
77     }
78 }
79

```

☒ Use Groovy Sandbox ?

[Pipeline Syntax](#)

34.229.41.116:8080/job/scripted-pipeline/

Jenkins / scripted-pipeline

Status

Changes

Build Now

Configure

Delete Pipeline

Full Stage View

SonarQube

Stages

Rename

Pipeline Syntax

Credentials

scripted-pipeline

Add description

Stage View

	Git Clone	Maven Build	SonarQube Analysis	Upload Artifact to Nexus	Deploy to Tomcat	Slack Notification
Average stage times: (full run time: ~25s)	500ms	5s	15min 30s	15s	622ms	646ms
#12 Nov 04 22:47 No Changes	581ms	5s	11s	858ms	558ms	646ms
#11 Nov 04 22:32 No Changes	368ms	5s	9min 47s	Success		

Logs

```

node {
    def mvnHome = tool "MVN_HOME"

    stage("Git Clone") {
        git branch: 'main', url:
'https://github.com/betawins/hiring-app.git'
    }

    stage("Maven Build") {
        sh "${mvnHome}/bin/mvn clean install -f pom.xml"
    }
}

```

```
}  
  
stage("SonarQube Analysis") {  
    withSonarQubeEnv('sonarqube') {  
        sh "${mvnHome}/bin/mvn sonar:sonar -f pom.xml -  
Dsonar.qualitygate.wait=false"  
    }  
}  
  
stage("Nexus Upload") {  
    nexusArtifactUploader artifacts: [[artifactId: 'hiring',  
classifier: '', file: '/var/lib/jenkins/workspace/scripted-  
pipeline/target/hiring.war', type: 'war']], credentialsId:  
'nexus', groupId: 'in.javahome', nexusUrl:  
'23.22.130.233:8081', nexusVersion: 'nexus3', protocol:  
'http', repository: 'scripted-pipeline', version: '0.1'  
}  
  
stage("Tomcat Deploy") {  
    deploy adapters:  
[tomcat9(alternativeDeploymentContext: '', credentialsId:  
'tomcat-server', path: '', url: 'http://23.20.83.85:8080/)],  
contextPath: null, war: '**/*.war'  
}  
}
```

3. create one multi stage pipeline job.

Create a new item name as multi stage pipeline and select pipeline type.

← → ↻ Not secure 54.90.216.124:8080/view/all/newJob

Grid Gmail YouTube Maps

Jenkins / All / New Item

New Item

Enter an item name

multi-stage-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.
- 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.
- Folder**

OK

Go the job and write script to clone

<https://github.com/betawins/hiring-app.git> this repository.



Jenkins / multi-stage-pipeline / Configuration

Configure

⚙ General

🕒 Triggers

📜 Pipeline

🔧 Advanced

Define your Pipeline using Groovy directly or pull it from source control.

Definition

Pipeline script

Script ?

```
1 pipeline {
2   agent any
3   stages {
4
5     stage('Git Clone') {
6       steps {
7         git branch: 'main', url: 'https://github.com/betawins/hiring-app.git'
8       }
9     }
10  }
11 }
```

☒ Use Groovy Sandbox ?



Jenkins / multi-stage-pipeline

📄 Status

</> Changes

▶ Build Now

⚙ Configure

🗑 Delete Pipeline

🔍 Full Stage View

📁 Stages

✎ Rename

❓ Pipeline Syntax

👤 Credentials

✅ multi-stage-pipeline

Stage View

		Git Clone
Average stage times: (full run time: ~3s)		663ms
#8	Nov 06 15:02 No Changes	663ms
#7	Nov 05 15:36 No Changes	
#6	Nov 05 No	

Configure

- General
- Triggers
- Pipeline
- Advanced

Define your Pipeline using Groovy directly or pull it from source control.

Definition

Pipeline script

Script ?

```
1 pipeline {
2   agent any
3
4   tools {
5     maven 'MVN_HOME'
6   }
7
8   stages {
9
10    stage('Checkout') {
11      steps {
12        git branch: 'main', url: 'https://github.com/betawins/hiring-app.git'
13      }
14    }
15  }
```



Jenkins / multi-stage-pipeline

Status

Changes

Build Now

Configure

Delete Pipeline

Full Stage View

Stages

Rename

Pipeline Syntax

multi-stage-pipeline

Stage View

	Declarative: Tool Install	Checkout	Build
	Average stage times: (full run time: ~9s)		
#13 Nov 06 16:09 No Changes	124ms	776ms	5s

Configure

General

Triggers

Pipeline

Advanced

Define your Pipeline using Groovy directly or pull it from source control.

Definition

Pipeline script

Script ?

```
22     }
23
24     stage('Upload to Nexus') {
25         steps {
26             script {
27                 nexusArtifactUploader artifacts: [[
28                     artifactId: 'hiring',
29                     classifier: '',
30                     file: '/var/lib/jenkins/workspace/hiring-app/target/hiring.war',
31                     type: 'war'
32                 ]],
33                 credentialsId: 'nexus',
34                 groupId: 'in.javahome',
35                 nexusUrl: '54.81.238.177:8081',
36                 nexusVersion: 'nexus3',
```

☒ Use Groovy Sandbox ?

Configure

General

Triggers

Pipeline

Advanced

Script ?


```
31         type: 'war'
32     ]],
33     credentialsId: 'nexus',
34     groupId: 'in.javahome',
35     nexusUrl: '54.81.238.177:8081',
36     nexusVersion: 'nexus3',
37     protocol: 'http',
38     repository: 'hiring-app',
39     version: "0.1"
40     }
41     }
42     }
43     }
44 }
```



☒ Use Groovy Sandbox ?

[Pipeline Syntax](#)

← → ↻ ⚠ Not secure 54.81.238.177:8081/#browse/browse:hiring-app

📦 Gmail 📺 YouTube 📍 Maps

**Sonatype Nexus Repository Manager**
OSS 3.19.1-01





Browse

Welcome

Search

Browse

Upload

**Browse** /  hiring-app

Upload component

HTML View

in

javahome

hiring

0.1


hiring-0.1.war

hiring-0.1.war.md5

hiring-0.1.war.sha1

← → ↻ ⚠ Not secure 3.82.7.203:8080/job/multi-stage-pipeline/

📦 Gmail 📺 YouTube 📍 Maps

**Jenkins** / multi-stage-pipeline

Status

Changes

Build Now

Configure

Delete Pipeline

Full Stage View

Stages

Rename

Pipeline Syntax

Credentials

✅ multi-stage-pipeline

Stage View

Average stage times:
(full run time: ~9s)

	Declarative: Tool Install	Checkout	Build	Upload to Nexus
#13 Nov 06 16:09 No Changes	124ms	776ms	5s	1s

Permalinks

- Last build (#13), 7 min 57 sec ago
- Last stable build (#13), 7 min 57 sec ago
- Last successful build (#13), 7 min 57 sec ago
- Last failed build (#11), 44 min ago
- Last unsuccessful build (#12), 42 min ago
- Last completed build (#13), 7 min 57 sec ago

Builds

Today

✅ #13 10:39 AM

Configure

- General
- Triggers
- Pipeline**
- Advanced

Script ?

```
46 script {  
47     deploy adapters: [tomcat9(  
48         alternativeDeploymentContext: '',  
49         credentialsId: 'tomcat-server',  
50         path: '',  
51         url: 'http://98.87.16.156:8080/'  
52     )],  
53     contextPath: null,  
54     war: '**/*.war'  
55 }  
56 }  
57 }  
58 }  
59 }  
60 }
```

← → ↺ ⚠ Not secure 3.82.7.203:8080/job/multi-stage-pipeline/

📦 | 📧 Gmail | 📺 YouTube | 🗺 Maps



Jenkins / multi-stage-pipeline

📄 Status

✅ multi-stage-pipeline

</> Changes

▶ Build Now

⚙ Configure

🗑 Delete Pipeline

🔍 Full Stage View

📖 Stages

✎ Rename

❓ Pipeline Syntax

📄 Credentials

Stage View

	Declarative: Tool Install	Checkout	Build	Upload to Nexus	Deploy to Tomcat
Average stage times: (full run time: ~9s)	124ms	776ms	5s	1s	716ms
#13 Nov 06 16:09 No Changes	124ms	776ms	5s	1s	716ms

Permalinks

- [Last build \(#13\), 7 min 57 sec ago](#)
- [Last stable build \(#13\), 7 min 57 sec ago](#)
- [Last successful build \(#13\), 7 min 57 sec ago](#)
- [Last failed build \(#11\), 44 min ago](#)
- [Last unsuccessful build \(#12\), 42 min ago](#)
- [Last completed build \(#13\), 7 min 57 sec ago](#)

Builds

🔍 Filter

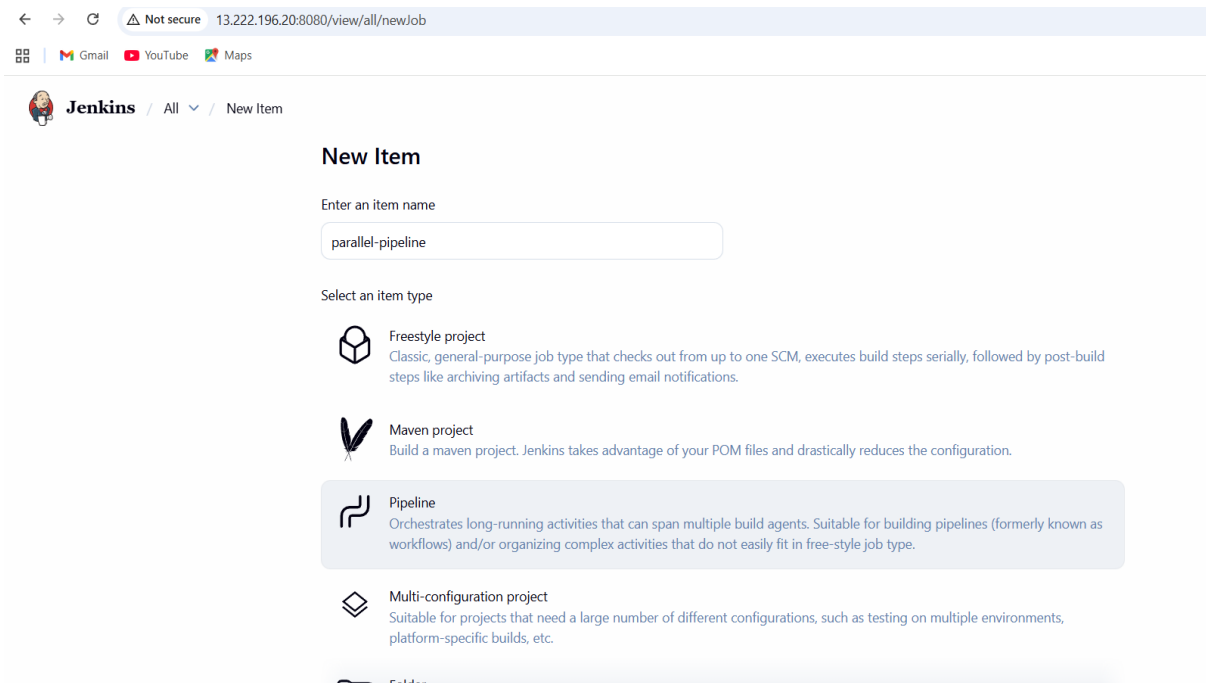
Today

✅ #13 10:39 AM

🕒 #12 10:05 AM

4. Create one parallel stage pipeline job

Create a new job with the name parallel pipeline and type as pipeline.



Write this script

```
pipeline{  
    agent any  
  
    stages {  
        stage('stage-1') {  
            steps {  
                echo 'stage-1 started'  
                sleep(time: 5, unit: 'SECONDS')  
                echo 'stage-1 completed'            }  
        }  
    }  
}
```

```

    }
}

stage('stage-2') {
    steps {
        echo 'stage-2 started'
        sleep(time: 5, unit: 'SECONDS')
        echo 'stage-2 completed'
    }
}
}
}
}
}

```

The screenshot shows the Jenkins web interface for configuring a pipeline. The browser address bar indicates the URL `13.222.196.20:8080/job/parallel-pipeline/configure`. The page title is "Jenkins / parallel-pipeline / Configuration". On the left, the "Configure" section has tabs for "General", "Triggers", "Pipeline" (which is selected), and "Advanced". The main content area is titled "Define your Pipeline using Groovy directly or pull it from source control." and shows the "Pipeline script" definition. The script is as follows:

```

4 stages {
5   stage('stage-1') {
6     steps {
7       echo 'stage-1 started'
8       sleep(time: 5, unit: 'SECONDS')
9       echo 'stage-1 completed'
10    }
11  }
12
13  stage('stage-2') {
14    steps {
15      echo 'stage-2 started'
16      sleep(time: 5, unit: 'SECONDS')
17      echo 'stage-2 completed'
18    }
19  }
20 }

```

At the bottom of the script editor, the checkbox "Use Groovy Sandbox" is checked.

Click on build now.

Here 1st stage will be executed after 5 sec the 2nd stage will be started.

The screenshot shows the Jenkins web interface for a pipeline named 'parallel-pipeline'. The browser address bar shows '13.222.196.20:8080/job/parallel-pipeline/'. The Jenkins logo and 'parallel-pipeline' are at the top. On the left, there's a sidebar with links: Changes, Build Now, Configure, Delete Pipeline, Full Stage View, Stages, Rename, Pipeline Syntax, and Credentials. The main area is titled 'Stage View' and shows a table of stage execution times. The table has columns for 'stage-1' and 'stage-2'. The first row shows 'stage-1' with a time of 5s and 'stage-2' with a time of 5s. The second row shows 'stage-1' with a time of 5s and 'stage-2' with a time of 5s. Below the table, there's a 'Permalinks' section with links to the last build, last failed build, and last unsuccessful build. At the bottom left, there's a 'Builds' section with a search filter and a 'Today' button.

	stage-1	stage-2
Average stage times: (full run time: ~10s)	5s	5s
#2 Nov 05 21:20 No Changes	5s	5s
#1 Nov 05 21:19 No Changes		

Permalinks

- Last build (#1), 1 min 32 sec ago
- Last failed build (#1), 1 min 32 sec ago
- Last unsuccessful build (#1), 1 min 32 sec ago

Builds

Filter

Today

Now we will create parallel stages inside that parallel stage we will keep stage1 and stage 2. Stage 1 will take 5 min to execute after that stage 2 will be executed.

pipeline{

agent any

stages {

stage('ParallelStages') {

parallel {

stage('stage-1') {

```
steps {  
    echo 'stage-1 started'  
    sleep(time: 5, unit: 'MINUTES')  
    echo 'stage-1 completed'  
}  
  
}  
  
stage('stage-2') {  
    steps {  
        echo 'stage-2 started'  
        sleep(time: 5, unit: 'MINUTES')  
        echo 'stage-2 completed'  
    }  
}  
  
}  
  
}  
  
}  
  
}
```

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Jenkins / parallel-pipeline / Configuration

Configure

- General
- Triggers
- Pipeline**
- Advanced

Script ?

```

1 stages {
2   stage('ParallelStages') {
3     parallel {
4       stage('stage-1') {
5         steps {
6           echo 'stage-1 started'
7           sleep(time: 5, unit: 'MINUTES')
8           echo 'stage-1 completed'
9         }
10      }
11    }
12  }
13  stage('stage-2') {
14    steps {
15      echo 'stage-2 started'
16      sleep(time: 5, unit: 'MINUTES')
17      echo 'stage-2 completed'
18    }
19  }
20 }

```

☒ Use Groovy Sandbox ?

[Droptins Syntax](#)

Click on build now.

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Jenkins / parallel-pipeline

- Status**
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- Full Stage View
- Stages
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- Pipeline Syntax
- Credentials

☒ parallel-pipeline

Stage View

	ParallelStages	stage-1	stage-2
Average stage times: (full run time: ~5min 0s)	83ms	5min 0s	5min 0s
#4 Nov 05 21:42 No Changes	83ms	5min 0s	5min 0s

Permalinks

- Last build (#4), 5 min 29 sec ago
- Last stable build (#4), 5 min 29 sec ago
- Last successful build (#4), 5 min 29 sec ago
- Last failed build (#4), 5 min 29 sec ago

Builds ... ↻

As we can see in final output the average time took is 5 minutes 0

seconds for executing both stages in parallel way.

• By this parallel pipelines, we can reduce our build time by

50% which are
independent to each other to improve efficiency