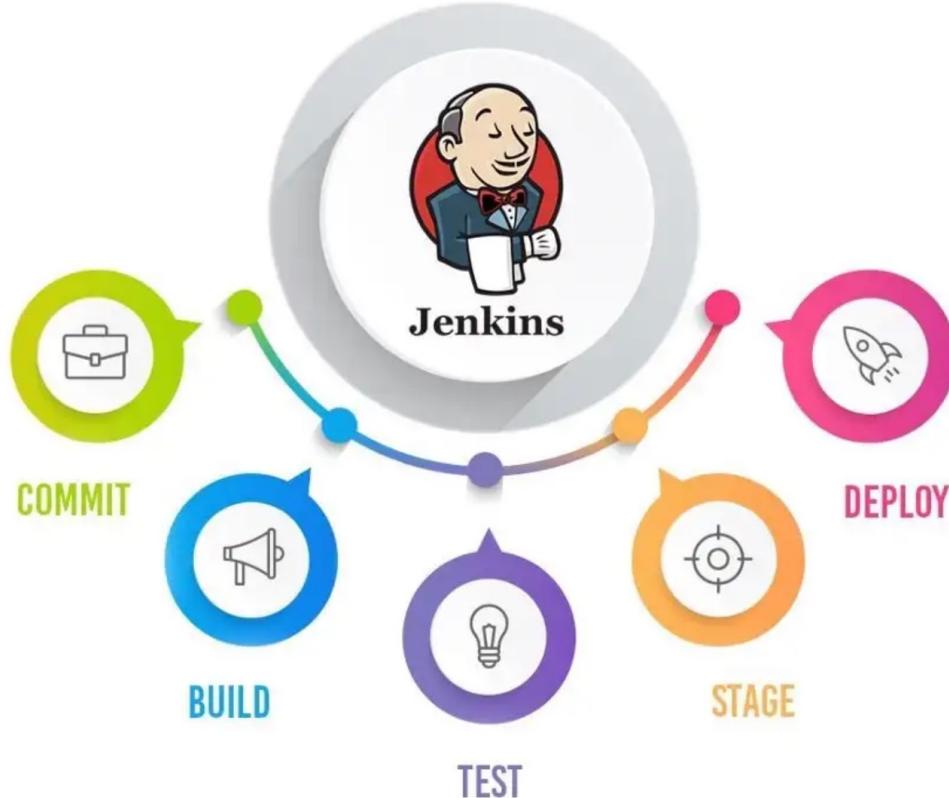




Week 6 : SOFTWARE DEVELOPMENT TOOLS AND ENVIRONMENTS



Set Up Jenkins Credentials

1

2

3

4

Jenkins

Dashboard >

New item People Job History My Views New View

I will Learn Jenkins and get better paying job

Add description

S	W	Name	Last Success	Last Failure	Last Duration
Green	Yellow	VeryFirstJenkinsJob	19 days #3	N/A	22 ms

Icon legend Atom feed for all Atom feed for failures Atom feed for just latest builds

Build Queue No builds in the queue.

Build Executor Status 1 idle 2 idle

REST API Jenkins 2.332.3

Jenkins

Dashboard > Build Queue

Configure global settings and paths.

Configure tools, their locations and automatic installers.

Add, remove, disable or enable plugins that can extend the functionality of Jenkins.

There are updates available

No builds in the queue.

Build Executor Status 1 idle 2 idle

Manage Nodes and Clouds Add, remove, control and monitor the various nodes that Jenkins runs jobs on.

Security

Configure Global Security Secure Jenkins: define who is allowed to access/use the system.

Manage Credentials Configure credentials

Configure Credential Providers Configure the credential providers and types

In-process Script Approval Allows a Jenkins administrator to review proposed scripts (written e.g. in Groovy) which run inside the Jenkins process and so could bypass security restrictions. 1 scripts pending approval.

Status Information

System Information Displays various environmental System Log System log captures output from Load Statistics Check your resource utilization and see if...

Jenkins

Dashboard > Manage Jenkins > Credentials

Search (⌘+K)

Credentials

T	P	Store ↓	Domain	ID	Name
			Domains		
Stores scoped to Jenkins					
P	Store ↓		Domains		
(global)					

Icon: S M L

Jenkins

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

Global credentials (unrestricted)

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

For Github

New credentials

1. **Id**: Username with password

2. **Username**: tuchsanai

3. **Password**:

4. **ID**: github

Description: my github for test jenkins

Settings / Developer settings

Personal access tokens (classic)

Make sure to copy your personal access token now. You won't be able to see it again!

ghp_Zp7azz7td4qxUcZdLyTT8PHG1Ljri0t3Fz

Personal access tokens (classic) | Jenkins | OAuth access tokens

Select scopes

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

repo

- repo:status
- repo_deployment
- public_repo
- repo:invite
- security_events

Full control of private repositories
Access commit status
Access deployment status
Access public repositories
Access repository invitations
Read and write security events

admin:repo_hook

- write:repo_hook
- read:repo_hook

Full control of repository hooks
Write repository hooks
Read repository hooks

For Github

Global credentials (unrestricted)

+ Add Credentials

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

ID	Name	Kind	Description
 github	tuchsanai/******** (my github for test jenkins)	Username with password	my github for test jenkins

Icon: S M L

For docker Hub

The screenshot shows a web browser window for Docker Hub at the URL hub.docker.com/repositories/tuchsanai. The page has a dark blue header bar with the Docker Hub logo and navigation links for Explore, Repositories, Organizations, Help, Upgrade, and a user profile for tuchsanai.

A prominent message in the center of the page reads: "Please check your inbox to verify the email associated with this account. You won't be able to create a repository or configure your Docker Hub without verifying your email address." Below this message are several input fields: a dropdown menu set to "tuchsanai", a search bar with placeholder "Search by repository name", and another dropdown menu set to "All Content". To the right of these fields is a blue "Create repository" button. A small icon of a person with a gear is visible near the repository dropdown. At the bottom of the main content area, there is a message: "There are no repositories in this namespace. Tip: Not finding your repository? Try a different namespace." The background of the page is white, and the overall layout is clean and modern.



New credentials

Kind

Username with password

Scope ?

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

Username ?

tuchsanai

1

Treat username as secret ?

Password ?

.....

2

ID ?

dockerhub

3

Description ?

my docker hub

Create



Jenkins

Search (%+K)



Tuchsanai Ploysawan

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	Actions
github	tuchsanai/******** (my github for test jenkins)	Username with password	my github for test jenkins	
dockerhub	tuchsanai/******** (my docker hub)	Username with password	my docker hub	

Icon: S M L

Intro to Jenkins Plugins

← → ⌂ ⌂ plugins.jenkins.io

Jenkins cd Plugins Documentation Community Subprojects S



Plugins Index

Discover the 1800+ community contributed Jenkins plugins to support building, deploying and automating any project.

Browse 🔍

Browse categories

- Platforms
- User interface
- Administration
- Build management
- Source Code Management

New Plugins

- Add Changes to Build Changelog
- CodeThreat
- DevOps Portal
- CatLight Notification
- Qualys IaC Security
- Pipeline Input Step Notification
- BeVigil CI
- Matomo analytics
- Deploy to webMethods Integration Server
- Casdoor Authentication

Recently updated

- Venafi CodeSign Protect
- Build Failure Analyzer
- Add Changes to Build Changelog
- Pipeline Aggregator View
- Parameterized Scheduler
- Nomad
- Kubernetes
- SnakeYAML API
- Pipeline: Basic Steps
- Jakarta Mail API

Trending

- Configuration as Code
- AnsiColor
- Job DSL
- Pipeline Utility Steps
- CloudBees Disk Usage Simple
- SSH Agent
- Kubernetes
- Active Directory
- Blue Ocean
- Slack Notification

Improve this page ⚠ Report a problem

Resources Project Community Other



← → ⌂ ⌂ plugins.jenkins.io/ui/search?query=docker

Jenkins 

Blog Documentation Plugins Community Subprojects Security About English Dov

Sort Relevance Relevance Most installed Trending Title Release date

Categories [Show all](#)

- Platforms
 - iOS Development
 - .NET Development
 - Android Development
 - Ruby Development
- User interface
 - User Interface
 - List view columns
- Administration
 - Agent Management
 - Page Decorators
 - Authentication and User Management
 - Cluster Management
 - Command Line Interface
- Build management
 - Build Triggers
 - Build Wrappers
 - Build Notifiers
 - Deployment
 - Build Parameters
 - Other Post-Build Actions
 - Build Tools
 - Build Reports
 - Artifact Uploaders
- Source Code Management

Browse  docker 

Search by  algolia  docker

1 to 26 of 26 [Previous](#) [1](#) [Next](#)

Docker Installs: 40105 Released: 4 weeks ago adopt-this-plugin, Cloud Provider This plugin integrates Jenkins with Docker	Docker Commons Installs: 140949 Released: 6 months ago Provides the common shared functionality for various Docker-related plugins.	Docker Pipeline Installs: 128051 Released: 3 months ago adopt-this-plugin, Deployment, Build and use Docker containers from pipelines.	Docker API Installs: 43867 Released: 4 days ago adopt-this-plugin, Library plugin This plugin provides docker-java API for other plugins.	docker-build-step Installs: 15524 Released: 4 months ago Build Tools, docker This plugin allows to add various docker commands to your job as build steps.	CloudBees Docker Build and Publish Installs: 9934 Released: 6 months ago Build Tools, docker This plugin enables building Dockerfile based projects, as well as publishing of the built images/repos to the docker cloud provider.
Kanstantsin Shautsou magnayn (4 other contributors) 	Jesse Glick Kohsuke Kawaguchi (3 other contributors) 	Jesse Glick Oleg Nenashev (5 other contributors) 	Yoann Dubreuil Eric Citaire 	vjuranek 	jvuranek 
Docker Compose Build Step Installs: 5378 Released: 5 years ago This plugin has no labels Docker Compose plugin for Jenkins	Docker Slaves Installs: 5330 Released: 6 years ago docker Uses Docker containers to run Jenkins build agents.	CloudBees Docker Custom Build Installs: 3103 Released: 5 years ago docker Run builds inside a docker container, defined by a Docker image or Dockerfile stored in project SCM.	CloudBees Docker Hub/Registry Notification Installs: 1767 Released: a week ago docker Integrates Jenkins with DockerHub and Docker Registry	Docker Swarm Installs: 1398 Released: 2 years ago docker Docker swarm cloud plugin.	CloudBees Docker Traceability Installs: 1062 Released: 7 years ago docker Provides an ability to trace server deployments via fingerprints
João Galego 	Yoann Dubreuil 	Vincent Latombe Jon Hermansen 	rstandell Adrien Lecharpentier (11 other contributors) 	surya gaddipati Roman Bärlswy 	Oleg Nenashev Alex Taylor 
CloudShare Docker-Machine Installs: 162 Released: 6 years ago Cloud Providers, Cluster Manager	Yet Another Docker Installs: 1396 Released: 3 years ago Cloud Providers, Cluster Manager	Panoptica Vulnerability Scanner Installs: 6 Released: 4 months ago aws	Amazon ECR Installs: 8908 Released: 3 weeks ago aws	Aqua MicroScanner Installs: 189 Released: 3 years ago This plugin has no labels	CrowdStrike Security Installs: 13 Released: 4 months ago This plugin has no labels



Jenkins

Dashboard >

+ New Item

People

Build History

Project Relationship

Check File Fingerprint

Manage Jenkins

My Views

Check File Fingerprint

Manage Jenkins

My Views

Build Queue

No builds in the queue.

Build Executor Status

1 Idle

2 Idle

System Configuration

Configure System

Global Tool Configuration

Manage Plugins

Manage Nodes and Clouds

Security

Configure Global Security

Manage Credentials

Configure Credential Providers

Manage Users

Status Information

System Information

System Log

Load Statistics

About Jenkins

Troubleshooting

Manage Old Data

Tools and Actions

Reload Configuration from Disk

Jenkins CLI

Script Console

Prepare for Shutdown

Uncategorized

Docker

Jenkins

Dashboard > Manage Jenkins > Plugin Manager

Updates

Available plugins

Installed plugins

Advanced settings

Plugins

docker

Name ↓

Docker API 3.2.13-37vf3411c9828b9

This plugin provides docker-java API for other plugins.
Report an issue with this pluginThis plugin is up for adoption! We are looking for new maintainers. Visit our [Adopt a Plugin](#) initiative for more information.

Docker Commons Plugin 1.21

Provides the common shared functionality for various Docker-related plugins.
Report an issue with this plugin

Docker Pipeline 563.vd5d2e5c4007f

Build and use Docker containers from pipelines.
Report an issue with this plugin

Docker plugin 1.3.0

This plugin integrates Jenkins with Docker
Report an issue with this pluginThis plugin is up for adoption! We are looking for new maintainers. Visit our [Adopt a Plugin](#) initiative for more information.

1

Plugins

Docker Pipeline

Install Name ↓

Docker Pipeline 563.vd5d2e5c4007f

pipeline DevOps Deployment docker

Build and use Docker containers from pipelines.

Released

2 mo 20 days ago

2

First pipeline using Pipeline script

First pipeline

The screenshot shows the Jenkins dashboard with a search bar at the top. Below it, a form asks "Enter an item name" with "myFirstPipeline" entered. A "Freestyle project" option is shown with a brief description. The "Pipeline" option is highlighted with a large black oval. Below these are "Multi-configuration project", "Folder", "Multibranch Pipeline", and "Organization Folder". At the bottom, there's a note about copying from existing items and a "Copy from" button.

https://github.com/Tuchsanai/devtool_week6_jenkins/tree/main/First_pipeline_using_Pipeline_script

The screenshot shows the Jenkins Pipeline configuration page. It has tabs for "Definition" and "Pipeline script". The "Pipeline script" tab is active, displaying a Groovy script:

```
1 pipeline {
2     agent any
3     stages {
4         stage('first pipeline') {
5             steps {
6                 echo 'welcome to first pipeline'
7                 sh 'python3 --version'
8             }
9         }
10    }
11 }
12 }
13 }
```

A checkbox labeled "Use Groovy Sandbox" is checked.

Console Output

Started by user Tuchsanai Ploysawan
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in /var/lib/jenkins/workspace/
[Pipeline] {
[Pipeline] stage
[Pipeline] { (first pipeline)
[Pipeline] echo
welcome to first pipeline
[Pipeline] sh
+ python3 --version
Python 3.7.16
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS

```
pipeline {  
    agent any  
    stages {  
        stage("build") {  
            steps {  
            }  
        }  
    }  
    node {  
        // groovy script  
    }  
}
```

- "pipeline" must be top-level
- "agent" - where to execute
- "stages" - where the "work" happens
 - "stage" and "steps"

Declarative Pipeline fundamentals

In Declarative Pipeline syntax, the `pipeline` block defines all the work done throughout your Pipeline.

```
Jenkinsfile (Declarative Pipeline)
pipeline {
    agent any ①
    stages {
        stage('Build') { ②
            steps {
                // ③
            }
        }
        stage('Test') { ④
            steps {
                // ⑤
            }
        }
        stage('Deploy') { ⑥
            steps {
                // ⑦
            }
        }
    }
}
```

- ① Execute this Pipeline or any of its stages, on any available agent.
- ② Defines the "Build" stage.
- ③ Perform some steps related to the "Build" stage.
- ④ Defines the "Test" stage.
- ⑤ Perform some steps related to the "Test" stage.
- ⑥ Defines the "Deploy" stage.
- ⑦ Perform some steps related to the "Deploy" stage.

How To Update the Linux PATH Environment Variable

which python3

```
Last login: Mon Feb 20 06:06:03 2023 from ec2-3-0-5-37.ap-southeast-1.compute.amazonaws.com
[ec2-user@ip-172-31-17-81 ~]$ which python3
/usr/bin/python3
[ec2-user@ip-172-31-17-81 ~]$
```

You can view the `PATH` variable with the following command:

```
$ echo $PATH
```

Copy

An unchanged `PATH` may look something like this (file paths may differ slightly depending on your system):

```
[ec2-user@ip-172-31-17-81 ~]$ echo $PATH
/usr/local/bin:/usr/bin:/usr/local/sbin:/usr/sbin:/home/ec2-user/.local/bin:/home/ec2-user/bin
[ec2-user@ip-172-31-17-81 ~]$
```

How To Update the Linux PATH Environment Variable

1. Verify that Python 3 is installed on the system: You can check if Python 3 is installed by running the following command in a terminal:

```
css
```

 Copy code

```
python3 --version
```

If the output shows the version number of Python 3, it means Python 3 is installed.

2. Add the path to Python 3 to the system path: If Python 3 is installed, but Jenkins is still unable to find it, you can add the path to Python 3 to the system path. To do this, you can add the following line to the end of the ` `.bashrc` or ` `.bash_profile` file in your home directory:

```
ruby
```

 Copy code

```
export PATH=$PATH:/path/to/python3/bin
```

Replace ` `/path/to/python3/bin` with the actual path to the directory containing the ` `python3` binary.

3. Restart Jenkins: After adding the path to Python 3 to the system path, you may need to restart Jenkins for the changes to take effect. You can do this by running the following command in a terminal:

 Copy code

```
sudo systemctl restart jenkins
```

This command may vary depending on your system and how Jenkins is installed.

JENKINSFILE using (Github)

A screenshot of a GitHub repository page for 'Tuchsanai / devtool_week6_jenkins'. The repository is private, as indicated by a red circle around the 'Private' button in the top right corner. The main tab is selected. Below it, there are tabs for Code, Issues, Pull requests, Actions, Projects, Security, Insights, and Settings. The Code tab is active. At the top right of the code area, there are buttons for 'Go to file', 'Add file', and a dropdown for 'Code'. A red circle highlights the 'jenkinsfile_Pipeline_using_SCM' commit, which was updated 7 minutes ago. The commit message is 'Update jenkinsfile_Pipeline_using_SCM'. The commit shows 12 lines (11 sloc) and 220 Bytes. The Jenkinsfile content is as follows:

```
pipeline {  
    agent any  
    stages {  
        stage('build') {  
            steps {  
                echo ' welcome to github pipeline'  
                sh 'python3 --version'  
            }  
        }  
    }  
}
```

A screenshot of the GitHub commit page for the 'jenkinsfile_Pipeline_using_SCM' commit. The commit was made by 'Tuchsanai' 3 minutes ago. It has 5 commits. The commit message is 'Update jenkinsfile_Pipeline_using_SCM'. The commit shows 12 lines (11 sloc) and 220 Bytes. The Jenkinsfile content is identical to the one shown in the previous screenshot.

https://github.com/Tuchsanai/devtool_week6_jenkins

Enter an item name

» Required field

Freestyle project
This is the central feature of Jenkins. Jenkins will build your project, combining any SCM with any build system.

Pipeline
Orchestrates long-running activities that can span multiple build agents. Suitable for building pipelines (formerly job type).

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

Folder
Creates a container that stores nested items in it. Useful for grouping things together. Unlike view, which is just a name as long as they are in different folders.

Multibranch Pipeline
Creates a set of Pipeline projects according to detected branches in one SCM repository.

Organization Folder
Creates a set of multibranch project subfolders by scanning for repositories.

OK

Pipeline

Definition

Pipeline script
 Pipeline script from SCM

Script ?
1

Use Groovy Sandbox ?

Pipeline Syntax

Configure

General

Advanced Project Options

Pipeline

SCM ?

Git

Repositories ?

Repository URL ?

`https://github.com/TuchsanaJ/devtool_week6_jenkins.git`

Credentials ?

`tuchsanaJ/******** (my github)`

+ Add

Advanced...

Add Repository

Branches to build ?

Branch Specifier (blank for 'any') ?

`*/main`

Add Branch

Repository browser ?

(Auto)

Additional Behaviours

Add ▾

Script Path ?

`jenkinsfile_Pipeline_using_SCM`

Lightweight checkout ?

Pipeline Syntax

main ▾

devtool_week6_jenkins / jenkinsfile_Pipeline_using_SCM



Tuchsanai Update jenkinsfile_Pipeline_using_SCM

1 contributor

12 lines (11 sloc) | 220 Bytes

```
1 pipeline {  
2     agent any  
3     stages {  
4         stage('build') {  
5             steps {  
6                 echo ' welcome to github pipeline'  
7                 sh 'python3 --version'  
8             }  
9         }  
10    }  
11 }  
12 }
```

Give feedback

```
Started by user Tuchsanai Ploysawan  
Obtained jenkinsfile_Pipeline_using_SCM from git https://github.com/Tuchsanai/devtool\_week6\_jenkins.git  
[Pipeline] Start of Pipeline  
[Pipeline] node  
Running on Jenkins in /var/lib/jenkins/workspace/s  
[Pipeline] {  
[Pipeline] stage  
[Pipeline] { (Declarative: Checkout SCM)  
[Pipeline] checkout  
Selected Git installation does not exist. Using Default  
The recommended git tool is: NONE  
using credential github  
> git rev-parse --resolve-git-dir /var/lib/jenkins/workspace/s/.git # timeout=10  
Fetching changes from the remote Git repository  
> git config remote.origin.url https://github.com/Tuchsanai/devtool\_week6\_jenkins.git # timeout=10  
Fetching upstream changes from https://github.com/Tuchsanai/devtool\_week6\_jenkins.git  
> git --version # timeout=10  
> git --version # 'git version 2.39.1'  
using GIT_ASKPASS to set credentials my github  
> git fetch --tags --force --progress -- https://github.com/Tuchsanai/devtool\_week6\_jenkins.git +refs/heads/*:refs/remotes/origin/* # timeout=10  
> git rev-parse refs/remotes/origin/main^{commit} # timeout=10  
Checking out Revision 1d977a9cc984a899946be4a83188d65aebffb790 (refs/remotes/origin/main)  
> git config core.sparsecheckout # timeout=10  
> git checkout -f 1d977a9cc984a899946be4a83188d65aebffb790 # timeout=10  
Commit message: "Update .gitattributes"  
> git rev-list --no-walk 1d977a9cc984a899946be4a83188d65aebffb790 # timeout=10  
[Pipeline] }  
[Pipeline] // stage  
[Pipeline] withEnv  
[Pipeline] {  
[Pipeline] stage  
[Pipeline] { (build)  
[Pipeline] echo  
welcome to github pipeline  
[Pipeline] sh  
+ python3 --version  
Python 3.7.16  
[Pipeline] }  
[Pipeline] // stage  
[Pipeline] }  
[Pipeline] // withEnv  
[Pipeline] }  
[Pipeline] // node  
[Pipeline] End of Pipeline  
Finished: SUCCESS
```

Pipeline with post actions

Jenkinsfile Post Section

- Run additional steps at the end of pipeline or stage
- Not a required field
- Used to handle failure conditions
- Supports different conditions

```
pipeline {  
    agent any  
    stages {  
        stage('Example') {  
            steps {  
                echo 'Hello World'  
            }  
        }  
    }  
    post {  
        always {  
            echo 'I will always say Hello again!'  
        }  
    }  
}
```

```
pipeline {  
    agent any  
    stages {  
        stage('Example') {  
            steps {  
                echo 'Hello World'  
            }  
        }  
    }  
    post {  
        failure {  
            echo 'Job failed'  
            //Send email notification  
        }  
    }  
}
```

```
pipeline {
    agent none
    stages {
        stage('Build') {
            agent any
            steps {
                checkout scm
                sh 'make'
                stash includes: '**/target/*.jar', name: 'app'
            }
        }
        stage('Test on Linux') {
            agent {
                label 'linux'
            }
            steps {
                unstash 'app'
                sh 'make check'
            }
            post {
                always {
                    junit '**/target/*.xml'
                }
            }
        }
        stage('Test on Windows') {
            agent {
                label 'windows'
            }
            steps {
                unstash 'app'
                sh 'make check'
            }
        }
    }
}
```

```
pipeline {
    agent any
    stages {
        stage('build') {
            steps {
                sh 'python --version'
            }
        }
    }
    post {
        always {
            echo 'Always'
        }
        success {
            echo 'Only on SUCCESS'
        }
        failure {
            echo 'Only on Failure'
        }
        unstable {
            echo 'Only if run is unstable'
        }
        changed {
            echo 'Only if status changed from Success to Failure or vice versa w.r.t. last run.'
        }
    }
}
```

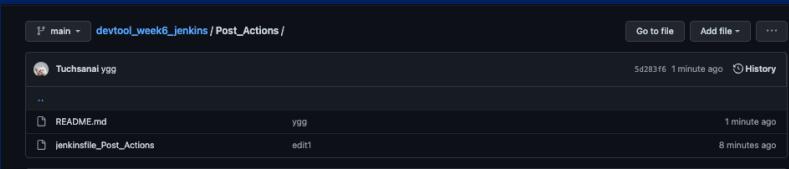
main devtool_week6_jenkins / Post Actions

Tuchsana1 ygg 5d283f6 1 minute ago History

..

README.md ygg 1 minute ago

jenkinsfile_Post Actions edit 8 minutes ago



Pipeline

Definition Pipeline script from SCM

SCM GitHub

Repositories

Repository URL https://github.com/Tuchsana1/devtool_week6_jenkins.git

Credentials tuchsana1***** (my github)

+ Add Advanced... Add Repository

Branches to build

Branch Specifier (blank for 'any') *main

+ Add Branch

Repository browser (Auto)

Additional Behaviours

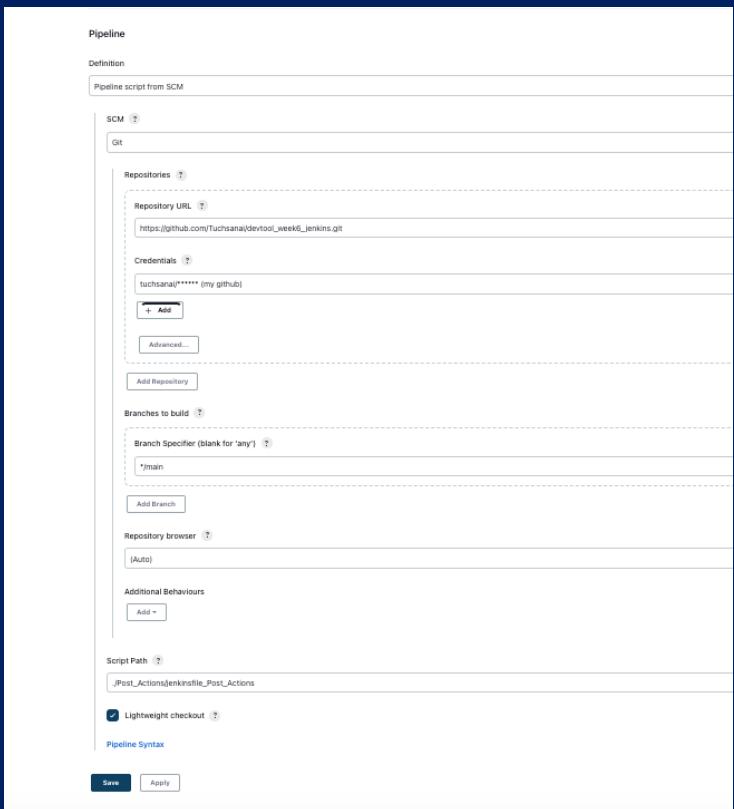
+ Add

Script Path /Post Actions/jenkinsfile_Post Actions

Lightweight checkout

Pipeline Syntax

Save Apply



always

Run the steps in the `post` section regardless of the completion status of the Pipeline's or stage's run.

changed

Only run the steps in `post` if the current Pipeline's or stage's run has a different completion status from its previous run.

fixed

Only run the steps in `post` if the current Pipeline's or stage's run is successful and the previous run failed or was unstable.

regression

Only run the steps in `post` if the current Pipeline's or stage's run's status is failure, unstable, or aborted and the previous run was successful.

aborted

Only run the steps in `post` if the current Pipeline's or stage's run has an "aborted" status, usually due to the Pipeline being manually aborted. This is typically denoted by gray in the web UI.

failure

Only run the steps in `post` if the current Pipeline's or stage's run has a "failed" status, typically denoted by red in the web UI.

success

Only run the steps in `post` if the current Pipeline's or stage's run has a "success" status, typically denoted by blue or green in the web UI.

unstable

Only run the steps in `post` if the current Pipeline's or stage's run has an "unstable" status, usually caused by test failures, code violations, etc. This is typically denoted by yellow in the web UI.

unsuccessful

Only run the steps in `post` if the current Pipeline's or stage's run has not a "success" status. This is typically denoted in the web UI depending on the status previously mentioned.

cleanup

Run the steps in this `post` condition after every other `post` condition has been evaluated, regardless of the Pipeline or stage's status.

Pipeline

Definition

Pipeline script from SCM

SCM ?

Git

Repositories ?

Repository URL ?

https://github.com/TuchsanaI/devtool_week6_jenkins.git

Credentials ?

tuchsanaI***** (my github)

+ Add

Advanced...

Add Repository

Branches to build ?

Branch Specifier (blank for 'any') ?

*main

Add Branch

Repository browser ?

[Auto]

Additional Behaviours

+ Add

Script Path ?

[JPost_Actions\jenkinsfile_Post_Actions](#)

Lightweight checkout ?

Pipeline Syntax

Save

Apply



Console Output

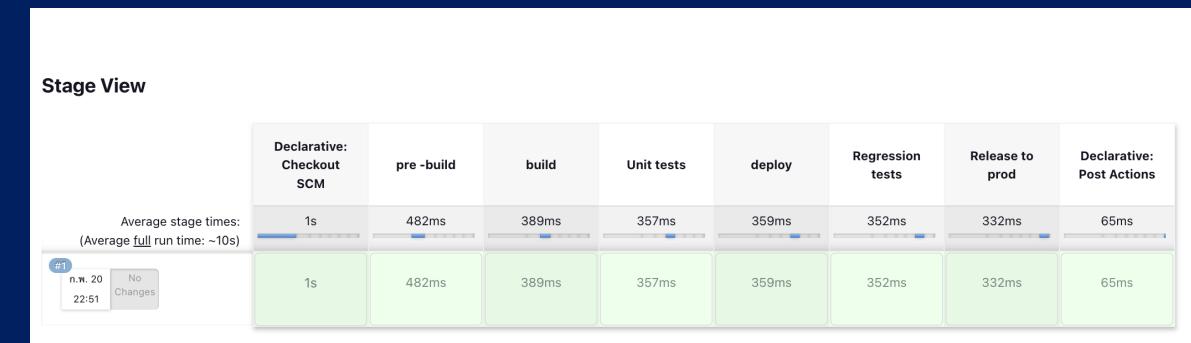
```
Started by user TuchsanaI Ploysuvan
Obtained .\Post_Actions\jenkinsfile_Post_Actions from git https://github.com/TuchsanaI/devtool_week6_jenkins.git
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in /var/lib/jenkins/workspace/fff
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Declarative: Checkout SCM)
[Pipeline] checkout
Selected Git installation does not exist. Using Default
The recommended Git tool is: NONE
using credential github
Cloning the remote Git repository
Cloning repository https://github.com/TuchsanaI/devtool_week6_jenkins.git
> git init /var/lib/jenkins/workspace/fff # timeout=10
Fetching upstream changes from https://github.com/TuchsanaI/devtool_week6_jenkins.git
> git --version # timeout=10
> git --version # 'git version 2.39.1'
using GIT_ASKPASS to set credentials my github
> git fetch --tags --force --progress -- https://github.com/TuchsanaI/devtool_week6_jenkins.git +refs/heads/*:refs/remotes/origin/* # timeout=10
> git config remote.origin.url https://github.com/TuchsanaI/devtool_week6_jenkins.git # timeout=10
> git config --add remote.origin.fetch refs/heads/*:refs/remotes/origin/* # timeout=10
Avoid second fetch
> git rev-parse refs/remotes/origin/main^(commit) # timeout=10
Checking out Revision 454b9844707bc7e73c92b97977f8bec6b59 (refs/remotes/origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f 454b9844707bc7e73c92b97977f8bec6b59 # timeout=10
Commit message: 'Merge branch 'main' of https://github.com/TuchsanaI/devtool_week6_jenkins'
First time build. Skipping changelog.
[Pipeline] }
[Pipeline] // stage
[Pipeline] withEnv
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Build)
[Pipeline] sh
* python --version
Python 2.7.18
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Declarative: Post Actions)
[Pipeline] echo
Always
[Pipeline] echo
Only if status changed from Success to Failure or vice versa w.r.t. last run.
[Pipeline] echo
Only SUCCESS
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS
```

Pipeline with Multiple Stages

```

pipeline {
    agent any
    stages {
        stage('pre -build') {
            steps {
                sh 'echo Pre-build'
            }
        }
        stage('build') {
            steps {
                sh 'echo Build in progress.'
            }
        }
        stage('Unit tests') {
            steps {
                sh 'echo Running unit tests'
            }
        }
        stage('deploy') {
            steps {
                sh 'echo Deploying build'
            }
        }
        stage('Regression tests') {
            steps {
                sh 'echo Running E2E tests'
            }
        }
        stage('Release to prod') {
            steps {
                sh 'echo Releasing to prod'
            }
        }
    }
    post {
        always {
            echo 'Cleanup after everything!'
        }
    }
}

```



https://github.com/Tuchsanai/devtool_week6_jenkins.git

Tuchsanai 0		1a39c05 33
📁	First_pipeline_using_Pipeline_script	start
📁	Multiple_Stages	0
📁	Pipeline_using_SCM	edit1
📁	Post Actions	ygg
📄	.gitattributes	Update .gitattributes
📄	jenkinsfile_Multiple_Stages	0
📄	jenkinsfile_Pipeline_using_SCM	Update jenkinsfile_Pipeline_using_SCM
📄	jenkinsfile_Post Actions	ss

https://github.com/Tuchsanai/devtool_week6_jenkins.git

Pipeline

Definition
Pipeline script from SCM

SCM ?
Git

Repositories ?

Repository URL ?

Credentials ?
tuchsanai/***** (my github)

+ Add

Advanced...

Add Repository

Branches to build ?

Branch Specifier (blank for 'any') ?
*/main

Add Branch

Repository browser ?
(Auto)

Additional Behaviours
Add ▾

Script Path ?
jenkinsfile_Multiple_Stages

Lightweight checkout ?

Pipeline with Github Webhook



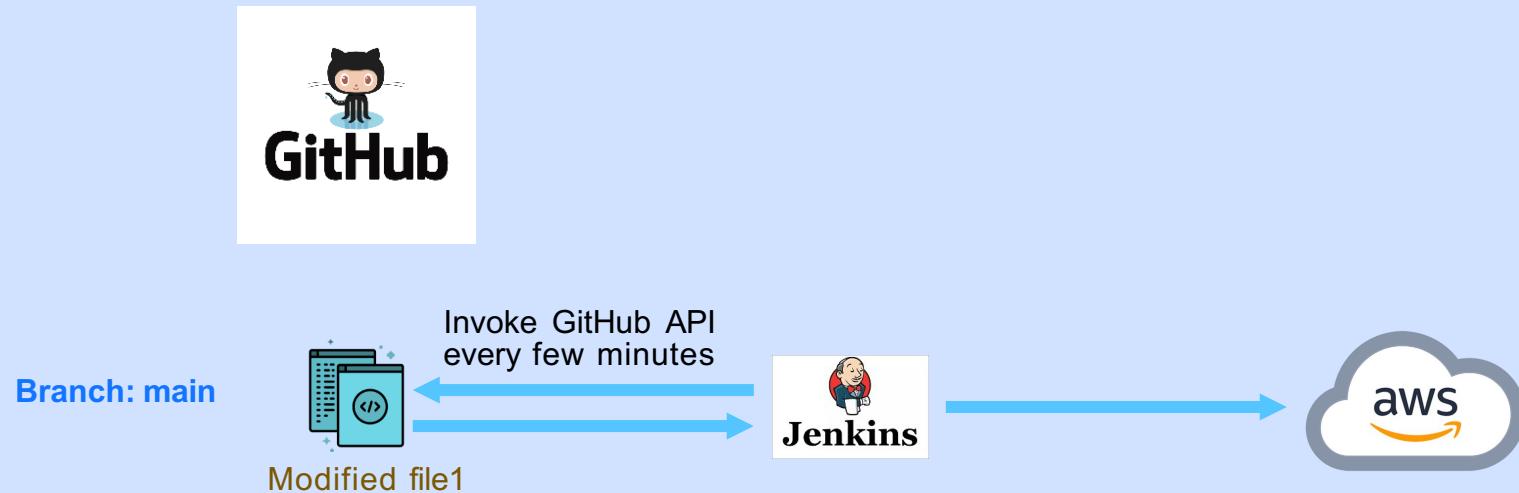
Branch: main



Modified file1

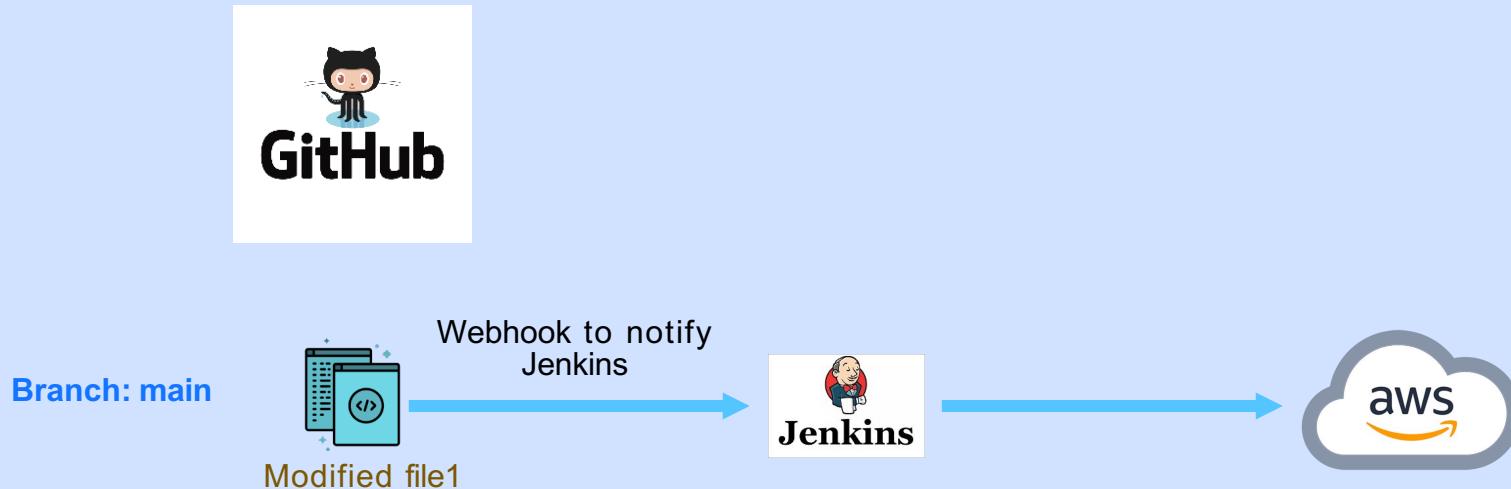


Calling API



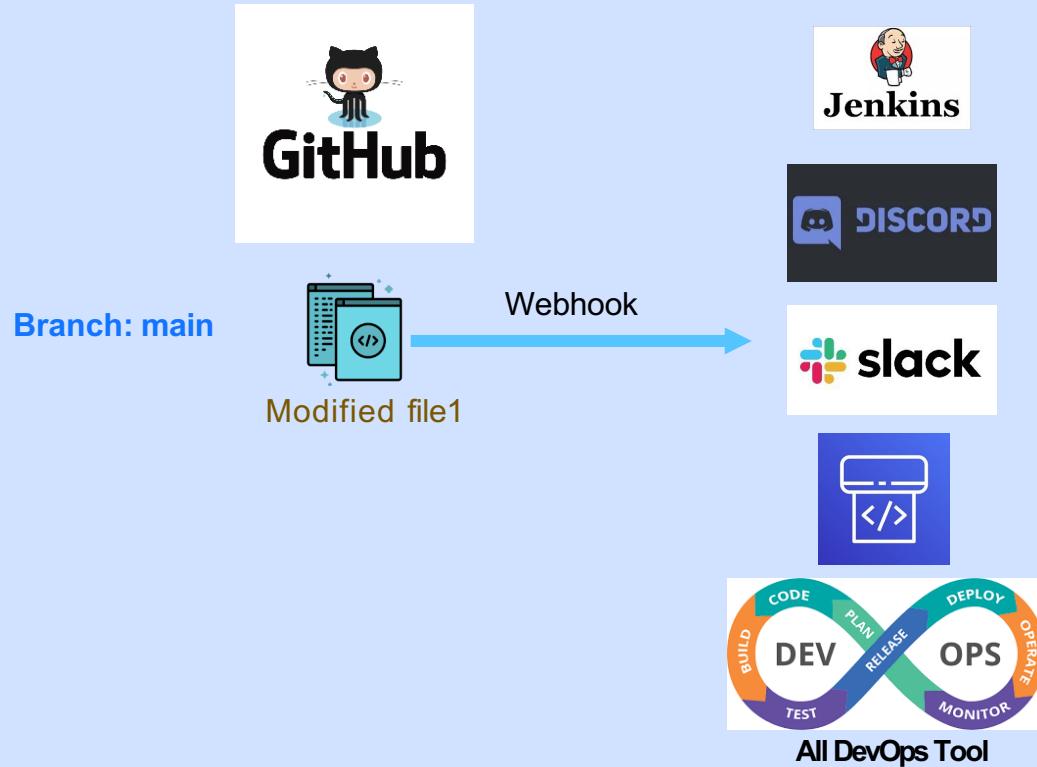
- Most of the times API will return stagnant data
- GitHub server will be bombarded
- Apps will exceed API limits

Webhook



- GitHub will do a POST call to your app if repo changes
- Lightweight
- Realtime

Implementation



Code Issues Pull requests Actions Projects Security Insights Settings

main 1 branch 0 tags Go to file Add file Code

Tuchsanai 0 1a39c05 53 minutes ago 10 commits

- First_pipeline_using_Pipeline_script start 6 hours ago
- Multiple_Stages 0 53 minutes ago
- Pipeline_using_SCM edit1 4 hours ago
- Post_Actions ygg 4 hours ago
- .gitattributes Update_gitattributes 6 hours ago
- jenkinsfile_Multiple_Stages 0 53 minutes ago
- jenkinsfile_Pipeline_using_SCM Update_jenkinsfile_Pipeline_using_SCM 6 hours ago
- jenkinsfile_Post_Actions ss 4 hours ago

Add a README with an overview of your project. Add a README

Code Issues Pull requests Actions Projects Security Insights Settings

General Access Collaborators Code and automation Branches Tags Actions Webhooks Codespaces Pages Security Code security and analysis Deploy keys Secrets and variables

Add webhook

General Access Collaborators Code and automation Branches Tags Actions Webhooks Codespaces Pages Security Code security and analysis Deploy keys Secrets and variables

Webhooks / Add webhook

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 *

Content type application/json

Secret

Which events would you like to trigger this webhook?

Just the push event.

Send me everything.

Let me select individual events.

Active We will deliver event details when this hook is triggered.

Add webhook

http://yourJenkinsIP:8080/github-webhook/

General

Access

Collaborators

Code and automation

Branches

Tags

Actions

Webhooks

Codespaces

Pages

Security

Code security and analysis

Deploy keys

Secrets and variables

Integrations

GitHub apps

Email notifications

Webhooks / Add webhook

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://time.tuchsanai.com:8080/github-webhook/`

Content type

`application/json`

Secret

Which events would you like to trigger this webhook?

Just the push event.

Send me everything.

Let me select individual events.

Active

We will deliver event details when this hook is triggered.

Add webhook

- General**
- Access**
- Collaborators**
- Code and automation**
- Branches**
- Tags**
- Actions**
- Webhooks**
- Codespaces**
- Pages**
- Security**
- Code security and analysis**
- Deploy keys**
- Secrets and variables**
- Integrations**
- GitHub apps**
- Email notifications**
- ## 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://time.tuchsanai.com:8080/g...` (push)
- Edit** **Delete**

 Jenkins

Dashboard > h > Configuration

Configure

General

General

Description

[Plain text] [Preview](#)

Discard old builds ?
 Do not allow concurrent builds
 Do not allow the pipeline to resume if the controller restarts
 GitHub project
 Pipeline speed/durability override ?
 Preserve stashes from completed builds ?
 This project is parameterized ?
 Throttle builds ?

Build Triggers

Build after other projects are built ?
 Build periodically ?
 GitHub hook trigger for GITScm polling ?
 Poll SCM ?
 Quiet period ?
 Trigger builds remotely (e.g., from scripts) ?

Repositories

Repository URL ?
https://github.com/Tuchsanai/devtool_week6_jenkins.git

Credentials ?
tuchsanai/******** (my github)

+ Add

Advanced...

Add Repository

Branches to build

Branch Specifier (blank for 'any') ?
*/main

Add Branch

Repository browser

(Auto)

Additional Behaviours

Add ▾

Script Path

jenkinsfile_Webhook

Lightweight checkout ?

