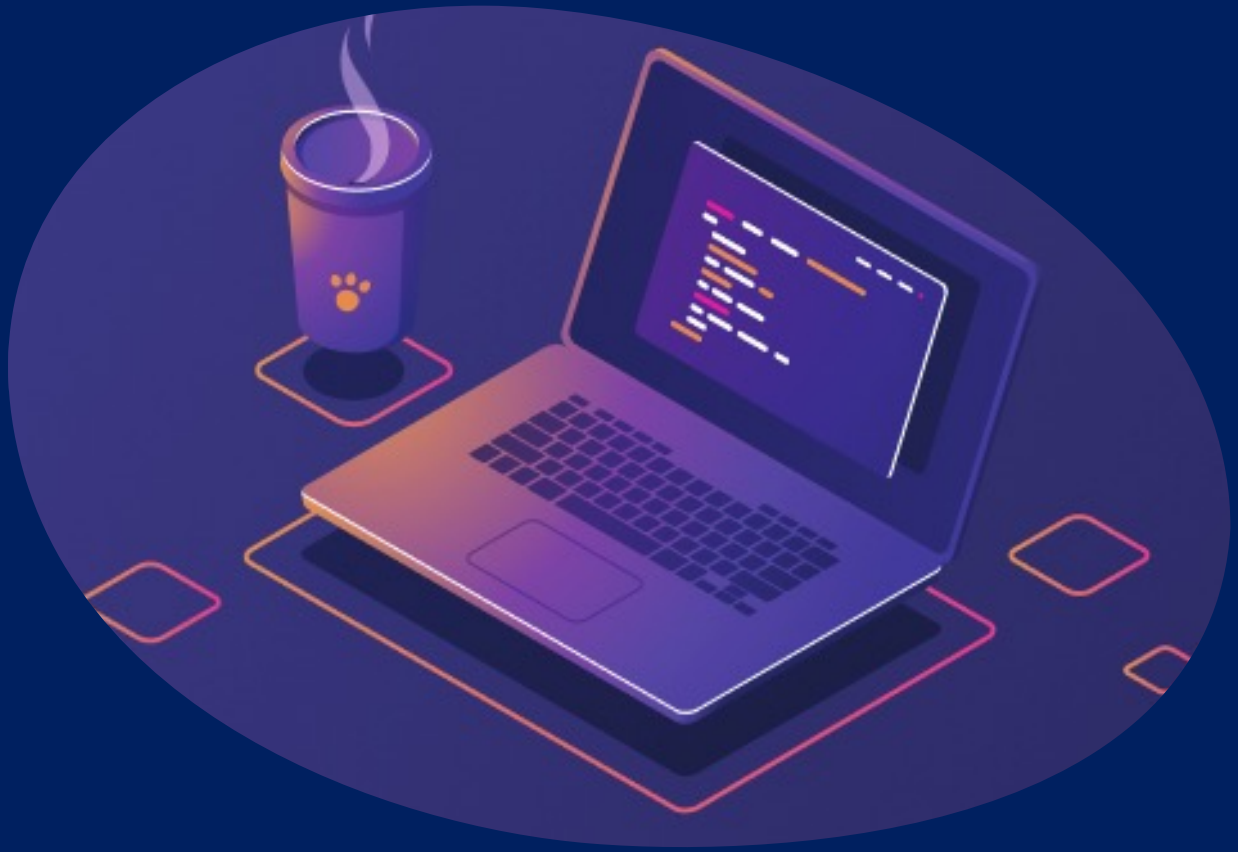
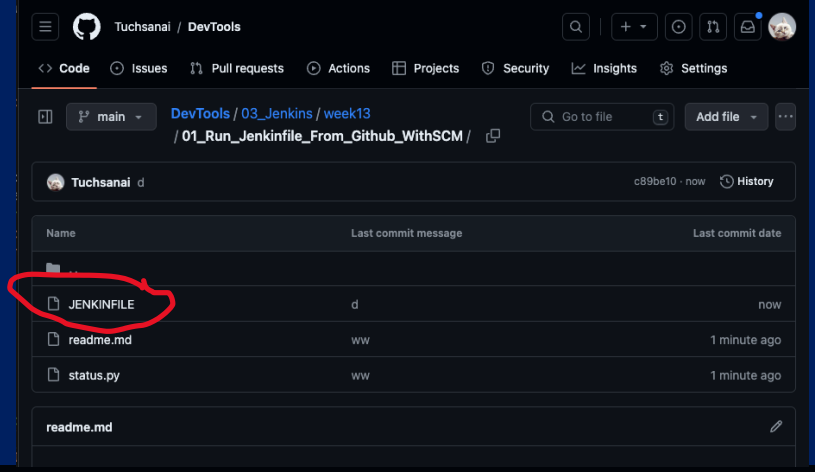
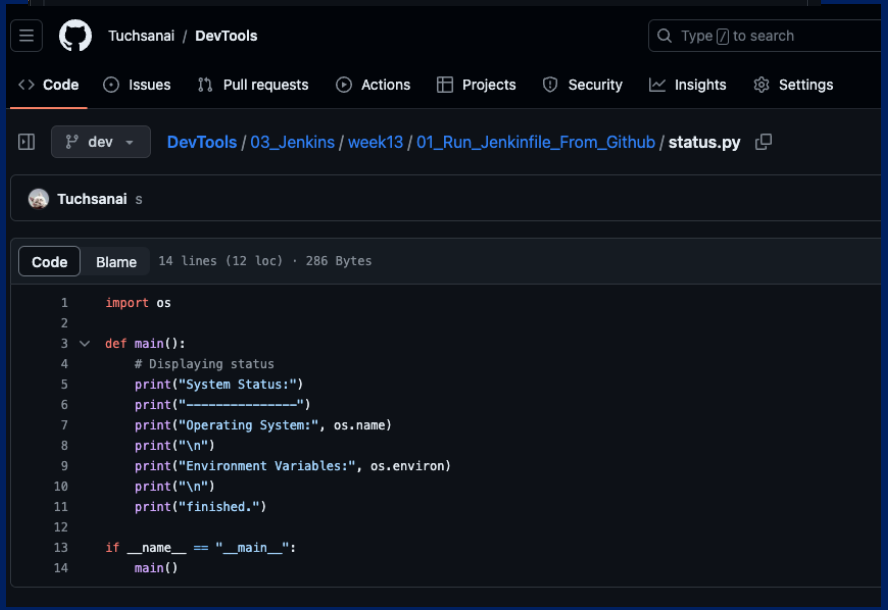


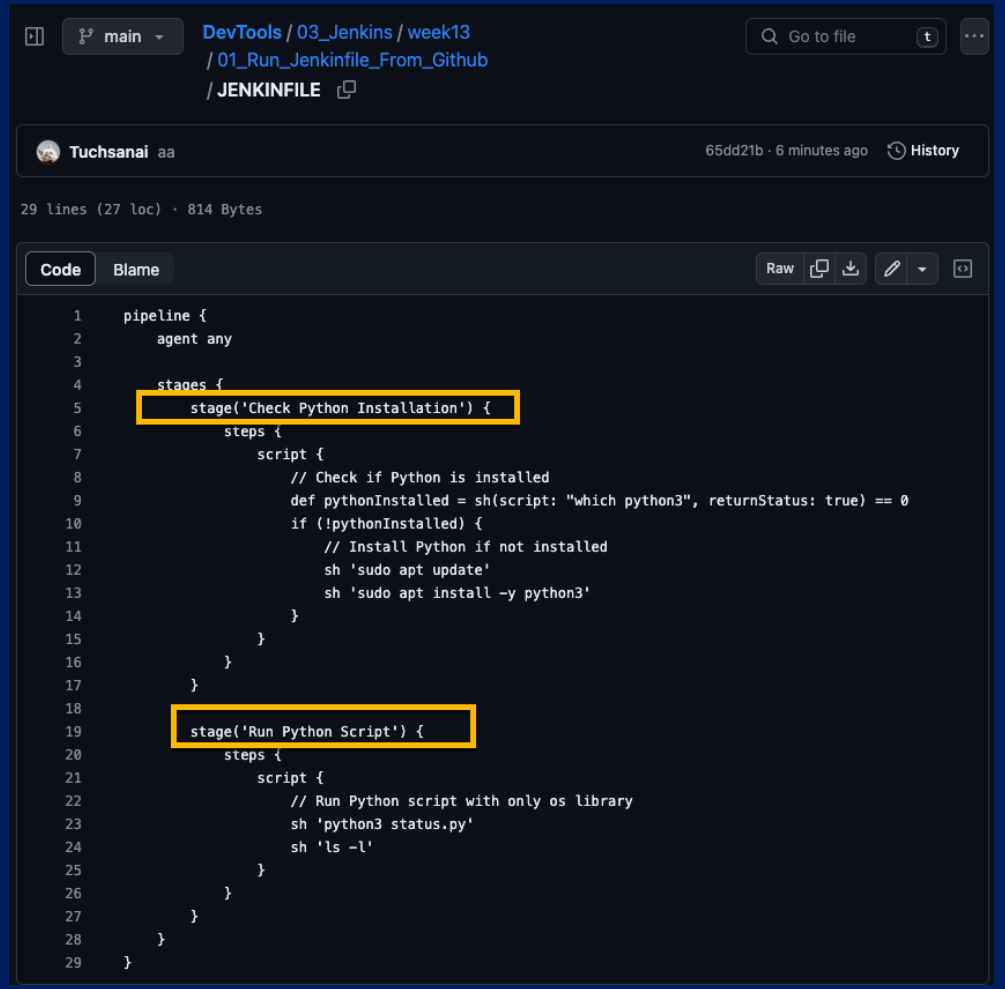
Week 13 : SOFTWARE DEVELOPMENT TOOLS AND ENVIRONMENTS

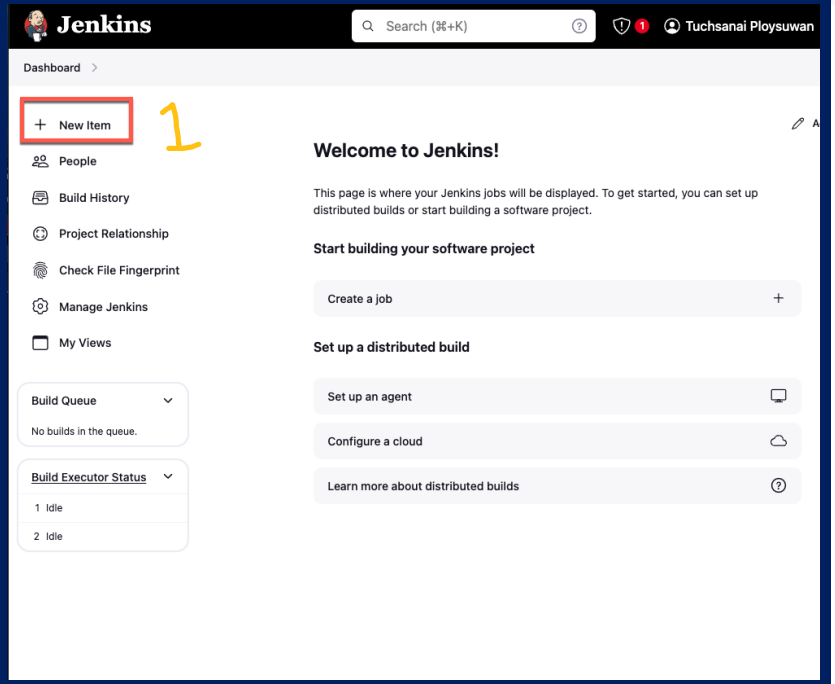
LAB 01 : Run Jenkinfile using SCM From Github

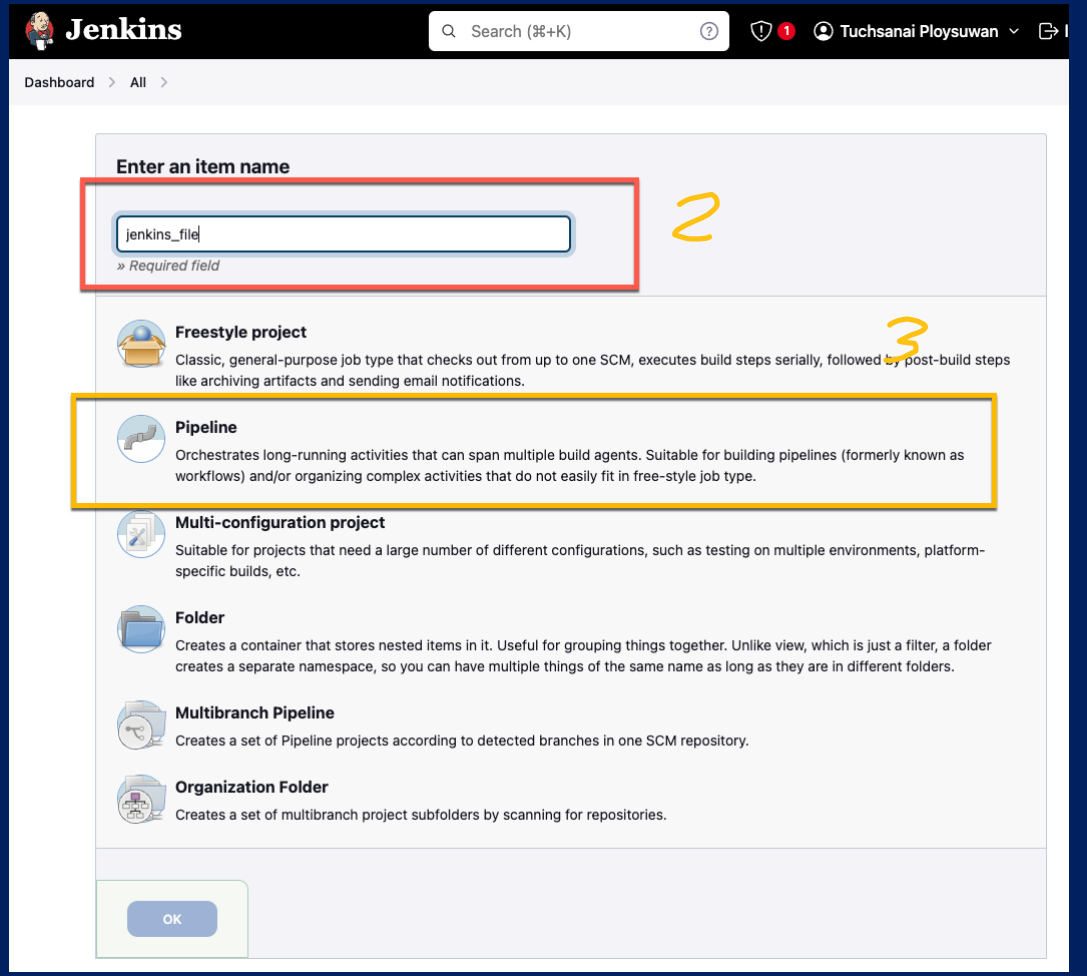
In Jenkins, "SCM" stands for Source Code Management. SCM in Jenkins refers to the process of managing and integrating source code from version control systems into Jenkins projects.

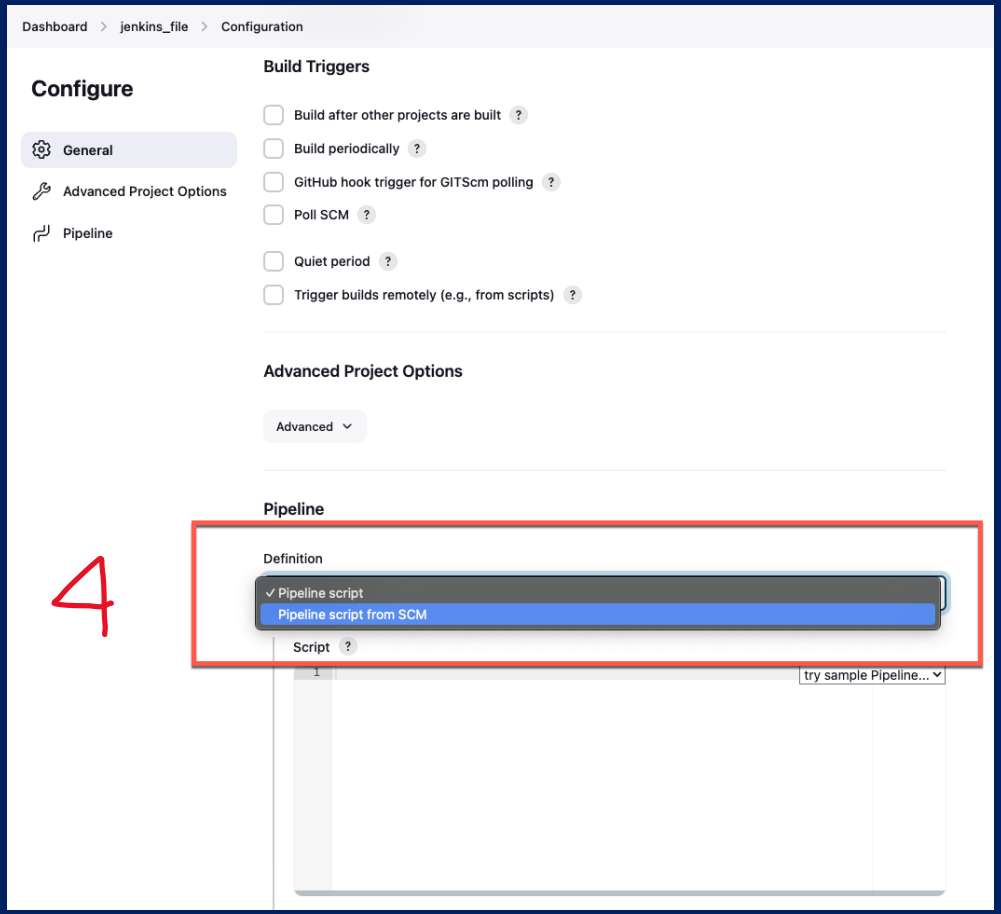

Tuchsanai / DevTools
Code
Issues
Pull requests
Actions
Projects
Security
Insights
Settings
main
DevTools / 03_Jenkins / week13
/ 01_Run_Jenkinfile_From_Github_WithSCM /
Go to file
Add file
Tuchsanai d
c89be10 · now
History
Name
Last commit message
Last commit date
JENKINFILE
d
now
readme.md
ww
1 minute ago
status.py
ww
1 minute ago
readme.md


Tuchsanai / DevTools
Type / to search
Code
Issues
Pull requests
Actions
Projects
Security
Insights
Settings
dev
DevTools / 03_Jenkins / week13 / 01_Run_Jenkinfile_From_Github / status.py
Tuchsanai s
Code
Blame
14 lines (12 loc) · 286 Bytes
1 import os
2
3 def main():
4 # Displaying status
5 print("System Status:")
6 print("----------------")
7 print("Operating System:", os.name)
8 print("\n")
9 print("Environment Variables:", os.environ)
10 print("\n")
11 print("finished.")
12
13 if __name__ == "__main__":
14 main()


main
DevTools / 03_Jenkins / week13
/ 01_Run_Jenkinfile_From_Github
/ JENKINFILE
Go to file
Tuchsanai aa
65dd21b · 6 minutes ago
History
29 lines (27 loc) · 814 Bytes
Code
Blame
Raw
1 pipeline {
2 agent any
3
4 stages {
5 stage('Check Python Installation') {
6 steps {
7 script {
8 // Check if Python is installed
9 def pythonInstalled = sh(script: "which python3", returnStatus: true) == 0
10 if (!pythonInstalled) {
11 // Install Python if not installed
12 sh 'sudo apt update'
13 sh 'sudo apt install -y python3'
14 }
15 }
16 }
17 }
18
19 stage('Run Python Script') {
20 steps {
21 script {
22 // Run Python script with only os library
23 sh 'python3 status.py'
24 sh 'ls -l'
25 }
26 }
27 }
28 }
29 }


Jenkins
Search (⌘+K)
Tuchsanai Ploysuwan
Dashboard
New Item
1
People
Build History
Project Relationship
Check File Fingerprint
Manage Jenkins
My Views
Build Queue
No builds in the queue.
Build Executor Status
1 Idle
2 Idle
Welcome to Jenkins!
This page is where your Jenkins jobs will be displayed. To get started, you can set up distributed builds or start building a software project.
Start building your software project
Create a job
Set up a distributed build
Set up an agent
Configure a cloud
Learn more about distributed builds


Jenkins
Search (⌘+K)
Tuchsanai Ploysuwan
Dashboard
All
Enter an item name
jenkins_file
2
» Required field
3
Freestyle project
Classic, general-purpose job type that checks out from up to one SCM, executes build steps serially, followed by post-build steps like archiving artifacts and sending email notifications.
Pipeline
Orchestrates long-running activities that can span multiple build agents. Suitable for building pipelines (formerly known as workflows) and/or organizing complex activities that do not easily fit in free-style job type.
Multi-configuration project
Suitable for projects that need a large number of different configurations, such as testing on multiple environments, platform-specific builds, etc.
Folder
Creates a container that stores nested items in it. Useful for grouping things together. Unlike view, which is just a filter, a folder creates a separate namespace, so you can have multiple things of the same name as long as they are in different folders.
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


Dashboard
jenkins_file
Configuration
Configure
General
Advanced Project Options
Pipeline
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)
Advanced Project Options
Advanced
Pipeline
Definition
Pipeline script
Pipeline script from SCM
Script
try sample Pipeline...
4

main

DevTools / 03_Jenkins / week13
/ 01_Run_Jenkinfile_From_Github_WithSCM
/ JENKINFILE

Go to file t

Tuchsanai d

c89be10 · 1 minute ago History

30 lines (27 loc) · 894 Bytes

Code Blame Raw

```
pipeline {
    agent any

    stages {
        stage('Check Python Installation') {
            steps {
                script {
                    // Check if Python is installed
                    def pythonInstalled = sh(script: "which python3", returnStatus: true) == 0
                    if (!pythonInstalled) {
                        // Install Python if not installed
                        sh 'sudo apt update'
                        sh 'sudo apt install -y python3'
                    }
                }
            }
        }

        stage('Run Python Script') {
            steps {
                script {
                    // Run Python script with only os library
                    sh 'ls -l'
                    sh 'python3  ./03_Jenkins/week13/01_Run_Jenkinfile_From_Github_WithSCM/status.py'

                }
            }
        }
    }
}
```

Copy path of Jenkinfile

Configure

- General
- Advanced Project Options
- Pipeline

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)

Advanced Project Options

Advanced

Pipeline

Definition: Pipeline script from SCM

SCM

None

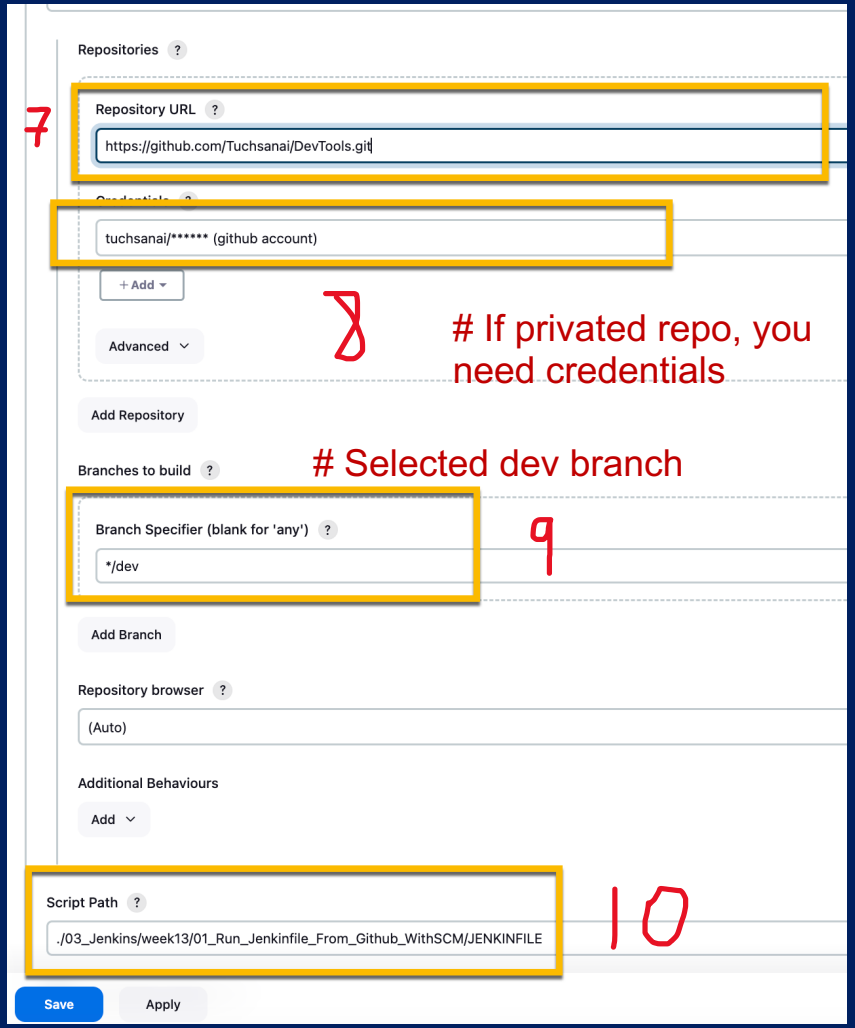
Git

Script Path: ./03_Jenkins/week13/01_Run_Jenkinfile_From_Github_WithSCM/JENKINFILE

Lightweight checkout

Pipeline Syntax

Save Apply


Repositories
7
Repository URL
https://github.com/Tuchsanai/DevTools.git
tuchsanai/****** (github account)
+ Add
Advanced
8
If privated repo, you need credentials
Add Repository
Branches to build
Selected dev branch
Branch Specifier (blank for 'any')
*/dev
9
Add Branch
Repository browser
(Auto)
Additional Behaviours
Add
Script Path
./03_Jenkins/week13/01_Run_Jenkinfile_From_Github_WithSCM/JENKINFILE
10
Save
Apply

Jenkins

Dashboard › jenkins_file ›

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

Build History trend

Filter...

#3
27 n.w. 2024 03:44

Atom feed for all Atom feed for failures

jenkins_file

Stage View

	Declarative: Checkout SCM	Check Python Installation	Run Python Script
Average stage times: (Average full run time: ~3s)	1s	394ms	982ms
#3 n.w. 27 10:44 2 commits	1s	394ms	982ms

Permalinks

- Last build (#3), 2 min 15 sec ago
- Last stable build (#3), 2 min 15 sec ago
- Last successful build (#3), 2 min 15 sec ago
- Last completed build (#3), 2 min 15 sec ago

Dashboard › jenkins_file › #3

- Status
- Changes
- Console Output
- View as plain text
- Edit Build Information
- Delete build '#3'
- Git Build Data
- Restart from Stage
- Replay
- Pipeline Steps
- Workspaces
- Previous Build

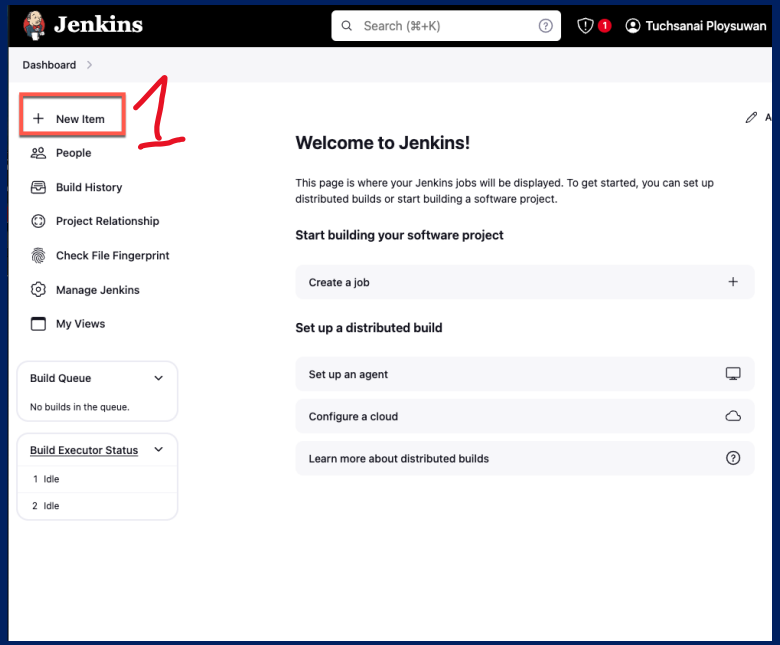
Console Output

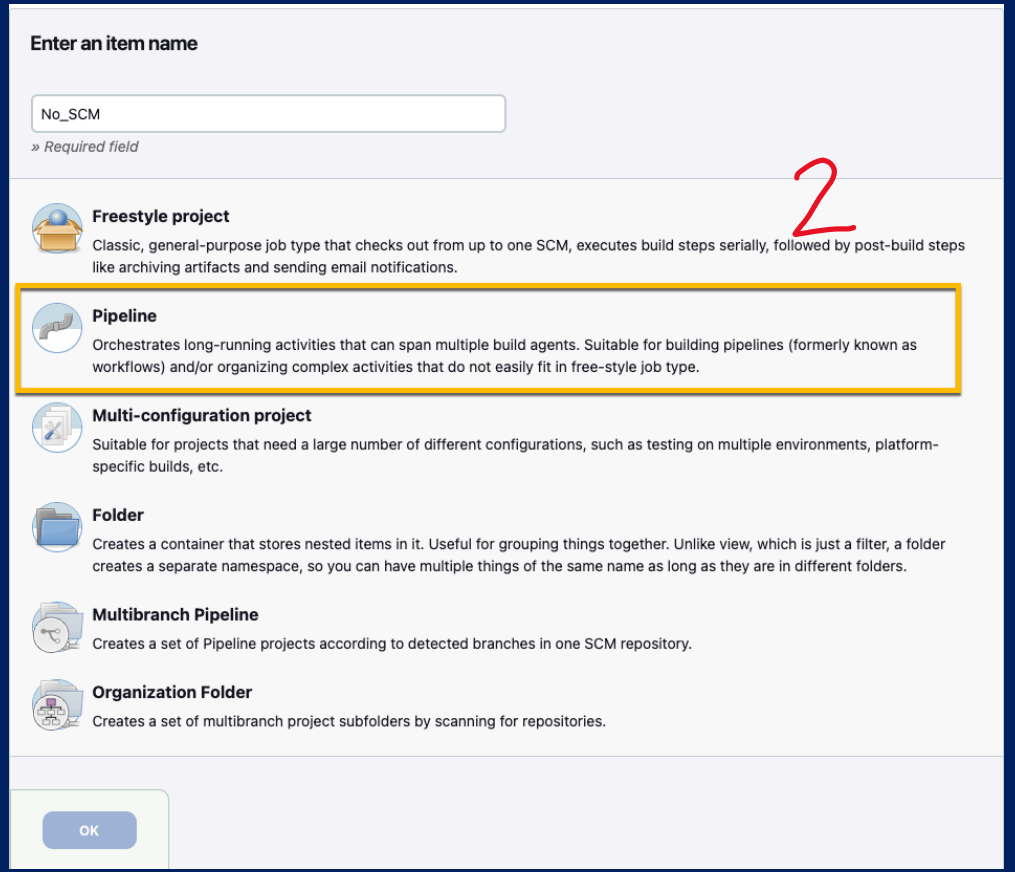
```
Started by user Tuchsanai Ploysuwan
Obtained ./03_Jenkins/week13/01_Run_Jenkinfile_From_Github/JENKINFILE from git https://github.com/Tuchsanai/DevTools.git
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in /var/lib/jenkins/workspace/jenkins_file
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Declarative: Checkout SCM)
[Pipeline] checkout
The recommended git tool is: git
using credential id_github
 > git rev-parse --resolve-git-dir /var/lib/jenkins/workspace/jenkins_file/.git # timeout=10
Fetching changes from the remote Git repository
 > git config remote.origin.url https://github.com/Tuchsanai/DevTools.git # timeout=10
Fetching upstream changes from https://github.com/Tuchsanai/DevTools.git
 > git --version # timeout=10
 > git --version # 'git version 2.34.1'
using GIT_ASKPASS to set credentials github account
 > git fetch --tags --force --progress -- https://github.com/Tuchsanai/DevTools.git +refs/heads/*:refs/remotes/origin/* # timeout=10
 > git rev-parse refs/remotes/origin/dev^{commit} # timeout=10
Checking out Revision adc46fceb6618509afeccd13dd26c1406fd5dbf3 (refs/remotes/origin/dev)
 > git config core.sparsecheckout # timeout=10
 > git checkout -f adc46fceb6618509afeccd13dd26c1406fd5dbf3 # timeout=10
Commit message: "delete files"
 > git rev-list --no-walk 32de38e68ab198bf44721d9a241c74dc5f92a427 # timeout=10
[Pipeline] }
[Pipeline] // stage
[Pipeline] withEnv
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Check Python Installation)
[Pipeline] script
[Pipeline] {
[Pipeline] sh
+ which python3
/usr/bin/python3
[Pipeline] }
[Pipeline] // script
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Run Python Script)
[Pipeline] script
[Pipeline] {
[Pipeline] sh
+ pwd
/var/lib/jenkins/workspace/jenkins_file
[Pipeline] sh
+ python3 ./03_Jenkins/week13/01_Run_Jenkinfile_From_Github/status.py
System Status:
--------------
Operating System: posix


Environment Variables: environ({'JENKINS_HOME': '/var/lib/jenkins', 'USER': 'jenkins', 'CI': 'true', 'RUN_CHANGES_DISPLAY_URL':
'http://54.251.180.144:8080/job/jenkins_file/3/display/redirect?page=changes', 'NODE_LABELS': 'built-in', 'HUDSON_URL': 'http://54.251.180.144:8080/', 'GIT_COMMIT':
'adc46fceb6618509afeccd13dd26c1406fd5dbf3', 'HOME': '/var/lib/jenkins', 'BUILD_URL': 'http://54.251.180.144:8080/job/jenkins_file/3/', 'HUDSON_COOKIE': '49a06cf3-5d30-418d-b9f6-
b4626631d20a', 'JENKINS_SERVER_COOKIE': 'durable-d51f3f7cf430a25df33cbb3c9f7893b2c452d20ea1b32523e4a26025dc82651f', 'NOTIFY_SOCKET': '/run/systemd/notify', 'SYSTEMD_EXEC_PID':
'6226', 'WORKSPACE': '/var/lib/jenkins/workspace/jenkins_file', 'LOGNAME': 'jenkins', 'NODE_NAME': 'built-in', 'JOURNAL_STREAM': '8:46337', 'RUN_ARTIFACTS_DISPLAY_URL':
'http://54.251.180.144:8080/job/jenkins_file/3/display/redirect?page=artifacts', 'STAGE_NAME': 'Run Python Script', 'EXECUTOR_NUMBER': '0', 'GIT_BRANCH': 'origin/dev',
'RUN_TESTS_DISPLAY_URL': 'http://54.251.180.144:8080/job/jenkins_file/3/display/redirect?page=tests', 'BUILD_DISPLAY_NAME': '#3', 'HUDSON_HOME': '/var/lib/jenkins',
'JOB_BASE_NAME': 'jenkins_file', 'PATH': '/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/snap/bin', 'INVOCATION_ID': '3dd1b667c6f2440d98512e0c5fa349ed', 'BUILD_ID':
'3', 'BUILD_TAG': 'jenkins-jenkins_file-3', 'LANG': 'C.UTF-8', 'JENKINS_URL': 'http://54.251.180.144:8080/', 'JOB_URL': 'http://54.251.180.144:8080/job/jenkins_file/', 'GIT_URL':
'https://github.com/Tuchsanai/DevTools.git', 'BUILD_NUMBER': '3', 'JENKINS_NODE_COOKIE': '9b609257-aaae-4d4c-ae44-6773be581705', 'SHELL': '/bin/bash', 'RUN_DISPLAY_URL':
'http://54.251.180.144:8080/job/jenkins_file/3/display/redirect', 'HUDSON_SERVER_COOKIE': '25d1a7503dc7e3e', 'JOB_DISPLAY_URL':
'http://54.251.180.144:8080/job/jenkins_file/display/redirect', 'JOB_NAME': 'jenkins_file', 'PWD': '/var/lib/jenkins/workspace/jenkins_file', 'GIT_PREVIOUS_COMMIT':
'32de38e68ab198bf44721d9a241c74dc5f92a427', 'WORKSPACE_TMP': '/var/lib/jenkins/workspace/jenkins_file@tmp'})


finished.
```

LAB 02 : Run Jenkinfile without SCM From Github


Jenkins
Search (⌘+K)
Tuchsanai Ploysuwan
Dashboard
New Item
People
Build History
Project Relationship
Check File Fingerprint
Manage Jenkins
My Views
Build Queue
No builds in the queue.
Build Executor Status
1 Idle
2 Idle
Welcome to Jenkins!
This page is where your Jenkins jobs will be displayed. To get started, you can set up distributed builds or start building a software project.
Start building your software project
Create a job
Set up a distributed build
Set up an agent
Configure a cloud
Learn more about distributed builds
1


Enter an item name
No_SCM
» Required field
Freestyle project
Classic, general-purpose job type that checks out from up to one SCM, executes build steps serially, followed by post-build steps like archiving artifacts and sending email notifications.
Pipeline
Orchestrates long-running activities that can span multiple build agents. Suitable for building pipelines (formerly known as workflows) and/or organizing complex activities that do not easily fit in free-style job type.
Multi-configuration project
Suitable for projects that need a large number of different configurations, such as testing on multiple environments, platform-specific builds, etc.
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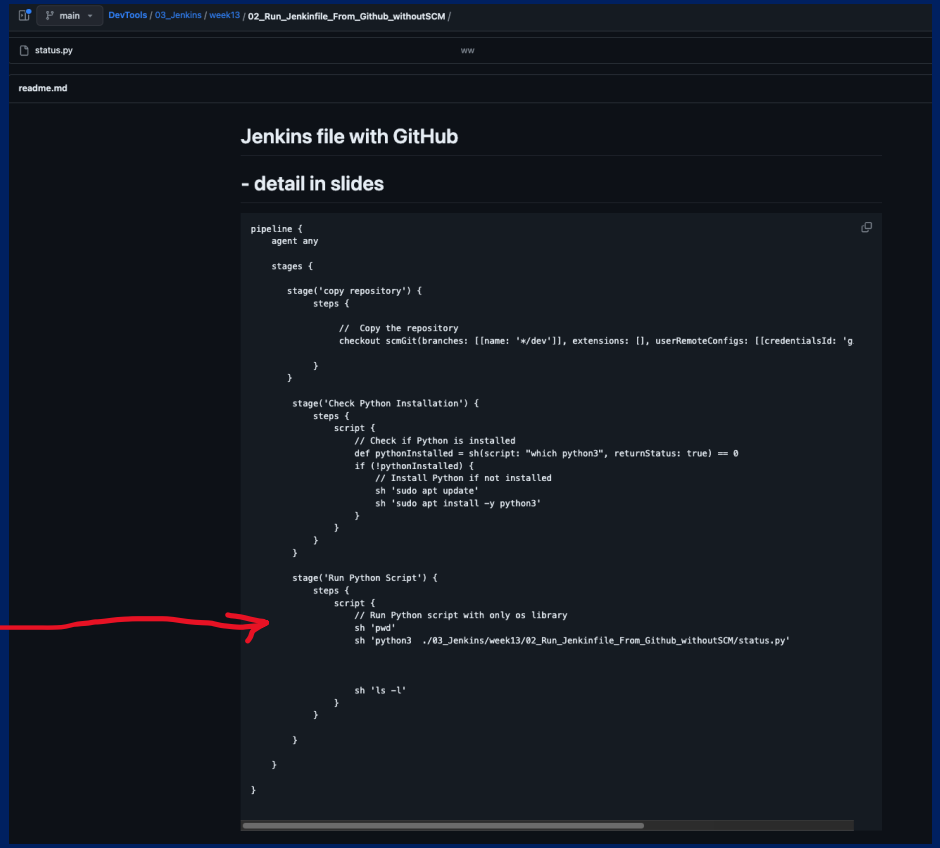
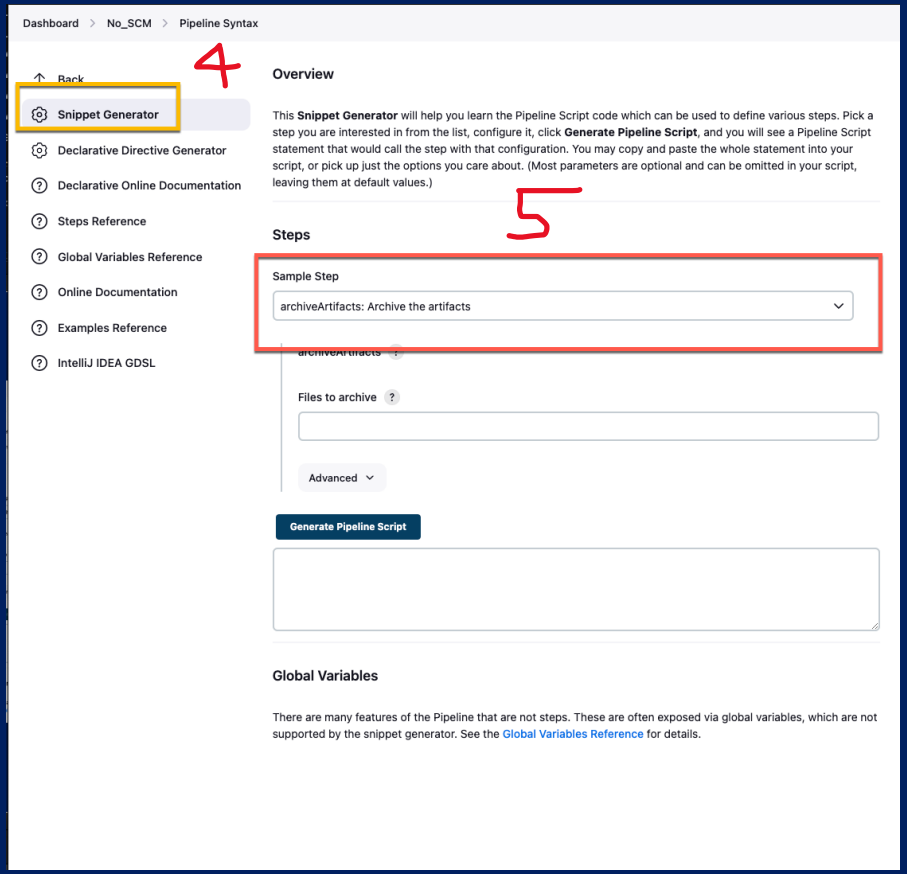
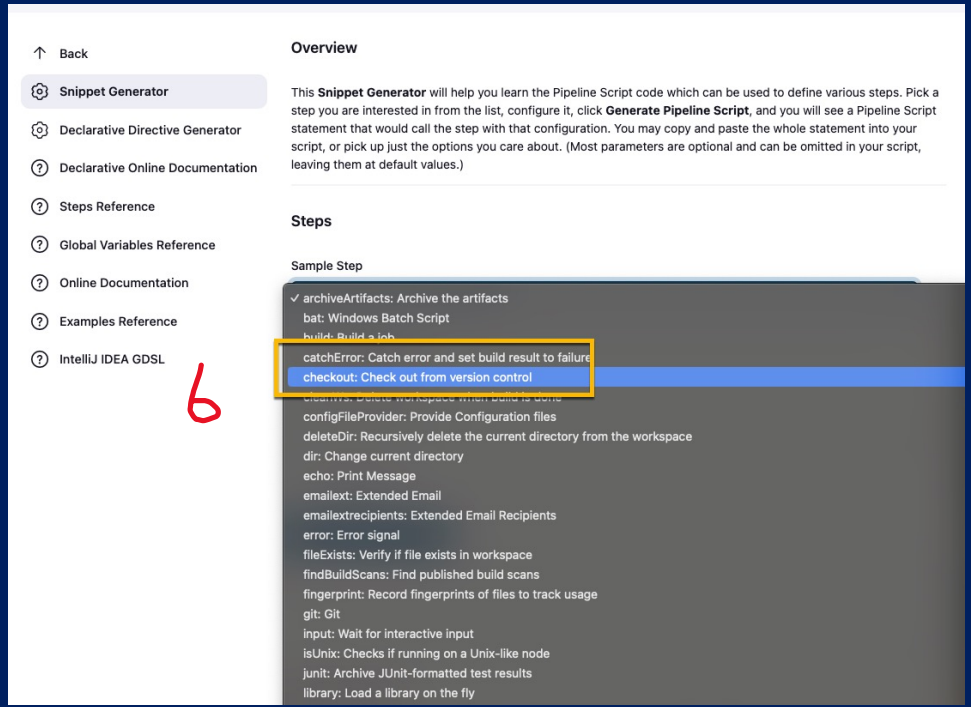
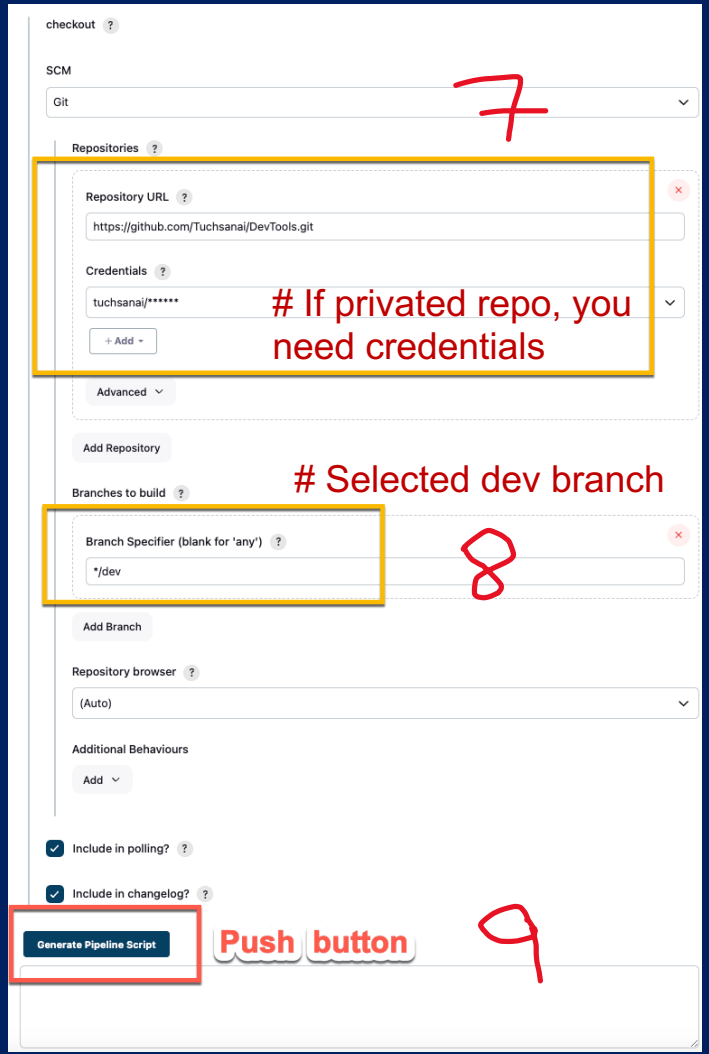
Creates a container that stores nested items in it. Useful for grouping things together. Unlike view, which is just a filter, a folder creates a separate namespace, so you can have multiple things of the same name as long as they are in different folders.
Multibranch Pipeline
Creates a set of Pipeline projects according to detected branches in one SCM repository.
Organization Folder
Creates a set of multibranch project subfolders by scanning for repositories.
OK
2

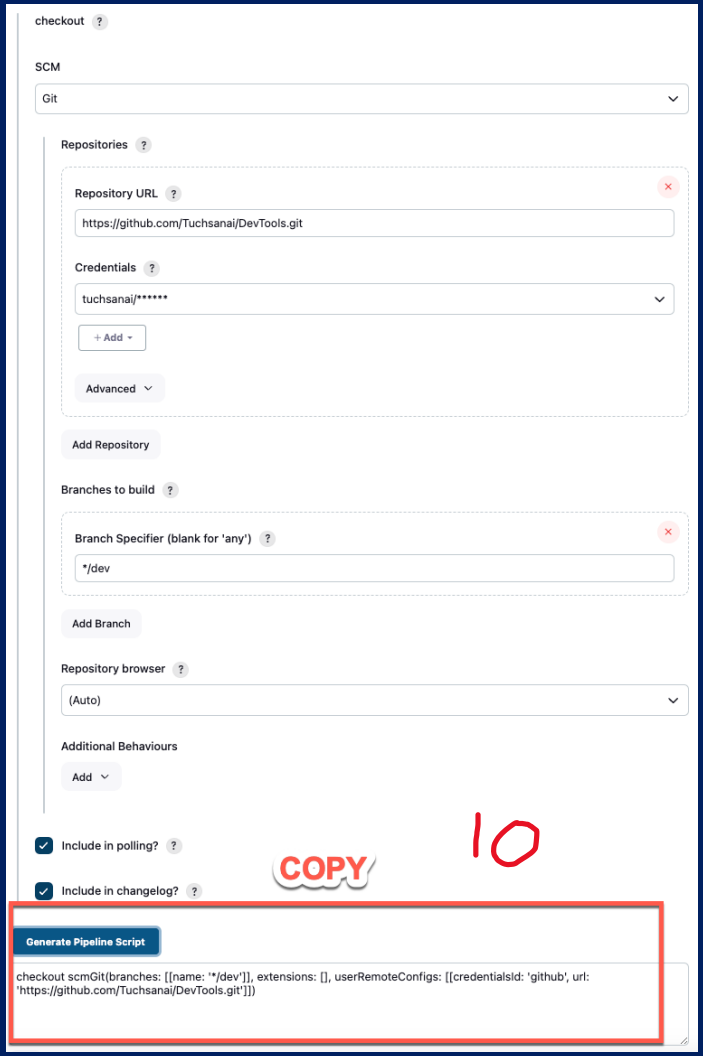

Dashboard > No_SCM > Configuration
Configure
General
Advanced Project Options
Pipeline
Throttle builds
Build Triggers
Build after other projects are built
Build periodically
GitHub hook trigger for GITScm polling
Poll SCM
Quiet period
Trigger builds remotely (e.g., from scripts)
Advanced Project Options
Advanced
Pipeline
Definition
Pipeline script
Script
try sample Pipeline...
pipeline {
agent any
stages {
stage('copy repository') {
steps {
// Copy the repository
}
}
stage('Check Python Installation') {
steps {
script {
Use Groovy Sandbox
Pipeline Syntax
3
Copy code
Save
Apply


main
DevTools / 03_Jenkins / week13 / 02_Run_Jenkinfile_From_Github_withoutSCM /
status.py
ww
readme.md
Jenkins file with GitHub
- detail in slides
pipeline {
agent any
stages {
stage('copy repository') {
steps {
// Copy the repository
checkout scmGit(branches: [[name: '*/dev']], extensions: [], userRemoteConfigs: [[credentialsId: 'g
}
}
stage('Check Python Installation') {
steps {
script {
// Check if Python is installed
def pythonInstalled = sh(script: "which python3", returnStatus: true) == 0
if (!pythonInstalled) {
// Install Python if not installed
sh 'sudo apt update'
sh 'sudo apt install -y python3'
}
}
}
}
stage('Run Python Script') {
steps {
script {
// Run Python script with only os library
sh 'pwd'
sh 'python3 ./03_Jenkins/week13/02_Run_Jenkinfile_From_Github_withoutSCM/status.py'
sh 'ls -l'
}
}
}
}
}


Dashboard > No_SCM > Pipeline Syntax
4
Back
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, configure it, click 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 into your script, 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.)
5
Steps
Sample Step
archiveArtifacts: Archive the artifacts
Files to archive
Advanced
Generate Pipeline Script
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.


Back
Snippet Generator
Declarative Directive Generator
Declarative Online Documentation
Steps Reference
Global Variables Reference
Online Documentation
Examples Reference
IntelliJ IDEA GDSL
6
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, configure it, click 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 into your script, 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
archiveArtifacts: Archive the artifacts
bat: Windows Batch Script
catchError: Catch error and set build result to failure
checkout: Check out from version control
configFileProvider: Provide Configuration files
deleteDir: Recursively delete the current directory from the workspace
dir: Change current directory
echo: Print Message
emailext: Extended Email
emailextrecipients: Extended Email Recipients
error: Error signal
fileExists: Verify if file exists in workspace
findBuildScans: Find published build scans
fingerprint: Record fingerprints of files to track usage
git: Git
input: Wait for interactive input
isUnix: Checks if running on a Unix-like node
junit: Archive JUnit-formatted test results
library: Load a library on the fly


checkout
SCM
Git
7
Repositories
Repository URL
https://github.com/Tuchsanai/DevTools.git
Credentials
tuchsanai/******
If privated repo, you need credentials
+ Add
Advanced
Add Repository
Selected dev branch
Branches to build
Branch Specifier (blank for 'any')
*/dev
8
Add Branch
Repository browser
(Auto)
Additional Behaviours
Add
Include in polling?
Include in changelog?
Generate Pipeline Script
Push button
9


checkout
SCM
Git
Repositories
Repository URL
https://github.com/Tuchsanai/DevTools.git
Credentials
tuchsanai/******
+ Add
Advanced
Add Repository
Branches to build
Branch Specifier (blank for 'any')
*/dev
Add Branch
Repository browser
(Auto)
Additional Behaviours
Add
Include in polling?
Include in changelog?
COPY
10
Generate Pipeline Script
checkout scmGit(branches: [[name: '*/dev']], extensions: [], userRemoteConfigs: [[credentialsId: 'github', url: 'https://github.com/Tuchsanai/DevTools.git']])

Configure

- General
- Advanced Project Options
- Pipeline

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)

Advanced Project Options

Advanced

Pipeline

Definition

Pipeline script

Script

try sample Pipeline...

```
pipeline {
    agent any

    stages {

        stage('copy repository') {
            steps {

                //  Copy the repository
                checkout scmGit(branches: [[name: '*/dev']], extensions: [], userRemoteConfigs: [[
            }
        }
```

Paste

Use Groovy Sandbox

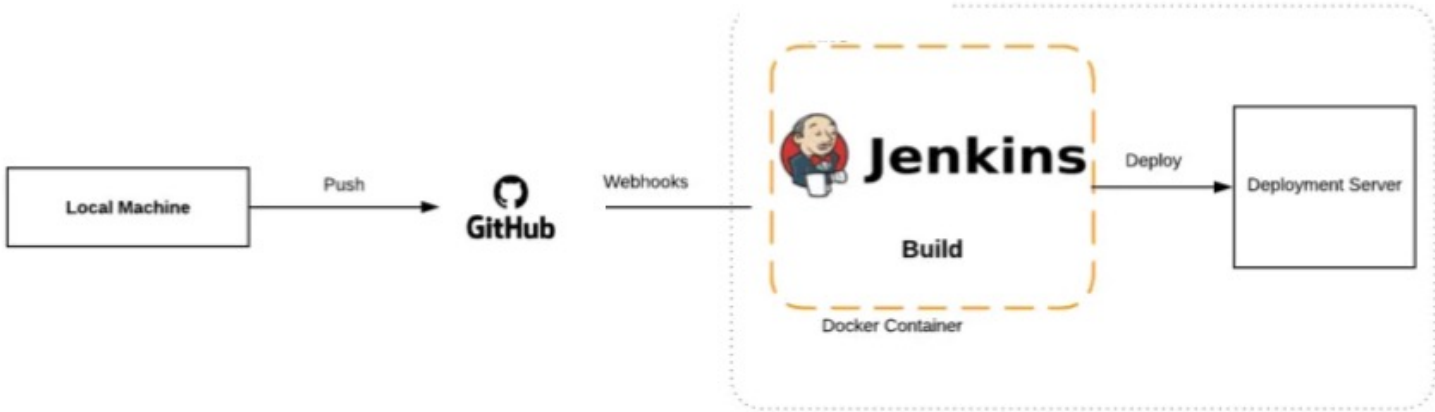
Pipeline Syntax

Save Apply

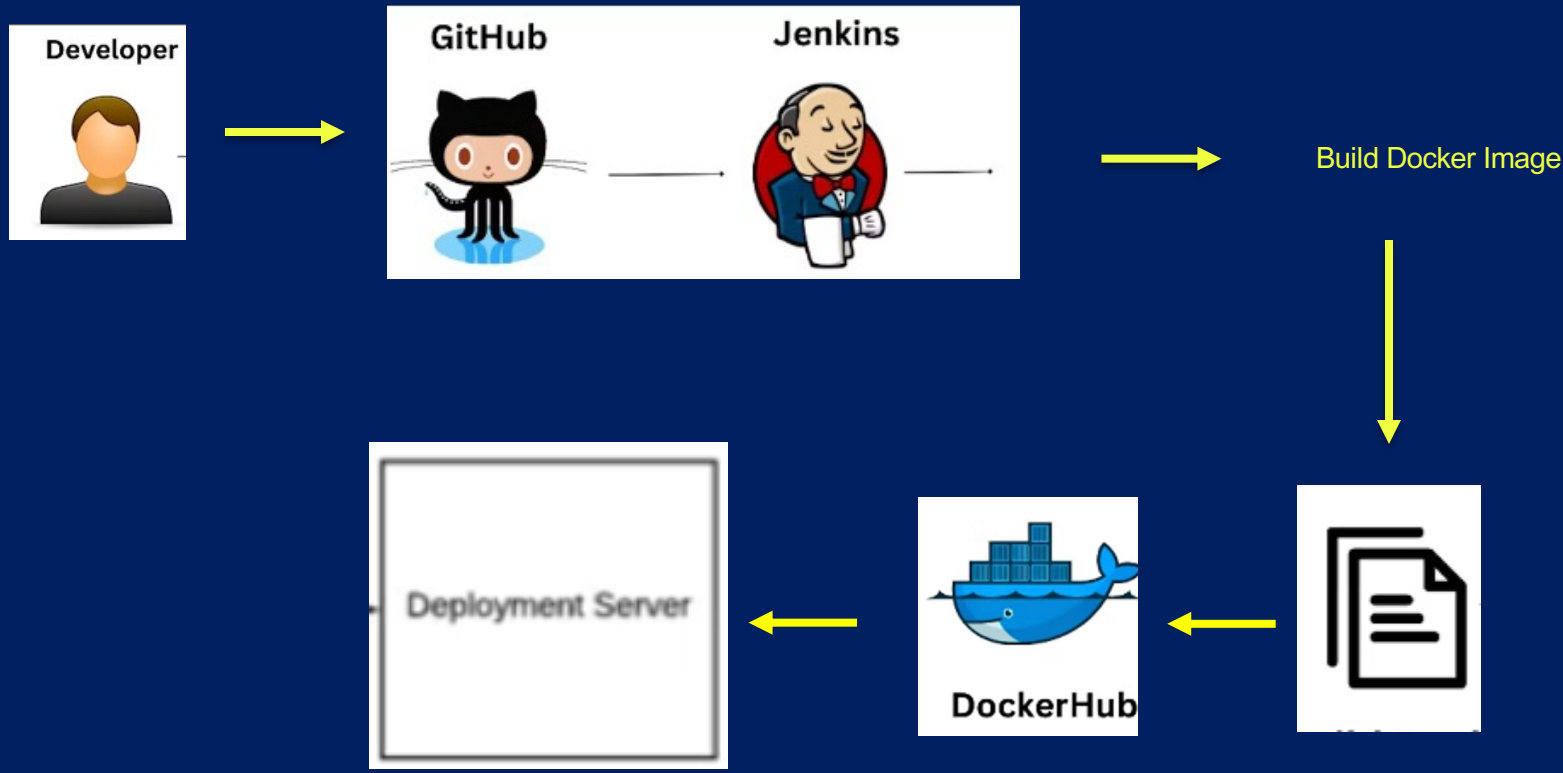
Console Output

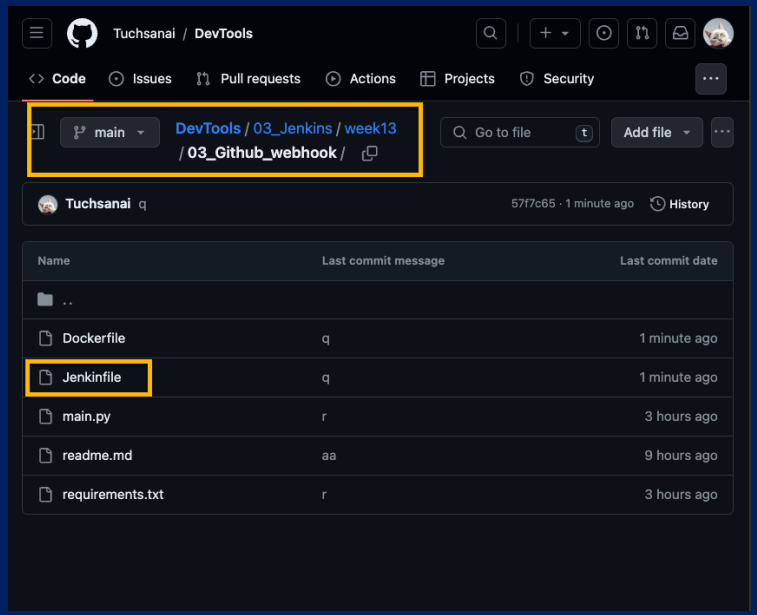
```
Started by user tp
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in /var/lib/jenkins/workspace/No_SCM
[Pipeline] {
[Pipeline] stage
[Pipeline] { (copy repository)
[Pipeline] checkout
The recommended git tool is: NONE
using credential github
 > git rev-parse --resolve-git-dir /var/lib/jenkins/workspace/No_SCM/.git # timeout=10
Fetching changes from the remote Git repository
 > git config remote.origin.url https://github.com/Tuchsanai/DevTools.git # timeout=10
Fetching upstream changes from https://github.com/Tuchsanai/DevTools.git
 > git --version # timeout=10
 > git --version # 'git version 2.34.1'
using GIT_ASKPASS to set credentials
 > git fetch --tags --force --progress -- https://github.com/Tuchsanai/DevTools.git +refs/heads/*:refs/remotes/origin/* # timeout=10
 > git rev-parse refs/remotes/origin/dev^{commit} # timeout=10
Checking out Revision f773695d8493e3e2f982ebe6cee9ab80461af605 (refs/remotes/origin/dev)
 > git config core.sparsecheckout # timeout=10
 > git checkout -f f773695d8493e3e2f982ebe6cee9ab80461af605 # timeout=10
Commit message: "delete files"
First time build. Skipping changelog.
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Check Python Installation)
[Pipeline] script
[Pipeline] {
[Pipeline] sh
+ which python3
/usr/bin/python3
[Pipeline] }
[Pipeline] // script
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Run Python Script)
[Pipeline] script
[Pipeline] {
[Pipeline] sh
+ pwd
/var/lib/jenkins/workspace/No_SCM
[Pipeline] sh
+ python3 ./03_Jenkins/week13/02_Run_Jenkinfile_From_Github_withoutSCM/status.py
System Status:
--------------
Operating System: posix


Environment Variables: environ({'JENKINS_HOME': '/var/lib/jenkins', 'USER': 'jenkins', 'CI': 'true', 'RUN_CHANGES_DISPLAY_URL':
'http://175.41.181.239:8080/job/No_SCM/2/display/redirect?page=changes', 'NODE_LABELS': 'built-in', 'HUDSON_URL': 'http://175.41.181.239:8080/', 'HOME':
'/var/lib/jenkins', 'BUILD_URL': 'http://175.41.181.239:8080/job/No_SCM/2/', 'HUDSON_COOKIE': 'a7b50642-e0f0-47b3-9815-314babfe139f',
'JENKINS_SERVER_COOKIE': 'durable-586d74ee4c1e7d1eccf6b9cf3ed720fb78e911caa0476f3098a9c02a53e30619', 'NOTIFY_SOCKET': '/run/systemd/notify',
'SYSTEMD_EXEC_PID': '7560', 'WORKSPACE': '/var/lib/jenkins/workspace/No_SCM', 'LOGNAME': 'jenkins', 'NODE_NAME': 'built-in', 'JOURNAL_STREAM': '8:44069',
'RUN_ARTIFACTS_DISPLAY_URL': 'http://175.41.181.239:8080/job/No_SCM/2/display/redirect?page=artifacts', 'STAGE_NAME': 'Run Python Script',
'EXECUTOR_NUMBER': '1', 'RUN_TESTS_DISPLAY_URL': 'http://175.41.181.239:8080/job/No_SCM/2/display/redirect?page=tests', 'BUILD_DISPLAY_NAME': '#2',
'HUDSON_HOME': '/var/lib/jenkins', 'JOB_BASE_NAME': 'No_SCM', 'PATH': '/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/snap/bin',
'INVOCATION_ID': 'aca2f35982ce43aaa80dd8f676ec00ae', 'BUILD_ID': '2', 'BUILD_TAG': 'jenkins-No_SCM-2', 'LANG': 'C.UTF-8', 'JENKINS_URL':
'http://175.41.181.239:8080/', 'JOB_URL': 'http://175.41.181.239:8080/job/No_SCM/', 'BUILD_NUMBER': '2', 'JENKINS_NODE_COOKIE': '3b100ed5-a913-4708-99b4-
25497ee17a95', 'SHELL': '/bin/bash', 'RUN_DISPLAY_URL': 'http://175.41.181.239:8080/job/No_SCM/2/display/redirect', 'HUDSON_SERVER_COOKIE':
'4dbe3bd064927178', 'JOB_DISPLAY_URL': 'http://175.41.181.239:8080/job/No_SCM/display/redirect', 'JOB_NAME': 'No_SCM', 'PWD':
'/var/lib/jenkins/workspace/No_SCM', 'WORKSPACE_TMP': '/var/lib/jenkins/workspace/No_SCM@tmp'})


finished.
[Pipeline] sh
+ ls -l
total 28
drwxr-xr-x 6 jenkins jenkins 4096 Feb 28 08:53 00_GIT
drwxr-xr-x 3 jenkins jenkins 4096 Feb 28 08:53 01_Google Cloud
drwxr-xr-x 6 jenkins jenkins 4096 Feb 28 08:53 02_Docker
drwxr-xr-x 4 jenkins jenkins 4096 Feb 28 08:53 03_Jenkins
drwxr-xr-x 4 jenkins jenkins 4096 Feb 28 08:53 04_kubernetes
drwxr-xr-x 2 jenkins jenkins 4096 Feb 28 08:53 Mini_Project
-rw-r--r-- 1 jenkins jenkins 1695 Feb 28 08:53 README.md
```

LAB 03 : Github Webhook with Jenkinfile , Docker and Docker-Hub using SCM


Local Machine
Push
GitHub
Webhooks
Jenkins
Build
Docker Container
Deploy
Deployment Server

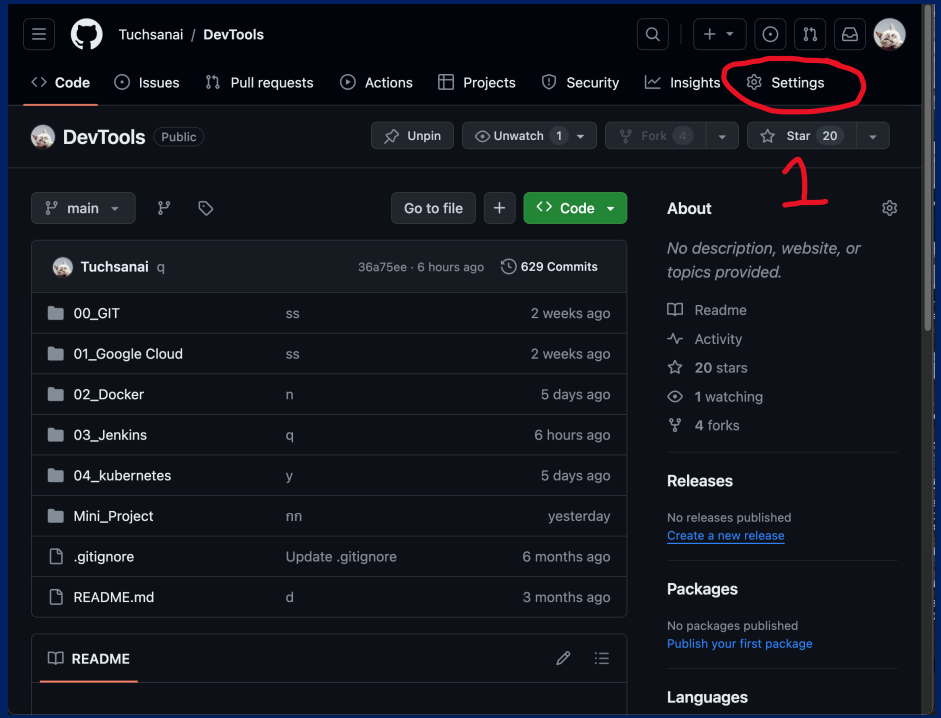
Delivery (CD).

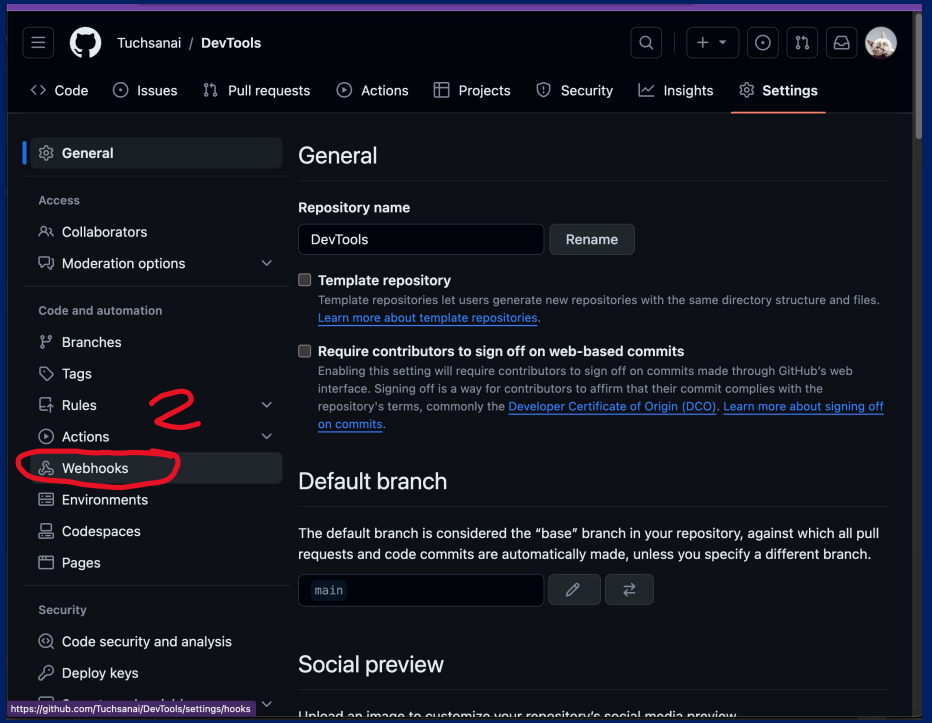

Developer
GitHub
Jenkins
Build Docker Image
DockerHub
Deployment Server

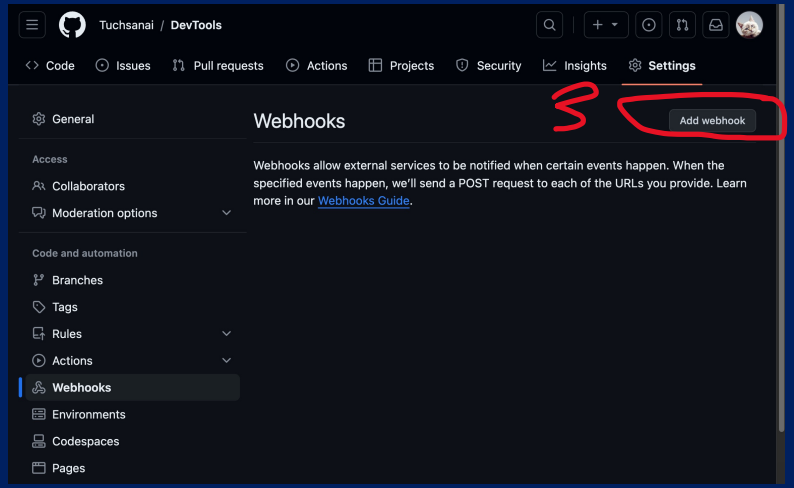


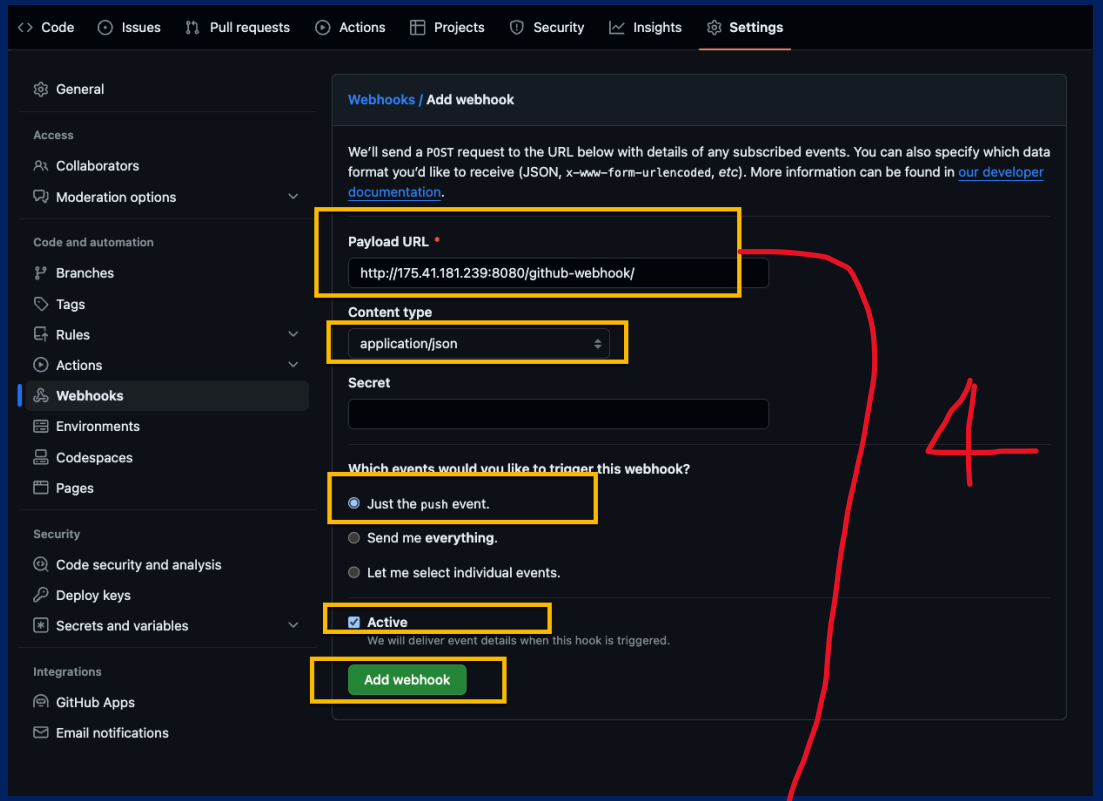

```
pipeline {
    agent any

    environment {
        // Define variables
        DOCKER_IMAGE       = 'tuchsanai/fastapi-webhook:latest'
        DOCKER_CREDENTIALS = credentials('dockerhub')
    }

    stages {
        stage('Start Jenkins') {
            steps {
                // Checkout your source code from version control

                    sh 'echo Start Jenkins.....'
                    sh 'echo docker : user = $DOCKER_CREDENTIALS_USR : password = $DOCKER_CREDENTIALS_PSW'
            }
        }

        stage('Build Docker Image') {
            steps {
                    // Build the Docker image

                    dir('./03_Jenkins/week13/03_Github_webhook') {
                       sh 'echo "Running in $(pwd)"'
                       sh 'echo start build the Docker image = $DOCKER_IMAGE'
                       sh 'docker build -t $DOCKER_IMAGE .'
                    }

            }
        }

        stage('Push to Docker Hub') {
            steps {
                script {

                    // Login to Docker Hub
                    sh 'echo $DOCKER_CREDENTIALS_PSW | docker login --username $DOCKER_CREDENTIALS_USR --password-stdin'
                    // Push the image
                    sh 'docker push $DOCKER_IMAGE'
                }
            }
        }
```

Configure with github

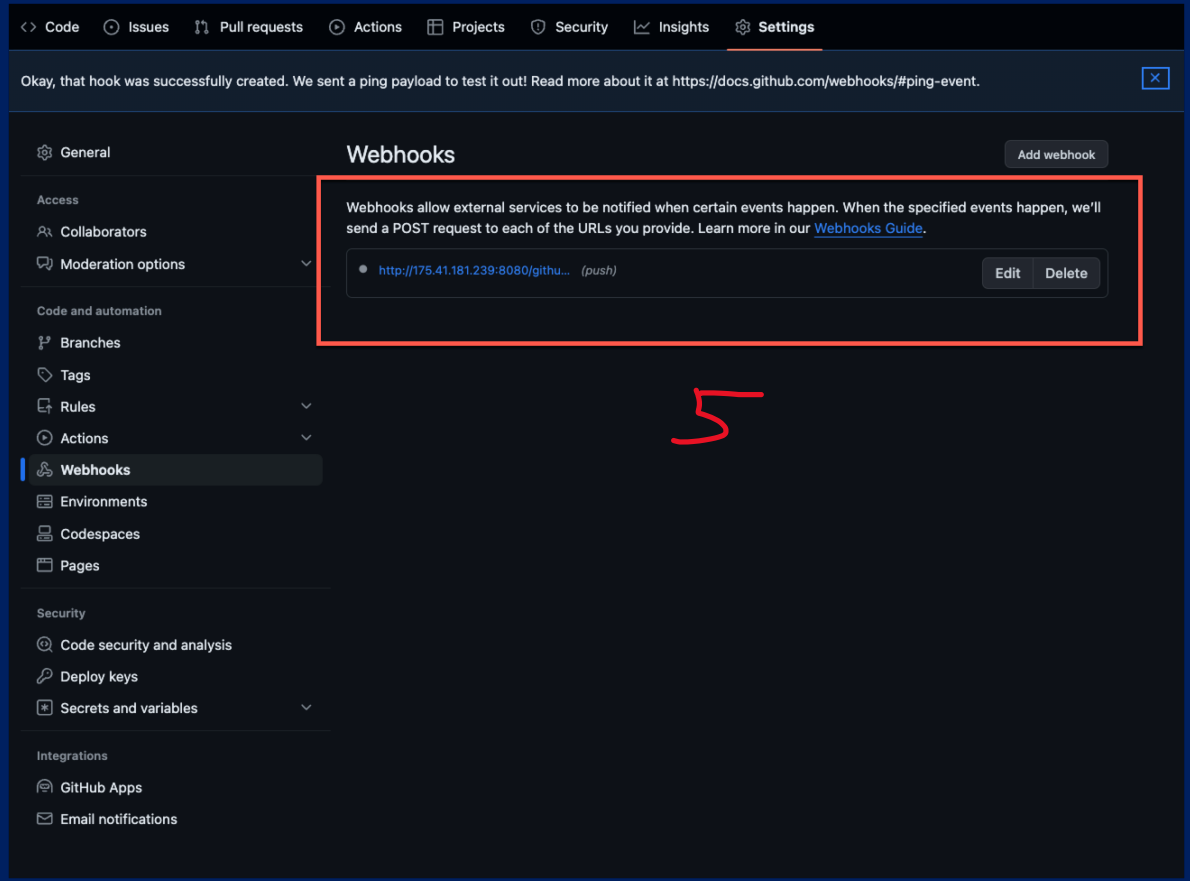




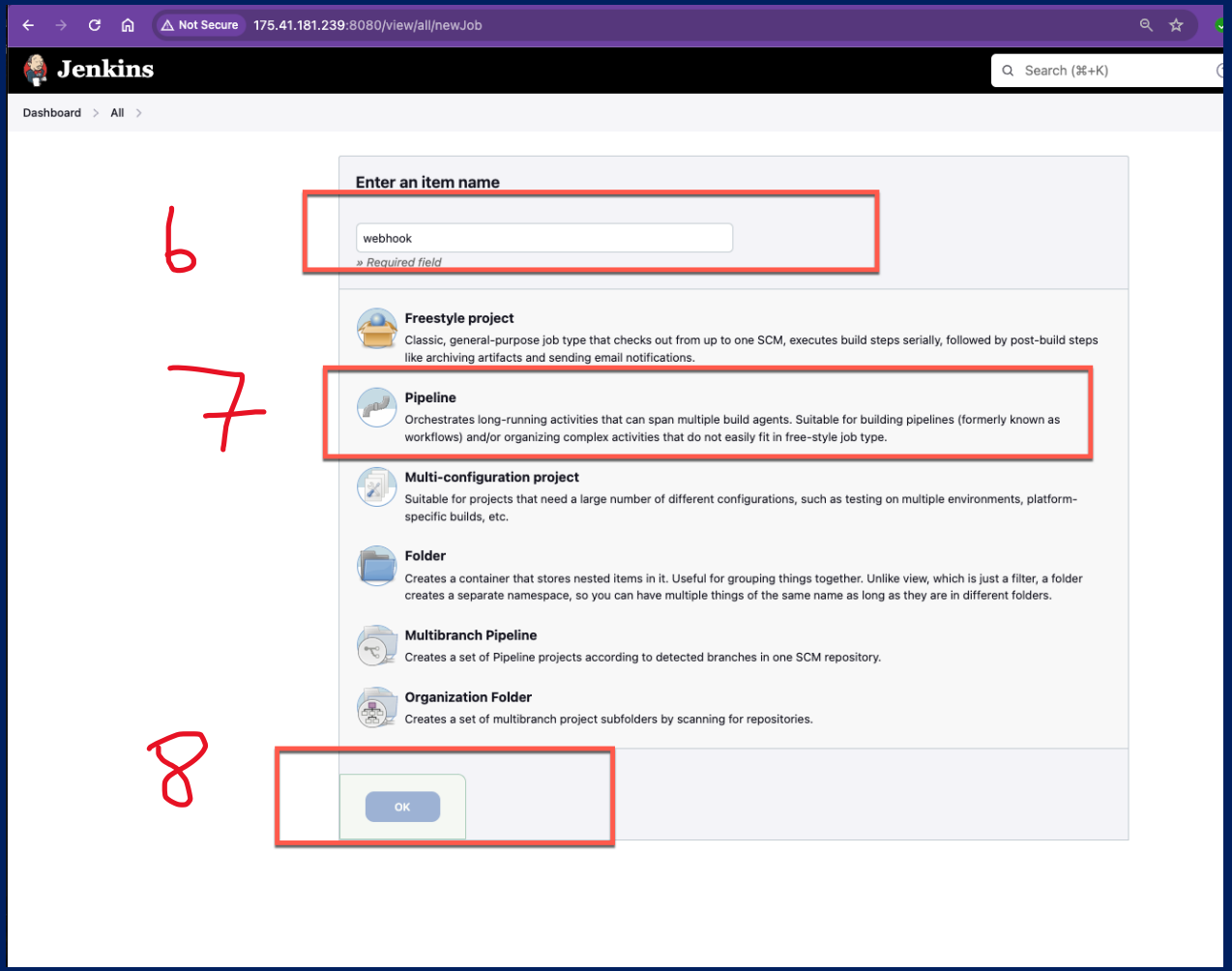




http://yourJenkinsIP:8080/github-webhook/


Code
Issues
Pull requests
Actions
Projects
Security
Insights
Settings
Okay, that hook was successfully created. We sent a ping payload to test it out! Read more about it at https://docs.github.com/webhooks/#ping-event.
General
Access
Collaborators
Moderation options
Code and automation
Branches
Tags
Rules
Actions
Webhooks
Environments
Codespaces
Pages
Security
Code security and analysis
Deploy keys
Secrets and variables
Integrations
GitHub Apps
Email notifications
Webhooks
Add webhook
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://175.41.181.239:8080/githu... (push)
Edit
Delete
5

Configure with Jenkins



Dashboard > webhook > Configuration

Configure

- General
- Advanced Project Options
- Pipeline

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) ?

9

Advanced Project Options

Advanced

Pipeline

Definition

Pipeline script

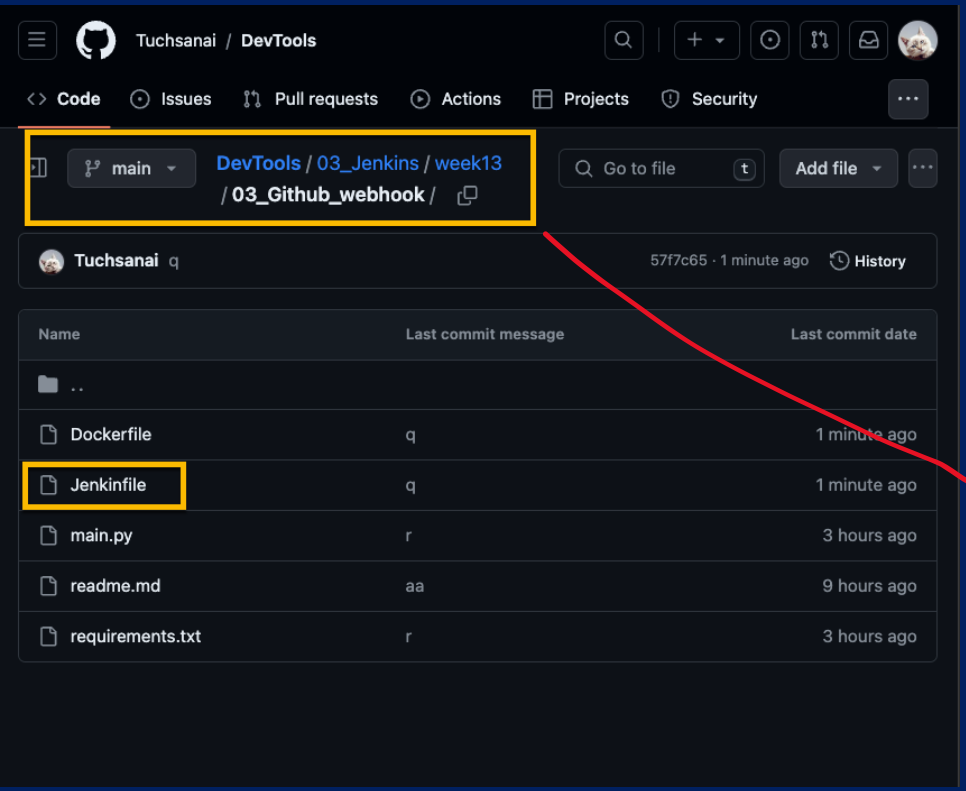
Pipeline script from SCM

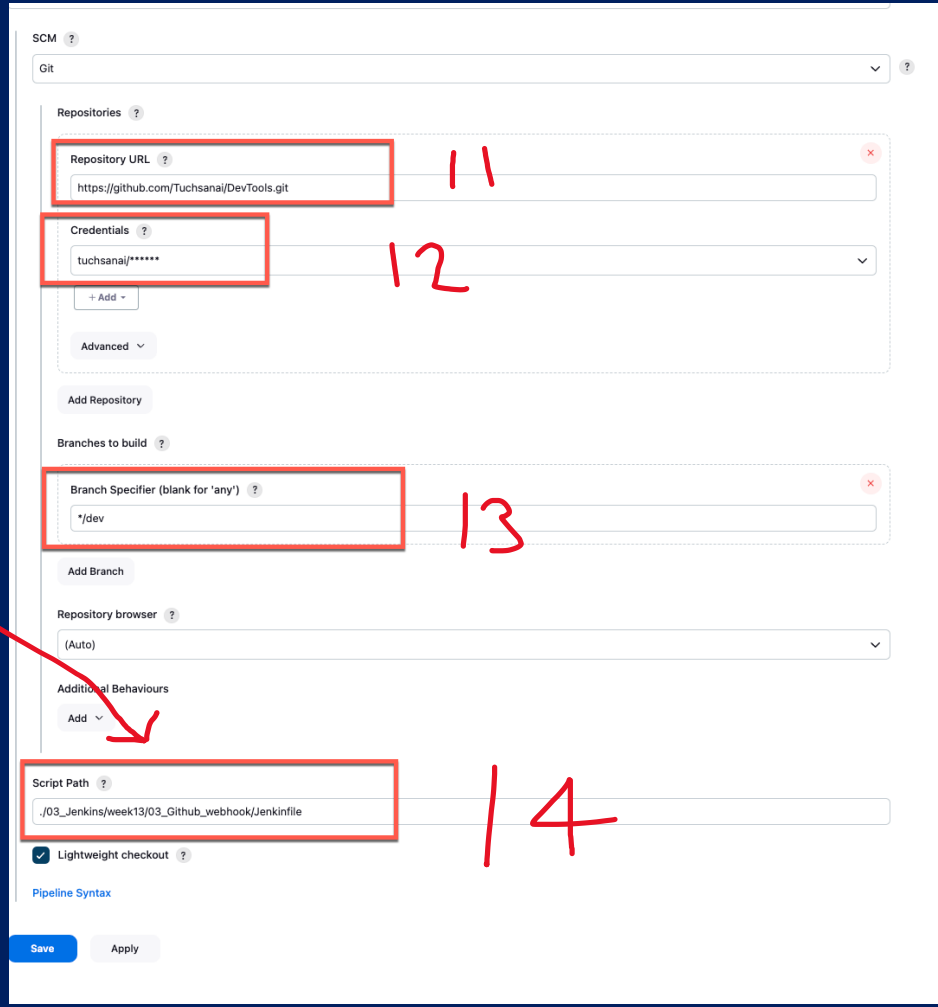
10

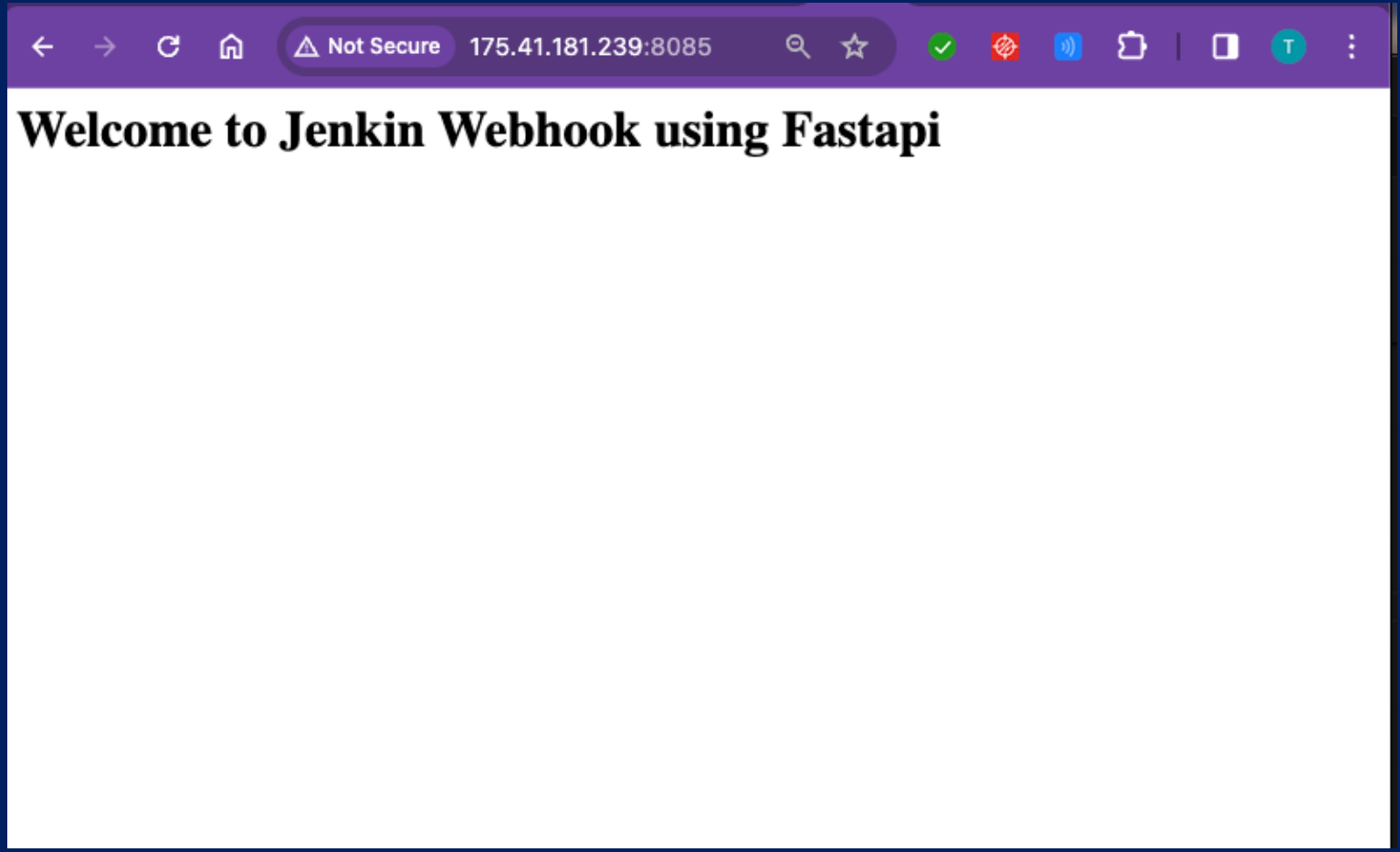
Script ?

1

try sample Pipeline...


Tuchsanai / DevTools
Code
Issues
Pull requests
Actions
Projects
Security
main
DevTools / 03_Jenkins / week13 / 03_Github_webhook /
Go to file
t
Add file
Tuchsanai q
57f7c65 · 1 minute ago
History
Name
Last commit message
Last commit date
..
Dockerfile
q
1 minute ago
Jenkinfile
q
1 minute ago
main.py
r
3 hours ago
readme.md
aa
9 hours ago
requirements.txt
r
3 hours ago


SCM
Git
Repositories
Repository URL
https://github.com/Tuchsanai/DevTools.git
11
Credentials
tuchsanai/******
12
+ Add
Advanced
Add Repository
Branches to build
Branch Specifier (blank for 'any')
*/dev
13
Add Branch
Repository browser
(Auto)
Additional Behaviours
Add
Script Path
./03_Jenkins/week13/03_Github_webhook/Jenkinfile
14
Lightweight checkout
Pipeline Syntax
Save
Apply


Not Secure
175.41.181.239:8085
Welcome to Jenkin Webhook using Fastapi