

SE Mission 2

B911059 노선우(Book, BookManager 작성)

B911021 김동영(Test 작성)

B911029 김민중(Test 작성)

Git Repository

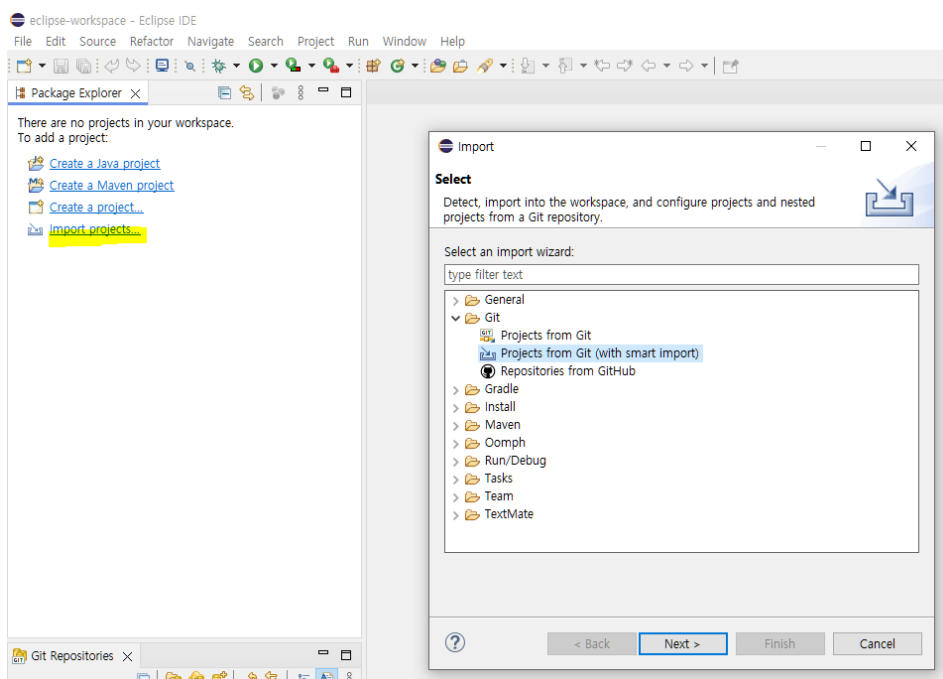
<https://github.com/Hongik-University-SW-Engineering/book-manager.git>

조원 3명이 main branch에서 자신의 branch를 생성해 Jenkinsfile 작성, CI/CD 구축 후 테스트 진행. Windows, MacOS 모든 환경에서 빌드되도록 Jenkinsfile 수정, 테스트 진행하고 pull request를 생성해 main branch로 최종 merge.

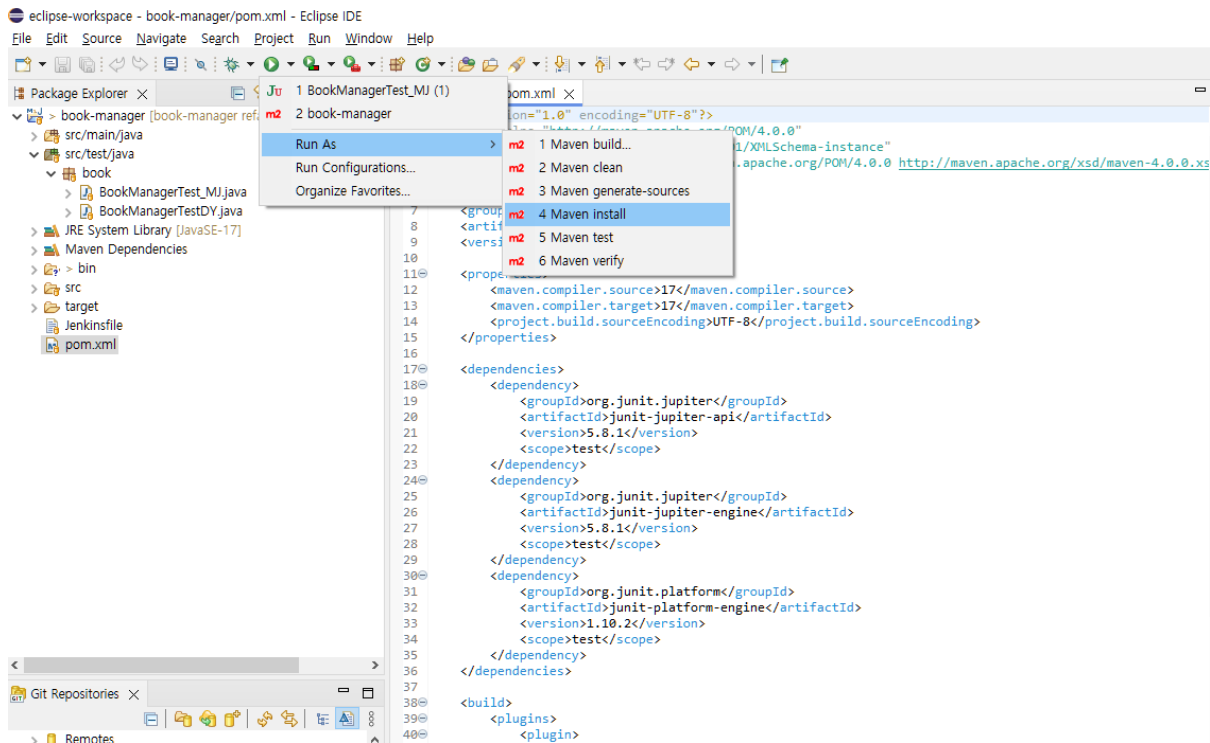
프로젝트 빌드 순서

1. Import project - Project from Git (with smart import) - clone URI - URI에

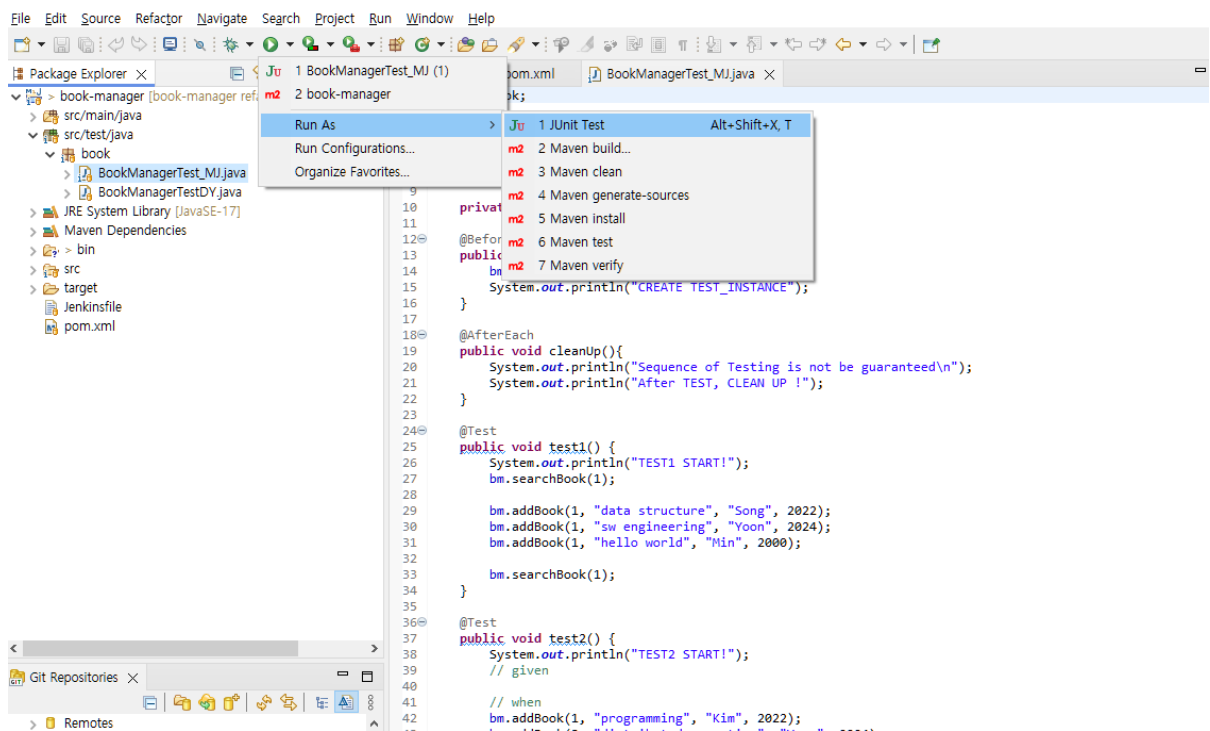
<https://github.com/Hongik-University-SW-Engineering/book-manager.git> 입력해 clone



2. Clone 한 프로젝트의 pom.xml 파일을 열고 Run 메뉴에서 Run As – Maven install 을 통해 maven project의 dependancy 파일들 다운로드.

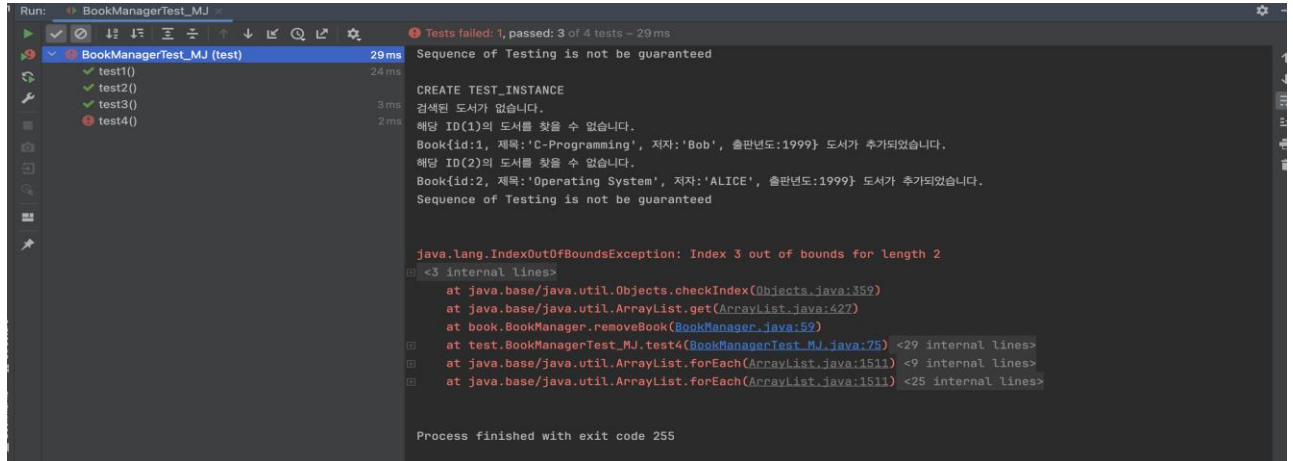


3. JUnit 테스트에 필요한 파일 다운로드 후 src/test/java 폴더 속 테스트 파일들을 열고 Run 메뉴에서 Run As – JUnit Test 를 통해 테스트 실행.



에러 메시지

- 테스트 과정 중 발생한 오류



테스트 진행 중 Out Of Index 오류 발생. 현재 리스트의 길이를 고려하여 테스트 코드 수정.

- Jenkinsfile 경로 오류

```
Started by user Dongyoung Kim
ERROR: Unable to find Practice/Jenkinsfile from git https://github.com/Hongik-University-SW-Engineering/book-manager.git
Finished: FAILURE
```

주어진 과제 파일대로 설정을 진행하다 오류 발생. 현재 project에 맞게 경로 수정해 해결. "Practice/Jenkinsfile -> Jenkinsfile"

- Git 오류

작업을 시작하기 전에 pull 하지 않고 작업을 시작해 이후 commit 과정에 conflict가 발생.

진행한 작업을 따로 저장하고 디렉토리를 작업을 시작하기 전 과정으로 되돌린 뒤 pull, 저장해둔 작업 restore, commit 순서를 통해 conflict가 발생하지 않도록 해결.

- Jenkins 빌드 과정 중 발생한 오류

```
C:\ProgramData\Jenkins\.jenkins\workspace\SE-Mission2>java -cp "lib\junit-platform-console-standalone-1.10.0.jar";classes"
org.junit.platform.console.ConsoleLauncher --scan-class-path=classes 1>test_results.txt
Picked up JAVA_TOOL_OPTIONS: -Dfile.encoding=UTF-8

C:\ProgramData\Jenkins\.jenkins\workspace\SE-Mission2>java -cp "lib\junit-platform-console-standalone-1.10.0.jar;classes"
org.junit.platform.console.ConsoleLauncher --scan-classpath --include-classname ".*Test.*" 1>test_results.txt
Picked up JAVA_TOOL_OPTIONS: -Dfile.encoding=UTF-8
```

class-path > classpath 문법 수정 및 --include-classname 옵션을 추가해 정규식으로 테스트할 클래스 찾도록 수정

- Pipeline branch 설정 오류

The image shows the Jenkins interface for Build #10. At the top left, there is a red 'X' icon and the text '< Build #10 >'. To the right are buttons for 'Rebuild', 'Console', and 'Configure'. Below this is a 'Pipeline' section with a diagram showing a single step from 'Start' to 'End'. To the right of the pipeline diagram is a 'Details' section with the following information: 'Manually run by minjoong', 'Started 13 sec ago', 'Queued 4 ms', and 'Took 0.76 sec'.

파이프라인이 실행되지 않는 문제

Branches to build ?

Branch Specifier (blank for 'any') ?

*/master

master branch가 존재하지 않아 오류 발생. 현재 github에 맞게 main branch로 수정.

Jenkins CI/CD 구동 아웃풋 로그

- Mac

Started by user Dongyoung Kim

Lightweight checkout support not available, falling back to full checkout.

Checking out git https://github.com/Hongik-University-SW-Engineering/book-manager.git into /Users/dong0579/.jenkins/workspace/unit-

test@script/9537ea63e012220e4d9e4d36ab140ea92bd9901bfaba2a4fa41695c512d997f9 to read Jenkinsfile

Selected Git installation does not exist. Using Default

The recommended git tool is: NONE

using credential 88443fe7-0ea6-4ab6-ad4f-29b79f178c1c

> git rev-parse --resolve-git-dir /Users/dong0579/.jenkins/workspace/unit-

test@script/9537ea63e012220e4d9e4d36ab140ea92bd9901bfaba2a4fa41695c512d997f9/.git # timeout=10

Fetching changes from the remote Git repository

> git config remote.origin.url https://github.com/Hongik-University-SW-Engineering/book-manager.git # timeout=10

Fetching upstream changes from https://github.com/Hongik-University-SW-Engineering/book-manager.git

> git --version # timeout=10

> git --version # 'git version 2.39.3 (Apple Git-146)'

using GIT_ASKPASS to set credentials

> git fetch --tags --force --progress -- https://github.com/Hongik-University-SW-Engineering/book-manager.git +refs/heads/*:refs/remotes/origin/* # timeout=10

Seen branch in repository origin/main

Seen branch in repository origin/refactor-project

Seen branch in repository origin/search_revision

Seen branch in repository origin/sunwoo

Seen 4 remote branches

> git show-ref --tags -d # timeout=10

Checking out Revision b1d60174ccdc88fca35932c353739741e020a563 (origin/main)

> git config core.sparsecheckout # timeout=10

> git checkout -f b1d60174ccdc88fca35932c353739741e020a563 # timeout=10

Commit message: "Merge pull request #5 from Hongik-University-SW-Engineering/refactor-project"

> git rev-list --no-walk 6df8408a46b2da88df3de3179ed58d4ab3a94560 # timeout=10

[Pipeline] Start of Pipeline

[Pipeline] node

Running on Jenkins in /Users/dong0579/jenkins/workspace/unit-test

[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 88443fe7-0ea6-4ab6-ad4f-29b79f178c1c

> git rev-parse --resolve-git-dir /Users/dong0579/jenkins/workspace/unit-test/.git # timeout=10

Fetching changes from the remote Git repository

> git config remote.origin.url https://github.com/Hongik-University-SW-Engineering/book-manager.git # timeout=10

Fetching upstream changes from https://github.com/Hongik-University-SW-Engineering/book-manager.git

> git --version # timeout=10

> git --version # 'git version 2.39.3 (Apple Git-146)'

using GIT_ASKPASS to set credentials

> git fetch --tags --force --progress -- https://github.com/Hongik-University-SW-Engineering/book-manager.git +refs/heads/*:refs/remotes/origin/* # timeout=10

Seen branch in repository origin/main

Seen branch in repository origin/refactor-project

Seen branch in repository origin/search_revision

Seen branch in repository origin/sunwoo

Seen 4 remote branches

> git show-ref --tags -d # timeout=10

Checking out Revision b1d60174ccdc88fca35932c353739741e020a563 (origin/main)

> git config core.sparsecheckout # timeout=10

> git checkout -f b1d60174ccdc88fca35932c353739741e020a563 # timeout=10

Commit message: "Merge pull request #5 from Hongik-University-SW-Engineering/refactor-project"

[Pipeline] }

[Pipeline] // stage

[Pipeline] withEnv

[Pipeline] {

[Pipeline] withEnv

[Pipeline] {

[Pipeline] stage

```
[Pipeline] { (Checkout)
[Pipeline] checkout
Selected Git installation does not exist. Using Default
The recommended git tool is: NONE
using credential 88443fe7-0ea6-4ab6-ad4f-29b79f178c1c
> git rev-parse --resolve-git-dir /Users/dong0579/.jenkins/workspace/unit-test/.git # timeout=10
Fetching changes from the remote Git repository
> git config remote.origin.url https://github.com/Hongik-University-SW-Engineering/book-
manager.git # timeout=10
Fetching upstream changes from https://github.com/Hongik-University-SW-Engineering/book-
manager.git
> git --version # timeout=10
> git --version # 'git version 2.39.3 (Apple Git-146)'
using GIT_ASKPASS to set credentials
> git fetch --tags --force --progress -- https://github.com/Hongik-University-SW-
Engineering/book-manager.git +refs/heads/*:refs/remotes/origin/* # timeout=10
Seen branch in repository origin/main
Seen branch in repository origin/refactor-project
Seen branch in repository origin/search_revision
Seen branch in repository origin/sunwoo
Seen 4 remote branches
> git show-ref --tags -d # timeout=10
Checking out Revision b1d60174ccdc88fca35932c353739741e020a563 (origin/main)
> git config core.sparsecheckout # timeout=10
> git checkout -f b1d60174ccdc88fca35932c353739741e020a563 # timeout=10
Commit message: "Merge pull request #5 from Hongik-University-SW-Engineering/refactor-
project"
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Download Dependencies)
[Pipeline] script
[Pipeline] {
[Pipeline] isUnix
[Pipeline] sh
+ mkdir -p lib
[Pipeline] sh
+ curl -o lib/junit-platform-console-standalone-1.10.0.jar
https://repo1.maven.org/maven2/org/junit/platform/junit-platform-console-
```

standalone/1.10.0/junit-platform-console-standalone-1.10.0.jar

% Total	% Received	% Xferd	Average Speed	Time	Time	Time	Current
			Dload Upload	Total	Spent	Left	Speed
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
9	2616k	9	255k	0	0	150k	0 0:00:17 0:00:01 0:00:16 150k
30	2616k	30	799k	0	0	296k	0 0:00:08 0:00:02 0:00:06 296k
57	2616k	57	1503k	0	0	400k	0 0:00:06 0:00:03 0:00:03 400k
77	2616k	77	2031k	0	0	432k	0 0:00:06 0:00:04 0:00:02 432k
100	2616k	100	2616k	0	0	468k	0 0:00:05 0:00:05 --:--:-- 535k

[Pipeline] }

[Pipeline] // script

[Pipeline] }

[Pipeline] // stage

[Pipeline] stage

[Pipeline] { (Build)

[Pipeline] script

[Pipeline] {

[Pipeline] isUnix

[Pipeline] sh

+ mkdir -p classes

[Pipeline] sh

+ javac -encoding UTF-8 -cp lib/junit-platform-console-standalone-1.10.0.jar -d classes
src/main/java/book/Book.java src/main/java/book/BookManager.java
src/test/java/book/BookManagerTestDY.java src/test/java/book/BookManagerTest_MJ.java

Picked up JAVA_TOOL_OPTIONS: -Dfile.encoding=UTF-8

[Pipeline] }

[Pipeline] // script

[Pipeline] }

[Pipeline] // stage

[Pipeline] stage

[Pipeline] { (Test)

[Pipeline] script

[Pipeline] {

[Pipeline] isUnix

[Pipeline] sh

+ java -Dfile.encoding=UTF-8 -cp lib/junit-platform-console-standalone-1.10.0.jar:classes
org.junit.platform.console.ConsoleLauncher --scan-classpath --include-classname '^.*Test.*\$'


```
+ iconv -f UTF-8 -t UTF-8
```

```
Picked up JAVA_TOOL_OPTIONS: -Dfile.encoding=UTF-8
```

WARNING: Delegated to the 'execute' command.

This behaviour has been deprecated and will be removed in a future release.

Please use the 'execute' command directly.

```
[Pipeline] }
```

```
[Pipeline] // script
```

```
[Pipeline] }
```

```
[Pipeline] // stage
```

```
[Pipeline] stage
```

```
[Pipeline] { (Declarative: Post Actions)
```

```
[Pipeline] archiveArtifacts
```

```
Archiving artifacts
```

```
[Pipeline] echo
```

```
Build and test succeeded
```

```
[Pipeline] }
```

```
[Pipeline] // stage
```

```
[Pipeline] }
```

```
[Pipeline] // withEnv
```

```
[Pipeline] }
```

```
[Pipeline] // withEnv
```

```
[Pipeline] }
```

```
[Pipeline] // node
```

```
[Pipeline] End of Pipeline
```

```
Finished: SUCCESS
```

- Windows

Started by GitHub push by SsunyR

Obtained Jenkinsfile from git <https://github.com/Hongik-University-SW-Engineering/book-manager.git>

[Pipeline] Start of Pipeline

[Pipeline] node

Running on Jenkins in C:\ProgramData\Jenkins\.jenkins\workspace\SE-Mission2

[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 fba69e3d-5cee-407c-8220-b6357db8bf74

> git rev-parse --resolve-git-dir C:\ProgramData\Jenkins\.jenkins\workspace\SE-Mission2\.git # timeout=10

Fetching changes from the remote Git repository

> git config remote.origin.url <https://github.com/Hongik-University-SW-Engineering/book-manager.git> # timeout=10

Fetching upstream changes from <https://github.com/Hongik-University-SW-Engineering/book-manager.git>

> git --version # timeout=10

> git --version # 'git version 2.42.0.windows.2'

using GIT_ASKPASS to set credentials

> git fetch --tags --force --progress -- <https://github.com/Hongik-University-SW-Engineering/book-manager.git> +refs/heads/*:refs/remotes/origin/* # timeout=10

> git rev-parse "refs/remotes/origin/sunwoo^{commit}" # timeout=10

Checking out Revision afc8642635015848cf3739bcb35a23223ca8bc44

(refs/remotes/origin/sunwoo)

> git config core.sparsecheckout # timeout=10

> git checkout -f afc8642635015848cf3739bcb35a23223ca8bc44 # timeout=10

Commit message: "Show complied class files"

> git rev-list --no-walk 577fff4cfed07b5f7f7a051c891159a70509ee18 # timeout=10

[Pipeline] }

[Pipeline] // stage

[Pipeline] withEnv

[Pipeline] {

[Pipeline] withEnv

[Pipeline] {

[Pipeline] stage

[Pipeline] { (Checkout)

[Pipeline] checkout

Selected Git installation does not exist. Using Default

The recommended git tool is: NONE

using credential fba69e3d-5cee-407c-8220-b6357db8bf74

> git rev-parse --resolve-git-dir C:\ProgramData\Jenkins\.jenkins\workspace\SE-Mission2\.git # timeout=10

Fetching changes from the remote Git repository

> git config remote.origin.url <https://github.com/Hongik-University-SW-Engineering/book-manager.git> # timeout=10

Fetching upstream changes from <https://github.com/Hongik-University-SW-Engineering/book-manager.git>

> git --version # timeout=10

> git --version # 'git version 2.42.0.windows.2'

using GIT_ASKPASS to set credentials

> git fetch --tags --force --progress -- <https://github.com/Hongik-University-SW-Engineering/book-manager.git>

```

Engineering/book-manager.git +refs/heads/*:refs/remotes/origin/* # timeout=10
> git rev-parse "refs/remotes/origin/sunwoo^{commit}" # timeout=10
Checking out Revision afc8642635015848cf3739bcb35a23223ca8bc44
(refs/remotes/origin/sunwoo)
> git config core.sparsecheckout # timeout=10
> git checkout -f afc8642635015848cf3739bcb35a23223ca8bc44 # timeout=10
Commit message: "Show complied class files"
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Download Dependencies)
[Pipeline] script
[Pipeline] {
[Pipeline] isUnix
[Pipeline] bat

```

```

C:\ProgramData\Jenkins\.jenkins\workspace\SE-Mission2>mkdir lib
A subdirectory or file lib already exists.

```

```

C:\ProgramData\Jenkins\.jenkins\workspace\SE-Mission2>curl -o lib\junit-platform-
console-standalone-1.10.0.jar
https://repo1.maven.org/maven2/org/junit/platform/junit-platform-console-
standalone/1.10.0/junit-platform-console-standalone-1.10.0.jar

```

% Total	% Received	% Xferd	Average Speed	Time	Time	Time	Current
			Dload Upload	Total	Spent	Left	Speed
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
12	2616k	12	333k	0	0	288k	0
100	2616k	100	2616k	0	0	1582k	0

```

[Pipeline] }
[Pipeline] // script
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Build)
[Pipeline] script
[Pipeline] {
[Pipeline] isUnix
[Pipeline] bat

```

```

C:\ProgramData\Jenkins\.jenkins\workspace\SE-Mission2>set JUNIT_PATH=lib\junit-
platform-console-standalone-1.10.0.jar

```

```

C:\ProgramData\Jenkins\.jenkins\workspace\SE-Mission2>javac -encoding UTF-8 -d
classes src\book\*.java
Picked up JAVA_TOOL_OPTIONS: -Dfile.encoding=UTF-8

```

```

C:\ProgramData\Jenkins\.jenkins\workspace\SE-Mission2>javac -encoding UTF-8 -d
classes -cp "lib\junit-platform-console-standalone-1.10.0.jar;classes"
src\test\*.java
Picked up JAVA_TOOL_OPTIONS: -Dfile.encoding=UTF-8

```

```

C:\ProgramData\Jenkins\.jenkins\workspace\SE-Mission2>dir classes
Volume in drive C has no label.

```

Volume Serial Number is DA73-2533

Directory of C:\ProgramData\Jenkins\.jenkins\workspace\SE-Mission2\classes

```
2024-06-15 오후 03:58 <DIR> .
2024-06-15 오후 03:58 <DIR> ..
2024-06-15 오후 03:58 <DIR> book
2024-06-15 오후 03:58 <DIR> test
                0 File(s)                0 bytes
                4 Dir(s) 768,608,903,168 bytes free
```

```
[Pipeline] }
[Pipeline] // script
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Test)
[Pipeline] script
[Pipeline] {
[Pipeline] isUnix
[Pipeline] bat
```

```
C:\ProgramData\Jenkins\.jenkins\workspace\SE-Mission2>set JUNIT_PATH=lib\junit-
platform-console-standalone-1.10.0.jar
```

```
C:\ProgramData\Jenkins\.jenkins\workspace\SE-Mission2>java -cp "lib\junit-
platform-console-standalone-1.10.0.jar;classes"
org.junit.platform.console.ConsoleLauncher --scan-classpath --include-classname
".*Test.*" 1>test_results.txt
Picked up JAVA_TOOL_OPTIONS: -Dfile.encoding=UTF-8
```

WARNING: Delegated to the 'execute' command.
This behaviour has been deprecated and will be removed in a future
release.

Please use the 'execute' command directly.

```
[Pipeline] }
[Pipeline] // script
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Declarative: Post Actions)
[Pipeline] archiveArtifacts
```

Archiving artifacts

```
[Pipeline] echo
Build and test succeeded
```

```
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS
```