SWE-Mission2

레포지토리

https://github.com/SWE-Mission2/SWE-Mission2

역할 분담

- B911177 정진홍: search_revision branch에서 search_bs 작성 및 JUnit 테스트
- B913025 김정빈: performance_test 브랜치 PerformanceTest 작성 및 JUnit 테스트
- B811185 조진수: PerformanceTest 일부 작성, 에러 정리, README 작성

CI/CD 구동 아웃풋 로그

```
Started by GitHub push by OracleMahad
Obtained Jenkinsfile from git https://github.com/SWE-Mission2/SWE-Mission2.
qit
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in C:\ProgramData\Jenkins\.jenkins\workspace\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 Admin
> C:\Program Files\Git\bin\git.exe rev-parse --resolve-git-dir C:\ProgramD
ata\Jenkins\ jenkins\workspace\TEST\ git # timeout=10
Fetching changes from the remote Git repository
> C:\Program Files\Git\bin\git exe config remote origin url https://githu
b.com/SWE-Mission2/SWE-Mission2.git # timeout=10
Fetching upstream changes from https://github.com/SWE-Mission2/SWE-Mission
2.git
> C:\Program Files\Git\bin\git.exe --version # timeout=10
> git --version # 'git version 2.45.2.windows.1'
using GIT_ASKPASS to set credentials Admin
> C:\Program Files\Git\bin\git.exe fetch --tags --force --progress -- http
s://github.com/SWE-Mission2/SWE-Mission2.git +refs/heads/*:refs/remotes/ori
gin/* # timeout=10
> C:\Program Files\Git\bin\git.exe rev-parse "origin/main^{commit}" # time
Checking out Revision b0f6226cac5221677066ccd3b3e646eacd145b91 (origin/mai
n)
```

```
> C:\Program Files\Git\bin\git.exe config core.sparsecheckout # timeout=10
> C:\Program Files\Git\bin\qit.exe checkout -f b0f6226cac5221677066ccd3b3e
646eacd145b91 # timeout=10
Commit message: "Update PerformanceTest.java"
> C:\Program Files\Git\bin\git.exe rev-list --no-walk 6c1b5cbdd399aa67e830
a44072d09f590dc8d481 # 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 Admin
> C:\Program Files\Git\bin\git.exe rev-parse --resolve-git-dir C:\ProgramD
ata\Jenkins\.jenkins\workspace\TEST\.git # timeout=10
Fetching changes from the remote Git repository
> C:\Program Files\Git\bin\git.exe config remote.origin.url https://githu
b.com/SWE-Mission2/SWE-Mission2.git # timeout=10
Fetching upstream changes from https://github.com/SWE-Mission2/SWE-Mission
> C:\Program Files\Git\bin\git.exe --version # timeout=10
> git --version # 'git version 2.45.2.windows.1'
using GIT_ASKPASS to set credentials Admin
> C:\Program Files\Git\bin\git.exe fetch --tags --force --progress -- http
s://github.com/SWE-Mission2/SWE-Mission2.git +refs/heads/*:refs/remotes/ori
gin/* # timeout=10
> C:\Program Files\Git\bin\git.exe rev-parse "origin/main^{commit}" # time
out=10
Checking out Revision b0f6226cac5221677066ccd3b3e646eacd145b91 (origin/mai
n)
> C:\Program Files\Git\bin\git.exe config core.sparsecheckout # timeout=10
> C:\Program Files\Git\bin\git.exe checkout -f b0f6226cac5221677066ccd3b3e
646eacd145b91 # timeout=10
Commit message: "Update PerformanceTest.java"
[Pipeline] bat
C:\ProgramData\Jenkins\.jenkins\workspace\TEST>dir
♦ ♦ ♦ ♦ Þ ♦ ♦ 8: EC13-C35E
C:\ProgramData\Jenkins\.jenkins\workspace\TEST ��� 🗓
2024-06-16 ��� 07:48
                            <DIR>
```

```
2024-06-16 ��� 07:48
                           <DIR>
468 .classpath
7 .gitignore
2024-06-16 ���� 06:03
                                     388 .project
2024-06-16 ��� 06:03
                           <DIR>
                                         classes
2024-06-16 ��� 07:48
                                   2,671 Jenkinsfile
84,749 performance_test_results.txt
2024-06-16 • • • • 06:03
                                      14 README.md
2024-06-17 ��� 12:29
                           <DIR>
                                         src
<DIR>
                                         test-classes
                                       88,297 ����T
             600 000
             5 � � � � 0 0 0 784,092,770,304 0 0 0 0 T � � � �
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Build)
[Pipeline] script
[Pipeline] {
[Pipeline] bat
C:\ProgramData\Jenkins\.jenkins\workspace\TEST>javac -encoding UTF-8 -d cla
sses src\BookManager.java
[Pipeline] bat
C:\ProgramData\Jenkins\.jenkins\workspace\TEST>javac -encoding UTF-8 -d tes
t-classes -classpath classes;C:\Users\PC\eclipse\java-2024-06\eclipse\plugi
ns\junit-platform-console-standalone-1.7.1.jar src\PerformanceTest.java
[Pipeline] }
[Pipeline] // script
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Performance Test)
[Pipeline] script
[Pipeline] {
[Pipeline] bat
C:\ProgramData\Jenkins\.jenkins\workspace\TEST>java -cp test-classes;classe
s;C:\Users\PC\eclipse\java-2024-06\eclipse\plugins\junit-platform-console-s
tandalone-1.7.1.jar org.junit.platform.console.ConsoleLauncher --select-cla
ss PerformanceTest 1>performance_test_results.txt
[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] // mode
[Pipeline] End of Pipeline
Finished: SUCCESS
```

• performance_test_results.txt

```
Book{id: '1', 제목: '해리포터', 저자: 'Rolling', 출판년도: 2013}도서가 추가되었습니
다.
Book{id: '2', 제목: '퍼시', 저자: 'Jane', 출판년도: 2005}도서가 추가되었습니다.
Book{id: '3', 제목: '오리고기', 저자: '오리', 출판년도: 2024}도서가 추가되었습니다.
testPerformance 시작
Book{id: '1', 제목: '해리포터', 저자: 'Rolling', 출판년도: 2013}
searchBook 걸린 시간: 84100 나노초
Book{id: '1', 제목: '해리포터', 저자: 'Rolling', 출판년도: 2013}도서를 찾았습니다.
search_bs 걸린 시간: 99000 나노초
testPerformance 종료
Book{id: '1', 제목: '해리포터', 저자: 'Rolling', 출판년도: 2013}도서가 추가되었습니
다.
Book{id: '2', 제목: '퍼시', 저자: 'Jane', 출판년도: 2005}도서가 추가되었습니다.
Book{id: '3', 제목: '오리고기', 저자: '오리', 출판년도: 2024}도서가 추가되었습니다.
testPerformance 시작
검색된 도서가 없습니다.
searchBook 걸린 시간: 60400 나노초
해당 ID(7)의 도서를 찾을 수 없습니다.
search_bs 걸린 시간: 1086200 나노초
testPerformance 종료
Book{id: '1', 제목: '해리포터', 저자: 'Rolling', 출판년도: 2013}도서가 추가되었습니
다.
Book{id: '2', 제목: '퍼시', 저자: 'Jane', 출판년도: 2005}도서가 추가되었습니다.
Book{id: '3', 제목: '오리고기', 저자: '오리', 출판년도: 2024}도서가 추가되었습니다.
testPerformance 시작
검색된 도서가 없습니다.
searchBook 걸린 시간: 42400 나노초
Book{id: '1', 제목: '해리포터', 저자: 'Rolling', 출판년도: 2013}도서가 추가되었습니
다.
Book{id: '2', 제목: '퍼시', 저자: 'Jane', 출판년도: 2005}도서가 추가되었습니다.
Book{id: '3', 제목: '오리고기', 저자: '오리', 출판년도: 2024}도서가 추가되었습니다.
testPerformance_search_bs_largeData 시작
```

```
Book{id: '100', 제목: 'Book100', 저자: 'Author100', 출판년도: 2100}도서가 추가되
었습니다.
Book{id: '101', 제목: 'Book101', 저자: 'Author101', 출판년도: 2101}도서가 추가되
었습니다.
Book{id: '102', 제목: 'Book102', 저자: 'Author102', 출판년도: 2102}도서가 추가되
었습니다.
. . .
Book{id: '998', 제목: 'Book998', 저자: 'Author998', 출판년도: 2998}도서가 추가되
었습니다.
Book{id: '999', 제목: 'Book999', 저자: 'Author999', 출판년도: 2999}도서가 추가되
었습니다.
Book{id: '550', 제목: 'Book550', 저자: 'Author550', 출판년도: 2550}
searchBook 걸린 시간: 216800 나노초
Book{id: '550', 제목: 'Book550', 저자: 'Author550', 출판년도: 2550}도서를 찾았습
니다.
search_bs 걸린 시간: 14300 나노초
testPerformance_search_bs_largeData 종료
Thanks for using JUnit! Support its development at https://junit.org/sponso
ring
[36m?[0m
[36m ⊢ [0m [36mJUnit Jupiter [0m [32m? [0m
      └─[0m [36mPerformanceTest[0m [32m?[0m
          \vdash [0m [34mtestPerformance1()[0m [32m?[0m
[36m]
[36m|
          \vdash[0m [34mtestPerformance2()[0m [32m?[0m
          \vdash[0m [34mtestPerformance5()[0m [32m?[0m
[36m|
          └─[Om [34mtestPerformance_search_bs_largeData()[Om [32m?[Om
[36m|
[36m └ [0m [36mJUnit Vintage[0m [32m?[0m
Test run finished after 95 ms
         3 containers found
                                 ]
         0 containers skipped
Γ
                                 1
Γ
         3 containers started
                                 1
         O containers aborted
3 containers successful ]
         0 containers failed
Γ
                                 ]
         4 tests found
                                 1
0 tests skipped
                                 ]
         4 tests started
                                 1
Γ
         0 tests aborted
Γ
                                 1
         4 tests successful
                                 ]
[
         0 tests failed
Γ
                                 1
```

Error message

git

1. 작업중 일어난 merge conflict

jenkins

1. git setting error → 젠킨스 내에서 git 경로 설정 후 해결

```
Started by useradmin
java.io.IOException: CreateProcess error=2, 지정된 파일을 찾을 수 없습니다
         at java.base/java.lang.ProcessImpl.create(Native Method)
        at java.base/java.lang.ProcessImpl.<init>(ProcessImpl.java:500)
        at java.base/java.lang.ProcessImpl.start(ProcessImpl.java:159)
         at java.base/java.lang.ProcessBuilder.start(ProcessBuilder.java:1126)
Caused: java.io.IOException: Cannot run program "git.exe" (in directory
"C:\ProgramData\Jenkins\.jenkins\caches\git-efb294bc89b796a44a120f63363c770
f"): CreateProcess error=2, 지정된 파일을 찾을 수 없습니다
         at java.base/java.lang.ProcessBuilder.start(ProcessBuilder.java:1170)
        at java.base/java.lang.ProcessBuilder.start(ProcessBuilder.java:1089)
        at hudson.Proc$LocalProc.<init>(Proc.java:252)
        at hudson.Proc$LocalProc.<init>(Proc.java:221)
        at hudson.Launcher$LocalLauncher.launch(Launcher.java:994)
        at hudson.Launcher$ProcStarter.start(Launcher.java:506)
         at \ org.jenkinsci.plugins.gitclient.CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommandIn(CliGitAPIImpl.launchCommand
APIImpl.java:2839)
Caused: hudson.plugins.git.GitException: Error performing git command: git.
exe init C:\ProgramData\Jenkins\.jenkins\caches\git-efb294bc89b796a44a120f6
         at org.jenkinsci.plugins.gitclient.CliGitAPIImpl.launchCommandIn(CliGit
APIImpl.java:2862)
         at org.jenkinsci.plugins.gitclient.CliGitAPIImpl.launchCommandIn(CliGit
APIImpl.java:2766)
         at org.jenkinsci.plugins.gitclient.CliGitAPIImpl.launchCommandIn(CliGit
APIImpl.java:2761)
         at org.jenkinsci.plugins.gitclient.CliGitAPIImpl.launchCommand(CliGitAP
IImpl.java:2051)
         at org.jenkinsci.plugins.gitclient.CliGitAPIImpl$5.execute(CliGitAPIImp
```

```
1. java: 1071)
Caused: hudson.plugins.git.GitException: Could not init C:\ProgramData\Jenk
ins\.jenkins\caches\git-efb294bc89b796a44a120f63363c770f
    at org.jenkinsci.plugins.gitclient.CliGitAPIImpl$5.execute(CliGitAPIImp
1.java:1073)
    at org.jenkinsci.plugins.gitclient.CliGitAPIImpl.init(CliGitAPIImpl.jav
a:360)
   at hudson.plugins.git.GitAPI.init(GitAPI.java:244)
    at jenkins.plugins.git.GitSCMFileSystem$BuilderImpl.build(GitSCMFileSys
tem.java:388)
    at jenkins.scm.api.SCMFileSystem.of(SCMFileSystem.java:219)
    at org.jenkinsci.plugins.workflow.cps.CpsScmFlowDefinition.create(CpsSc
mFlowDefinition.java:126)
    at org.jenkinsci.plugins.workflow.cps.CpsScmFlowDefinition.create(CpsSc
mFlowDefinition.java:73)
    at org.jenkinsci.plugins.workflow.job.WorkflowRun.run(WorkflowRun.java:
311)
    at hudson.model.ResourceController.execute(ResourceController.java:101)
    at hudson.model.Executor.run(Executor.java:442)
Finished: FAILURE
```

2. Jenkinsfile이 아직 merge되지 않았을때 생긴 에러

```
Started by user admin
ERROR: Unable to find Jenkinsfile from git https://github.com/SWE-Mission2/
SWE-Mission2.git
Finished: FAILURE
```

3. build branch를 잘못 입력해서 생긴에러

```
Started by user admin
hudson plugins git GitException: Command "C:\Program Files\Git\bin\git.exe
fetch --tags --force --progress --prune -- origin +refs/heads/build-test:re
fs/remotes/origin/build-test" returned status code 128:
stdout:
stderr: fatal: couldn't find remote ref refs/heads/build-test
    at org.jenkinsci.plugins.gitclient.CliGitAPIImpl.launchCommandIn(CliGit
APIImpl.java:2846)
    at org.jenkinsci.plugins.gitclient.CliGitAPIImpl.launchCommandWithCrede
ntials(CliGitAPIImpl.java:2185)
    at org.jenkinsci.plugins.gitclient.CliGitAPIImpl$1.execute(CliGitAPIImp
1. java: 635)
    at jenkins.plugins.git.GitSCMFileSystem$BuilderImpl.build(GitSCMFileSys
tem.java:406)
    at jenkins.scm.api.SCMFileSystem.of(SCMFileSystem.java:219)
    at org.jenkinsci.plugins.workflow.cps.CpsScmFlowDefinition.create(CpsSc
mFlowDefinition.java:126)
```

```
at org.jenkinsci.plugins.workflow.cps.CpsScmFlowDefinition.create(CpsSc mFlowDefinition.java:73)
at org.jenkinsci.plugins.workflow.job.WorkflowRun.run(WorkflowRun.java: 311)
at hudson.model.ResourceController.execute(ResourceController.java:101)
at hudson.model.Executor.run(Executor.java:442)
Finished: FAILURE
```

4. 젠킨스 빌드 시 JUNIT 의존성을 명시 하지 않아 생긴 error

```
C:\ProgramData\Jenkins\.jenkins\workspace\TEST>javac -encoding UTF-8 -d tes t-classes -classpath classes;C:\Users\PC\eclipse\java-2024-06\eclipse\plugi ns\junit-platform-console-standalone-1.7.1.jar src\BookManagerTest.java src\BookManagerTest.java:1: error: package org.junit.jupiter.api does not e xist
```