

Part 3 (Method 2)

Test case used for the part 3

<https://github.com/raphw/byte-buddy>,505b9bb02920c6f5d8662ce310f9568acd1e5baf,byte-buddy-dep,net.bytebuddy.description.type.TypeDescriptionForLoadedTypeTest.testTypeAnnotationExceptionType,ID,,

1. Git repository: <https://github.com/raphw/byte-buddy>
2. Forked the repository into my local repository – (<https://github.com/johnstephengutam/byte-buddy.git>)
3. Created the feature branch(johnstephengutam-patch-1) – (<https://github.com/johnstephengutam/byte-buddy.git>)
4. Created a .github/workflows directory in my repository on GitHub.
5. In the .github/workflows directory, created a file named maven.yml.

maven.yml

```
! maven.yml X
Ubuntu > home > steve > byte-buddy > .github > workflows > ! maven.yml
1  # This workflow will build a Java project with Maven, and cache/restore any dependencies to improve the workflow execution time
2  # For more information see: https://docs.github.com/en/actions/automating-builds-and-tests/building-and-testing-java-with-maven
3
4  # This workflow uses actions that are not certified by GitHub.
5  # They are provided by a third-party and are governed by
6  # separate terms of service, privacy policy, and support
7  # documentation.
8
9  name: Java CI with Maven
10
11 on:
12   push:
13     branches: [ "master" ]
14   pull_request:
15     branches: [ "master" ]
16
17 jobs:
18   build:
19
20     runs-on: ubuntu-latest
21
22     steps:
23     - uses: actions/checkout@v3
24     - name: Set up JDK 17
25       uses: actions/setup-java@v3
26       with:
27         java-version: '17'
28         distribution: 'temurin'
29         cache: maven
30     - name: Build with Maven
31       run: mvn -B package --file pom.xml
32     - name: Build with Maven (compile the module where the test is, and all modules it depends on)
33       run: mvn clean install -DskipTests -pl byte-buddy-dep -am --log-file ci-build.log
34     - name: run the test to check that it passes
35       run: mvn -pl byte-buddy-dep test -Dtest=net.bytebuddy.description.type.TypeDescriptionForLoadedTypeTest#testTypeAnnotationExceptionType --log-file testpass-build.log
36     - name: if the test passes in regular runs, see if it fails with the NonDex tool that reports flaky tests
37       run: mvn -pl byte-buddy-dep edu.illinois:nondex-maven-plugin:2.1.1:nondex -Dtest=net.bytebuddy.description.type.TypeDescriptionForLoadedTypeTest#testTypeAnnotationExceptionType
38
39     # Optional: Uploads the full dependency graph to GitHub to improve the quality of Dependabot alerts this repository can receive
40     - name: Update dependency graph
41       uses: advanced-security/maven-dependency-submission-action@571e99aabb1055c2e71a1e2309b9691de18d6b7d6
42
```

6. Updated my maven.yml file and saved in the workflow folder(\\wsl.localhost\Ubuntu\home\steve\byte-buddy\.github\workflows).
7. Created a new branch for this commit and started a pull request. Then, created a pull request, and clicked Propose new file.
8. Build got success for the normal test and as expected it got failed for flaky test with non dex tool.

9. Under my repository, clicked the actions. In the left sidebar of the workflow run page, under Jobs, clicked the 'Java-CI with maven' job.

This screenshot shows the GitHub Actions workflow page for the repository 'johnstephengutam / byte-buddy'. The URL is 'github.com/johnstephengutam/byte-buddy/actions/workflows/maven.yml'. The left sidebar shows the 'Actions' tab with a list of workflows, including 'Java CI with Maven'. The main content area displays the workflow 'Java CI with Maven' (maven.yml) with a search bar for workflow runs. Below the search bar, there is a 'Help us improve GitHub Actions' section and a table of workflow runs. The table shows two runs: 'Johnstephengutam patch 1' and 'Merge pull request #1 from johnstephengutam/johnstephengutam-pat...'. Both runs are in a 'Failure' state.

Event	Status	Branch	Actor
Johnstephengutam patch 1	Failure	johnstephengutam-patch-1	johnstephengutam
Merge pull request #1 from johnstephengutam/johnstephengutam-pat...	Failure	master	johnstephengutam

This screenshot shows the GitHub Actions workflow run page for the repository 'johnstephengutam / byte-buddy'. The URL is 'github.com/johnstephengutam/byte-buddy/actions/runs/6515311449'. The left sidebar shows the 'Jobs' tab with a list of jobs, including 'build'. The main content area displays the workflow run 'Johnstephengutam patch 1 #2' with a 'Re-run jobs' button. Below the run details, there is a section for 'maven.yml' on 'pull_request' with a 'build' job that failed. The 'Annotations' section shows 1 error: 'build' failed with exit code 1.

Triggered via	Status	Total duration	Artifacts
johnstephengutam opened #1 johnstephengutam-patch-1	Failure	1m 45s	-

maven.yml
on: pull_request

Job	Duration
build	1m 35s

Annotations
1 error

build
Process completed with exit code 1.

github.com/johnstephenguttm/byte-buddy/actions/runs/6515311449/job/17697569207

Summary

Jobs

build

Run details

Usage

Workflow file

build
failed 2 weeks ago in 1m 35s

Search logs

if the test passes in regular runs, see if it fails with the NonDex tool that reports flaky tests 21s

```
390 Progress (1): 508/546 kB
391 Progress (1): 512/546 kB
392 Progress (1): 516/546 kB
393 Progress (1): 520/546 kB
394 Progress (1): 524/546 kB
395 Progress (1): 528/546 kB
396 Progress (1): 532/546 kB
397 Progress (1): 537/546 kB
398 Progress (1): 541/546 kB
399 Progress (1): 545/546 kB
400 Progress (1): 546 kB
401
402 Downloaded from central: https://repo.maven.apache.org/maven2/edu/illinois/nondex-instrumentation/2.1.1/nondex-instrumentation-2.1.1.jar (546 kB at 2.5 MB/s)
403 [INFO] -----
404 [INFO] BUILD FAILURE
405 [INFO] -----
406 [INFO] Total time: 20.206 s
407 [INFO] Finished at: 2023-10-14T03:28:50Z
408 [INFO] -----
409 Error: Failed to execute goal edu.illinois:nondex-maven-plugin:2.1.1:nondex (default-cli) on project byte-buddy-dep: Execution default-cli of goal
edu.illinois:nondex-maven-plugin:2.1.1:nondex failed: Unsupported class file major version 61 -> [Help 1]
410 Error:
411 Error: To see the full stack trace of the errors, re-run Maven with the -e switch.
412 Error: Re-run Maven using the -X switch to enable full debug logging.
413 Error:
414 Error: For more information about the errors and possible solutions, please read the following articles:
415 Error: [Help 1] http://wiki.apache.org/confluence/display/MAVEN/PluginExecutionException
416 Error: Process completed with exit code 1.
```

Update dependency graph 0s

Post Set up JDK 17 0s

Post Run actions/checkout@v3 0s

Complete job 0s

10. In the above code saved the build log in ci-build.log.

ci-build.log

```
steve@steve: ~/byte-buddy
[INFO] --- maven-resources-plugin:3.2.0:testResources (default-testResources) @ byte-buddy-dep ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] Using 'UTF-8' encoding to copy filtered properties files.
[INFO] Copying 1 resource
[INFO] Copying 1 resource
[INFO] Copying 1 resource
[INFO] Copying 15 resources
[INFO] Copying 34 resources
[INFO] Copying 1 resource
[INFO] Copying 2 resources
[INFO] Copying 2 resources
[INFO] Copying 5 resources
[INFO] --- maven-compiler-plugin:3.10.1:testCompile (default-testCompile) @ byte-buddy-dep ---
[INFO] Changes detected - recompiling the module!
[INFO] Compiling 764 source files to /home/steve/byte-buddy/byte-buddy-dep/target/test-classes
[INFO] --- maven-surefire-plugin:2.22.2:test (default-test) @ byte-buddy-dep ---
[INFO] Tests are skipped.
[INFO] --- maven-jar-plugin:3.2.2:jar (default-jar) @ byte-buddy-dep ---
[INFO] Building jar: /home/steve/byte-buddy/byte-buddy-dep/target/byte-buddy-dep-1.14.10-SNAPSHOT.jar
[INFO] --- maven-install-plugin:3.0.1:install (default-install) @ byte-buddy-dep ---
[INFO] Installing /home/steve/byte-buddy/byte-buddy-dep/pom.xml to /home/steve/.m2/repository/net/bytebuddy/byte-buddy-dep/1.14.10-SNAPSHOT/byte-buddy-dep-1.14.10-SNAPSHOT.pom
[INFO] Installing /home/steve/byte-buddy/byte-buddy-dep/target/byte-buddy-dep-1.14.10-SNAPSHOT.jar to /home/steve/.m2/repository/net/bytebuddy/byte-buddy-dep/1.14.10-SNAPSHOT/byte-buddy-dep-1.14.10-SNAPSHOT.jar
[INFO] -----
[INFO] Reactor Summary for Byte Buddy (parent) 1.14.10-SNAPSHOT:
[INFO]
[INFO] Byte Buddy (parent) ..... SUCCESS [ 0.610 s]
[INFO] Byte Buddy agent ..... SUCCESS [ 3.584 s]
[INFO] Byte Buddy (with dependencies) ..... SUCCESS [ 16.045 s]
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 21.564 s
[INFO] Finished at: 2023-10-25T18:44:51-04:00
[INFO] -----
steve@steve:~/byte-buddy$
```

testpass-build.log

```

steve@steve: ~/byte-buddy
[INFO] Resolved plugin: net.bytebuddy.build.RepeatedAnnotationPlugin
[INFO] Resolved entry point: REDEFINE
[INFO] Processing class files located in in: /home/steve/byte-buddy/byte-buddy-dep/target/classes
[INFO] Transformed 1 type(s)
[INFO] --- maven-resources-plugin:3.2.0:testResources (default-testResources) @ byte-buddy-dep ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] Using 'UTF-8' encoding to copy filtered properties files.
[INFO] Copying 1 resource
[INFO] Copying 1 resource
[INFO] Copying 1 resource
[INFO] Copying 15 resources
[INFO] Copying 34 resources
[INFO] Copying 1 resource
[INFO] Copying 2 resources
[INFO] Copying 2 resources
[INFO] Copying 5 resources
[INFO] --- maven-compiler-plugin:3.10.1:testCompile (default-testCompile) @ byte-buddy-dep ---
[INFO] Changes detected - recompiling the module!
[INFO] Compiling 764 source files to /home/steve/byte-buddy/byte-buddy-dep/target/test-classes
[INFO] --- maven-surefire-plugin:2.22.2:test (default-test) @ byte-buddy-dep ---
[INFO]
[INFO] T E S T S
[INFO]
[INFO] Running net.bytebuddy.description.type.TypeDescriptionForLoadedTypeTest
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.267 s - in net.bytebuddy.description.type.TypeDescriptionForLoadedTypeTest
[INFO] Results:
[INFO]
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO] BUILD SUCCESS
[INFO]
[INFO] Total time: 12.545 s
[INFO] Finished at: 2023-10-25T18:42:46-04:00
[INFO]
steve@steve:~/byte-buddy$

```

non-dex-build.log

```

steve@steve: ~/byte-buddy
[INFO] *****
[INFO] mvn nondex:nondex -DnondexFilter='.*' -DnondexMode=FULL -DnondexSeed=974622 -DnondexStart=0 -DnondexEnd=922337203685477580
7 -DnondexPrintstack=false -DnondexDir="/home/steve/byte-buddy/byte-buddy-dep/.nondex" -DnondexJarDir="/home/steve/byte-buddy/byte
-buddy-dep/.nondex" -DnondexExecid=ZE5TgJlsBidHUYtoihTizpF3YFgJ46geh0woAPd4hog= -DnondexLogging=CONFIG
[INFO] No Test Failed with this configuration.
[INFO] *****
[INFO] mvn nondex:nondex -DnondexFilter='.*' -DnondexMode=FULL -DnondexSeed=1016066 -DnondexStart=0 -DnondexEnd=92233720368547758
07 -DnondexPrintstack=false -DnondexDir="/home/steve/byte-buddy/byte-buddy-dep/.nondex" -DnondexJarDir="/home/steve/byte-buddy/byt
e-buddy-dep/.nondex" -DnondexExecid=4bEWhpnK81jwHfW036K0IeDRt2wR+CFIA0AnTPsgfw0= -DnondexLogging=CONFIG
[INFO] No Test Failed with this configuration.
[INFO] *****
[INFO] All tests pass without NonDex shuffling
[INFO] #####
[INFO] Across all seeds:
[INFO] Test results can be found at:
[INFO] file:///home/steve/byte-buddy/byte-buddy-dep/.nondex/wA574XTDUHNK9xRZnxjL9QC4nrk1vUL6EXuZFX+KrY=/test_results.html
[INFO] [NonDex] The id of this run is: wA574XTDUHNK9xRZnxjL9QC4nrk1vUL6EXuZFX+KrY=
[INFO]
[INFO] BUILD FAILURE
[INFO]
[INFO] Total time: 16.668 s
[INFO] Finished at: 2023-10-25T18:40:30-04:00
[INFO]
[ERROR] Failed to execute goal edu.illinois:nondex-maven-plugin:2.1.1:nondex (default-cli) on project byte-buddy-dep: Unable to ex
ecute mojo: There are test failures.
[ERROR]
[ERROR] Please refer to /home/steve/byte-buddy/byte-buddy-dep/target/surefire-reports for the individual test results.
[ERROR] Please refer to dump files (if any exist) [date].dump, [date]-jvmRun[N].dump and [date].dumpstream.
[ERROR] -> [Help 1]
[ERROR]
[ERROR] To see the full stack trace of the errors, re-run Maven with the -e switch.
[ERROR] Re-run Maven using the -X switch to enable full debug logging.
[ERROR]
[ERROR] For more information about the errors and possible solutions, please read the following articles:
[ERROR] [Help 1] http://cwiki.apache.org/confluence/display/MAVEN/MojoExecutionException
steve@steve:~/byte-buddy$

```

Note: Attached the maven.yaml, ci-build.log, testpass-build.log, non-dex-build.log files to the submission.

