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EPAM Systems, RD Dep., RD Dep.

MTN.*NIX.09

Continuous Delivery with Jenkins

MTN.*NIX.09 Continious Delivery with Jenkins Software build principles

REPORT
Jenkins day 2
STSIAPAN HANCHAR

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Task 1. Maven build

Review

Implement Maven build script for sample project.

Task

- 1. Install Maven
- 2. Clone GitHub project

git@github.com:MNT-Lab/build-t00ls.git

3. Create your own branch based on master by pattern:

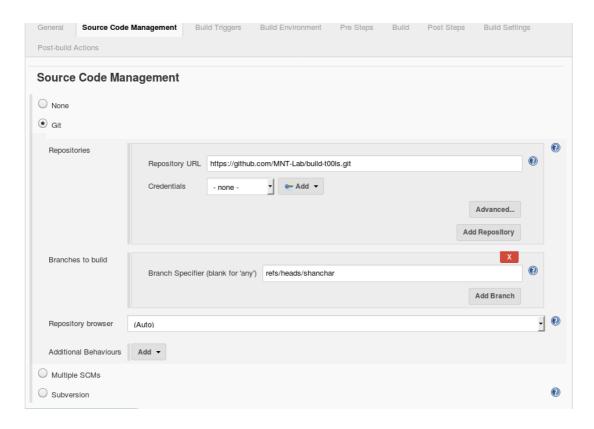
First char of name + surname

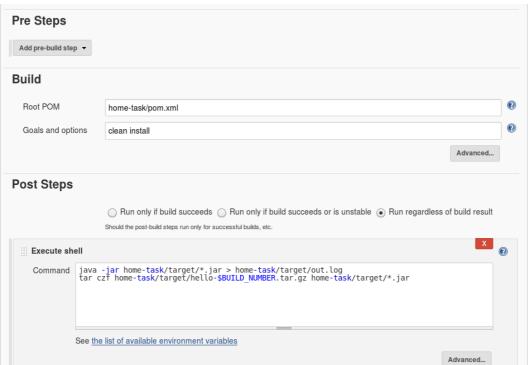
Example: The name of student - Serhei Ivanou. The branch will be sivanou.

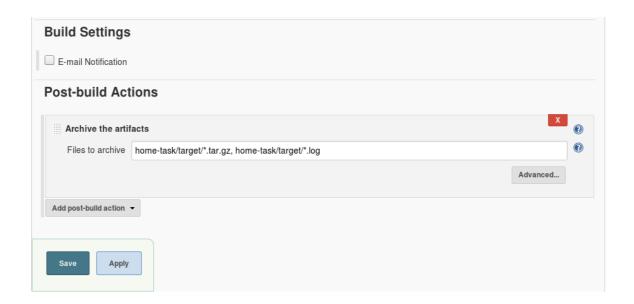
4. Implement pom.xml script to clean, compile, test, create jar file and distribution artifact. (source code in 'src' repo).

```
Earl view Scarcii Terrimial Tresp
[root@k8s-master home-task]# ll
total 8
drwxr-xr-x 9 root root 113 Nov 26 11:55 build
-rw-r--r-- 1 root root 522 Nov 26 11:52 build.gradle
-rw-r--r-- 1 root root 1571 Nov 26 10:19 pom.xml
drwxr-xr-x 4 root root 30 Nov 26 09:28 src
drwxr-xr-x 7 root root 162 Nov 26 13:16 target
[root@k8s-master home-task]# ll target/
total 12
-rw-r--r-- 1 root root 45 Nov 26 13:10 1.txt
-rw-r--r-- 1 root root 22 Nov 26 13:16 2.txt
drwxr-xr-x 3 root root 43 Nov 26 10:19 classes
-rw-r--r-- 1 root root 2652 Nov 26 10:19 hometask-maven-by-pom.jar
drwxr-xr-x 2 root root 28 Nov 26 10:19 maven-archiver
drwxr-xr-x 2 root root
                        6 Nov 26 10:19 surefire
drwxr-xr-x 2 root root 69 Nov 26 10:19 surefire-reports
drwxr-xr-x 3 root root 17 Nov 26 10:19 test-classes
[root@k8s-master home-task]#
```

- 5. All changes should be tracked by commits to own branch
- 6. Push to GitHub
- 7. Setup Jenkins job ("helloworld-sivanou-maven-build"):
 - a) build from repository (poll SCM)
 - b) use maven plugin
 - c) run jar and output save to file 'output.log'
 - d) archive and attach jar file
 ARTEFACT NAME=hello-\$BUILD NUMBER.tar.gz
 - e) attach log file to build (archive artifact)









| TESTS |
|---|
| Running com.test.UnitTest test |
| Tests run: 2, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.215 sec |
| Results : |
| Tests run: 2, Failures: 0, Errors: 0, Skipped: 0 |
| [JENKINS] Recording test results [INFO] |
| [INFO] maven-jar-plugin:3.1.0:jar (default-jar) @ hometask [INFO] Building jar: /var/jenkins_home/workspace/by_pom/home-task/target/hometask-maven-by-pom.jar fINFO] |
| [INFO] maven-install-plugin:2.4:install (default-install) @ hometask [INFO] Installing /var/jenkins_home/workspace/by_pom/home-task/target/hometask-maven-by-pom.jar to /var/jenkins_home/.m2/repository/com/test/hometask/maven-by- |
| pom/hometask-maven-by-pom.jar [INFO] Installing /var/jenkins_home/workspace/by_pom/home-task/pom.xml to /var/jenkins_home/.m2/repository/com/test/hometask/maven-by-pom/hometask-maven-by-pom.pom.pom.pom.pom.pom.pom.pom.pom.pom. |
| [INFO] |
| [INFO] BUILD SUCCESS |
| [INFO] |
| [INFO] Total time: 16.478 s |
| [INFO] Finished at: 2019-11-26T13:30:05Z |
| [INFO] |
| Waiting for Jenkins to finish collecting data [JSNKINS] Archiving /var/jenkins_home/workspace/by_pom/home-task/pom.xml to com.test/hometask/maven-by-pom/hometask-maven-by-pom.pom [JENKINS] Archiving /var/jenkins_home/workspace/by_pom/home-task/target/hometask-maven-by-pom.jar to com.test/hometask/maven-by-pom/hometask-maven-by-pom.jar [by_pom] \$ /bin/sh -xe /tmp/jenkins2709369455001847883.sh channel stopped |
| + java -jar home-task/target/hometask-maven-by-pom.jar + tar czf home-task/target/hello-7.tar.gz home-task/target/hometask-maven-by-pom.jar Archiving artifacts Finished: SUCCESS |

log view:

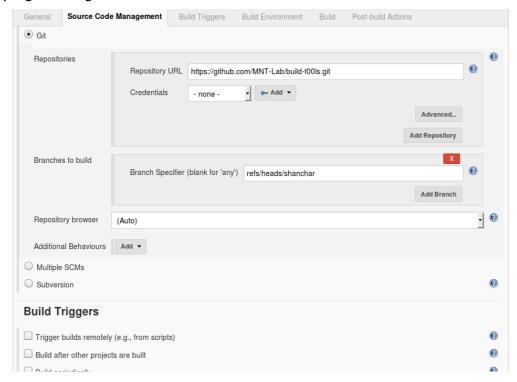


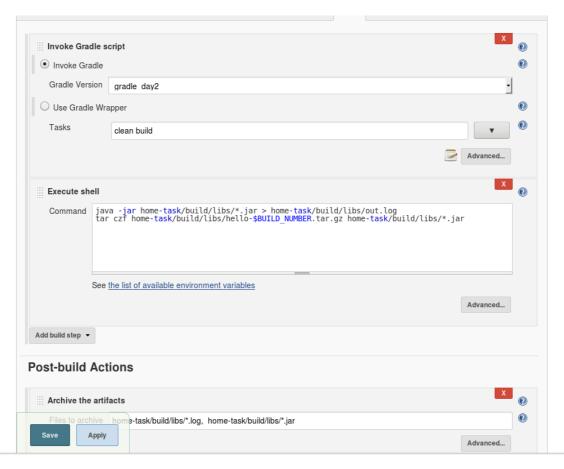
i jenkins/job/by_pom/lastSuccessfulBuild/artifact/home-task/target/out.log/*view*/

Hello, MNT Lab!

BY GRADLE

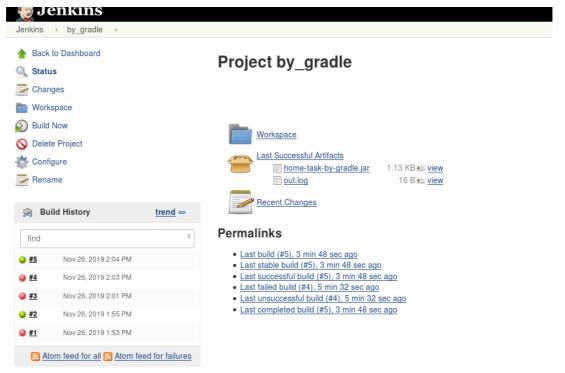
plugin config





```
Building in workspace /var/jenkins home/workspace/by gradle
No credentials specified
> git rev-parse --is-inside-work-tree # timeout=10
Fetching changes from the remote Git repository
 > git config remote.origin.url <a href="https://github.com/MNT-Lab/build-t00ls.git">https://github.com/MNT-Lab/build-t00ls.git</a> # timeout=10
Fetching upstream changes from <a href="https://github.com/MNT-Lab/build-t00ls.git">https://github.com/MNT-Lab/build-t00ls.git</a>
 > git --version # timeout=10
 > git fetch --tags --progress -- https://github.com/MNT-Lab/build-t00ls.git +refs/heads/*:refs/remotes/origin/* # timeout=10
 > git rev-parse refs/remotes/origin/shanchar^{commit} # timeout=10
 > git rev-parse refs/remotes/origin/refs/heads/shanchar^{commit} # timeout=10
Checking out Revision 8367aac65a0ed5894884715f17bb3f63db0a1fce (refs/remotes/origin/shanchar)
 > git config core.sparsecheckout # timeout=10
 > git checkout -f 8367aac65a0ed5894884715f17bb3f63db0a1fce # timeout=10
Commit message: "add gradle"
 > git rev-list --no-walk 8367aac65a0ed5894884715f17bb3f63db0a1fce # timeout=10
[Gradle] - Launching build.
[home-task] $ /var/jenkins home/tools/hudson.plugins.gradle.GradleInstallation/gradle day2/bin/gradle clean build -b build.gradle
Starting a Gradle Daemon (subsequent builds will be faster)
> Task :clean
> Task :compileJava
> Task :processResources
> Task :classes
> Task :jar
> Task :assemble
> Task :compileTestJava
> Task :processTestResources NO-SOURCE
> Task :testClasses
> Task :test
> Task :check
> Task :build
BUILD SUCCESSFUL in 19s
6 actionable tasks: 6 executed
Build step 'Invoke Gradle script' changed build result to SUCCESS
[by gradle] $ /bin/sh -xe /tmp/jenkins5915061421320175772.sh
+ java -jar home-task/build/libs/home-task-by-gradle.jar
+ tar czf home-task/build/libs/hello-5.tar.gz home-task/build/libs/home-task-by-gradle.jar
Archiving artifacts
Finished: SUCCESS
```

build history by gradle



output log



i jenkins/job/by_gradle/lastSuccessfulBuild/artifact/home-task/build/libs/out.log

Hello, MNT Lab!

Report:

Email pattern: [MNT-CD-3]-FirstName-LastName

Contains: GitHub link, Plugin config, Job config, output (screenshot)