

DevOps Exercise

Background

Acme Ltd. Is developing a micro-service using Spring-Boot. Our task is to develop a release script that will follow their development practices correctly.

Acme Development practices

- All development is performed on the master branch
- The master branch is considered “unstable”. Releases are always made from a “Release branch”
- Release branches are called “Release/Major.Minor”, e.g. Release/1.4
- Releases are numbered “Major.Minor.Build”, e.g. 1.4.17 and appear in Git as tags.
- All fixes to a release are performed on the release branch
- Acme use pom.xml to store the version (as do all maven projects)
- In the source control:
 - o All pom.xml in master branch are versioned DEVELOPMENT-SNAPSHOT
 - o All pom.xml in release/1.4 are versioned 1.4-SNAPSHOT (Note: only 2 numbers!)
- In the released product, pom.xml contains the exact version, e.g. 1.4.17 (Note: 3 numbers!). This is not committed.

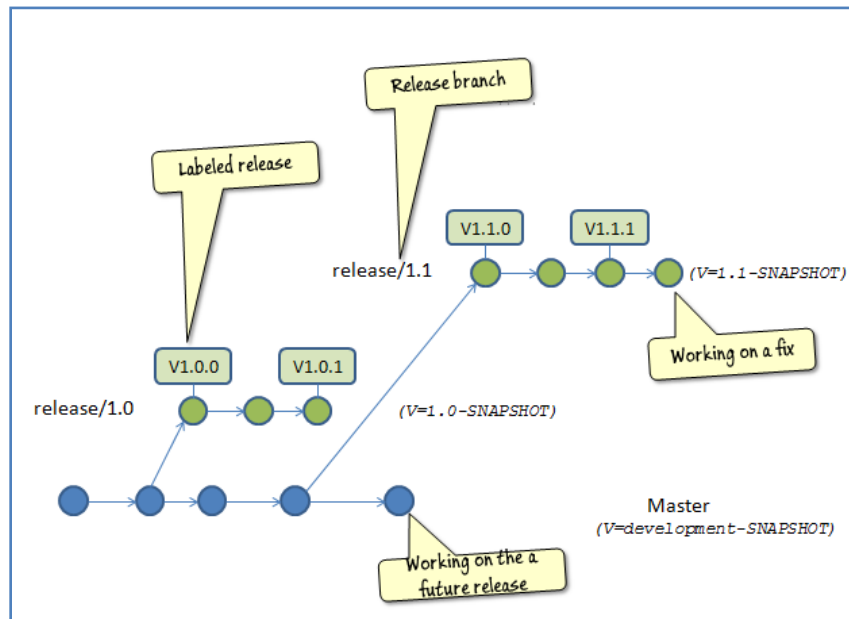


Figure 1: Acme Branches

Note: For this exercise, folding up fixes to master is “out of scope”.

The Exercise

Write a script that accepts a 2-number release (e.g. "1.4") and:

- If there is no such release, opens a branch ("release/1.4"). Otherwise it uses the branch.
 - o Note that if you open a new branch, you need to change the pom and check it in!
- Computes the appropriate build number – 1.4.0 for the first build, 1.4.1 for the second, etc.
- Sets the build number in the pom.xml, but does not check it in. This is crucial.
- Builds the branch
- If successful – attaches a tag, e.g. V1.4.1

In your script please also show where you intend to push to origin (you cannot push, so just "echo" the push command)

Technical Details

- Acme git source repository can be cloned from <https://github.com/ospector/sbdemo.git>
- Building the micro service requires maven. The build command is "mvn install"
- During build, the project does some testing based on MySQL. If you want to skip that during your work, you can add "-DskipTests" to the mvn command