Git Manual

November 12, 2012

1 Git Commands

The following sections will describe our general approach for using git as our version control tool.

1.1 Creating, sharing, and deleting a branch

Each time we want to add new code to our current project, we need to create a new branch:

git checkout -b my_own_branch

On my_own_branch we only commit changes as long as this branch is not shared.

In case we want to share a particular branch with another person, we need to push it:

git push origin shared_branch

As soon as we work on a branch that is shared between several people, our convention to submit code is the following:

1. **Commit** your changes

2. **Pull** changes from other people

3. **Push** your changes

In order to delete branches that are local, use:

git branch -d my_own_branch

For remote branches use:

git push origin :shared_branch

1.2   Merge your changes

Code in a branch should **only** be merged if:

1. The code is clean

2. The code is tested

3. The project compiles

4. The tests succeed

In order to merge, commit your changes, checkout the develop branch and merge develop with your branch:

git commit -a -m "Fixed bug"
git checkout develop
git merge my_own_branch

After all changes have been merged, go to Jenkins:

`http://130.238.15.219:8080/job/frontend-application/`

If the build failed Jenkins will notify you about the build that failed. In that case, create a new branch and fix the bug.
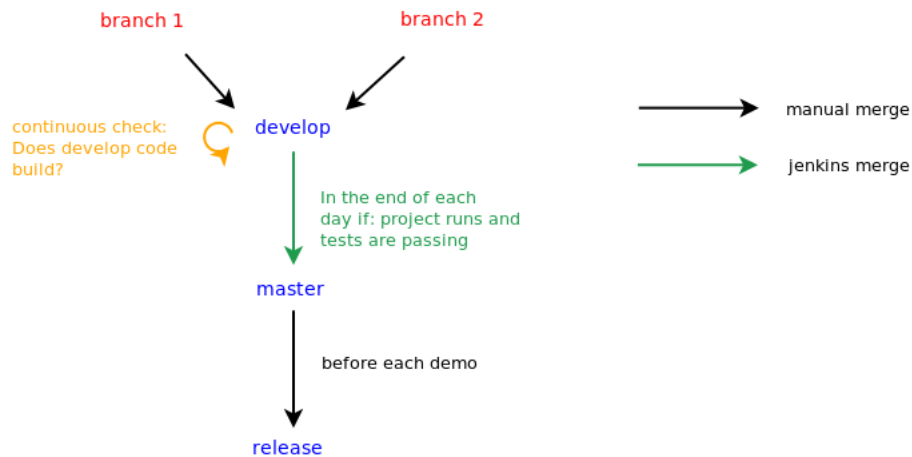
Figure 1: The Git workflow

2 Git workflow

Figure 1 describes our git workflow. Each developer works on his/her own branch and merges the changes made into the develop branch. Jenkins is continuously building all the code on the develop branch, so that any change that fails the build will be reported. The ones that have changed the code and thus introduced a bug will be notified via E-mail about the failed build.

On top of that, Jenkins will merge the develop code into our master branch in the end of each day, if all tests are passing and if the project can be build.

If you want to see the corresponding Jenkins job, that merges the develop code into the master, go to:

```
http://130.238.15.219:8080/job/frontend-test/
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