Rob Menning
Procedure for working with Git environment branching strategy in enterprise setting.

| STEP | LOCAL GIT | LOCAL FILES | REMOTE ('origin') GIT | WORKFLOW | ENVIRONMENT |
|--|---|--|--|--|----------------------------------|
| 0. Clone repository to local. | #if have not already cloned cd to organization directory \$git clone <url></url> | Working copy files match origin master. | Retrieve <url> of repository using 'Clone or download', 'code' button.</url> | | Prod environment matches master. |
| 1. Create a new branch called feature1. | \$cd <repo> \$git checkout master \$git pullrebase origin master \$git checkout -b feature1</repo> | Working copy pointing at feature1. | | | |
| Make changes for feature in working copy files. Commit to feature1 branch. | \$git checkout feature1 \$git diff \$git status \$git add [<file> .] \$git commit -m <comment></comment></file> | feature1 is in modified then staged, then committed states. Working copy pointing at feature1. | | Modify local files to implement feature. | |
| 3. Pull from origin master. | \$git checkout master \$git pullrebase origin master | Local master equals origin master. Working copy pointing at master. | | Resolve merge conflicts. | |
| 4. Merge master into feature1. | \$git checkout feature1 \$git merge master #if conflicts, fix then \$git diff \$git status \$git add [<file> .] \$git commit -m <comment></comment></file> | feature1 and master equal. Working copy pointing at feature1. | | Resolve merge conflicts. | |
| 5. Pull from origin dev. | \$git checkout dev \$git pullrebase origin dev | Local dev equals origin. Working copy pointing at dev. | | Resolve merge conflicts. | |
| 6. Merge feature1 into dev. | \$git checkout dev \$git merge feature1 | feature1 and dev equal. Working copy pointing at dev. | | Resolve merge conflicts. | |

| 7. Push dev to origin dev. | \$git checkout dev \$git push origin dev | | After push feature1 will be in origin dev branch. | Deploy to dev environment. Testing. | Dev environment matches dev. |
|---------------------------------|---|---|---|-------------------------------------|--------------------------------------|
| 8. Pull from origin master. | \$git checkout master \$git pullrebase origin master | Local master equals origin master. Working copy pointing at master. | | Resolve merge conflicts. | |
| 9. Merge master into feature1. | \$git checkout feature1 \$git merge master #if conflicts, fix then \$git diff \$git status \$git add [<file> .] \$git commit -m <comment></comment></file> | feature1 and master equal. Working copy pointing at feature1. | | Resolve merge conflicts. | |
| 10. Pull from origin stage. | \$git checkout stage \$git pullrebase origin stage | local stage equals origin. Working copy pointing at stage. | | Resolve merge conflicts. | |
| 11. Merge feature1 into stage. | \$git checkout stage \$git merge feature1 | feature1 and stage equal. Working copy pointing at stage. | | Resolve merge conflicts. | |
| 12. Push stage to origin stage. | \$git checkout stage \$git push origin stage | | After push feature1 will be in origin stage branch. | Deploy to stage environment. UAT. | Staging environment matches staging. |
| 13. Pull from origin master. | \$git checkout master \$git pullrebase origin master | Local master equals origin master. Working copy pointing at master. | | Resolve merge conflicts. | |
| 14. Merge master into feature1. | \$git checkout feature1 \$git merge master #if conflicts, fix then \$git diff \$git status \$git add [<file> .]</file> | feature1 and master equal. Working copy pointing at feature1. | | Resolve merge conflicts. | |

| | \$git commit –m <comment></comment> | | | | |
|---|-------------------------------------|---------------------------|--------------------------|-----------------------|------------------|
| 15. Push feature1 to feature1. | \$git checkout feature1 | Working copy pointing | After push feature1 will | | |
| | \$git push origin feature1 | at feature1 | be in origin feature1 | | |
| | | | branch. | | |
| 16. Create a pull request. | | | Create a pull request. | Final reviews, | |
| | | | | approvals. | |
| 17. Complete the pull request merge into | | | Complete pull (merge) | Deploy to production. | Prod environment |
| master. | | | from feature1 to master. | Post deploy testing. | matches master. |
| | | | | | |
| 18. Pull from origin master. | \$git checkout master | Local master equals | | | |
| | \$git pullrebase origin master | origin master. | | | |
| | | Working copy pointing | | | |
| | | at master. | | | |
| After post deploy testing, clean up feature1. | \$git brahchall | feature1 deleted locally. | feature1 deleted from | | |
| | \$git pushdelete origin feature1 | | origin. | | |
| | \$git branch -d feature1 | | | | |
| | \$git brahchall | | | | |

© 2021 Rob Menning www.robmenning.com 20210716