Using Git for Programming Projects

Setting up a Project

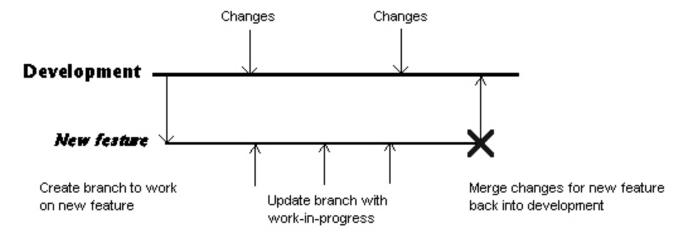
- At the beginning of a Project, it's a good opportunity to set the workflows for the team to use during the project implementation
- These workflows may include:
 - Choose CVS
 - Setup Repository
 - Set folder structure

What is a CVS

- Concurrent Versions System
- Facilitates Collaboration on Projects
- Provides
 - Central location where the project is stored
 - Tools to synchronize project between local machine and server
- Examples: Git, Svn, Mercurial, Perforce

CVS Terminology

- Repository: Server where Project is stored
- Revision: Version of the Project
- Master Branch/Trunc: Reference branch
- Branch: Fork of the Project



Git

- Popular Open source CVS
- Integrated on many IDE (Netbeans/Eclipse/Xcode)
- Command-line tool http://git-scm.com
- BitBucket.com: Free repository online
- GitHub.com: Another free repository online
- Fun Introduction Tutorial (15 minutes)

http://try.github.io/levels/1/challenges/1

Some Git Commands

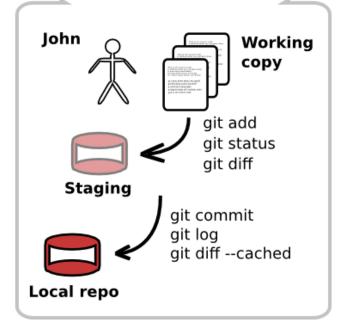
- Clone: Fetch Project from Remote Repository
- Add: Add files for next commit
- Commit: Create new revision
- Pull: Update local Project to latest revision
- Push: Update repository with local commits
- Status: View files staged to be committed

... see the documentation for more commands ...

Local Git Workflow

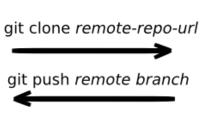
Git & Github Workflow

blog.jr0cket.co.uk

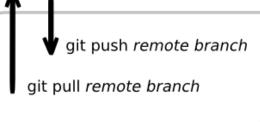




(Github website)









(Github website)

Github repo

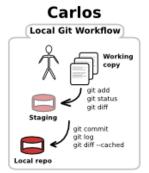
git log --decorate --graph --oneline

Remote



git push remote branch

* must be given access to repository on Github to push



Setup Git Repository

- Create account on GitHub
- 2. Create new repository with a Readme file
- Get a copy of the git repository locally git clone [repository name]
- 4. Add index.html file in the git folder
- 5. Commit the file locally git add index.html git status (your should see index.html staged for commit) git commit –m "Added index.html"
- Push your local git repository to the server git push [repository name] master
- 7. Goto Step 4 for more changes

Folder Structure

```
/website
/content
/css
/js
 index.html
 page2.html
```