

Git Basics

SETUP & INIT

Configuring user information, initializing and cloning repositories

git init

initialize an existing directory as a Git repository

git clone [url]

retrieve an entire repository from a hosted location via URL

STAGE & SNAPSHOT

git status

show modified files in working directory, staged for your next commit

git add [file]

add a file as it looks now to your next commit (stage)

git reset [file]

unstage a file while retaining the changes in working directory

git commit -m "[descriptive message]"

commit your staged content as a new commit snapshot

BRANCH & MERGE

Isolating work in branches, changing context, and integrating changes

git branch

list your branches. a * will appear next to the currently active branch

git branch [branch-name]

create a new branch at the current commit

Git Basics

git checkout

switch to another branch and check it out into your working directory

git merge [branch]

merge the specified branch's history into the current one

git log

show all commits in the current branch's history

Basic workflow for creating a branch and merging it with master branch.

- Create a branch and switch to that branch,
 - `git branch <branch_name>`
 - `git checkout <branch_name>`
- Make the changes in the files.
 - `git add -A`
 - `git commit -m"<commit_msg>"`
- Push this to remote repository.
 - `git push -u origin <branch_name>`
- Merge with master (only after extensive testing)
- In order to merge, first make master as active branch.
- Then pull master from remote repo and merge it. Then push the updated master.
 - `git checkout master`
 - `git merge <branch_name>`
- Git push origin master
- To delete the branch from local and remote repo.
 - `git branch -d <branch_name>`
 - `git push origin -delete <branch_name>`