Git tutorial

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1 Useful git commands

Remote refers to the repository. Local refers to a file or branch on your machine. Note that local branches will not be added to the repository unless they are pushed. To work with a remote-tracking branch, you can pull from it to a local branch.

Please do not commit anything other than source code (i.e., do not commit any observation or CSV files generated from simulations). Also, do not leave the commit message empty.

Branching	
List all (local) branches	`git branch`
List all (local + remote) branches	`git branch -a`
Create a new (local) branch	`git branch <new branch name>`
Check out (switch to) a (local) branch	`git checkout <my branch>`
Update list of branches	`git fetch`
Merge from local branch to checked-out branch	`git merge <branch to merge from>`

Pulling	
Pull changes from master branch on remote and merge into checked-out branch	`git pull origin master`
Pull from a branch on the remote	`git pull origin <remote branch>`

Adding/removing/committing	
Check status of checked-out branch	`git status`
Add a file or folder to be commited	`git add <file/folder name>`
Remove a file	`git rm <file name>`
Commit a file to the checked-out branch	`git commit -m "<commit message>"` (`git commit` will open an editor)
Push a branch to the repository	`git push origin <my branch>`

Miscellaneous	
Save working directory without committing (useful when wish to switch branches)	`git stash`
Continue from where stashed	`git stash pop`

2 Accessing the repository

Generate a public RSA key (you may need to install OpenSSH first):

1. `cd` into the `.ssh` directory in your home folder (e.g., `\home\ewah\.ssh`)
2. Run the following command: `ssh-keygen -t rsa -C "<youremailhere>"`
3. Enter a non-empty passphrase when prompted.
4. Email me the `id_rsa.pub` file.

To clone the repository, first create a new directory, and `cd` into it. Then enter the following command:

```
git clone git@hft.eecs.umich.edu:hft.git .
```