

## Git Command line basics

Working dir → Staging Area → repository  
add                      commit

```
$ git --version
```

```
$ git config --global user.name "Zongming Yang"
```

```
$ git config --global user.email "zongmiy@clemsn.edu"
```

```
$ git config --list
```

```
$ git config --help | git help config, git help <verb> or git <verb> --help
```

1. initialize a repository from existing code

```
$ git init
```

2. before first commit

```
$ git status
```

add .gitignore file:

### ADD GITIGNORE FILE

```
.DS_Store  
.project  
*.pyc
```

```
.DS_store  
.project  
.xxx
```

3. add files to staging area

### ADD FILES TO STAGING AREA

```
$ git add -A  
$ git status
```

```
$ git add note.txt
```

```
$ git add -A
```

```
$ git reset note.txt
```

```
$ git reset
```

4. commit locally

```
$ git commit -m "some message"
```

```
$ git log
```

5. cloning a remote repo

```
$ git clone <url> <destination>
```

6. view info about remote repository

```
$ git remote -v
```

```
$ git branch -a // show all branch including remote repo
```

```
$ git branch // show local branch
```

7. push changes

## PUSHING CHANGES

COMMIT CHANGES LIKE WE DID PREVIOUSLY

```
$ git diff
$ git status
$ git add -A
$ git commit -m "Modified multiply function"
```

THEN PUSH:

```
$ git pull origin master
$ git push origin master
```

8. create a branch for desired feature

```
$ git branch cal-divide
```

```
$ git branch
```

```
$ git checkout cal-divide // switch to this branch
```

```
$ git branch
```

9. push branch to remote after commit

```
$ git push -u origin calc-divide
```

```
$ git branch -a
```

10. merge a branch

## MERGE A BRANCH

```
$ git checkout master
$ git pull origin master
$ git branch --merged
$ git merge calc-divide
$ git push origin master
```

11. delete a branch

## DELETING A BRANCH

```
$ git branch --merged  
$ git branch -d calc-divide  
$ git branch -a  
$ git push origin --delete calc-divide
```

\$ git branch -d xxx // delete locally

\$ git push origin --delete xxx // delete remotely