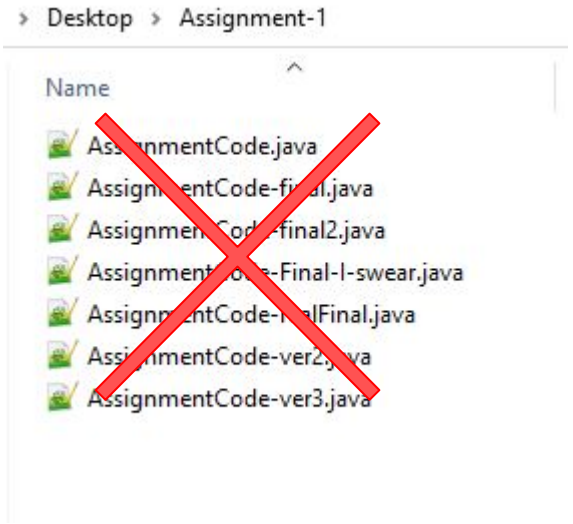
Intro to Git

Starting at 2.05pm

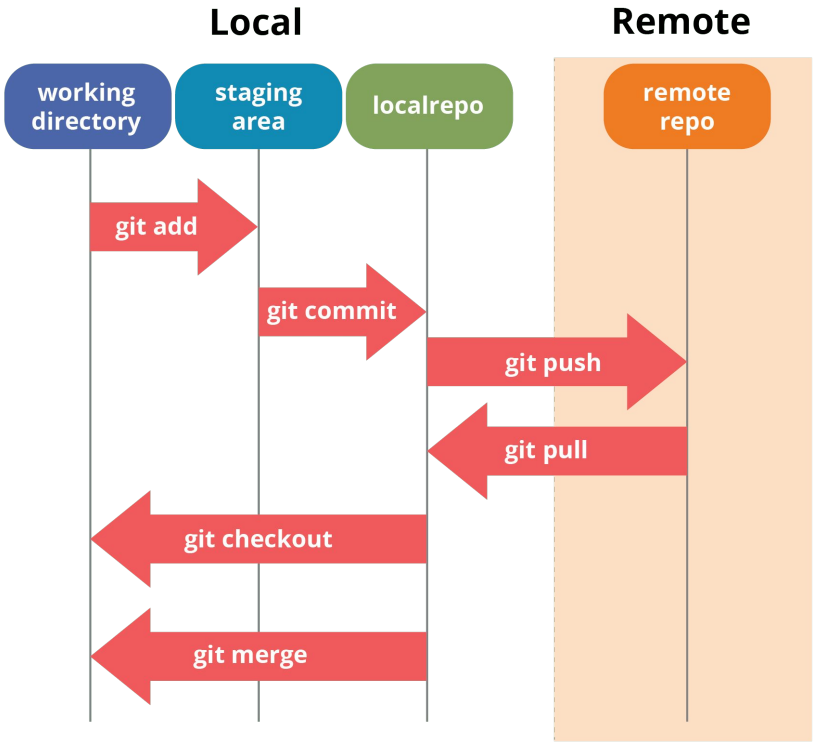
What does Git do?

- Track changes
- Collaborative development
- Installing Git
  - https://git-scm.com/book/en/v2/Getting-Started-Installing-Git



Structure of Git

- Can keep track of your own changes in your local repository
- Can collaborate using remote repositories

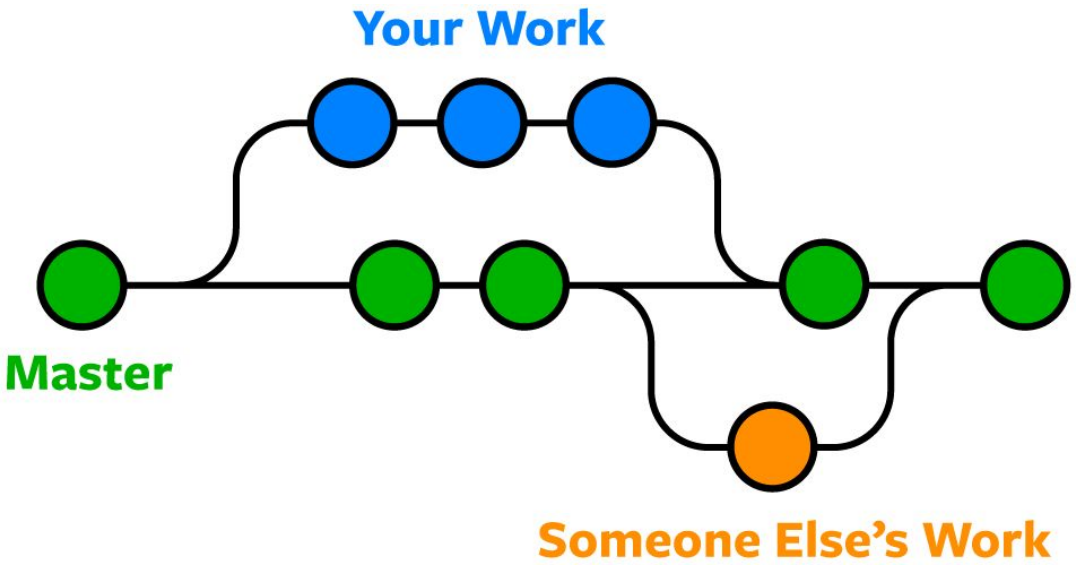


Using GitHub for Remote Repository

- Free hosting of remote repositories
- Other hosting sites:
  - GitLab
  - BitBucket
  - AWS CodeCommit
  - Azure DevOps

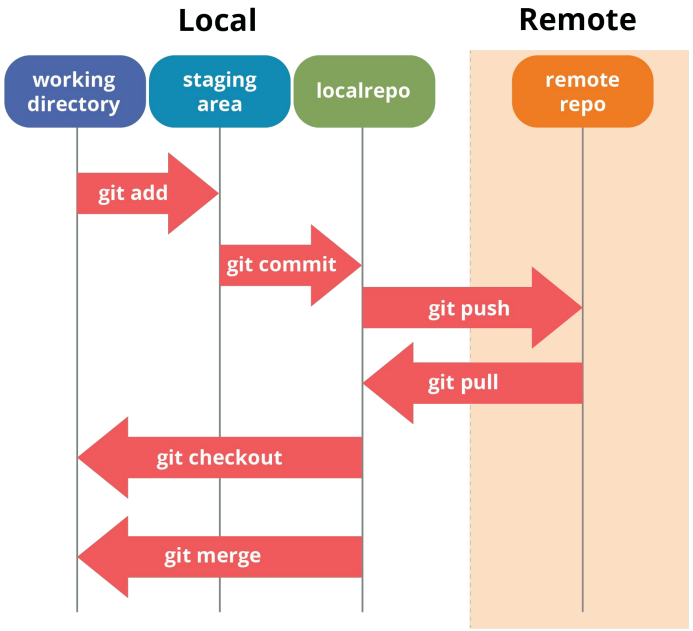
Demo!

Branching



Summary

- Changes in the local repo isn't reflected in the remote repo until you push
- Pull to update your local repo with changes in the remote repo
- Use branches to prevent breaking the main branch
- Use .gitignore to prevent commiting unwanted files
- Can use terminal to perform git commands or programs helps visualising
  - GitHub Desktop
  - GitKraken
  - Git Extensions



Git Commands Summary Sheet

```
git clone <url> // clone a remote repository

git status // current status of the repo and staging area

git add . // stage all changes

git add *.py // stage all changes in .py files

git add file1.py file2.py // stage changes in file1.py and file2.py

git commit -m “commit message” // commit staged changes to local repository

git push // push changes in local repository to remote repository

git pull // pull remote changes into local repository
```

Git Commands Summary Sheet

```
git branch <branch_name> // make a new branch

git merge <branch_name> // merge a branch into the current branch

git checkout <branch_name> // switch to another branch

git checkout <commit_hash> <path_to_file> // revert changes to a file

git reset --hard // throws away all uncommitted changes (be careful)
```

Thank you!

Feedback form: https://forms.gle/PtphhwKygpGwKFHq5