

USING GIT

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SWPP Practice Session

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Assignment

- <https://github.com/aqjune/swpp202001-assn1>
- In order to do this, you need to sign up for GitHub
- Due date: Mar. 25 (Wed) midnight
- Submit your GitHub link through the Google form

LET'S INSTALL GIT!

- Ubuntu: ``sudo apt install git``
- Windows: <https://git-scm.com> or enable WSL
- Mac: <https://git-scm.com> or ``brew install git``

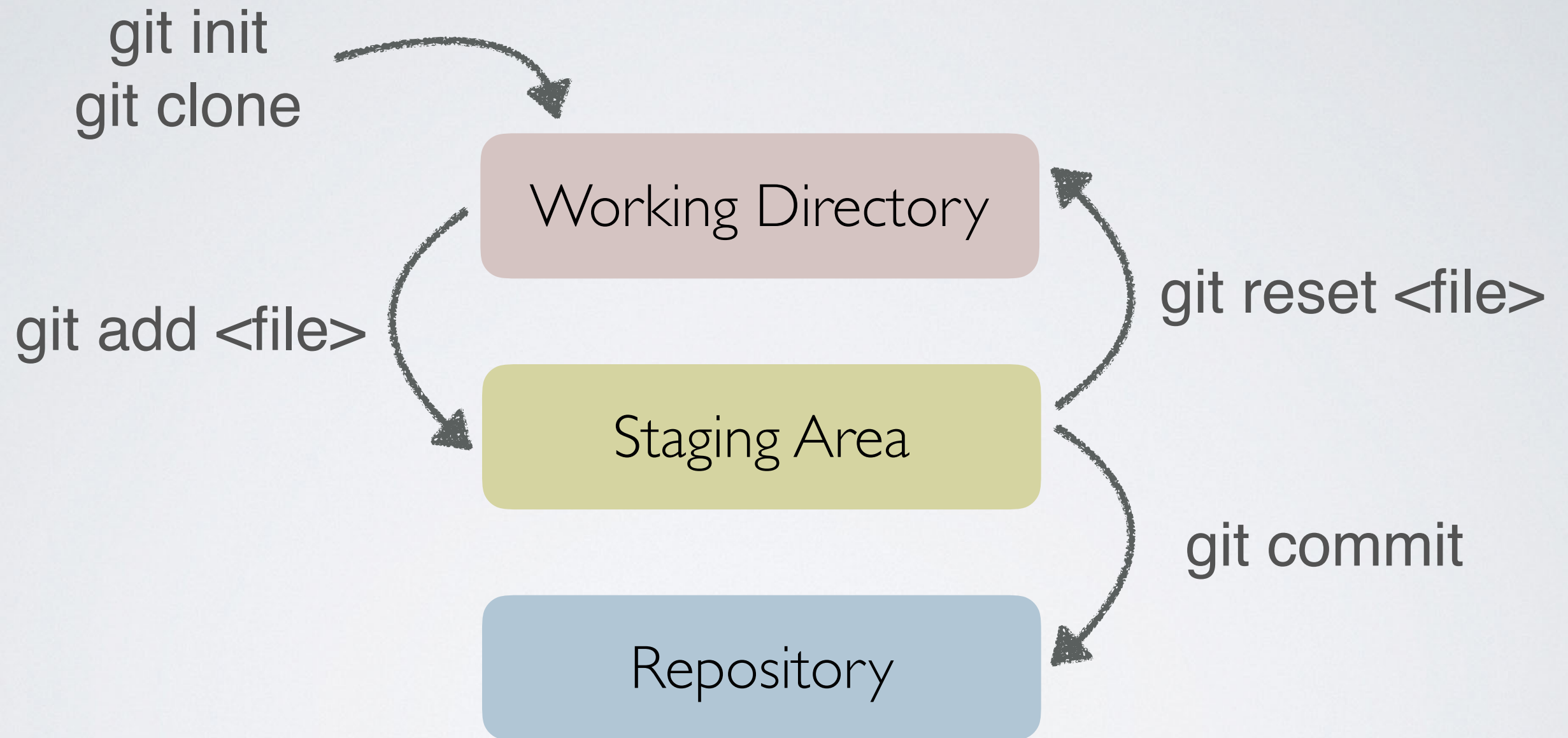

```
git clone https://github.com/aqjune/swpp202001-assn1.git
```

- Commit
- Branch
- Merge
- Rebase
- Checkout branches from a remote repo

GIT COMMIT

- Let's update hello.cpp so it prints your GitHub ID
(If you didn't sign up yet, use your name)
- Then, run ``git commit``
- See `'git log'`

Git 101



MAKE A BRANCH

- Branch 'food': Let's print your favorite food
- `git checkout -b food`
- `git add hello.cpp`
- `git commit`
- `git checkout master` # Let's come back to master

MAKE A BRANCH - 2

- Branch 'drink': Let's print your favorite drink
- `git checkout -b drink`
- `git add hello.cpp`
- `git commit`
- `git checkout master` # Let's come back to master

MERGE FOOD

- git branch # should be 'master'
- git merge food
- git log

MERGE DRINK

- `git merge drink`
- Fix conflict
- `git add hello.cpp`
- `git commit`

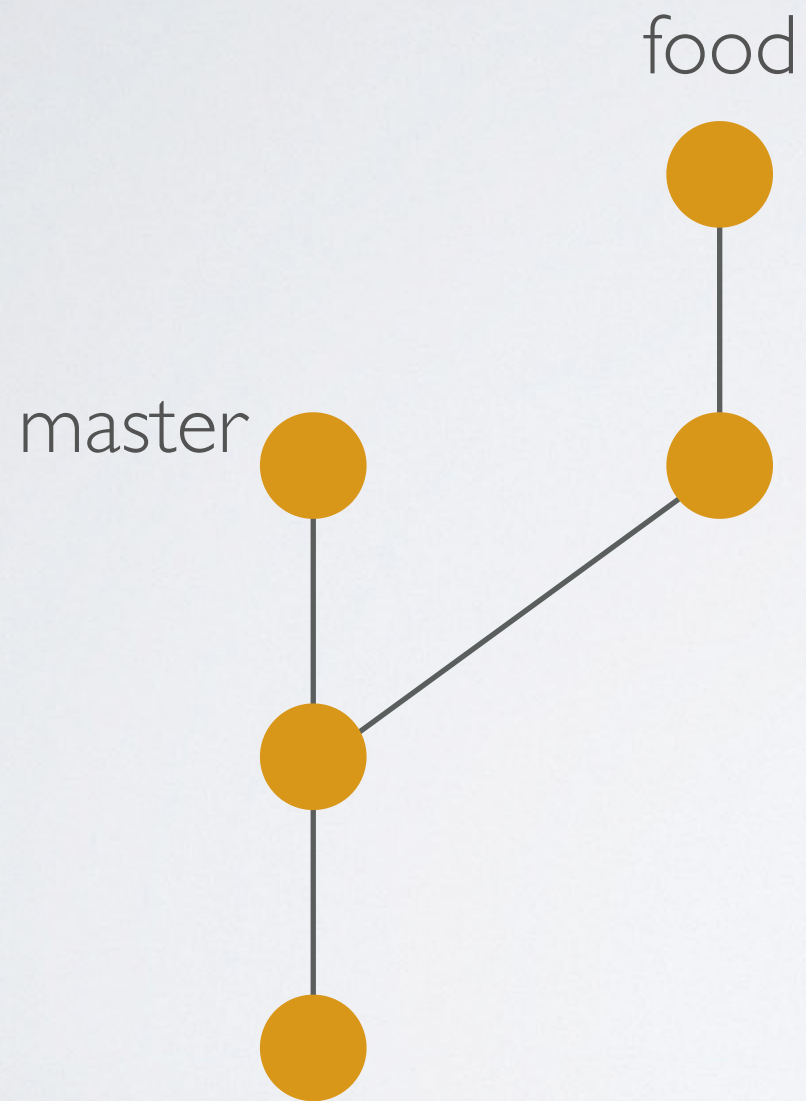
Git

- **git init <directory>**
 - initializes a new git repository
- **git clone <url>**
 - initializes a new git repository
- **git add <file>**
 - stages a change
- **git commit**
 - saves the snapshot
- **git status**
 - shows the status of changes
- **git log**
 - shows commit log (history)

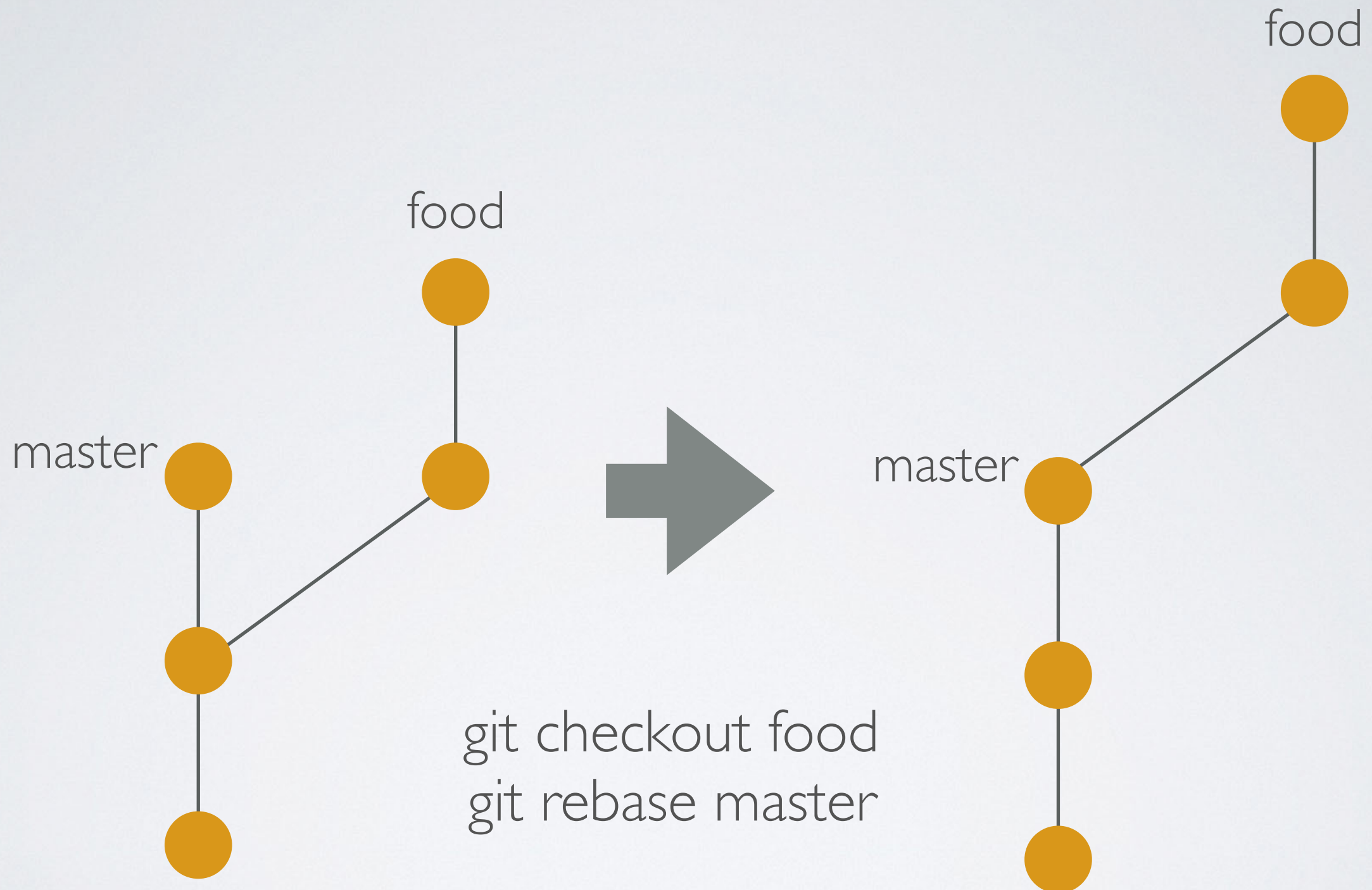
MERGE COMMITS ARE UGLY!

- Can we make the history of master linear after merge?
- Yes, but you should do ``git rebase`` first

REBASE



REBASE



Now, 'git merge food' does not make a merge commit

GIT REBASE IS USEFUL

- ``git rebase -i`` allows you to edit commit history
- Change commit messages, delete commits, etc..

GETTING BRANCHES FROM REMOTE REPO

- ``git branch`` won't show `bugfix/usemap` branches that are needed for your homework
- You need to checkout them from remote
- `git checkout -b bugfix origin/bugfix`
- `git checkout -b usemap origin/usemap`