

# "FINAL".doc



FINAL.doc!



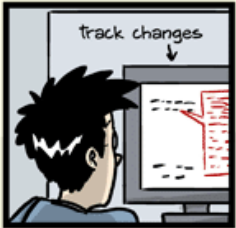
FINAL\_rev.2.doc



FINAL\_rev.6.COMMENTS.doc



FINAL\_rev.8.comments5.  
CORRECTIONS.doc



FINAL\_rev.18.comments7.  
corrections9.MORE.30.doc



FINAL\_rev.22.comments49.  
corrections.10.##\$%WHYDID  
ICOMETOGRADSCHOOL????.doc



JORGE CHAM © 2012

## Load Game



10/19/2012 - 16:03  
AUTOSAVE: Game 1  
Geoscape - 5:32 am July 19 2015



10/18/2012 - 15:15  
Game 1  
Geoscape - 5:32 am July 19 2015



10/17/2012 - 22:21  
Game 1  
Operation Lost King (Alien Terror Attack in Durban!) - Durban, South Africa 10:57 am



10/17/2012 - 21:20  
Game 1  
Geoscape - 2:17 pm June 4 2015

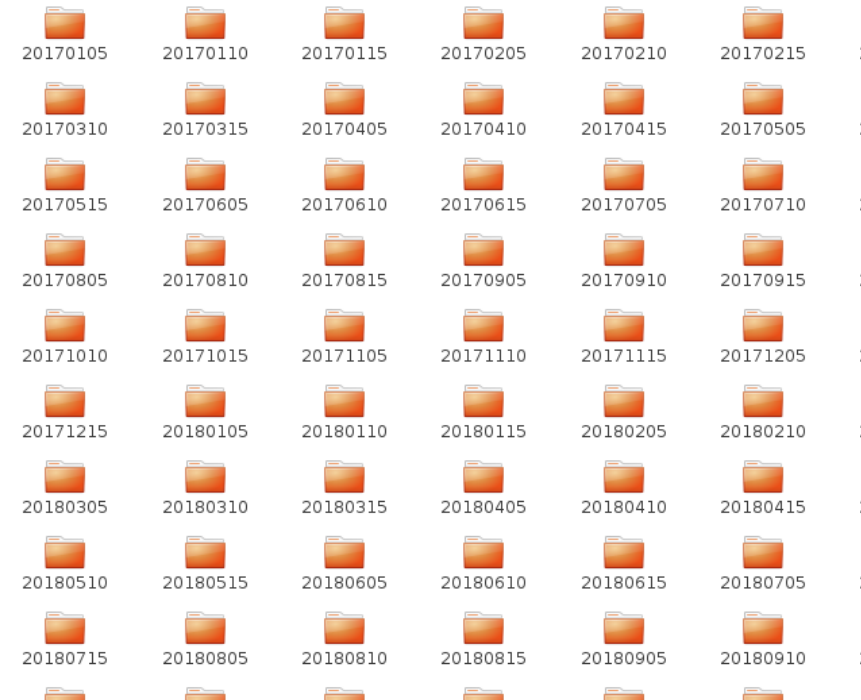
BACK

DELETE GAME

NEXT



Computer-Hope.com



# ACCESSIBILITY

**SPICED**



Office - Home

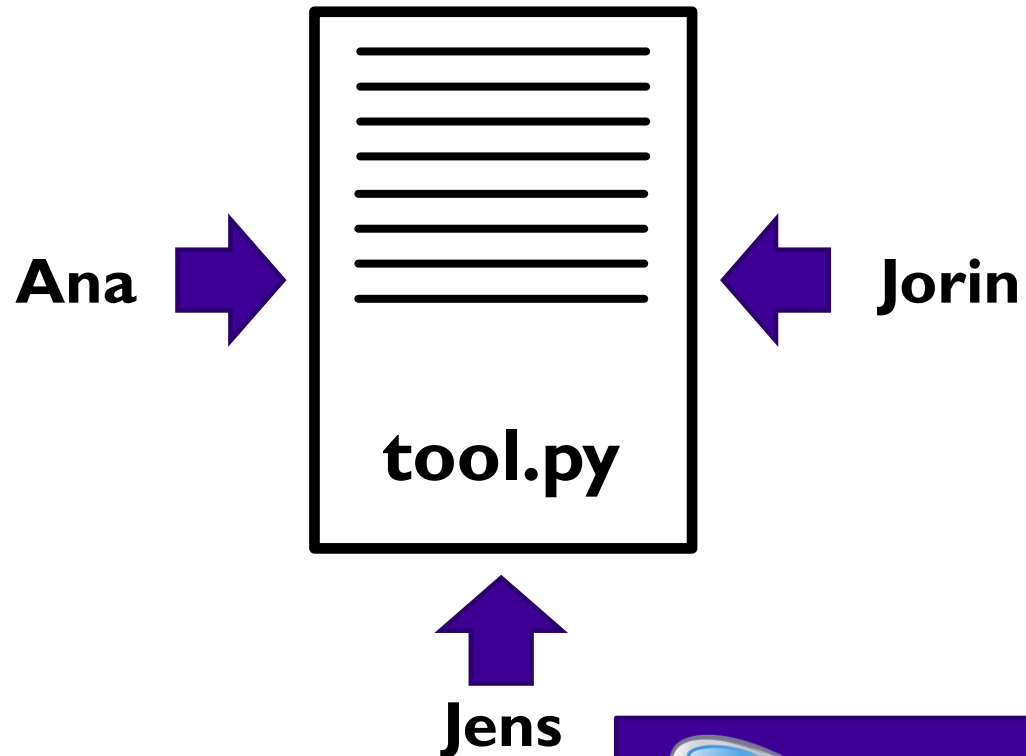


Desk - Couch



# COOPERATIVITY

**SPICED**

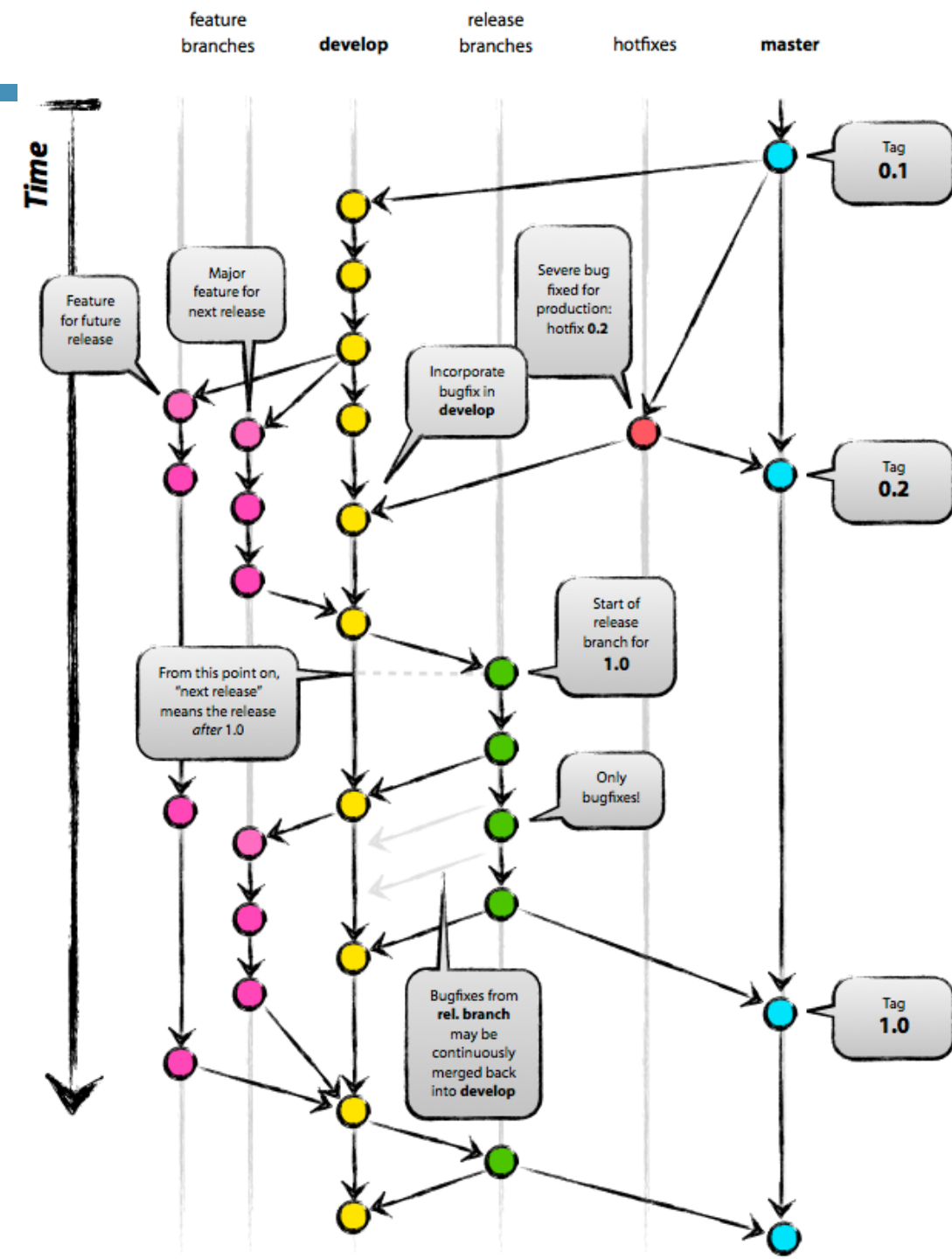


Date	Author	Change
05/03/2018 – 4.03 pm	Jens	Create draft
05/03/2018 – 4.10 pm	Ana	Added chapter I
05/03/2018 – 6.08 pm	Jorin	Added feature X
05/03/2018 – 6.30 pm	Jorin	Debugged feature X
06/03/2018 – 11.40 am	Ana	Added feature Y
06/03/2018 – 2.30 pm	Ana	Changed feature X
07/03/2018 – 6.01 pm	Jens	Added feature Z



# DEVELOPMENT

- Programming is non-linear
- Latest version is not necessarily the most stable one
- New features often break existing functions



# GIT

SPICED

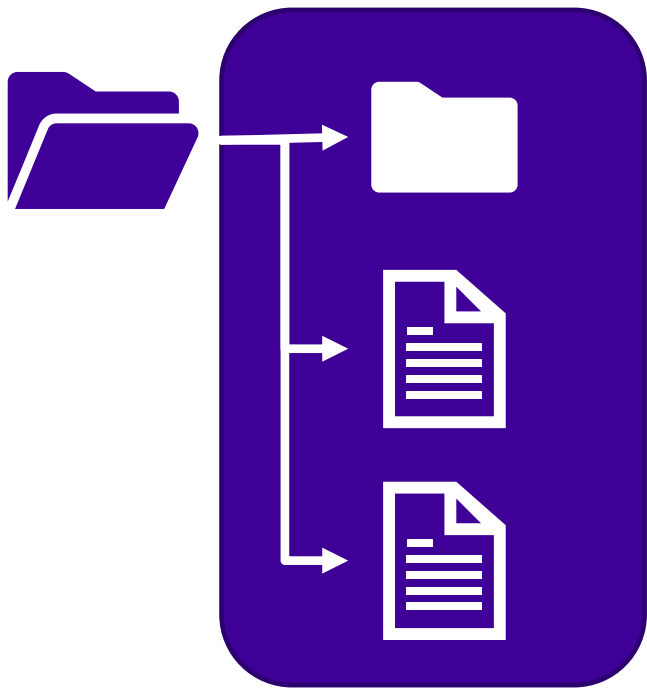
- Free open source versioning control software (VCS)
- Versioning of folders (repositories)
- Tracking of all changes (commits)
- Different 'versions' of your files (branches)

Name	2015	2017	2018
Git	69.3%	69.2%	87.2%
Subversion	36.9%	9.1%	16.1%
TFVC	12.2%	7.3%	10.9%
Mercurial	7.9%	1.9%	3.6%
CVS	4.2%	[ii]	[ii]
Perforce	3.3%	[ii]	[ii]
VSS	[ii]	0.6%	[ii]
ClearCase	[ii]	0.4%	[ii]
Zip file backups	[ii]	2.0%	7.9%
Raw network sharing	[ii]	1.7%	7.9%
Other	5.8%	3.0%	[ii]
None	9.3%	4.8%	4.8%

# DISTRIBUTED VCS

**SPICED**

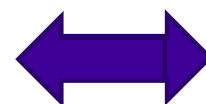
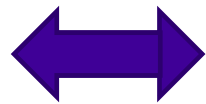
Your computer



Server



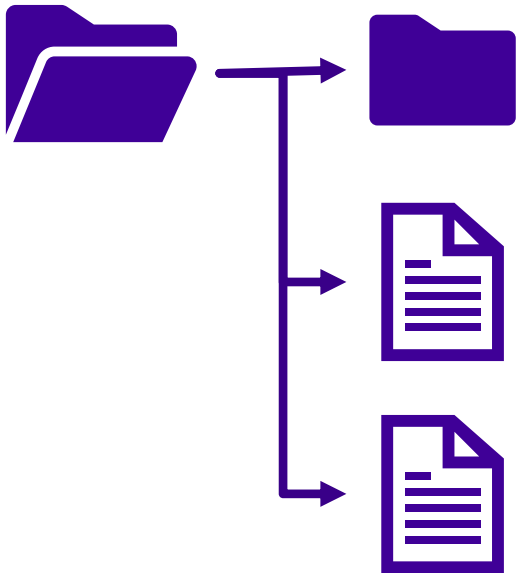
Other PC



# THE REPOSITORY

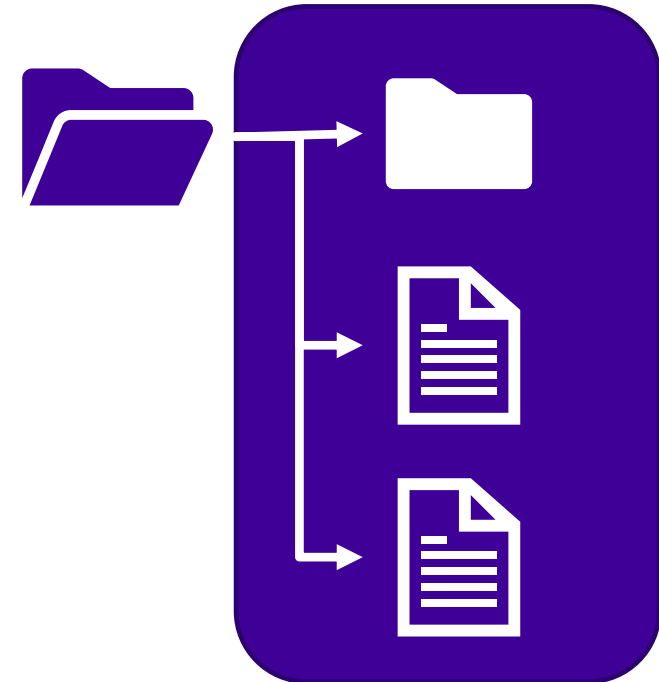
**SPICED**

File on my computer



~~git init~~

Turn into repository



## Get files from remote repository



`https://<personal access token>@github.com/spicedacademy/ordinal-oregano-student-code.git`



# CLONING

**SPICED**

local repository

remote repository

local repository

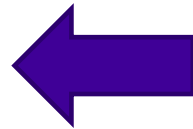
Ana

Server

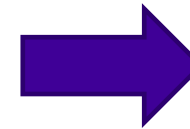
Jens



git clone

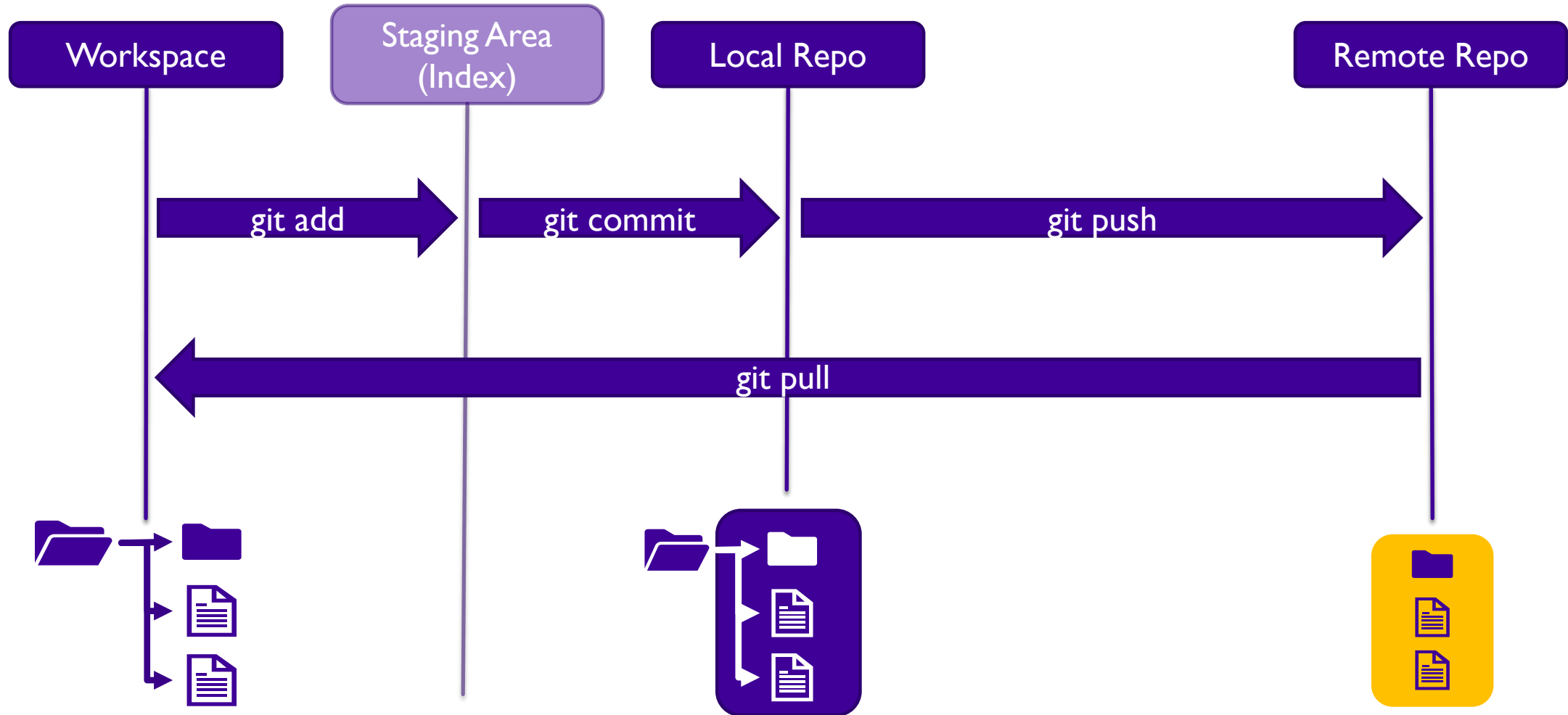


git clone

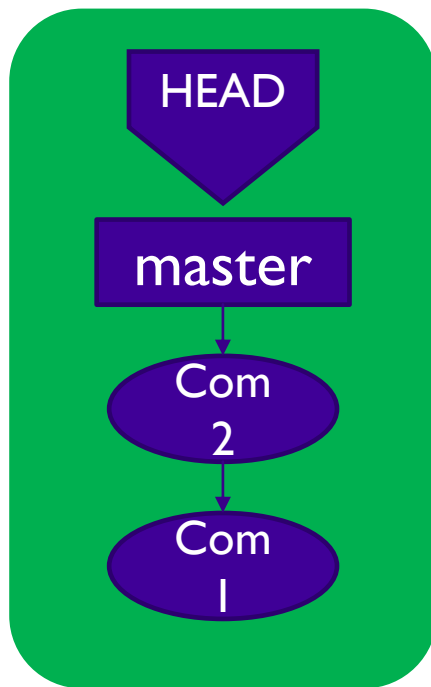


# THE REPOSITORY

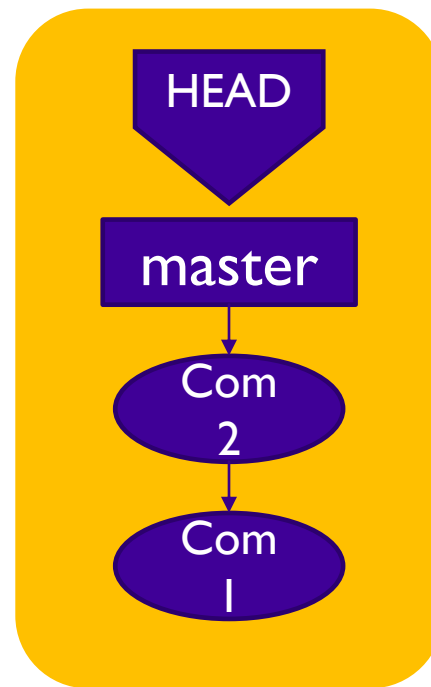
SPICED



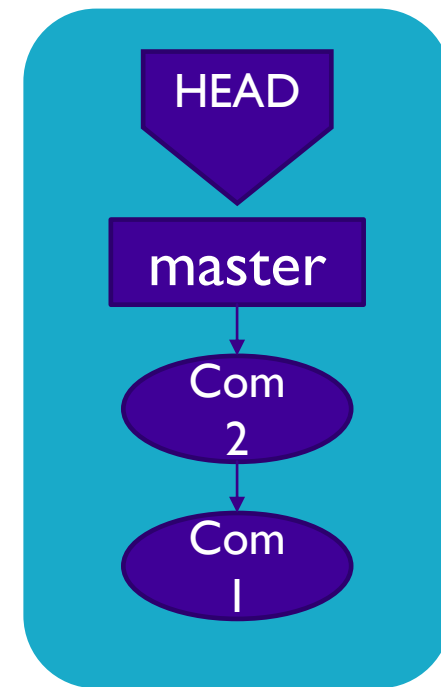
Ana



Server



Jens

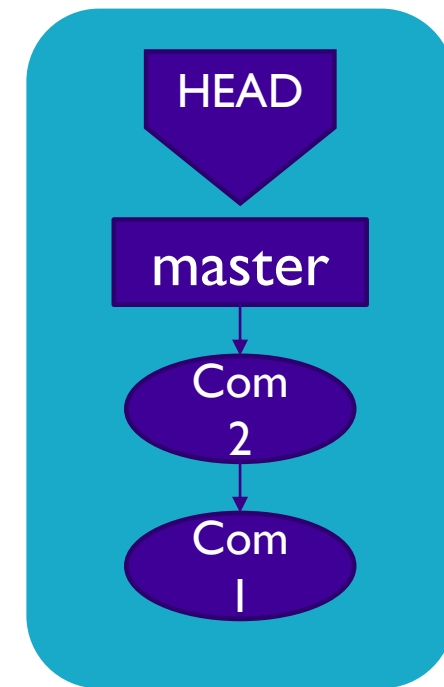
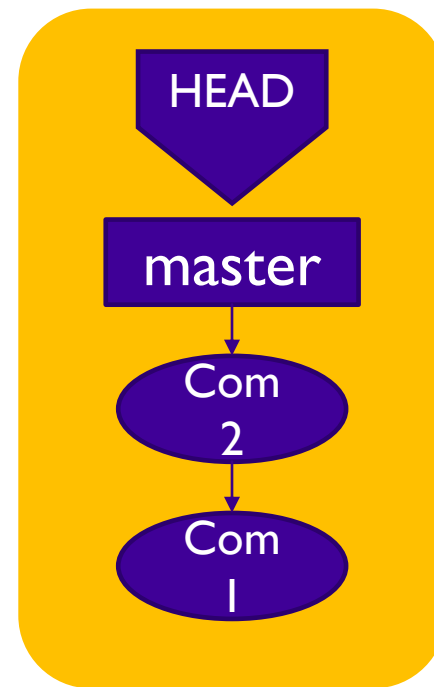
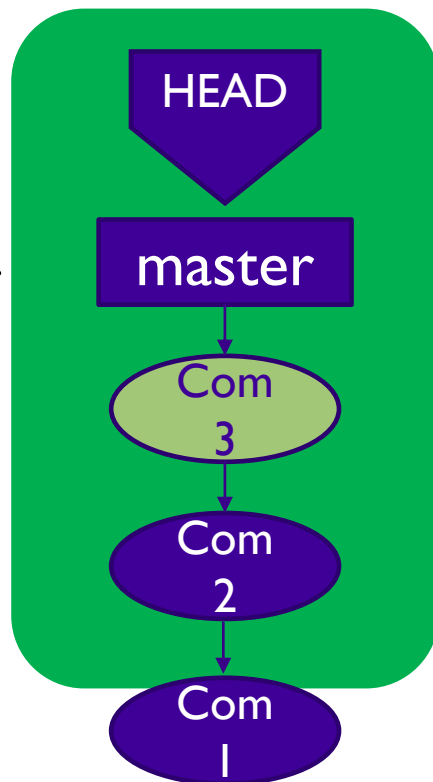


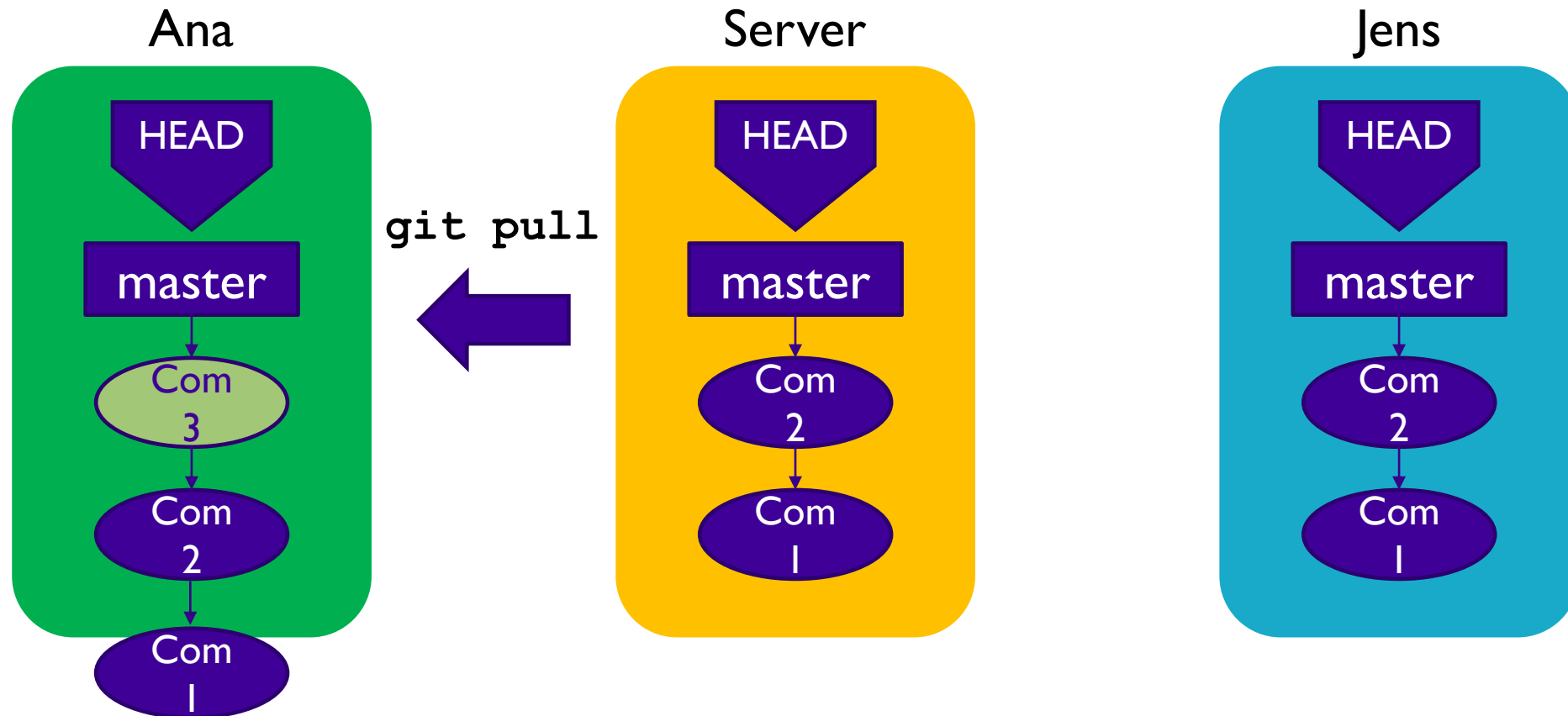
Ana

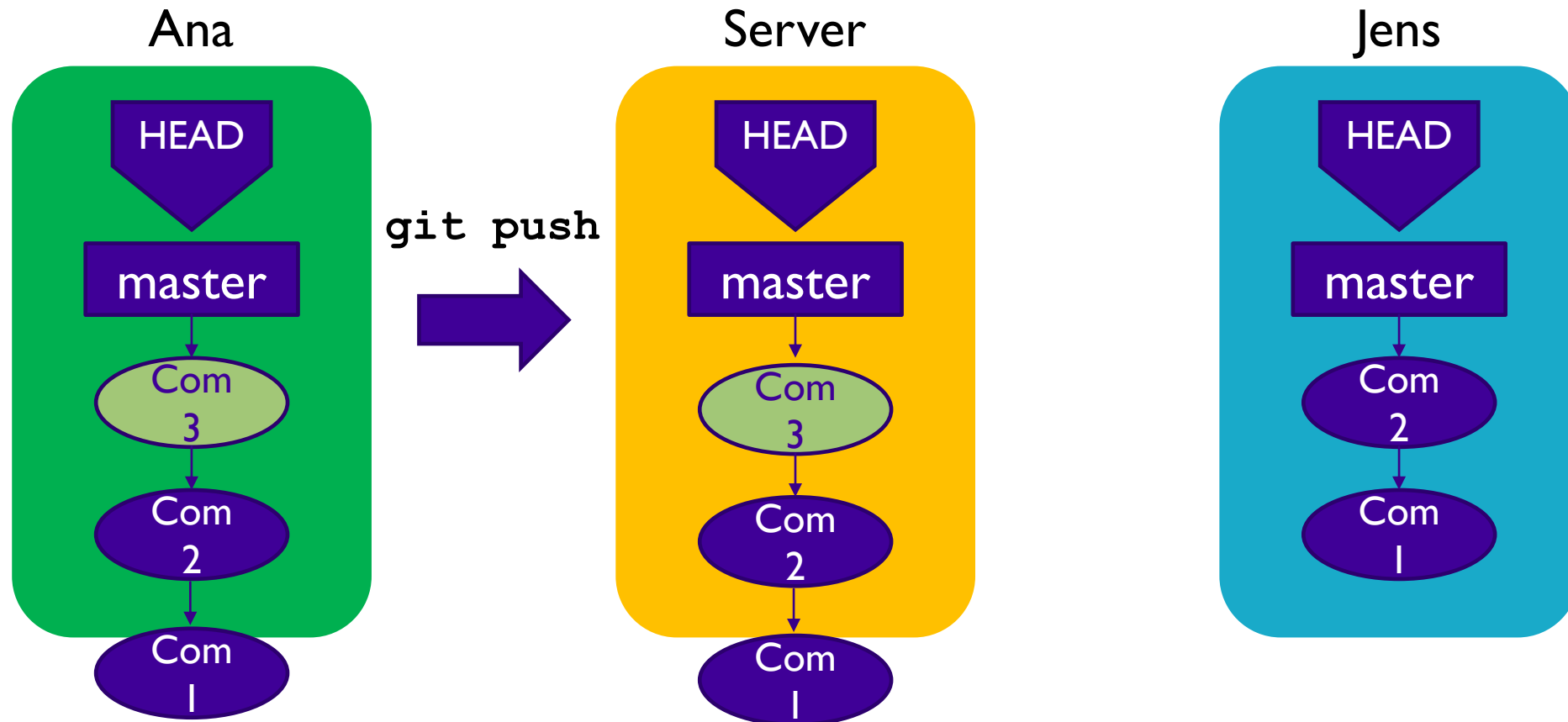
Server

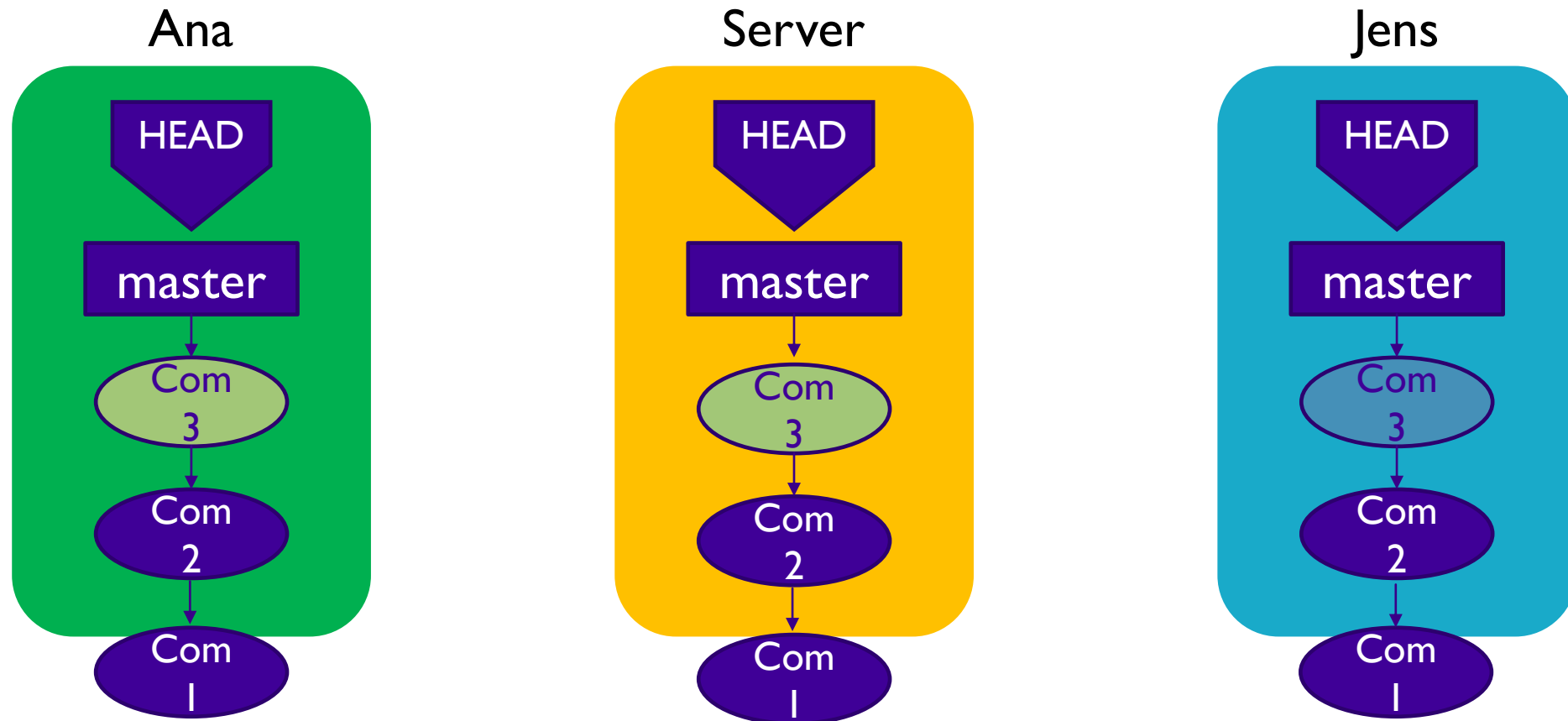
Jens

git commit

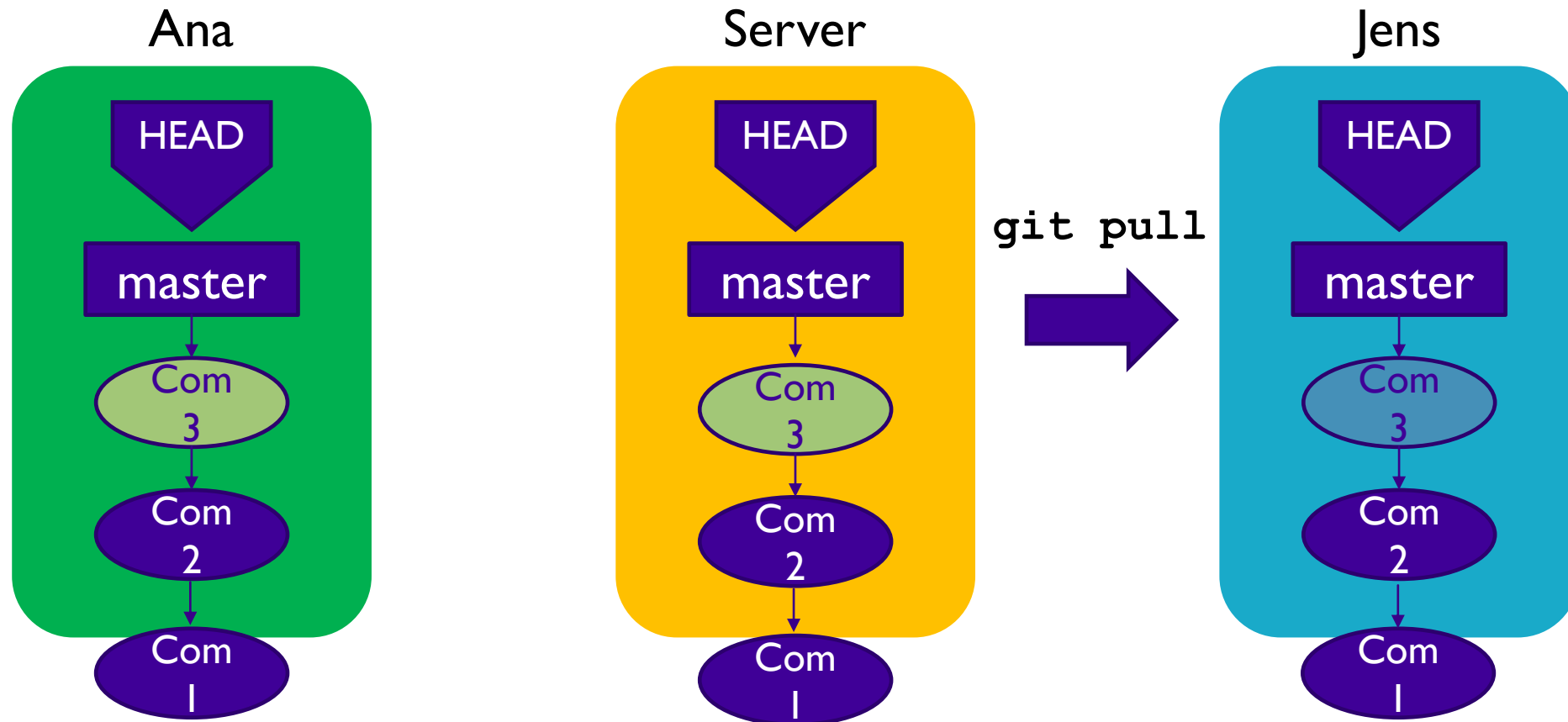




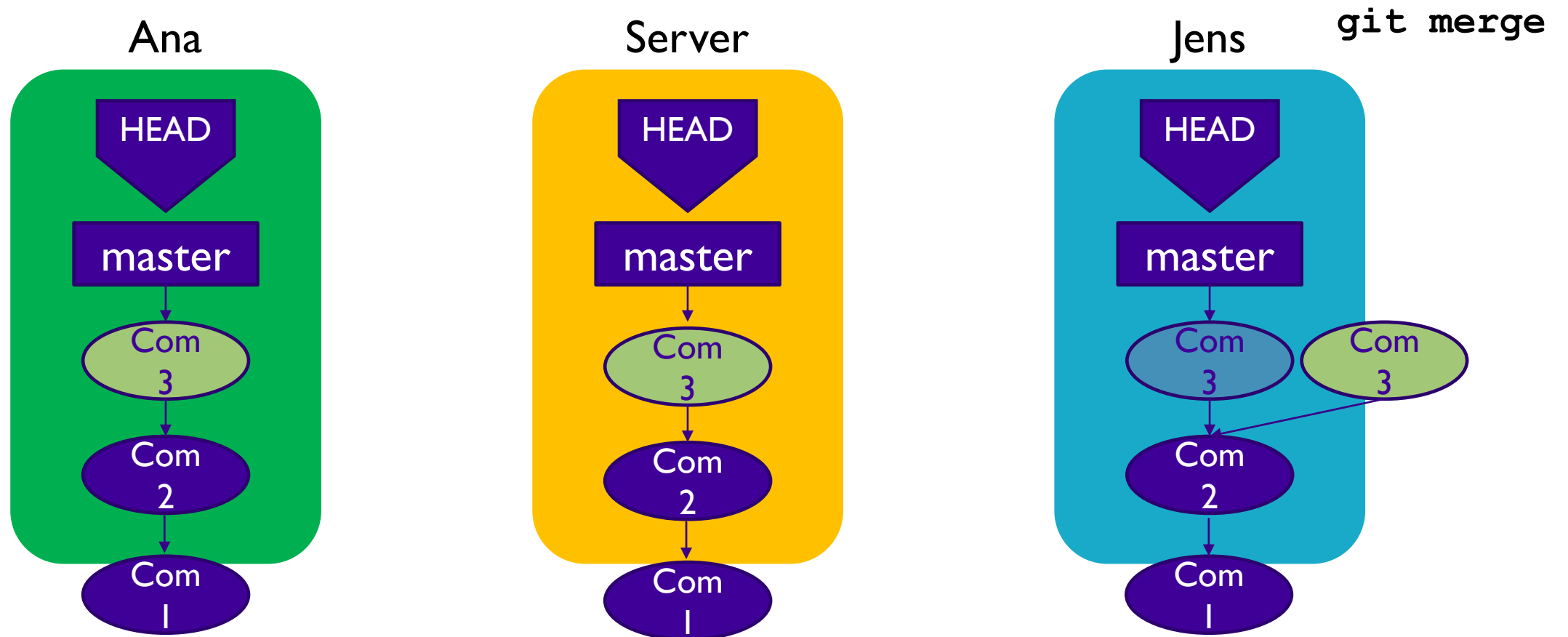




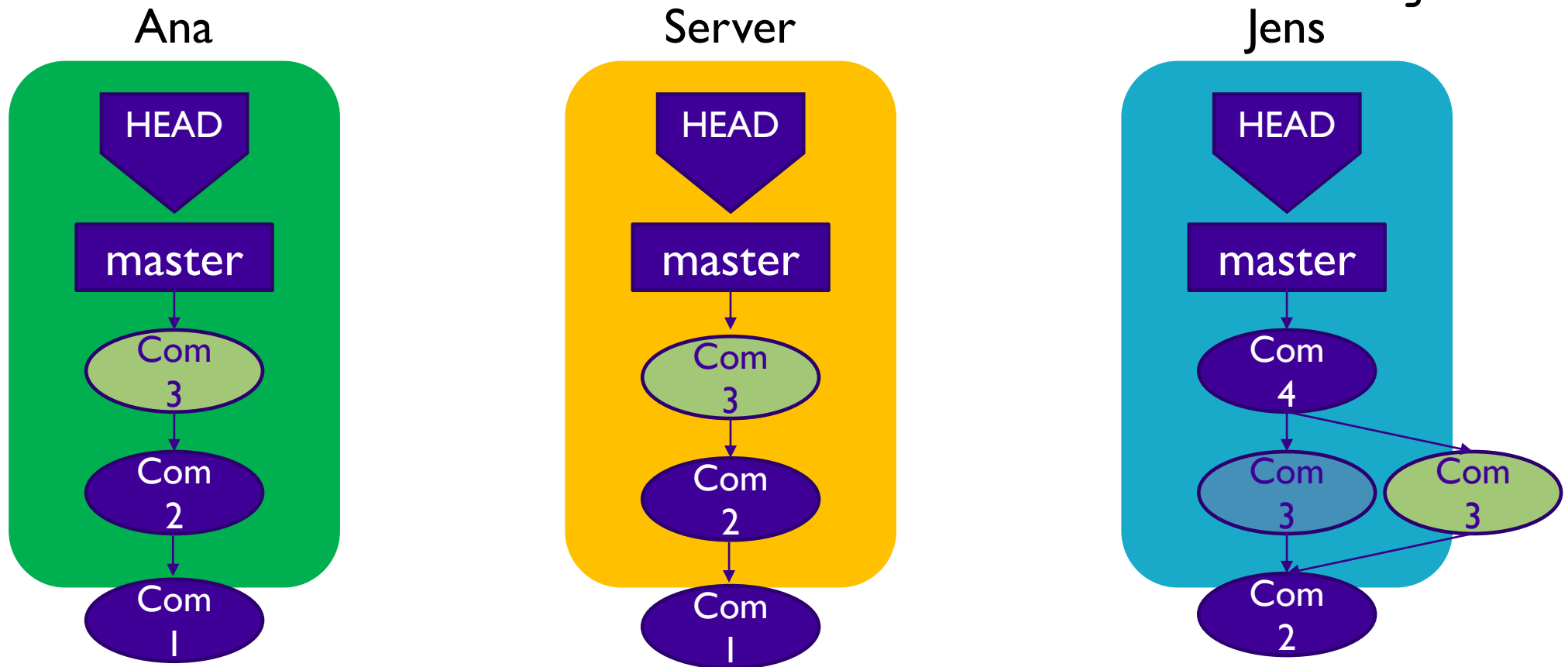
`git commit`

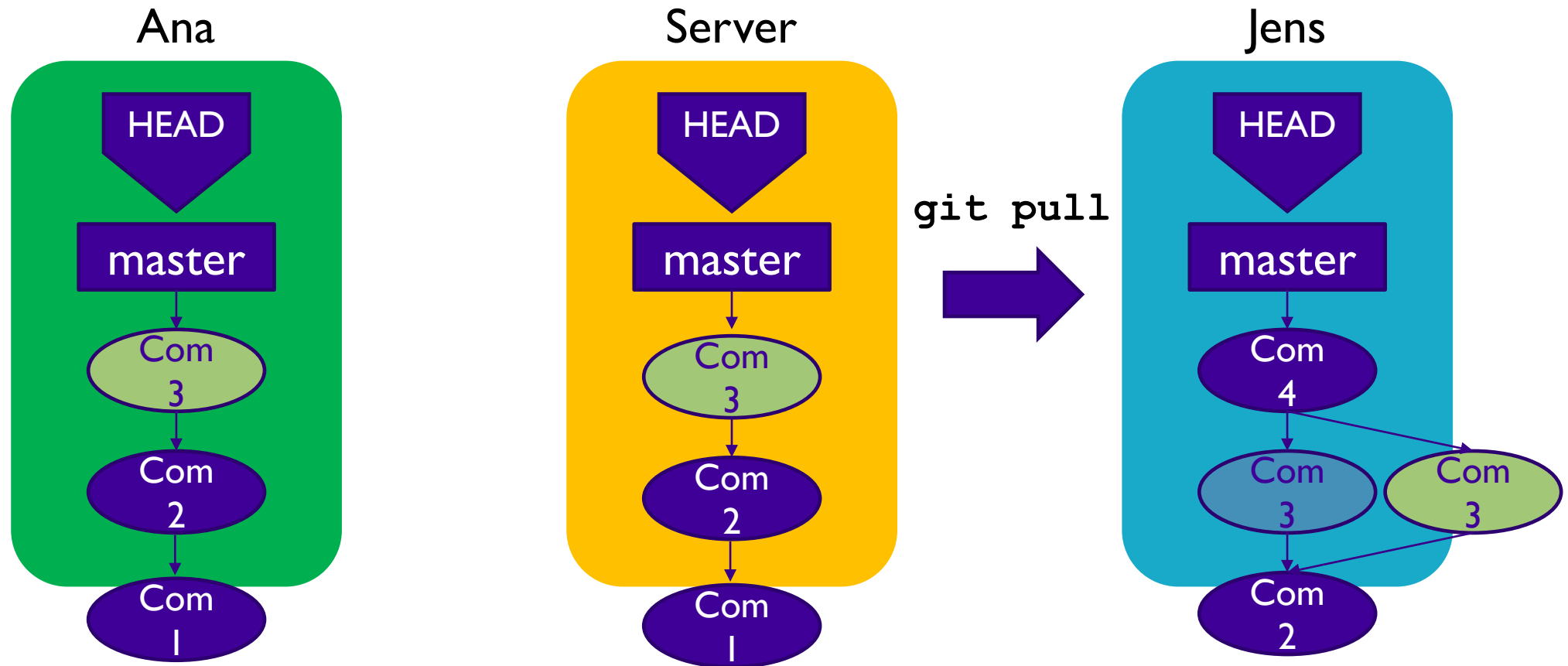


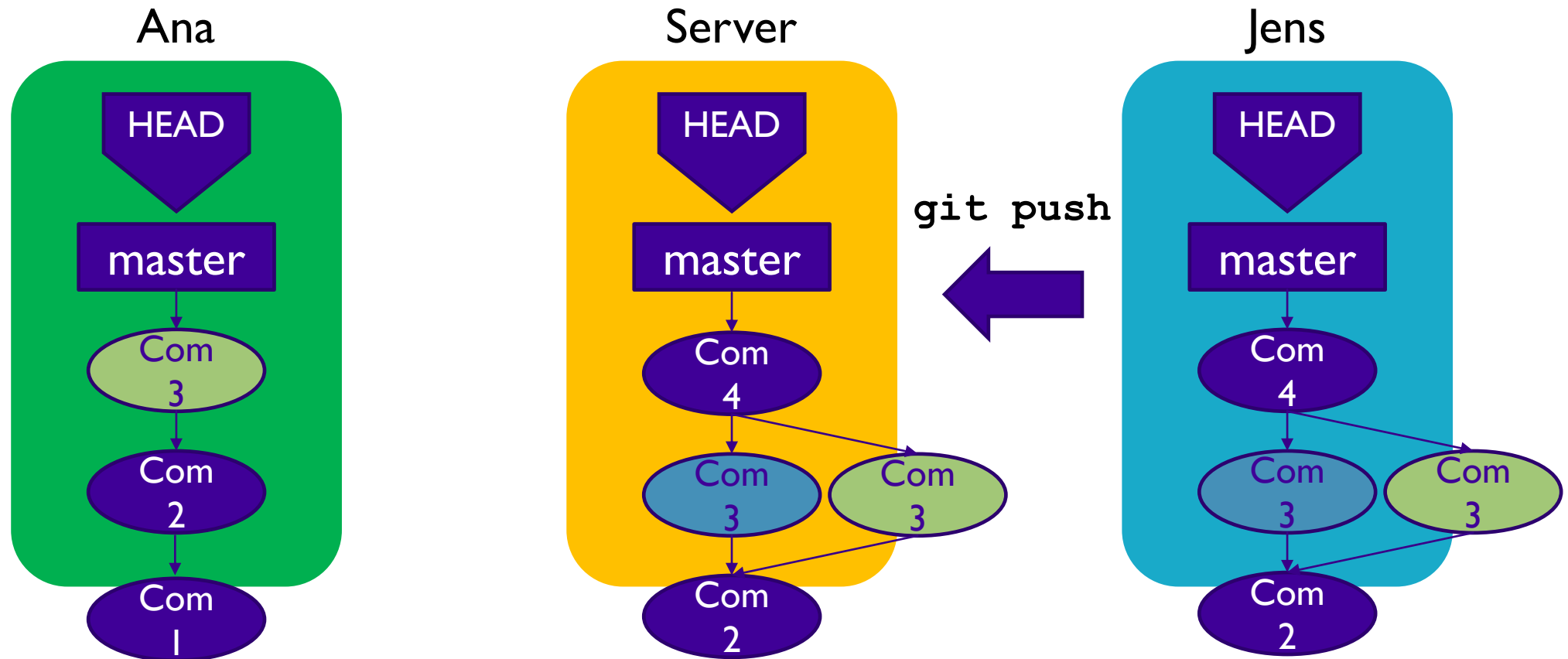


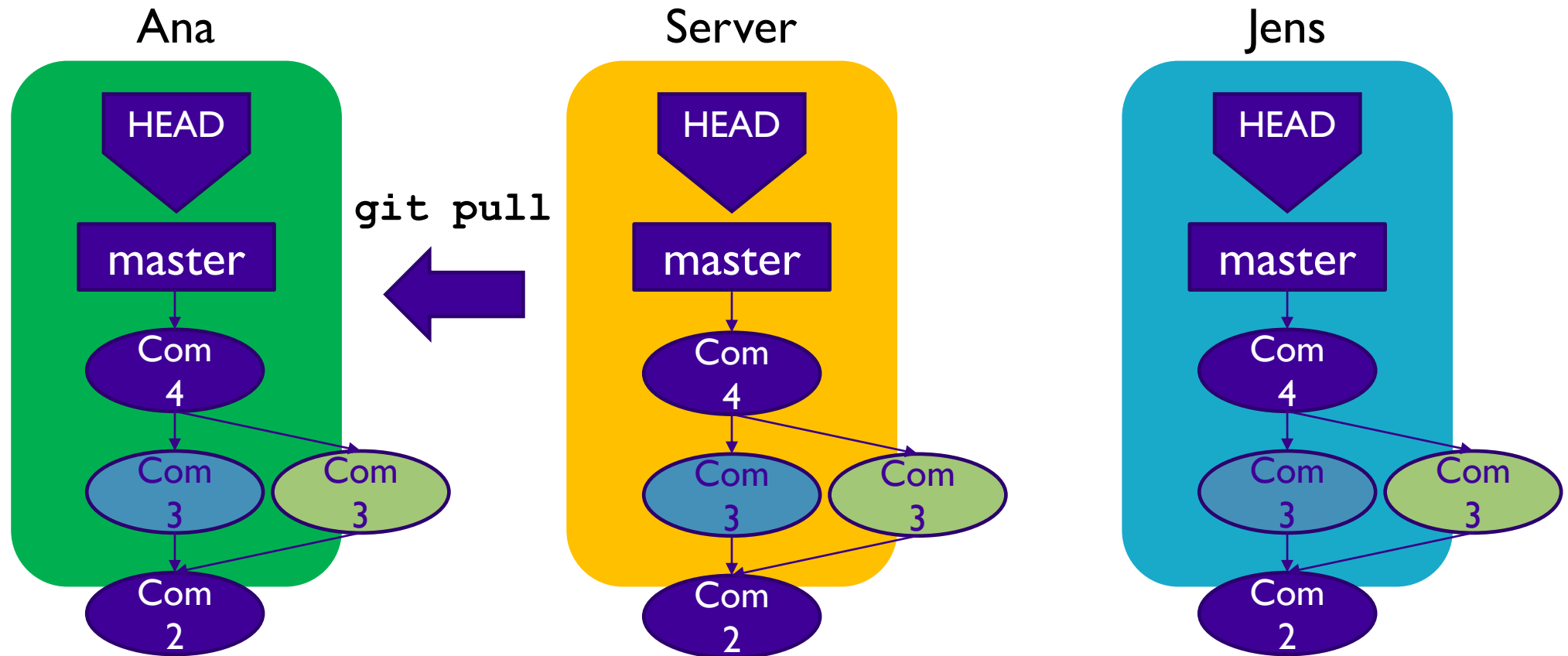


`git commit`





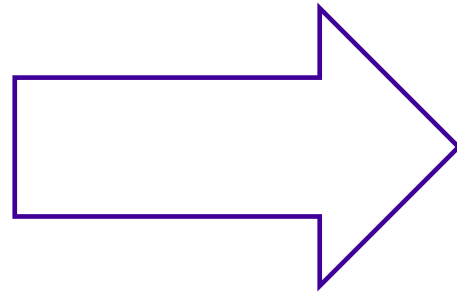
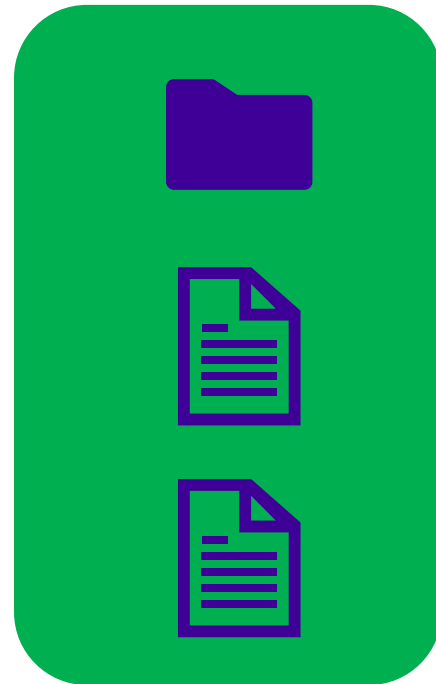




# THE BRANCH

**SPICED**

Ana's repo

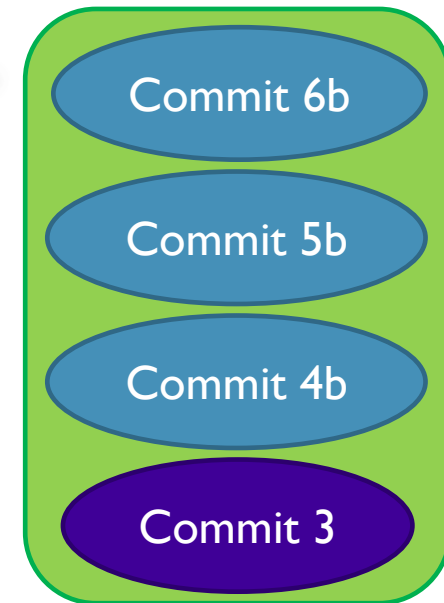


HEAD

master



featureX



# GIT CHEAT SHEET

**SPICED**

- `git clone ...`  
*clone remote repository – download an online repo*
- `git add ...`  
*add file to index – make git take care of file*
- `git commit -m “...” ...`  
*commit file(s) with commit message – save file(s) under descriptive name*
- `git pull`  
*pull changes from remote repo – load changes from server*
- `git push ... ..`  
*push all commits to remote repo ... and branch ...*
- `git checkout ...`  
*put HEAD on a particular commit or a different branch*
- `git diff ...`  
*show changes of file ... in comparison to last commit*
- `git branch ...`  
*create new branch with name ...*
- `git log`  
*show list of commits*
- `git status`  
*show status of repository*

# FURTHER READING

**SPICED**

## git

- Tutorial on git

<https://rogerdudler.github.io/git-guide/index.html>

- git webpage

<https://git-scm.com/>

- Codecademy

<https://www.codecademy.com/learn/learn-git>

- git GUI : gitAhead

<https://gitahead.github.io/gitahead.com/>

## SSH

- SSH tutorial

<https://www.hostinger.com/tutorials/ssh-tutorial-how-does-ssh-work>