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Distributed version control with git — part 2

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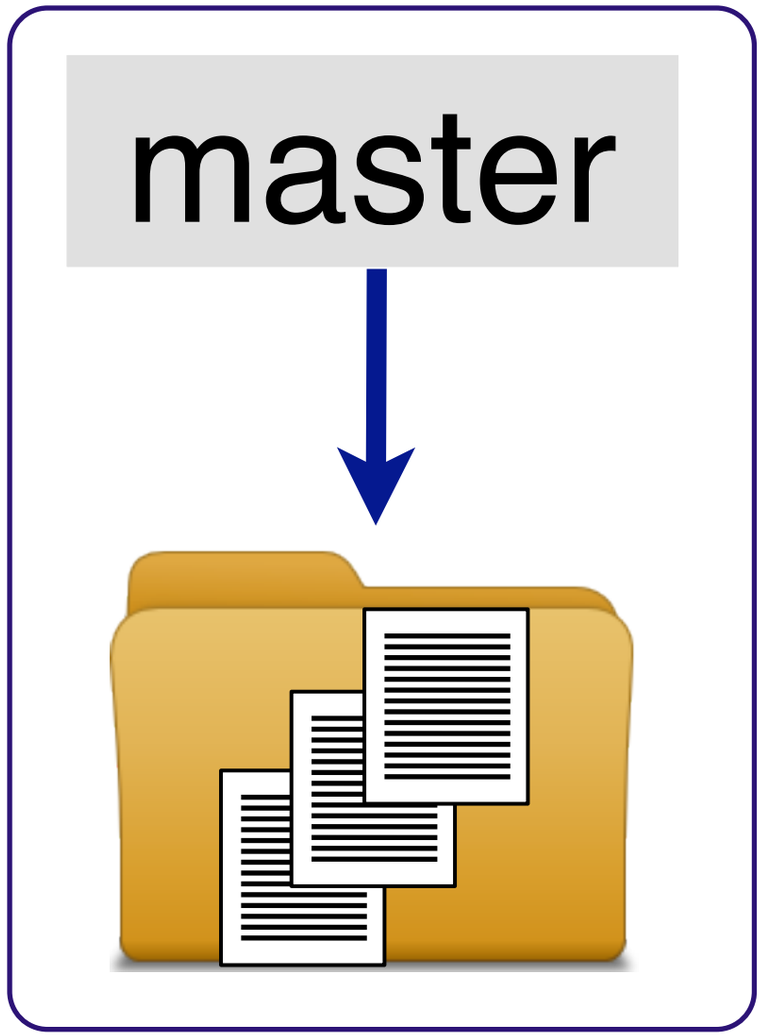
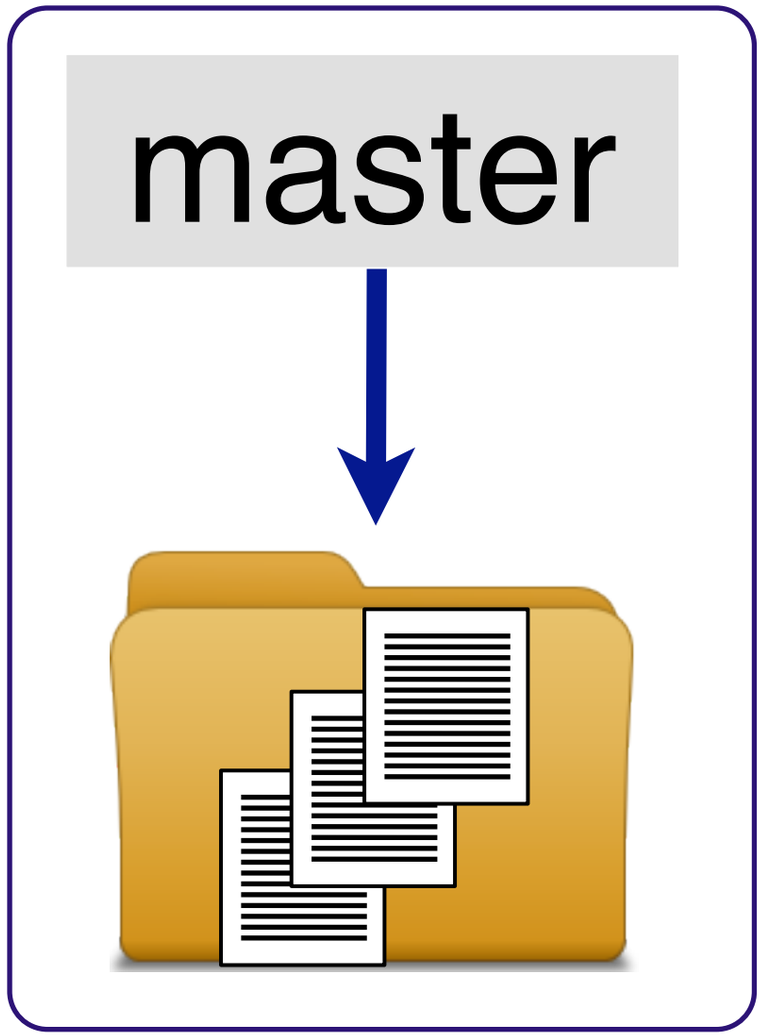
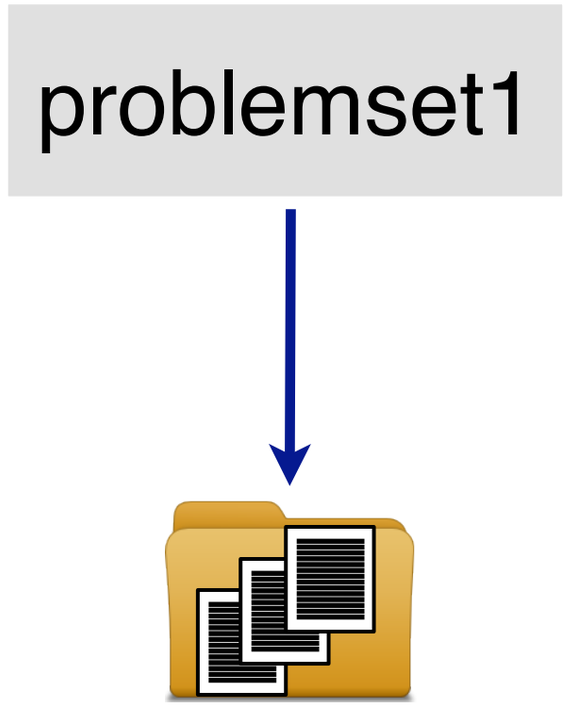
based on slides by
Oscar Nierstrasz

Branching and merging

Branching is like “Save as...” on an entire directory


master





create branch

master

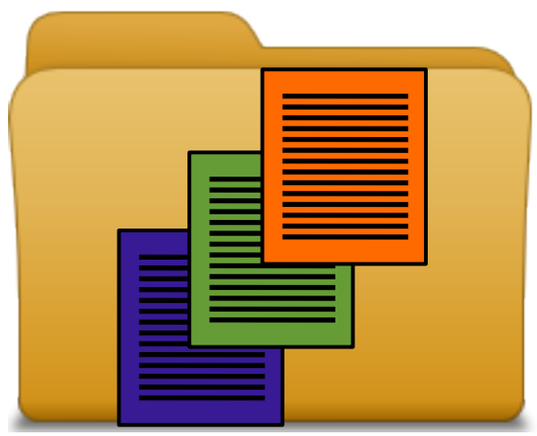
problemset1

when switching branches the entire content of the folder is replaced

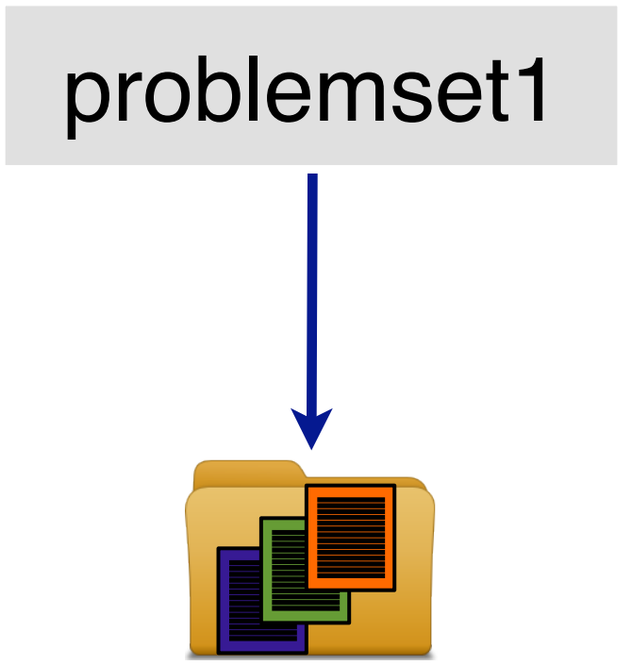
problemset1

master

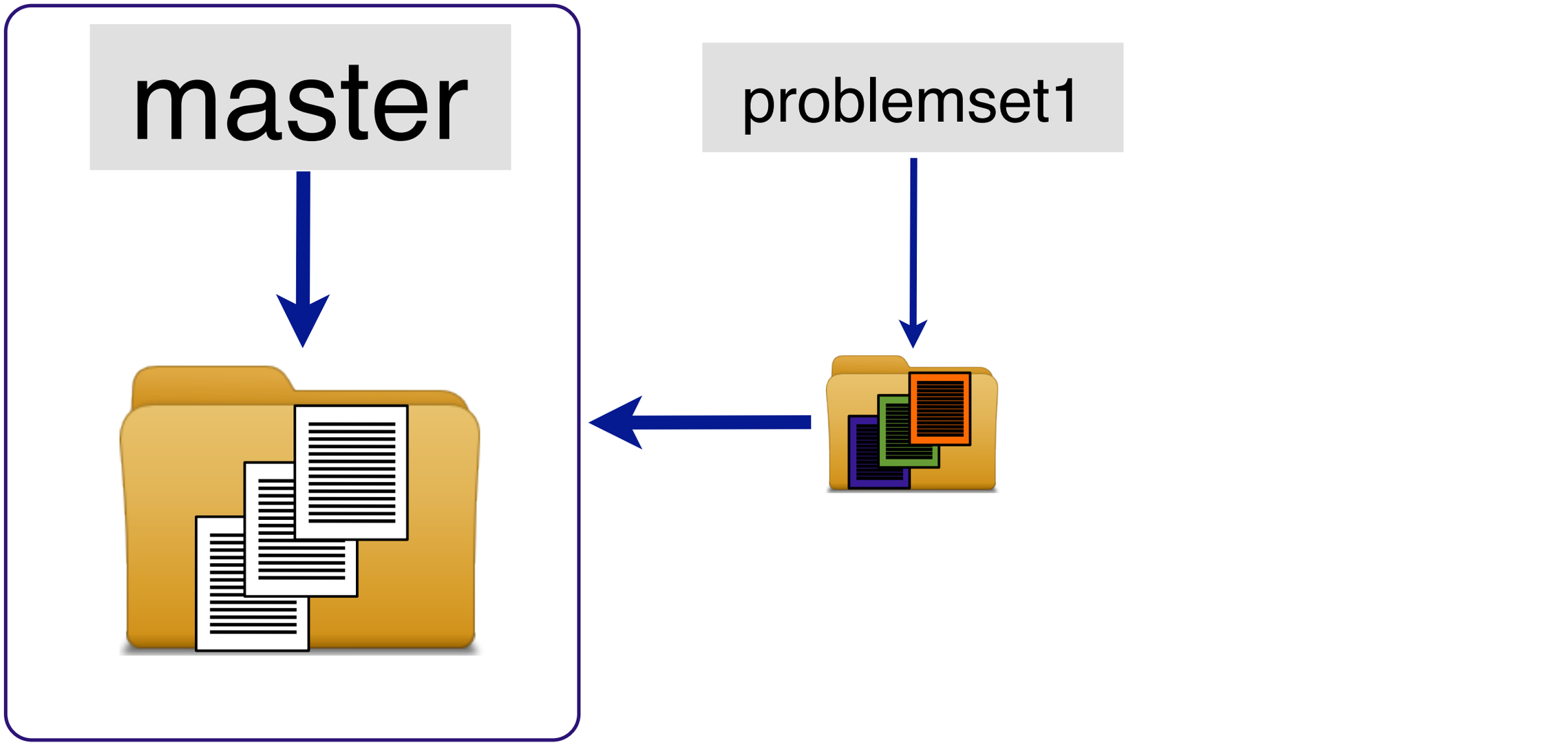
problemset1



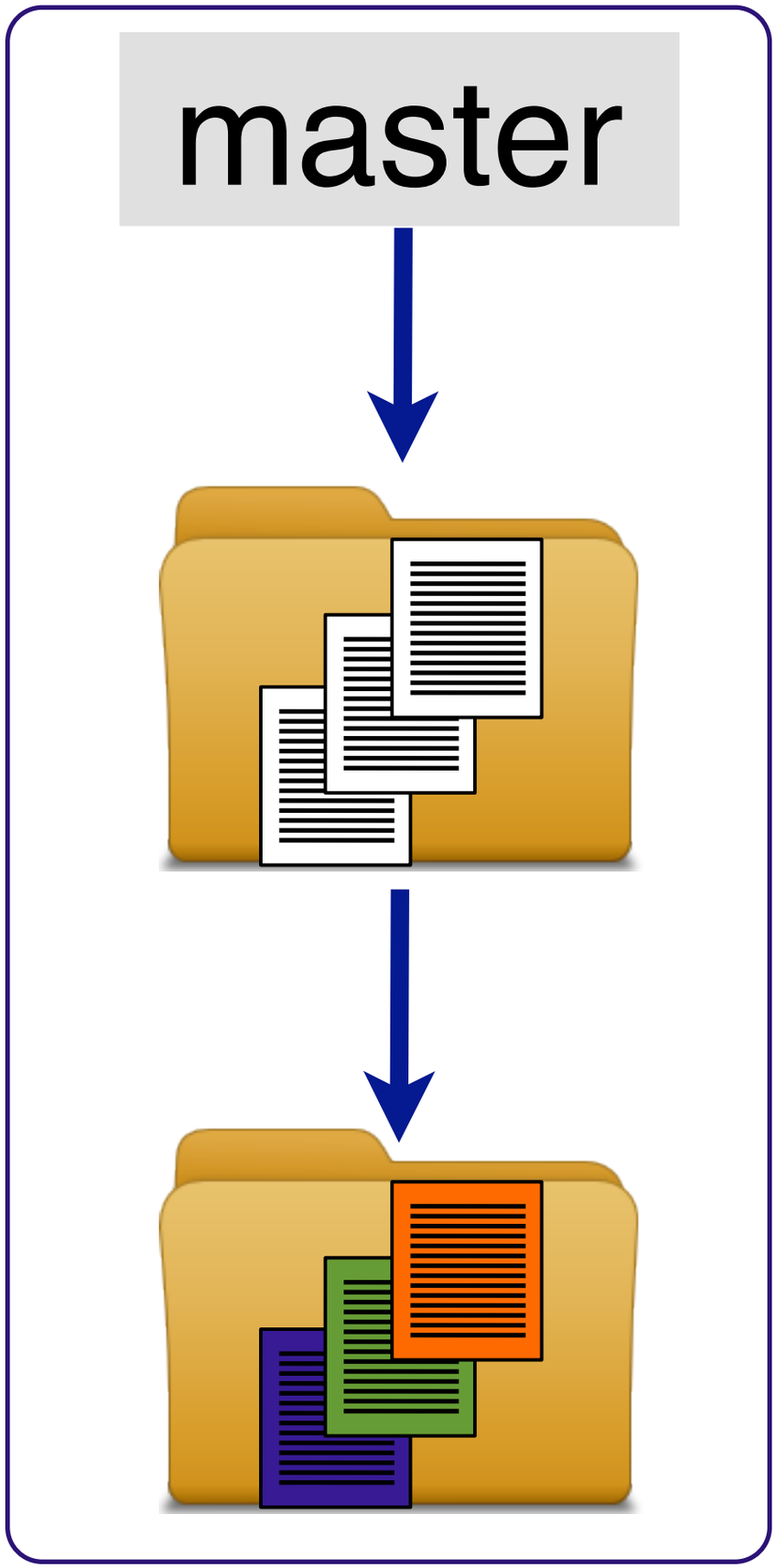
edit files in branch



switch to master branch



merge with problemset1 branch

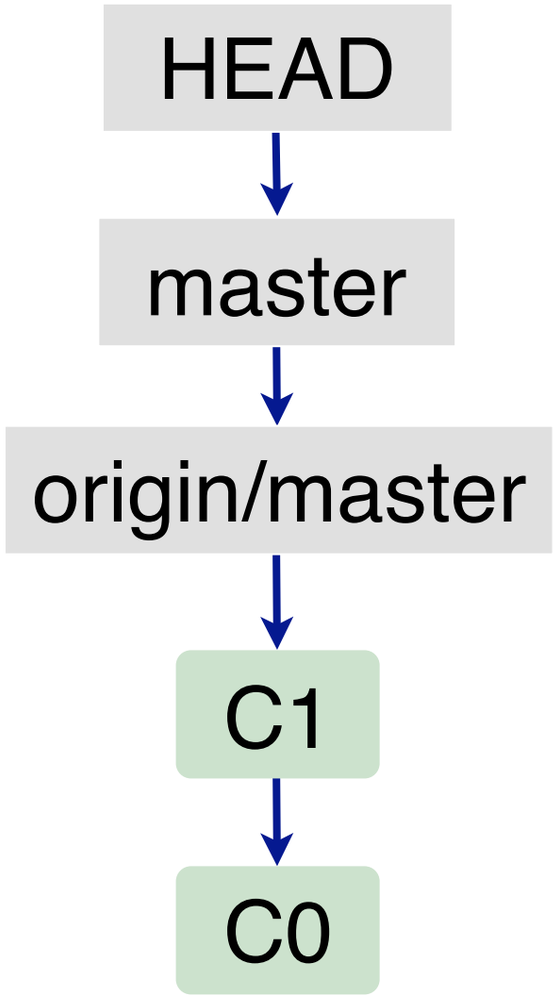


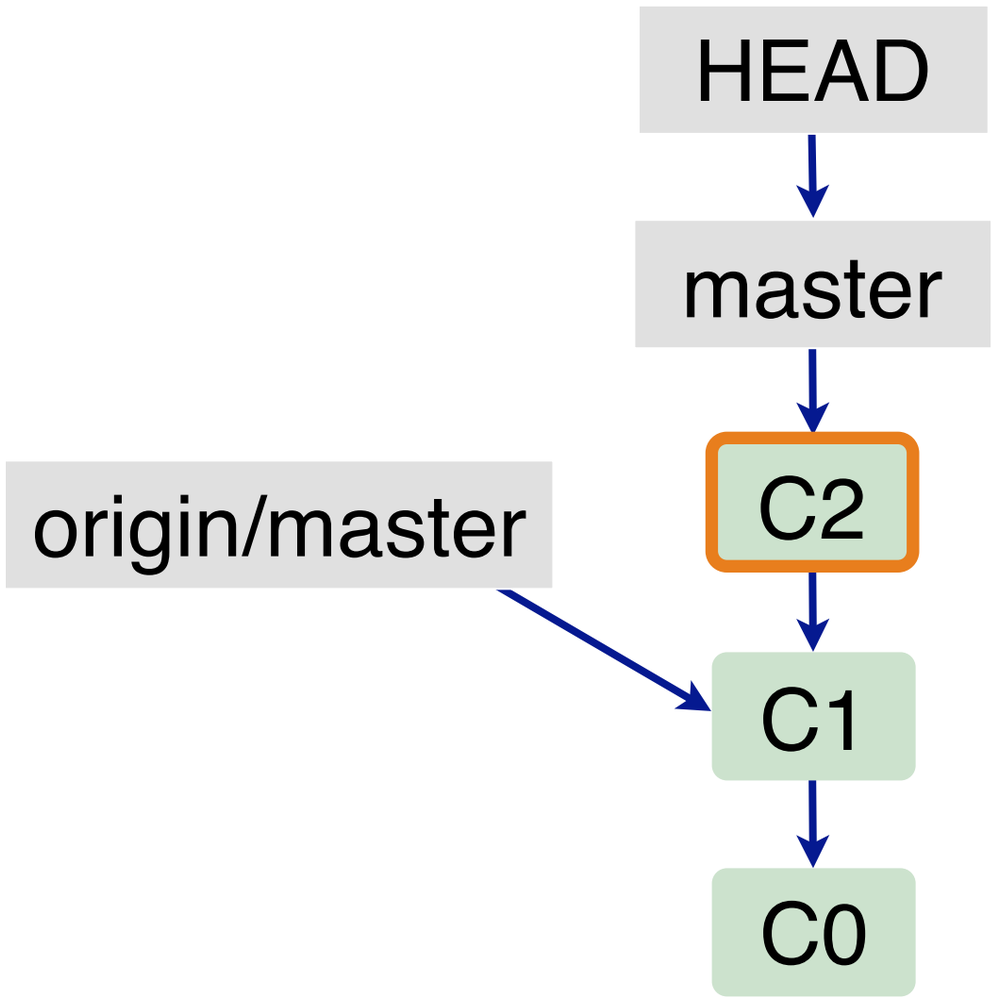
new version in master branch

only one branch is active at a time

and now branching in git

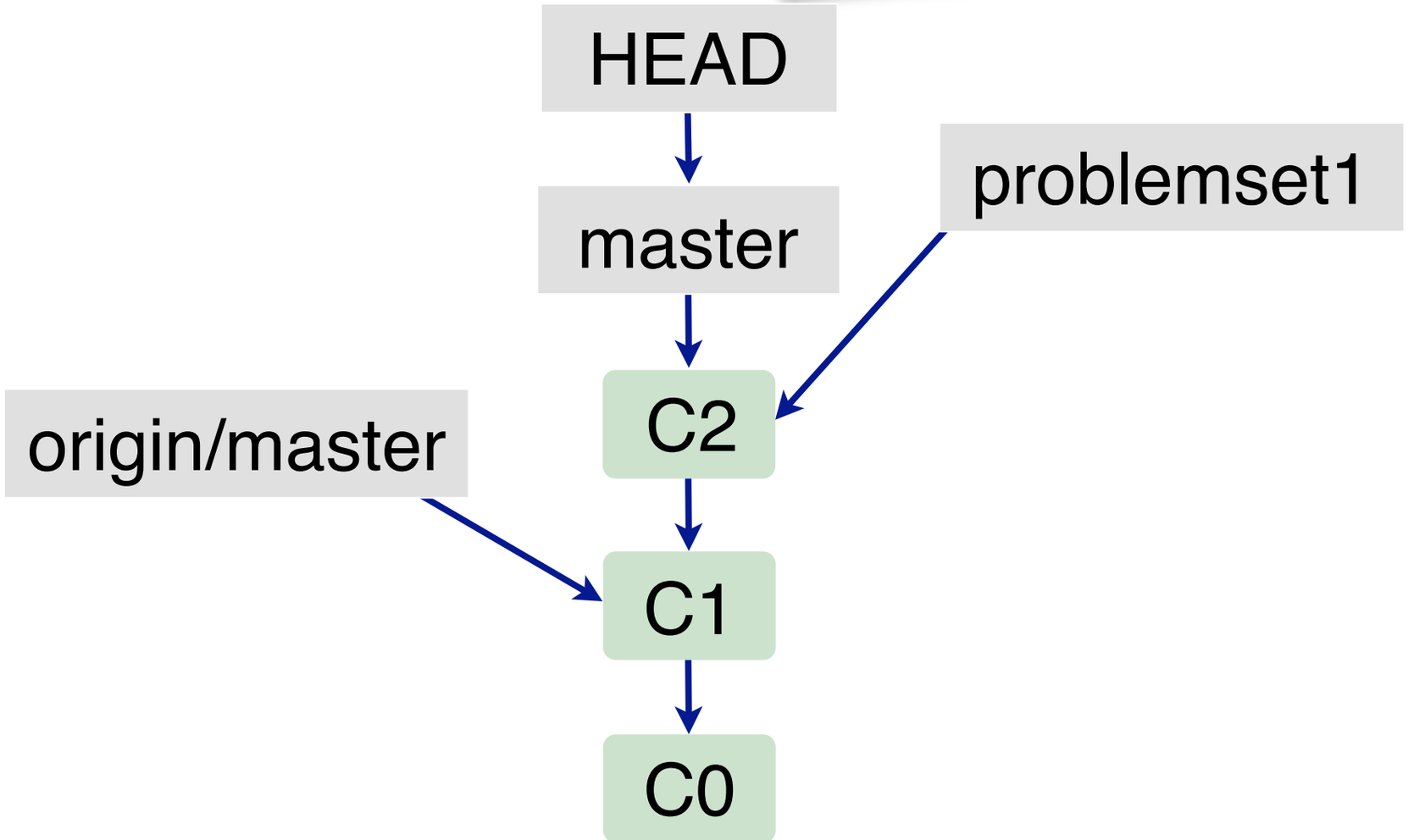
“origin” refers to the remote repo



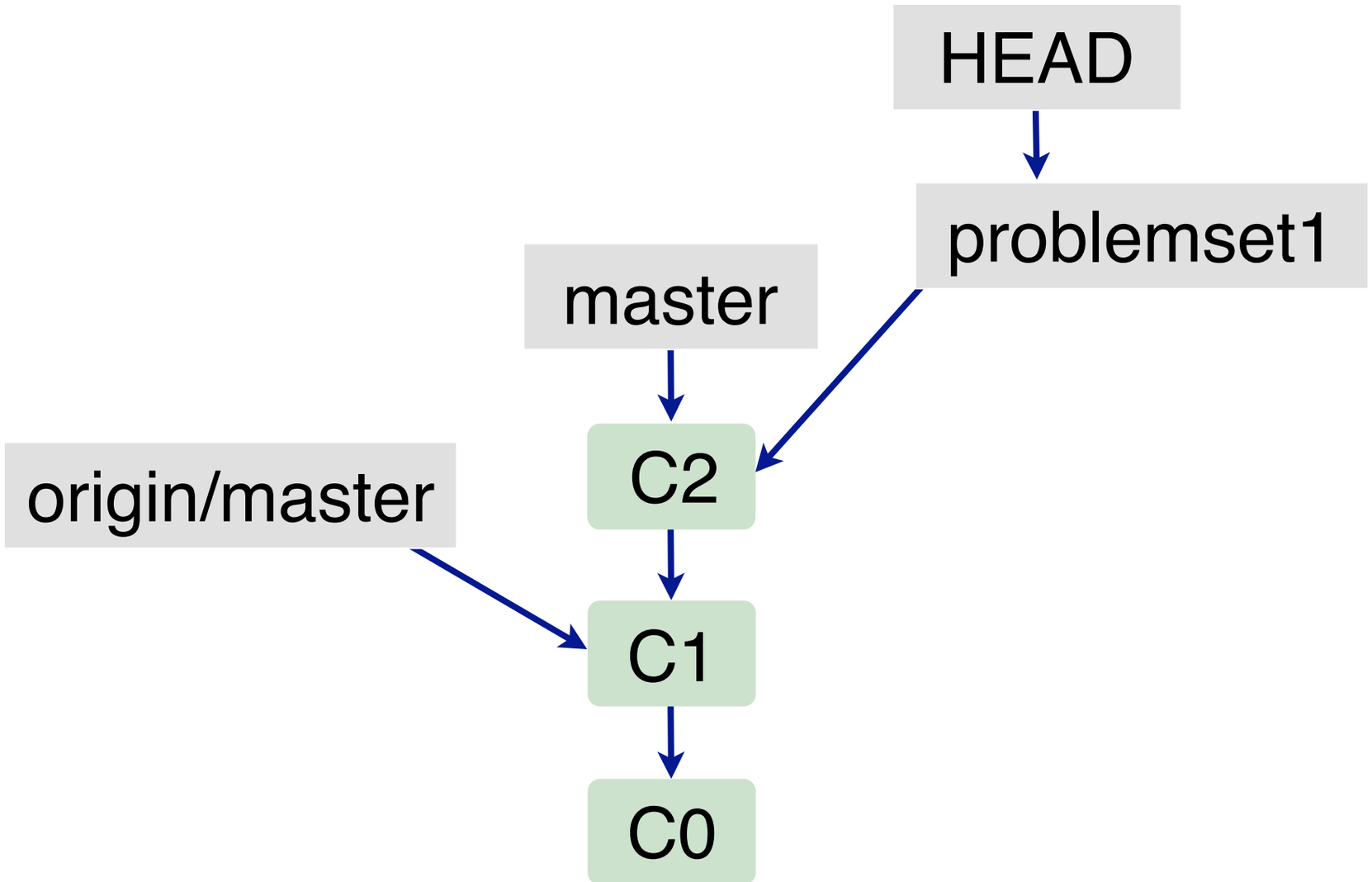


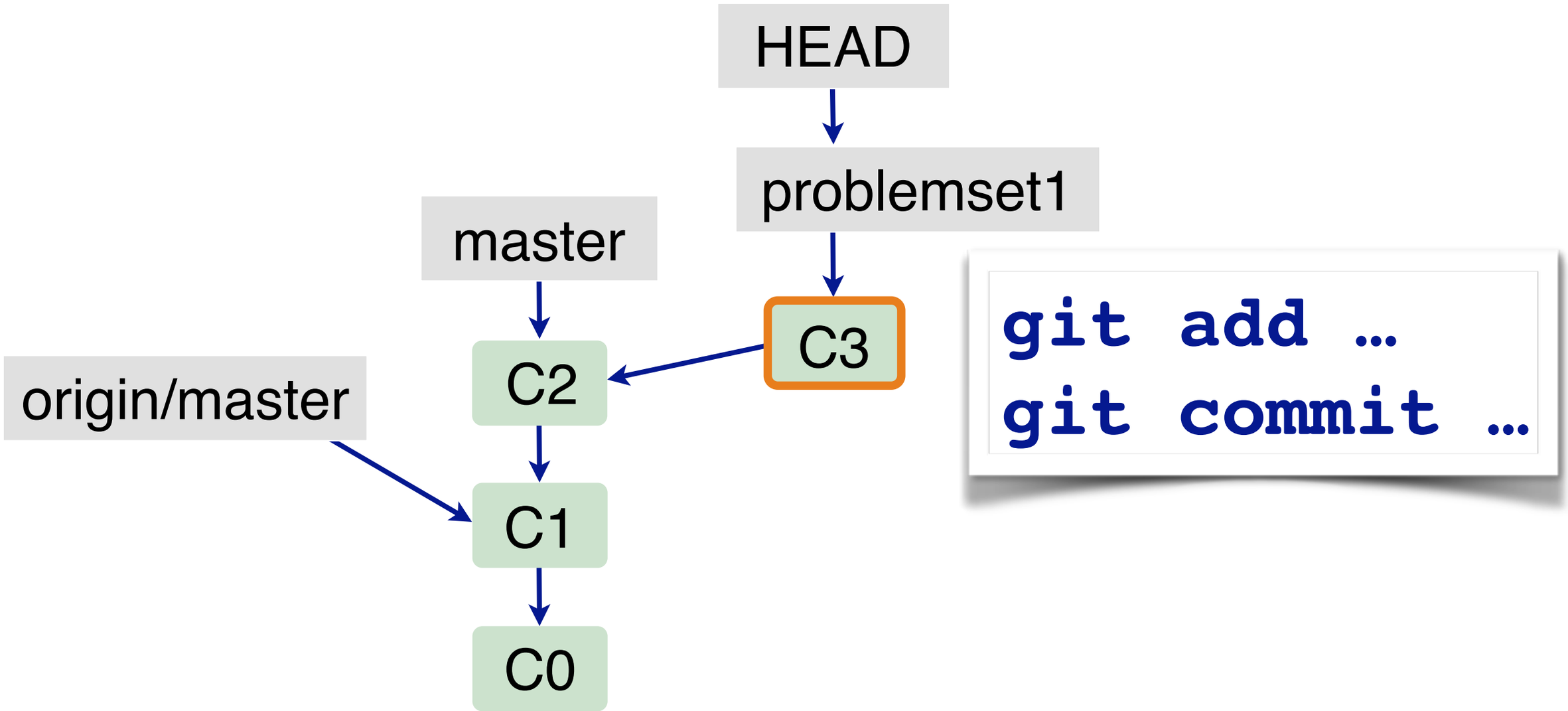

```
git add …
git commit …
```

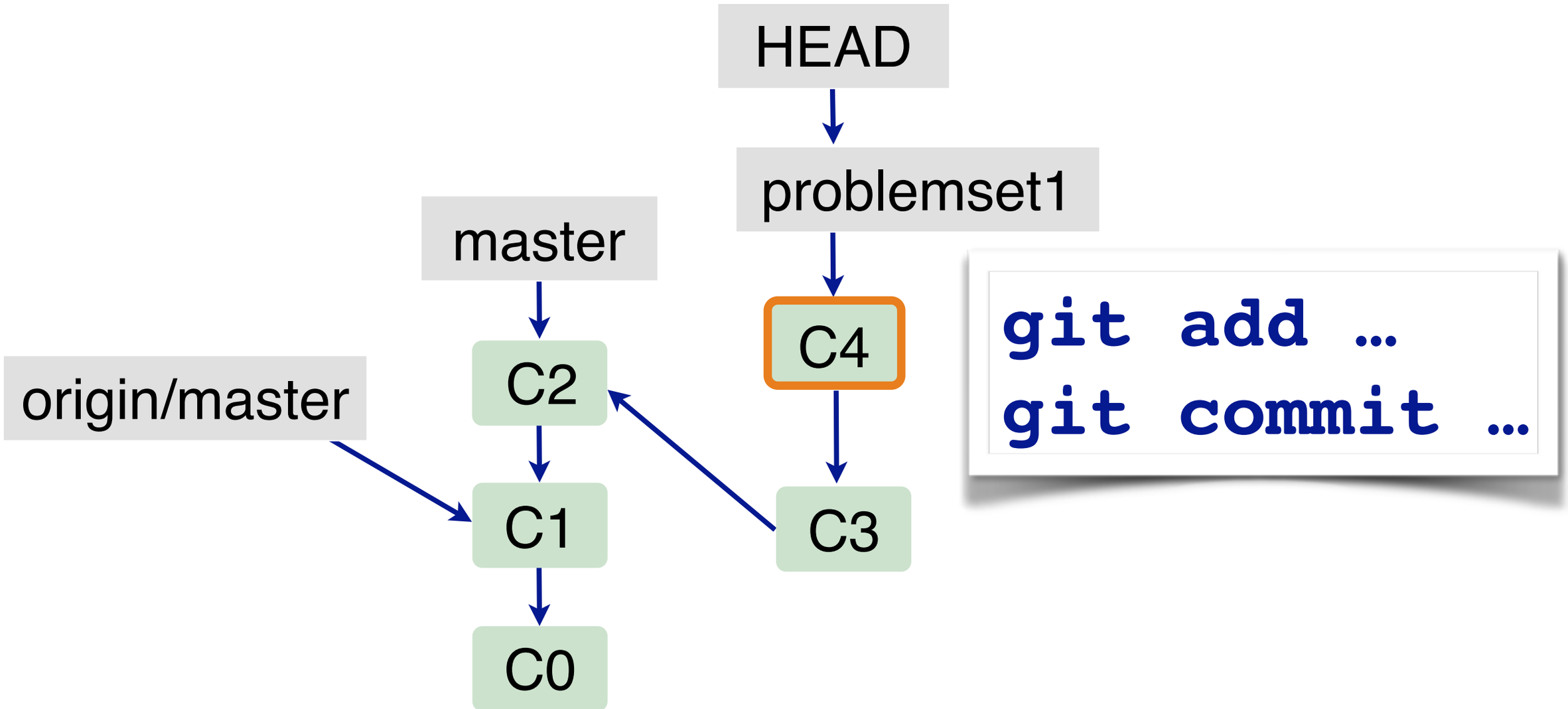
```
git branch problemset1
```



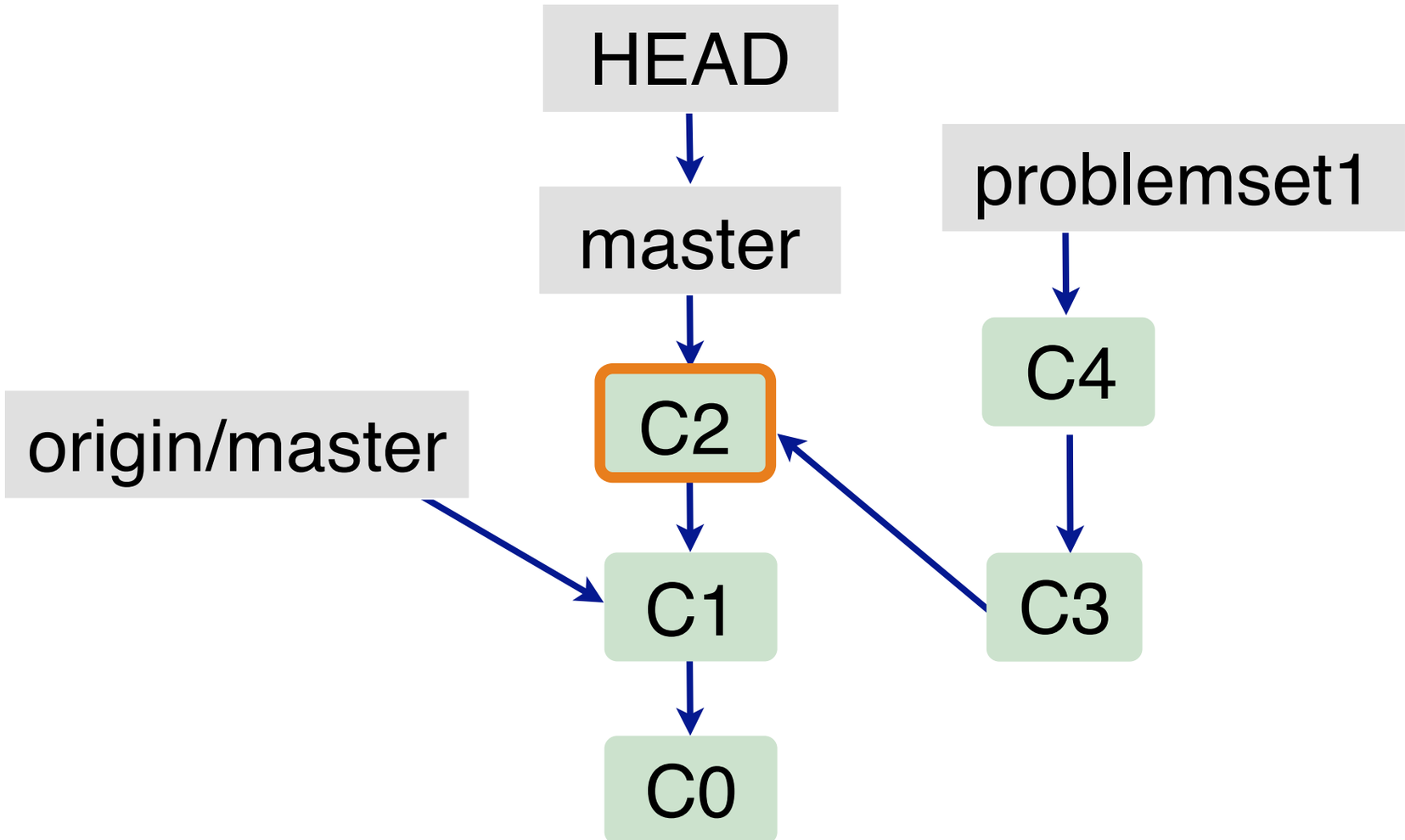
```
git checkout problemset1
```

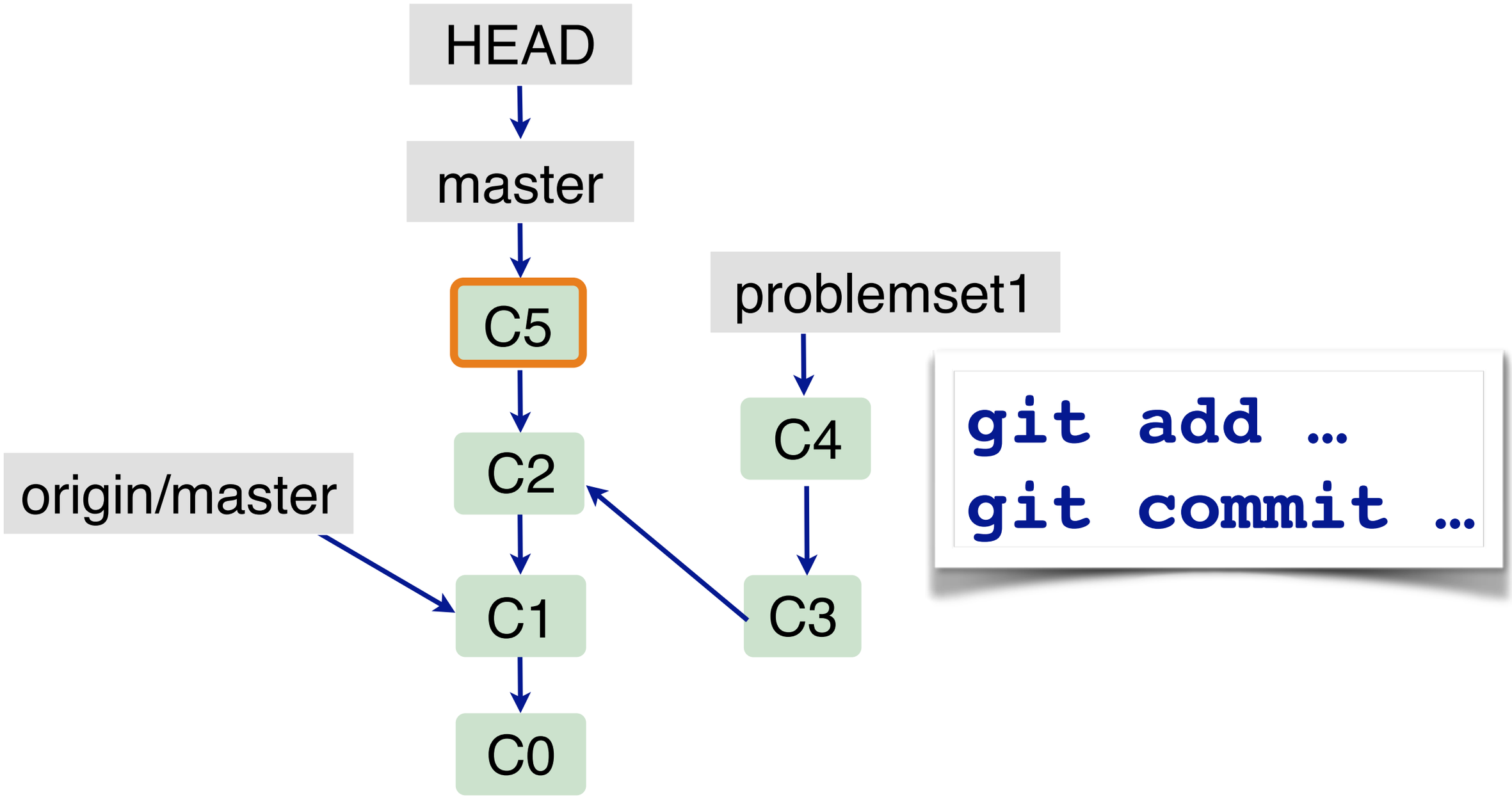


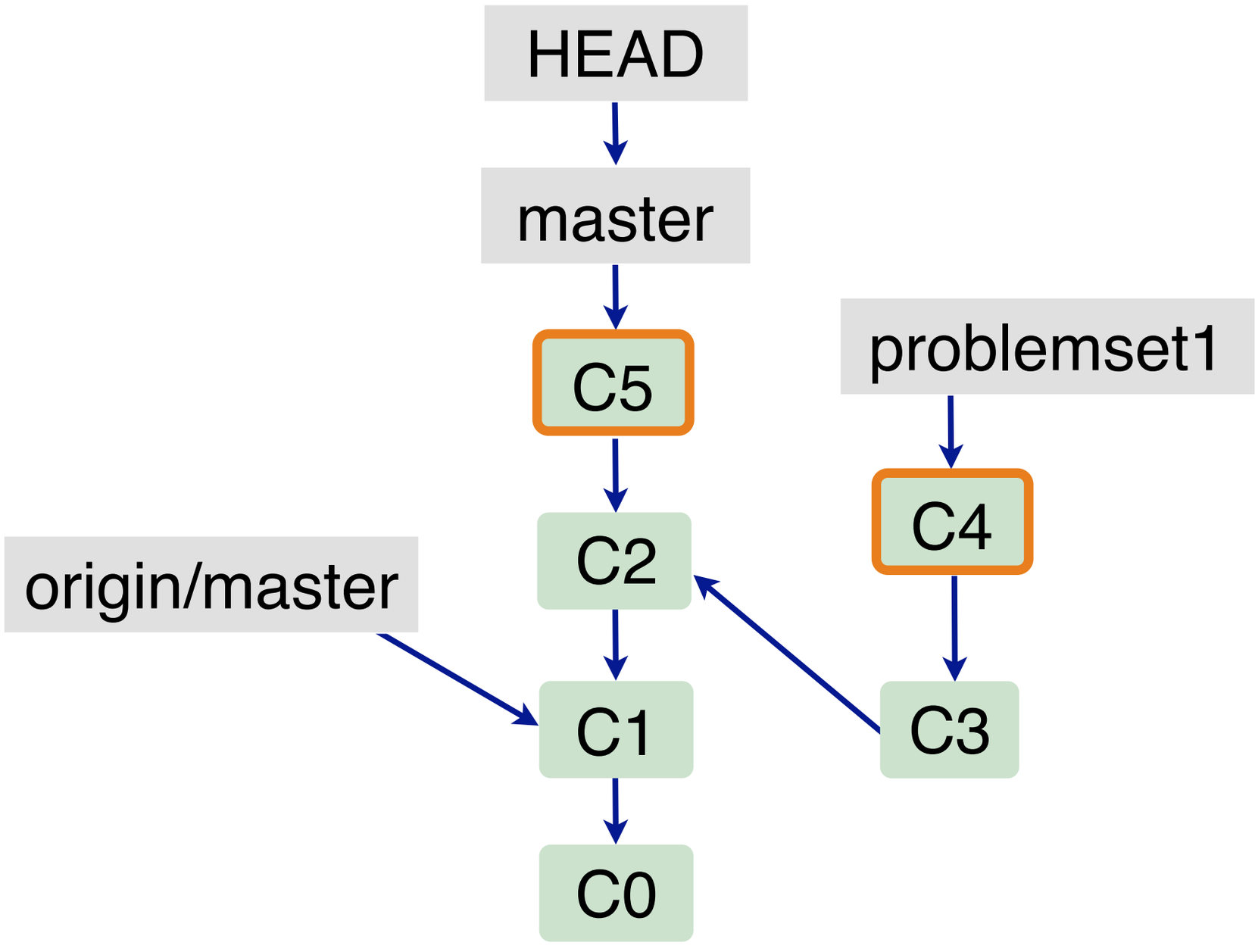

HEAD
problemset1
master
C3
C2
origin/master
C1
C0
git add …
git commit …


HEAD
problemset1
master
C4
origin/master
C2
C1
C3
C0
git add …
git commit …

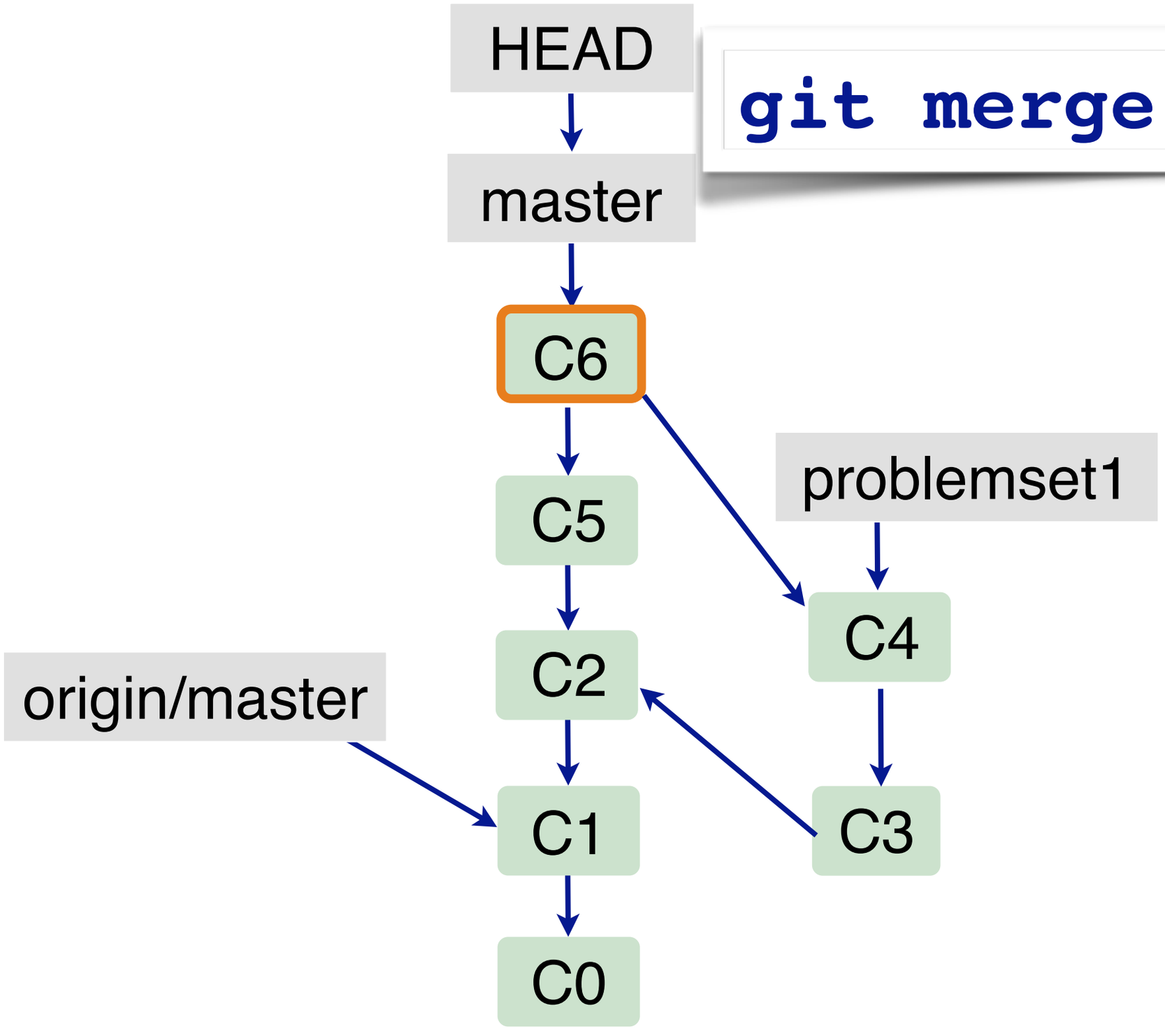
```
git checkout master
```



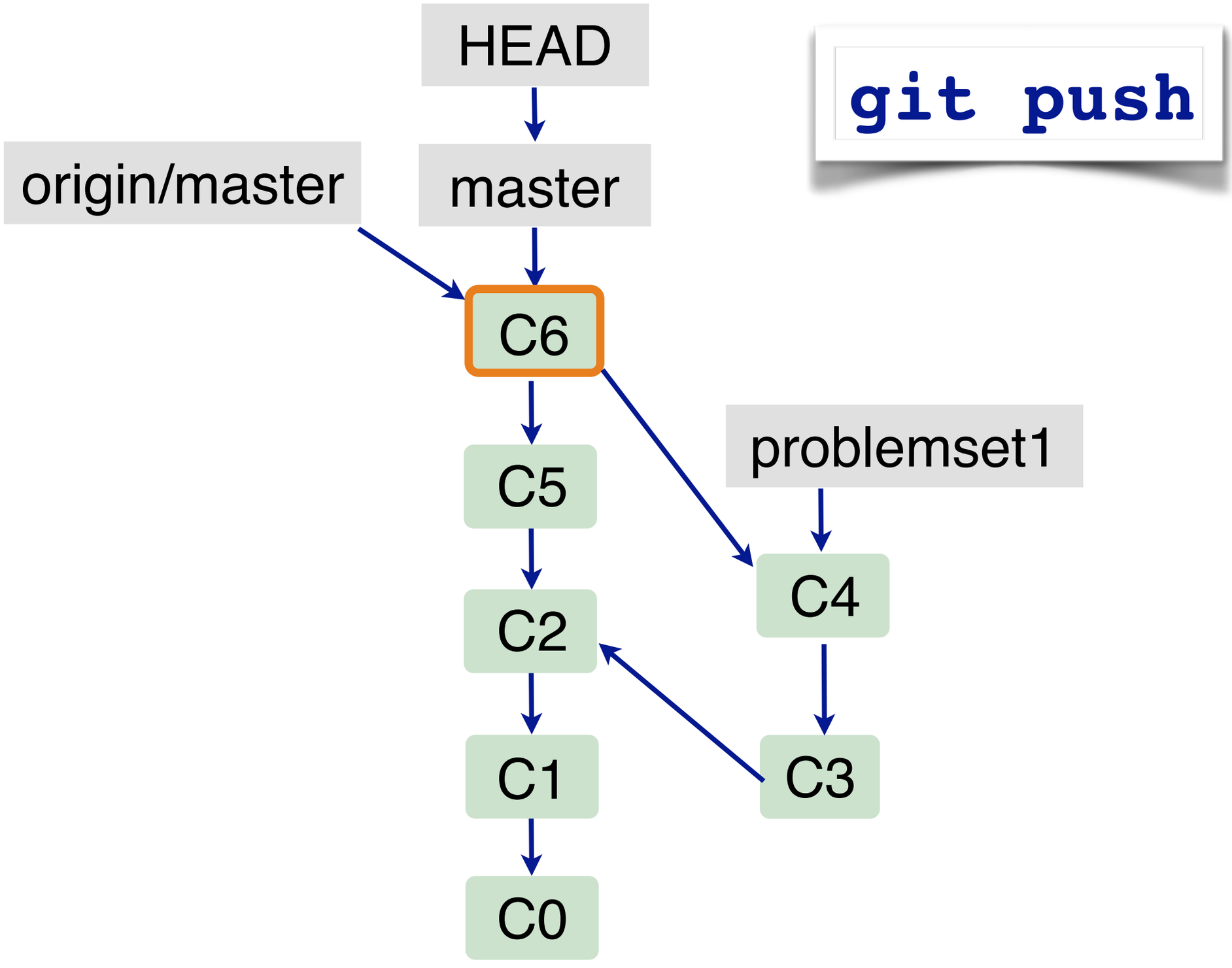

HEAD
master
C5
C2
C1
C0
origin/master
problemset1
C4
C3
git add …
git commit …


HEAD
master
C5
C2
C1
C0
origin/master
problemset1
C4
C3

```
git merge problemset1
```

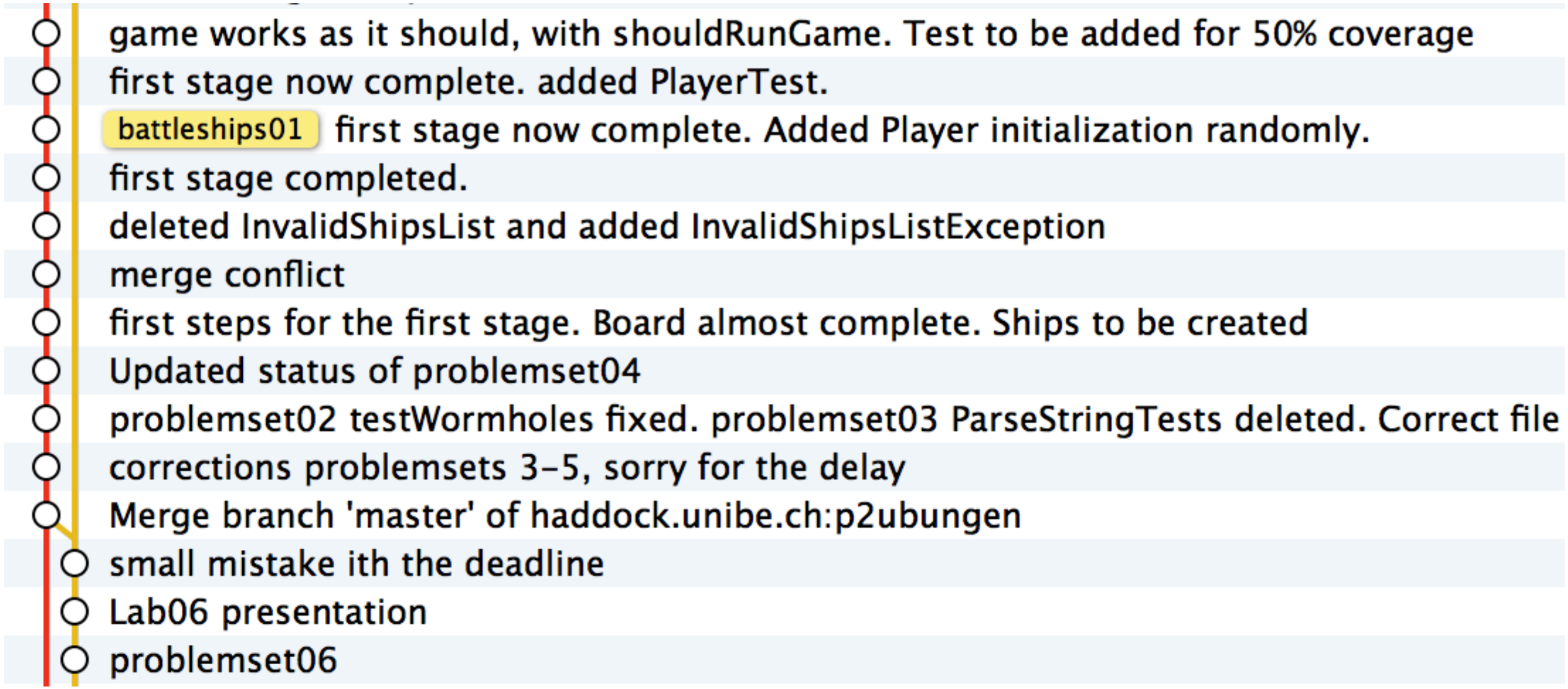


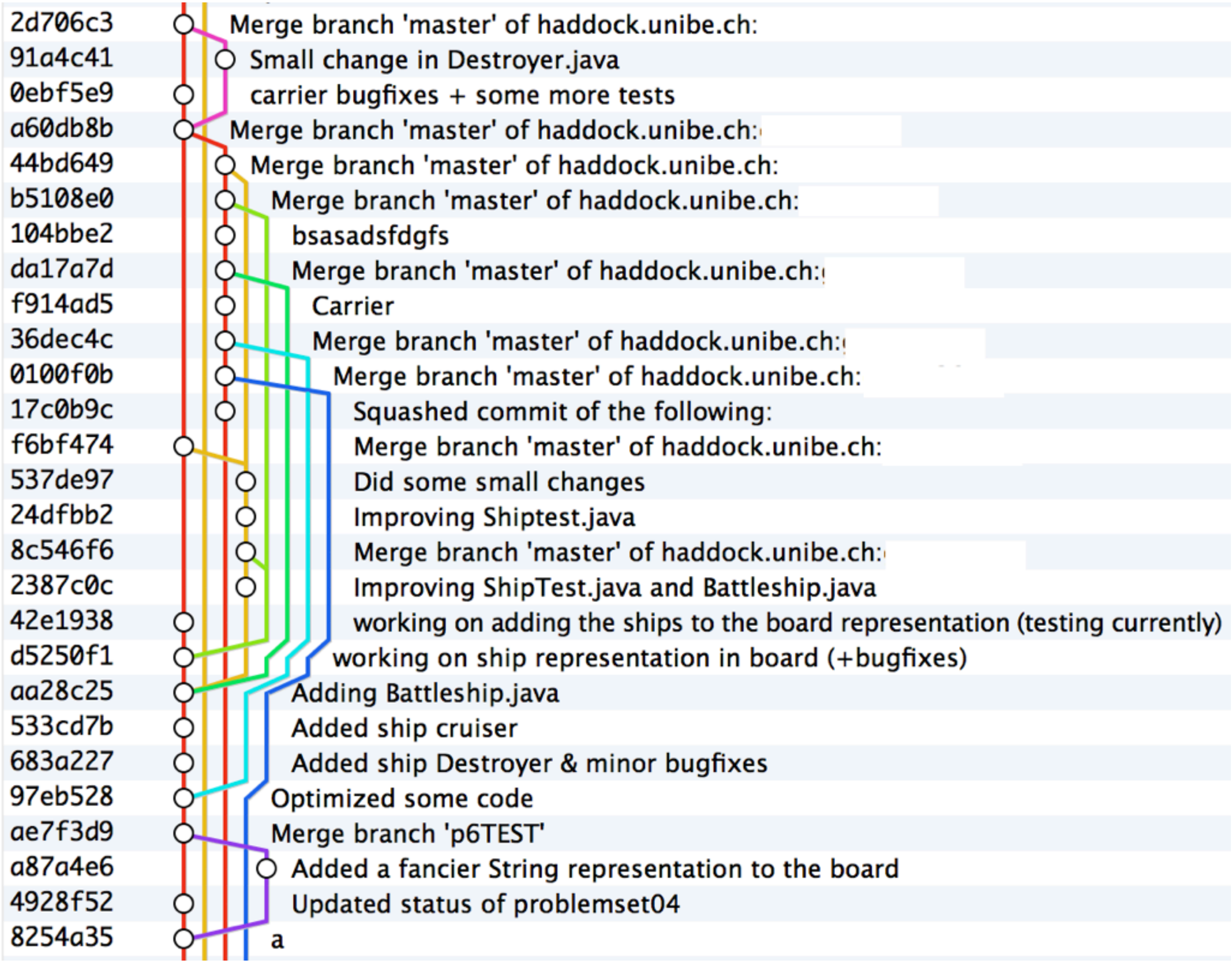
```
git push
```



Commit messages matter!!!

caa45b7 hg
03d8a04 asdfasfas
50b2f86 sd
aabcdda sdf
eade6e6 afasdf
2383abc Commit corrections Problemset03
1d18d4f Merge branch 'master' of haddock.unibe.ch:
d409b2b updated corrections
43e0651 ojasdf
24fa587 added UML diagram
1112dc4 Corrected Problemset03: added assertions and javadoc
964623b 03/04
1a7ab8e p4
5b15fa1 IDie
b8a031b added test


game works as it should, with shouldRunGame. Test to be added for 50% coverage
first stage now complete. added PlayerTest.
battleships01
first stage now complete. Added Player initialization randomly.
first stage completed.
deleted InvalidShipsList and added InvalidShipsListException
merge conflict
first steps for the first stage. Board almost complete. Ships to be created
Updated status of problemset04
problemset02 testWormholes fixed. problemset03 ParseStringTests deleted. Correct file
corrections problemsets 3-5, sorry for the delay
Merge branch 'master' of haddock.unibe.ch:p2ubungen
small mistake ith the deadline
Lab06 presentation
problemset06


2d706c3 Merge branch 'master' of haddock.unibe.ch:
91a4c41 Small change in Destroyer.java
0ebf5e9 carrier bugfixes + some more tests
a60db8b Merge branch 'master' of haddock.unibe.ch:
44bd649 Merge branch 'master' of haddock.unibe.ch:
b5108e0 Merge branch 'master' of haddock.unibe.ch:
104bbe2 bsasadsfdgfs
da17a7d Merge branch 'master' of haddock.unibe.ch:
f914ad5 Carrier
36dec4c Merge branch 'master' of haddock.unibe.ch:
0100f0b Merge branch 'master' of haddock.unibe.ch:
17c0b9c Squashed commit of the following:
f6bf474 Merge branch 'master' of haddock.unibe.ch:
537de97 Did some small changes
24dfbb2 Improving Shiptest.java
8c546f6 Merge branch 'master' of haddock.unibe.ch:
2387c0c Improving ShipTest.java and Battleship.java
42e1938 working on adding the ships to the board representation (testing currently)
d5250f1 working on ship representation in board (+bugfixes)
aa28c25 Adding Battleship.java
533cd7b Added ship cruiser
683a227 Added ship Destroyer & minor bugfixes
97eb528 Optimized some code
ae7f3d9 Merge branch 'p6TEST'
a87a4e6 Added a fancier String representation to the board
4928f52 Updated status of problemset04
8254a35 a

More to git

More to git …

- Merging and mergetool
- Squashing commits when merging
- Resolving conflicts
- User authentication with ssh
- gitx and other graphical tools
- git configure — remembering your name
- git remote — multiple remote repos
- github — an open source public repo
- …

Resources

http://git-scm.com/

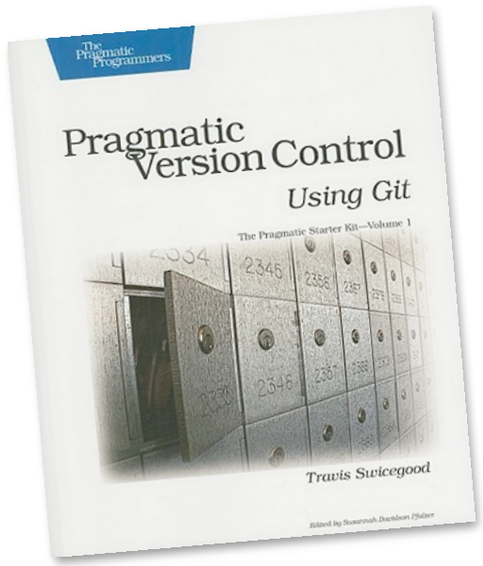
http://book.git-scm.com/index.html

Getting Git

Scott Chacon

http://www.slideshare.net/chacon/getting-git

https://github.com/



http://oreilly.com/

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