

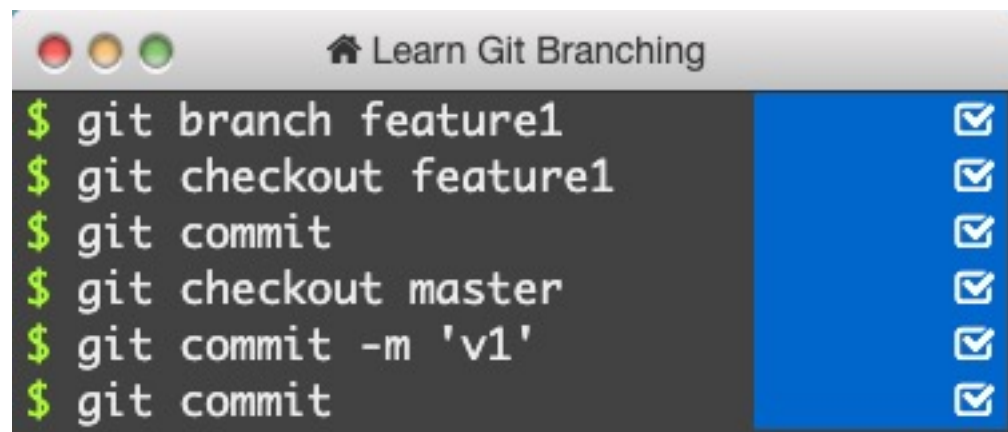
# [320] Branching and Merging

Yiyin Shen

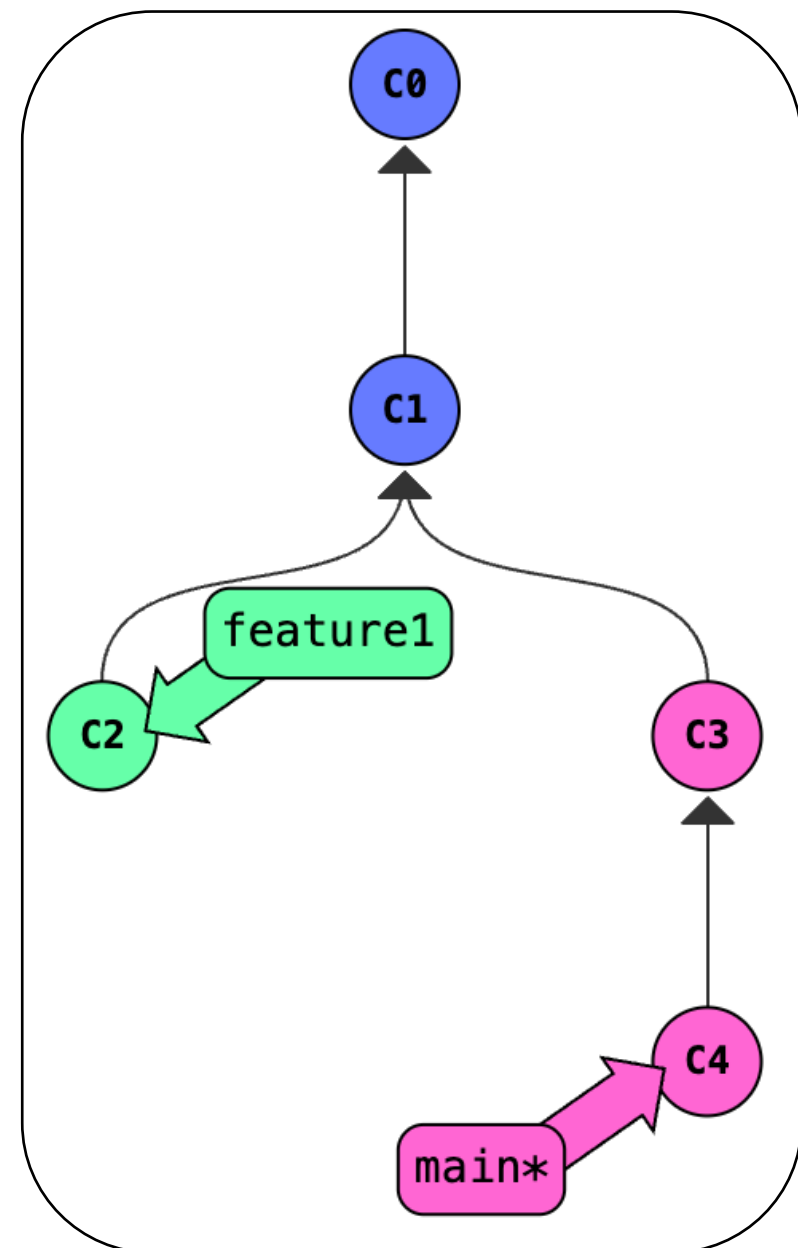
# Practice Branching

Git Simulator:

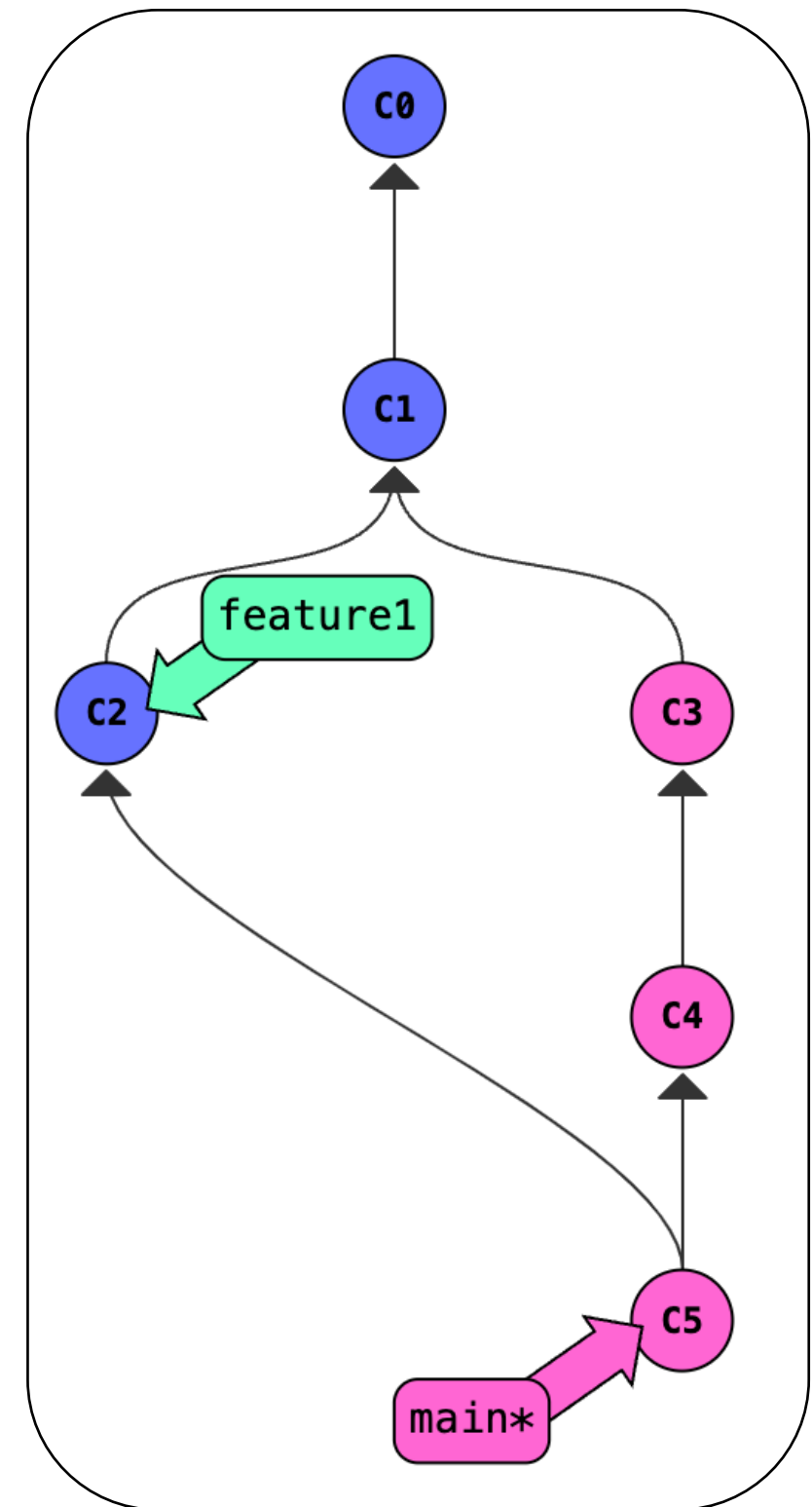
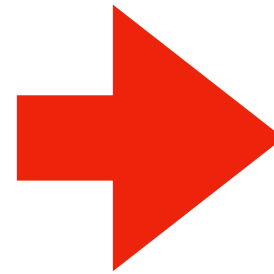
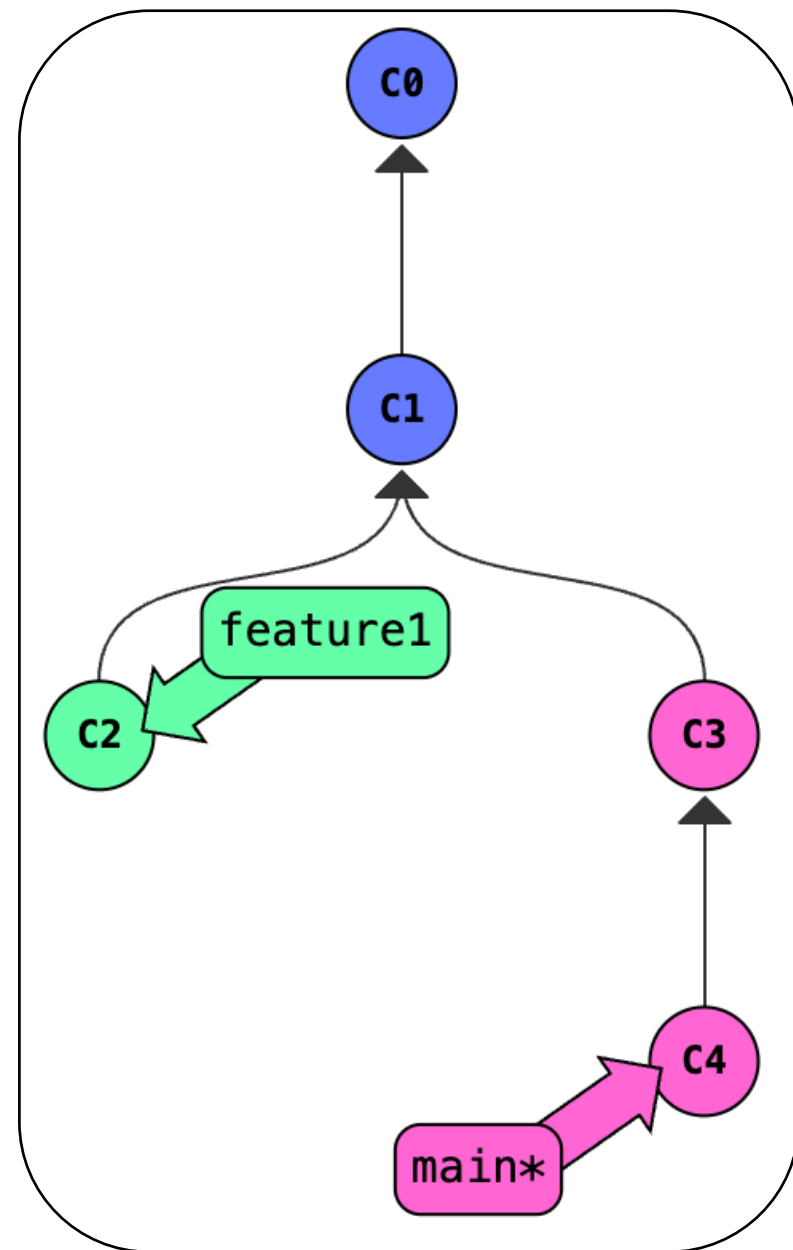
<https://tyler.caraza-harter.com/cs320/learnGitBranching/index.html>



```
$ git branch feature1
$ git checkout feature1
$ git commit
$ git checkout master
$ git commit -m 'v1'
$ git commit
```



# Merging without Conflicts



Switch branch

`git merge frombranch`

add whatever is there to the current branch

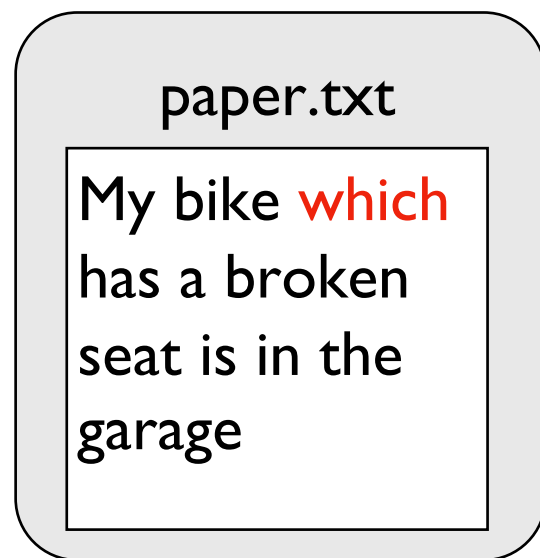
tip (or learn vim):

`export EDITOR=nano`

# Merging with Conflicts

What happens when two people try to fix the same issue, in two different (incompatible) ways?

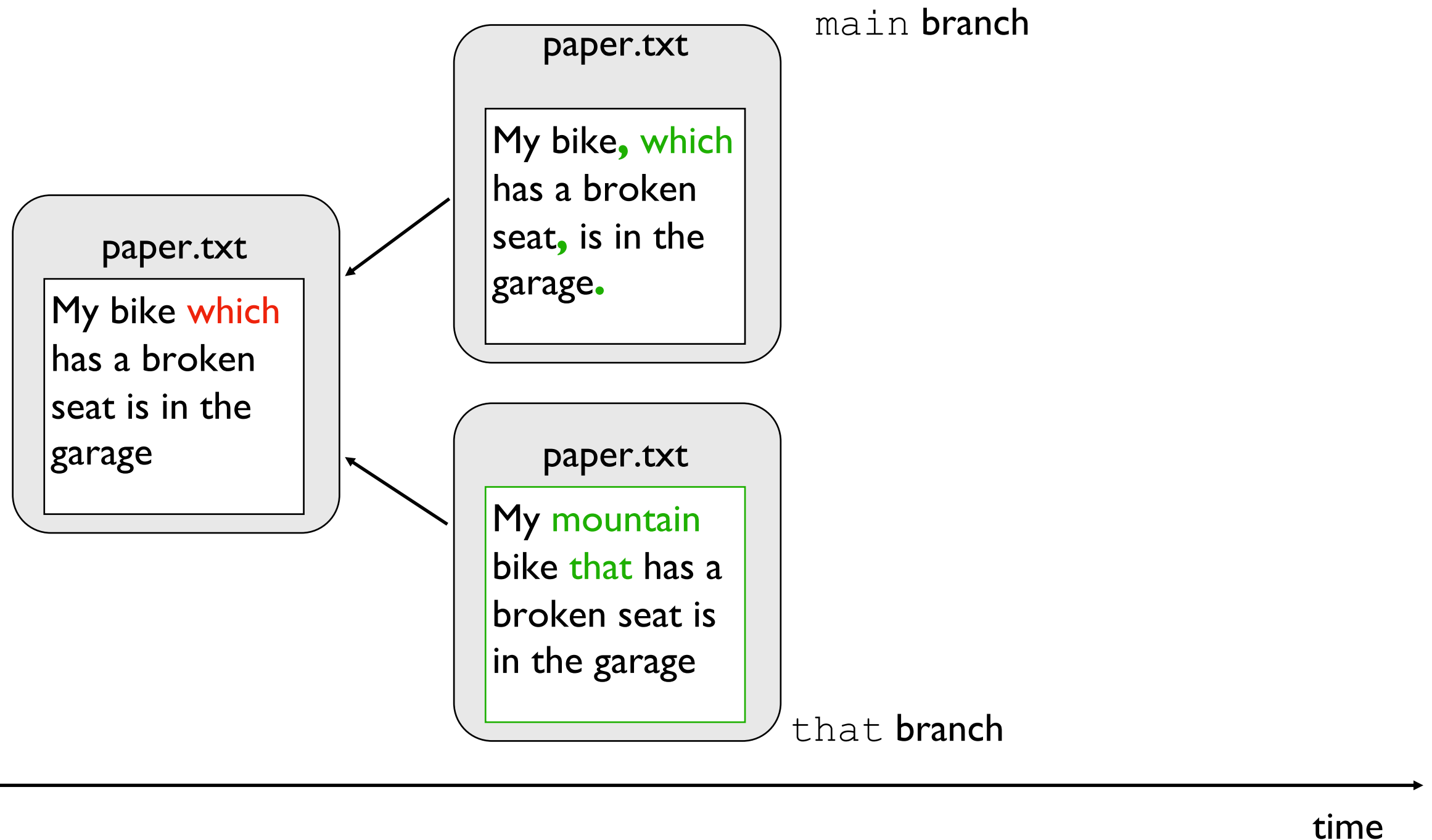
main branch



time

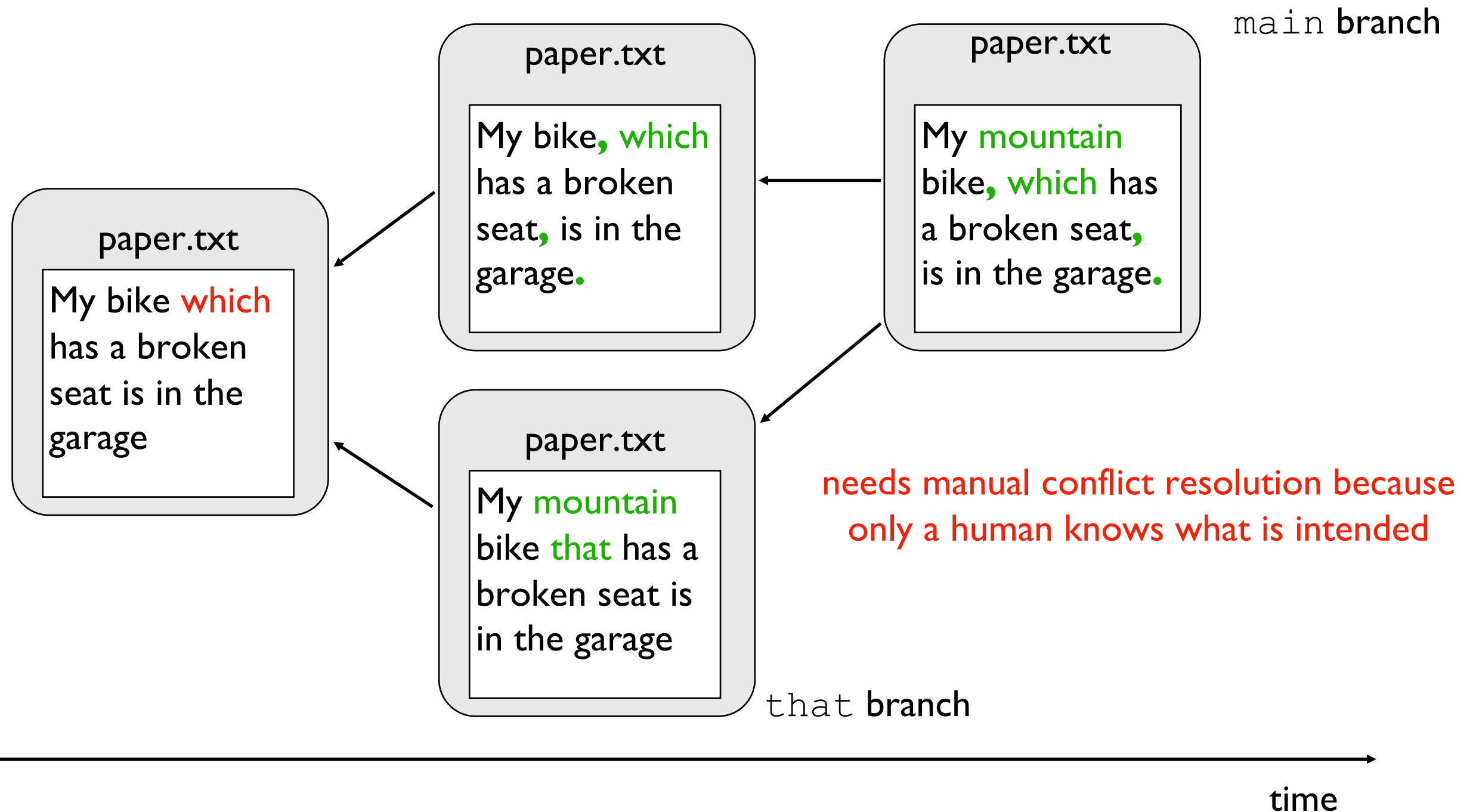
# Merging with Conflicts

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# Summary of Terms

**commit:** a snapshot of files at a point in time

**HEAD:** a convenient label for the current commit

**tag:** a long-term label associated with a commit

**branch:** a label attached to a commit that re-attaches to new commits

**merge:** to combine changes on another branch into the current branch

**conflict:** differences that cannot automatically be merged

Challenges (figure out how to reproduce):

