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go through code smells document
(view point code not design)

Head First ch. 6 version control

don't just make your code work,
make it keep working

keeps code safe, can undo mistakes

book shows an example of a
merge gone bad, where two
developers are working at same
time & one overwrites the
other's changes - and repeats
only his own tests, not the tests
for the other new code

they were not using version control
(aka configuration management),
so may or may not be able to
reconstruct the missing changes

book uses subversion,
we use git (stash) ← show

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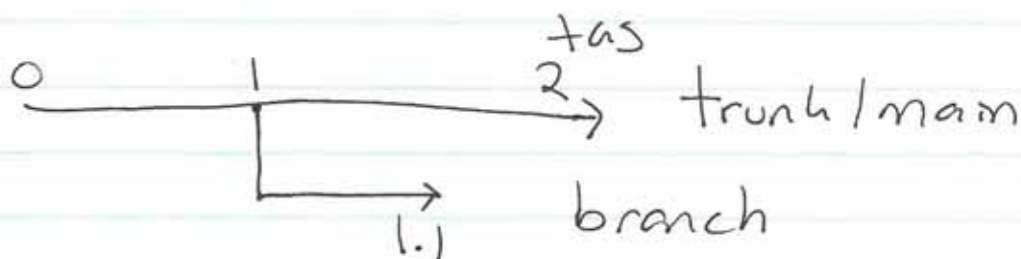
basic model for all version control systems

create repository
 set up initial version in repo (possibly null)
 check out your own working copy
 make changes
 check in your changes (w/ commit msg)
~~system~~ next time someone checks out,
 they get new version or updates

details different for when multiple developers change same code at same time

Some systems simply disallow using locks

some systems try to automatically merge changes - or insist that developer manually merge - prior to checkin



different files have different number of revisions

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tags mark all files in the same release or other milestone, so they can be found again

branches allow intentionally divergent code bases, but best to avoid

branch for fixes to previous versions
& for spike solutions (throwaway)

do not branch for different platforms
or to give each developer
own sandbox

version control does not address
software build -
compile & test

(talk more generally about tools -
What are your favorites & why??)

Head First ch. 6 1/2 Build

about Ant, also mentions Maven
Java play has its own build tool,
sbt

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build scripts

- compile source code into executable form
- find dependencies (libraries)
- package for deployment (jar)
- generate documentation
- "clean"

can run regression test suite
continuous integration rebuilds &
retests whole application for
every commit (or nightly)

developers do not need to remember
steps for build process -
they're written down in the script
& automated by the tool

framework & IDE might each use
their own build tool - make
sure everyone on your team uses same