

Understanding Version Control



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@nusco

This module is optional if you
already use version control

Tracking a Project's History

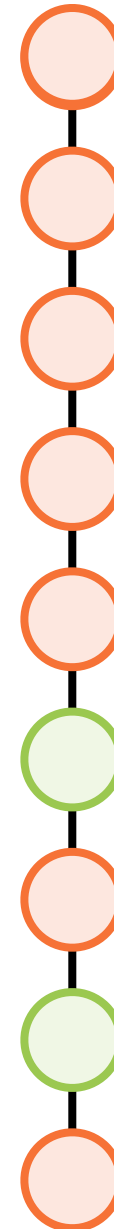
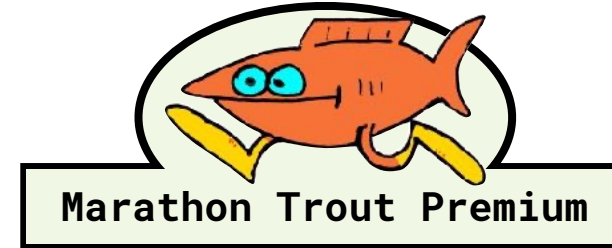
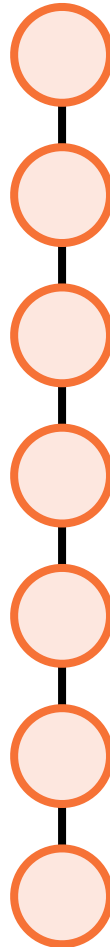
Disclaimer: version control
isn't a backup

Version Control Is Useful To...

...track a project's history

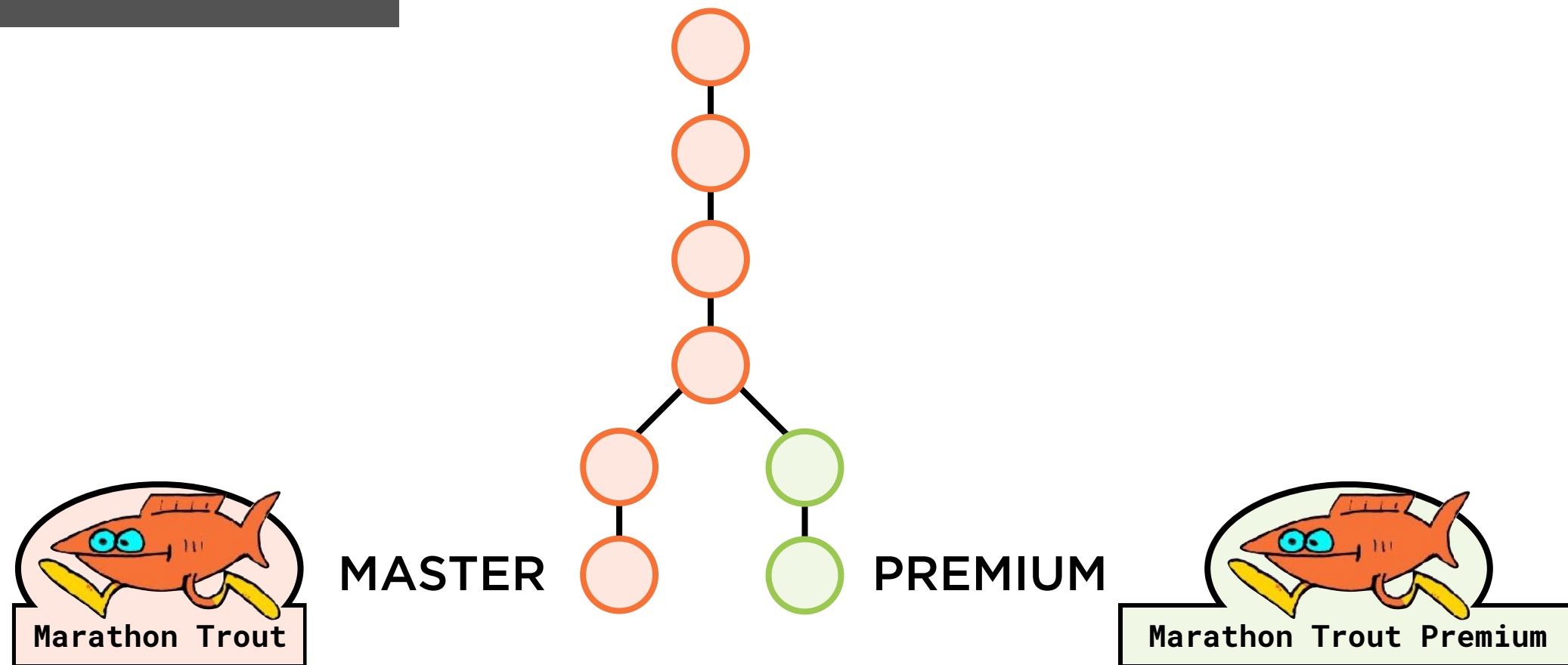
Managing Multiple Versions of a Project

The Marathon Trout App



Branching

```
git branch premium
```

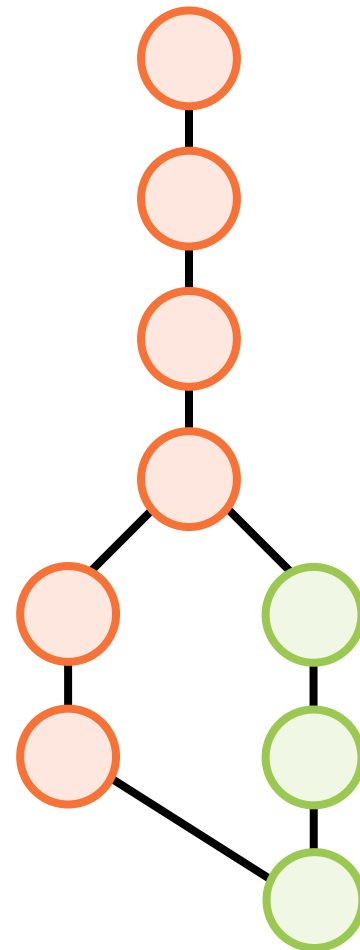


Merging

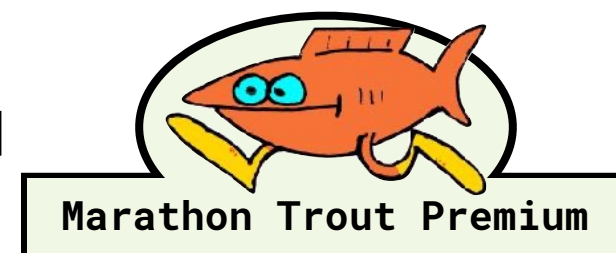
```
git merge master
```



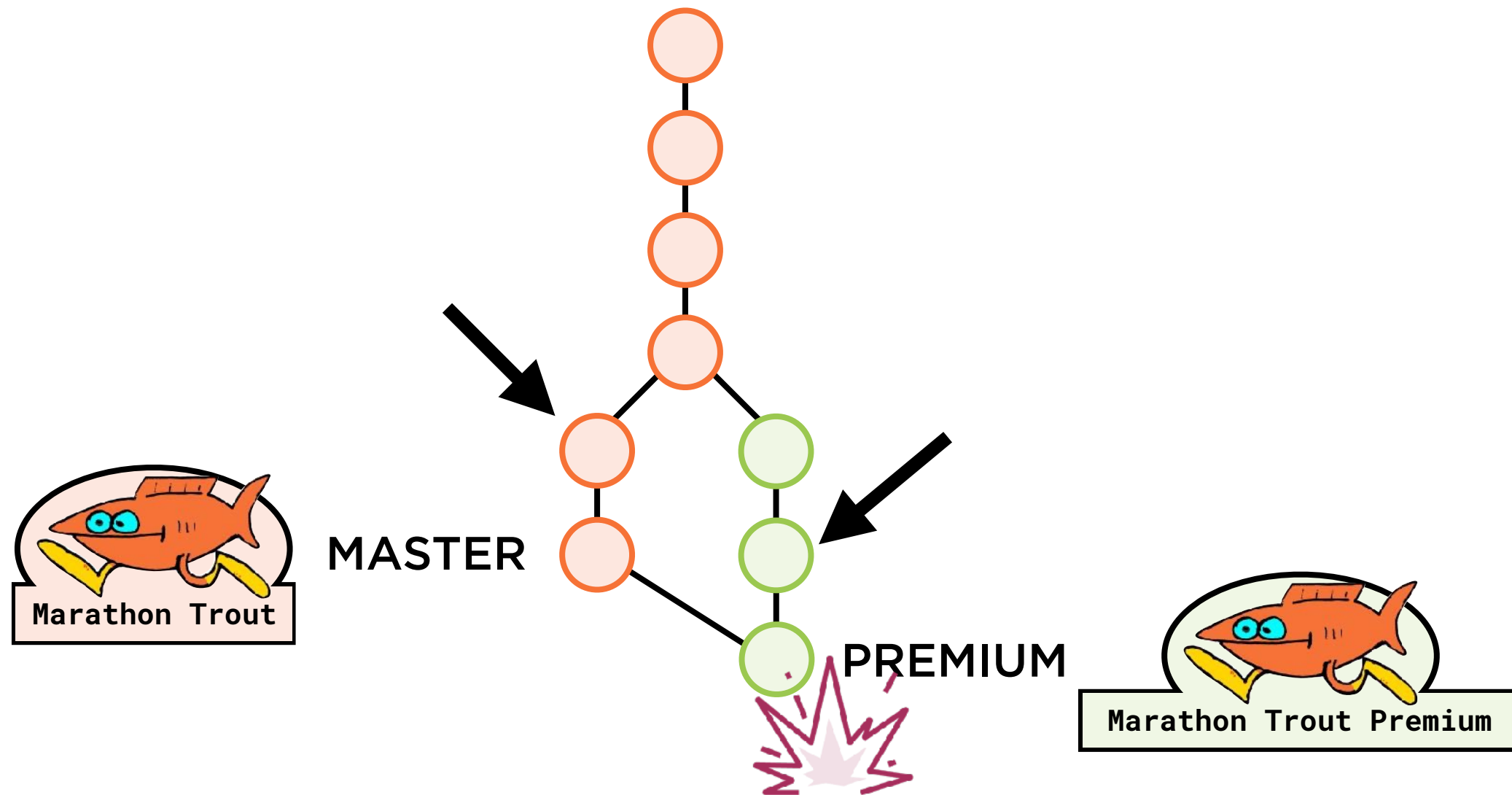
MASTER



PREMIUM



Conflicts

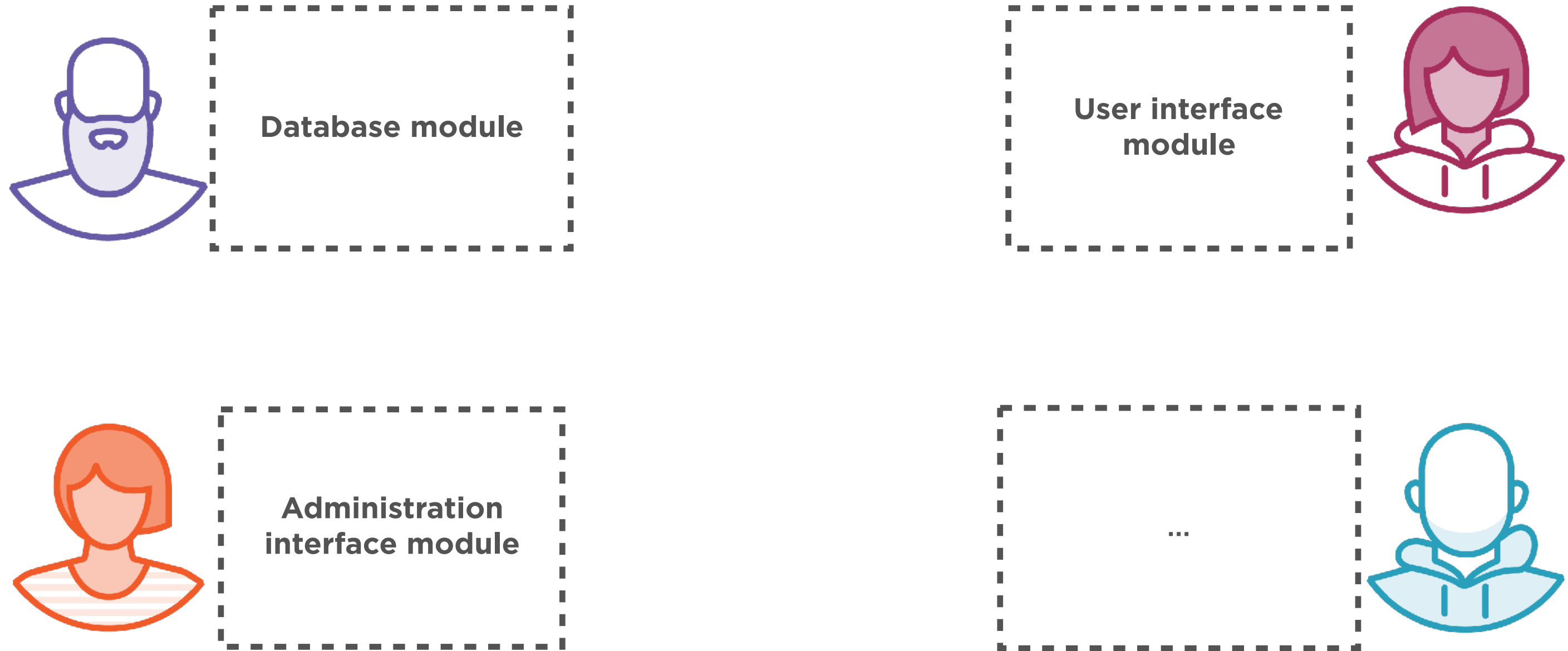


Version Control Is Useful To...

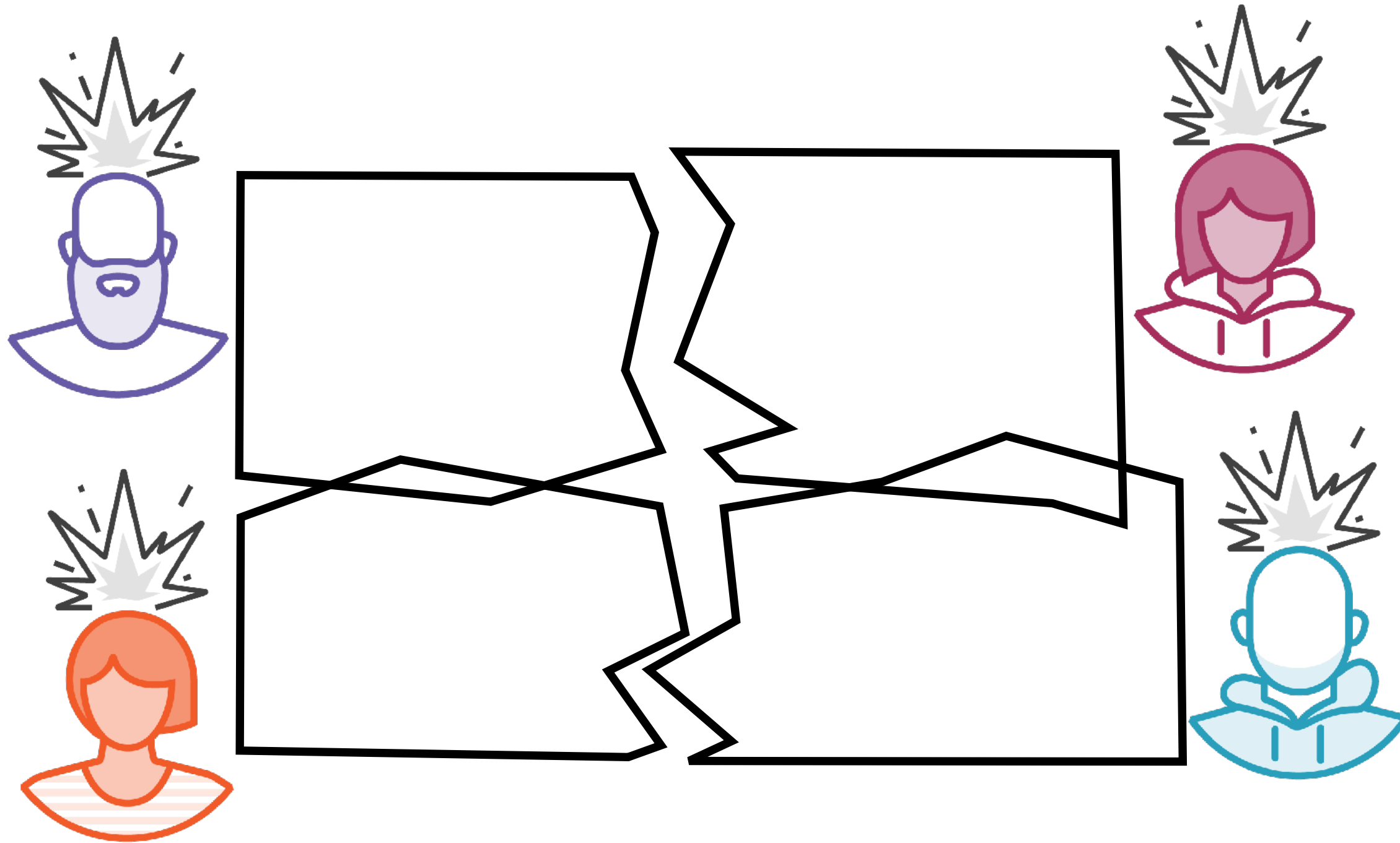
**...manage multiple versions of
a project**

Sharing Code Amongst Developers

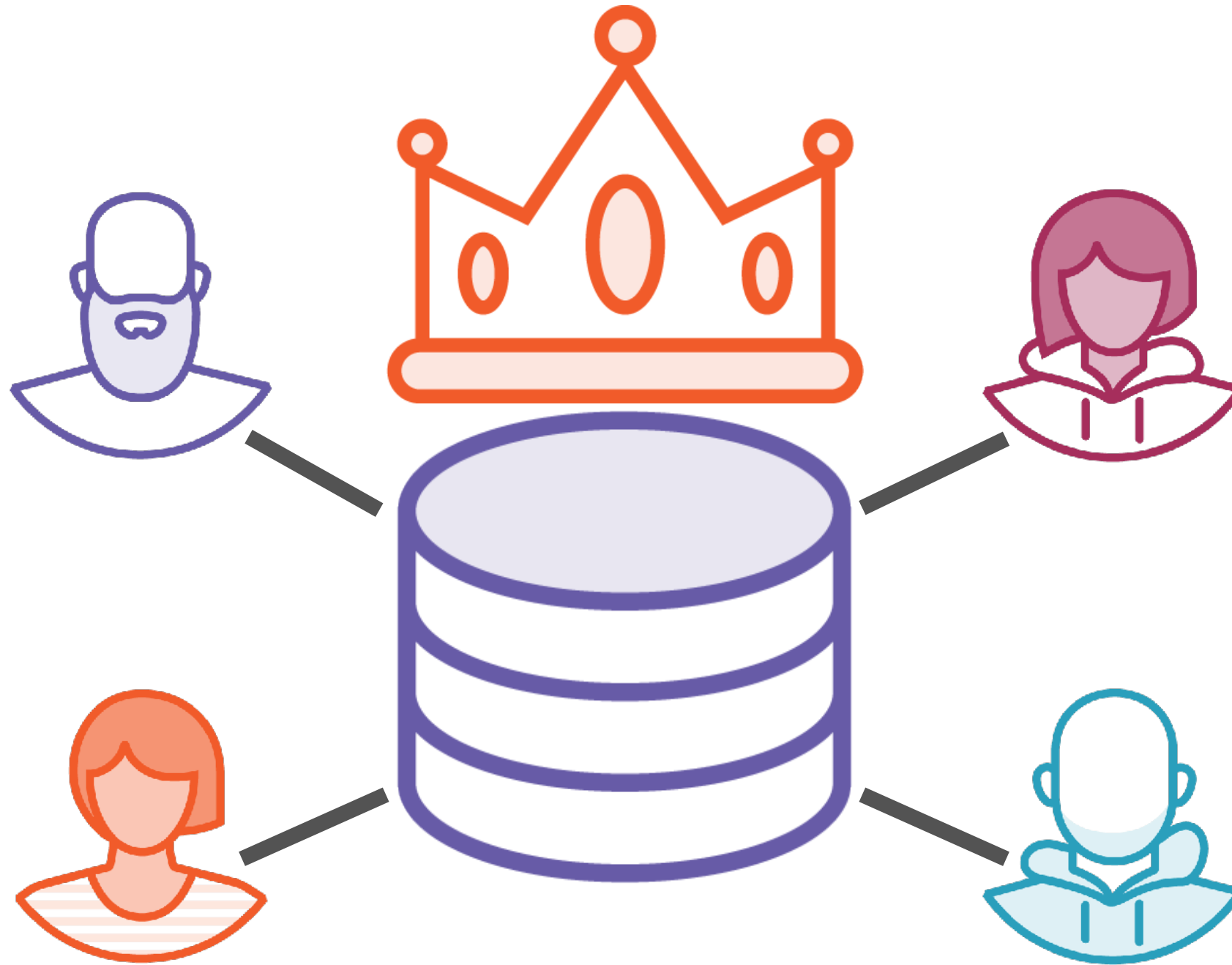
A Project without Version Control



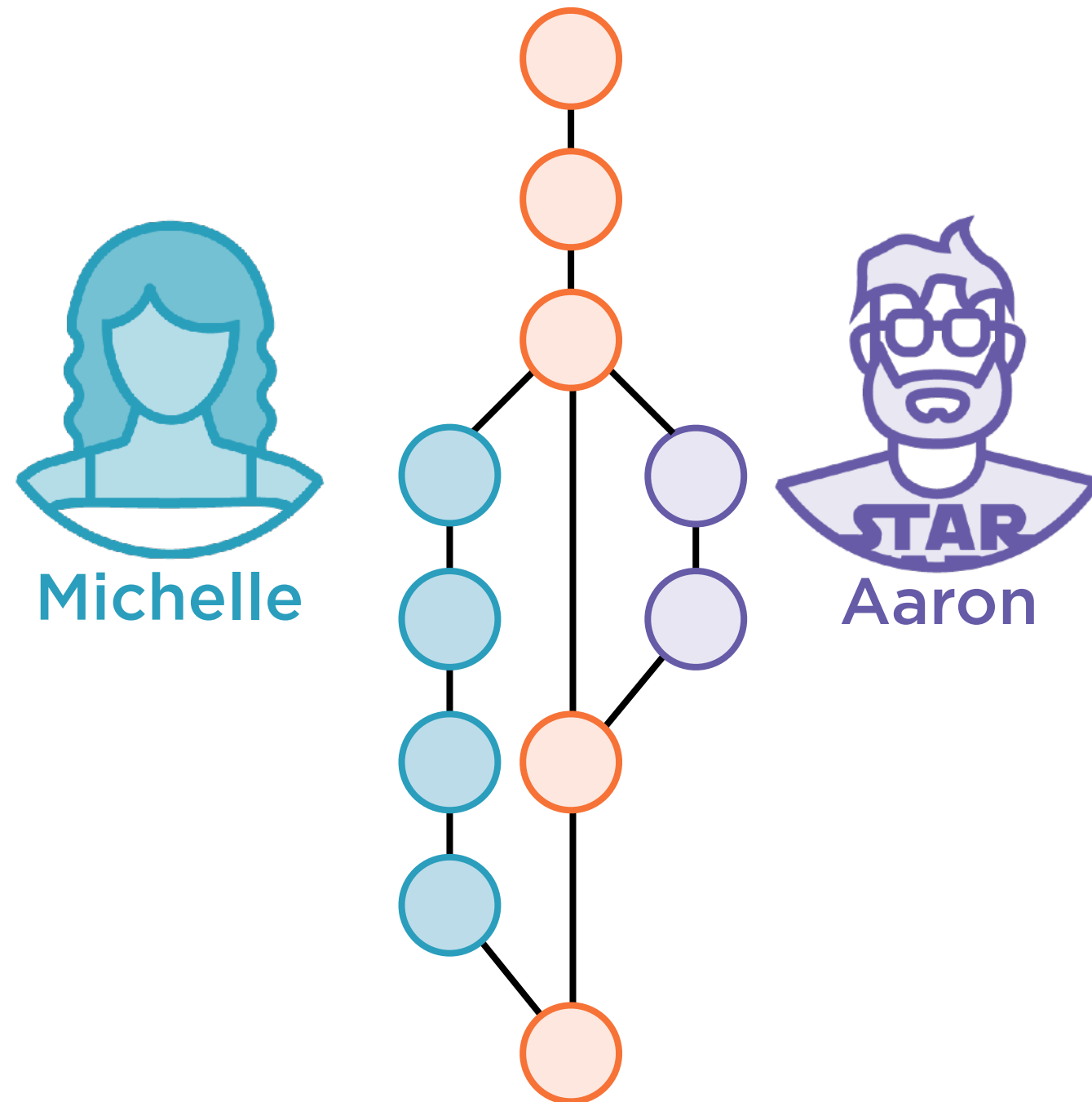
The Integration Phase



A Project with Version Control



A Project with Version Control



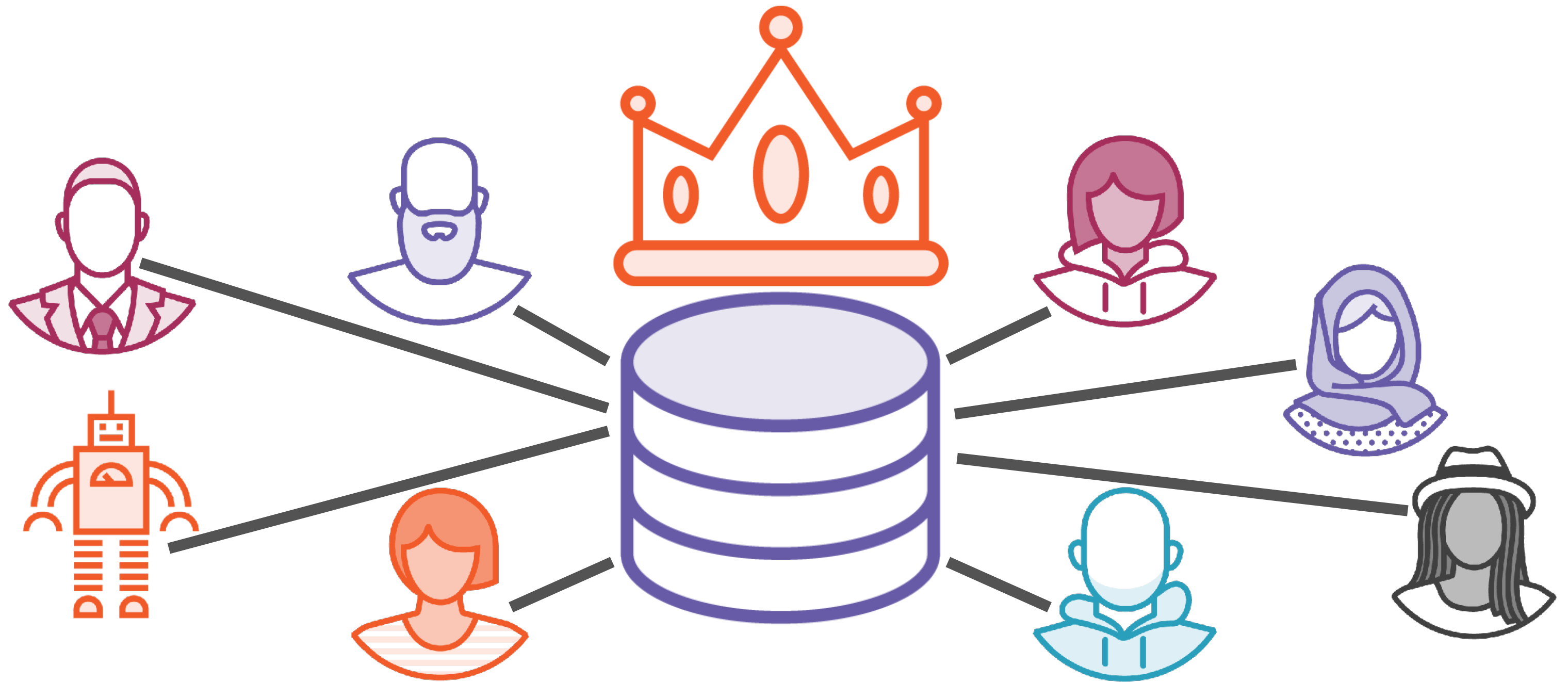
“If it hurts, do it more often.”

Martin Fowler

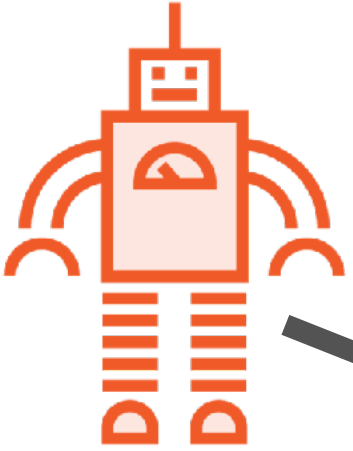
Version Control Is Useful To...

**...share code amongst
developers**

The Source of Truth



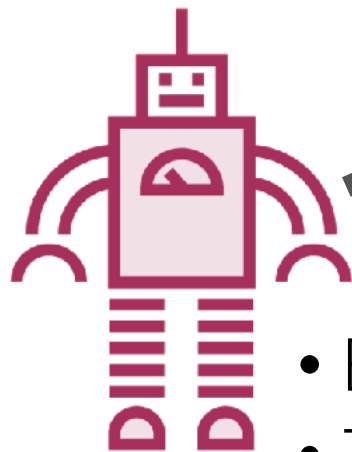
Bug Trackers



- Example: Bugzilla, Mantis
- Stores bug reports

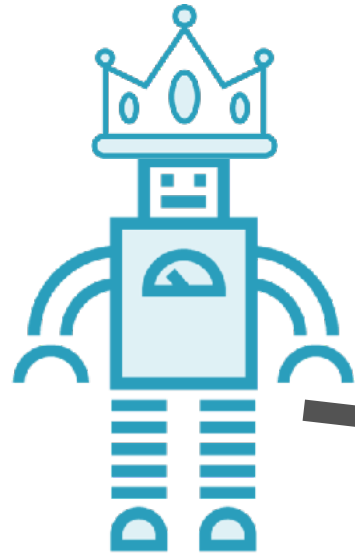


Project Management Tools



- Example: Jira
- Tracks work
- Allocates tasks

The Build Machine



- Example: Jenkins
- Builds and packages the system
- Deploys to testing
- Runs code metrics
- Runs automated tests
- Sometimes even deploys to production!



Version Control Is Useful To...

...coordinate teamwork

Summary

Tracking a project's history

- Plus time travel!

Managing multiple versions of a project

- Branching and merging

Sharing code amongst developers

Coordinating teamwork

- The center of the project for people and tools