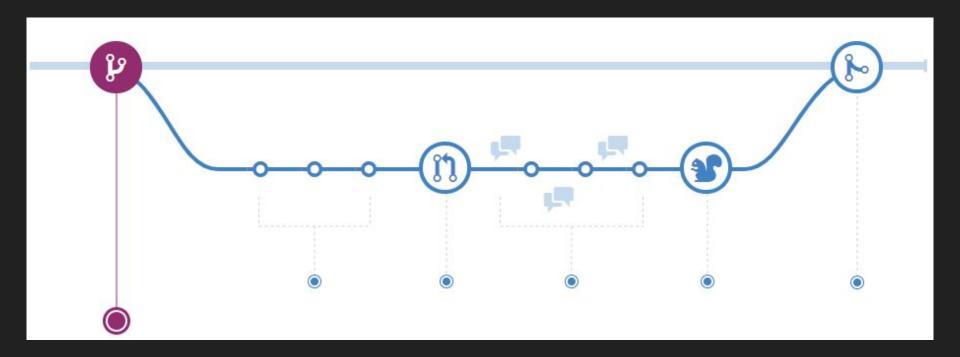
Recitation 1: Collaborating using Git & Github

Fall 2022

Find a partner as you sit down

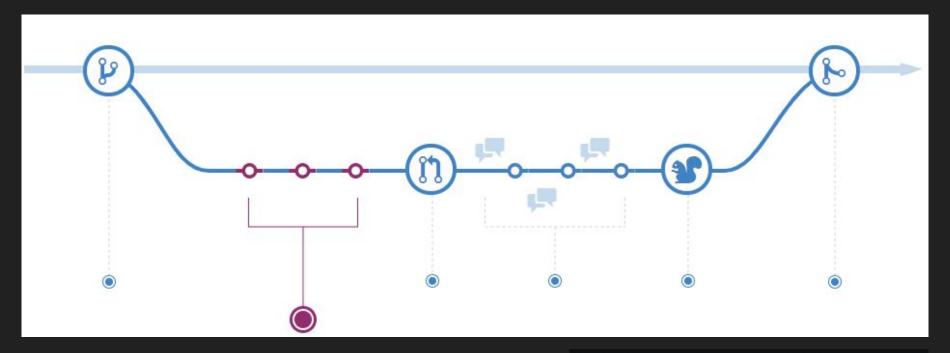
Git Flow

Taken from: Understanding the GitHub Flow https://quides.github.com/introduction/flow/



Branching

- Develop features on a separate branch from main
- Branch name should be meaningful "fix-button-bug"
- git checkout -b fix-button-bug

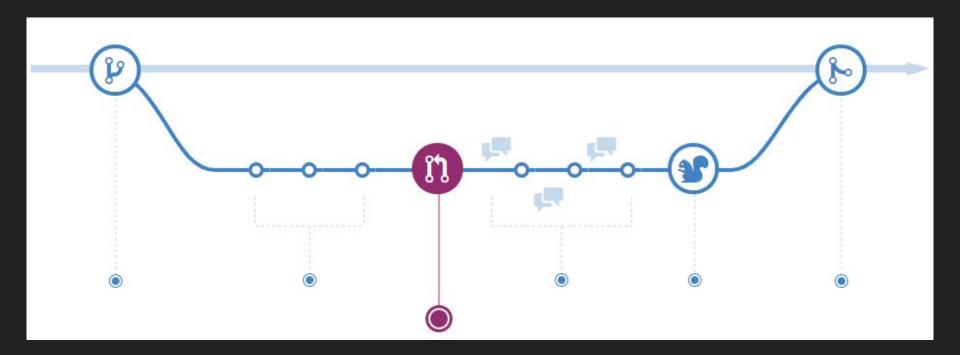


Add Commits

- Commits to create change history
- Commits should be Verb then something. KISS
- Commits can be used to close issues as well (On GitHub)

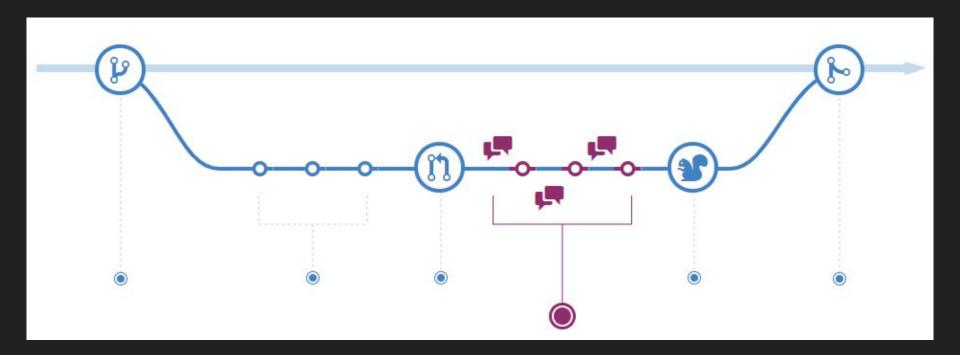
5ba3db6 Fix failing CompositePropertySourceTests 84564a0 Rework @PropertySource early parsing logic e142fd1 Add tests for ImportSelector meta-data 887815f Update docbook dependency and generate epub ac8326d Polish mockito usage

Now when you enter "Fixes #33" in a commit message, issue 33 will only be closed once the commit is merged into your default branch (usually master).



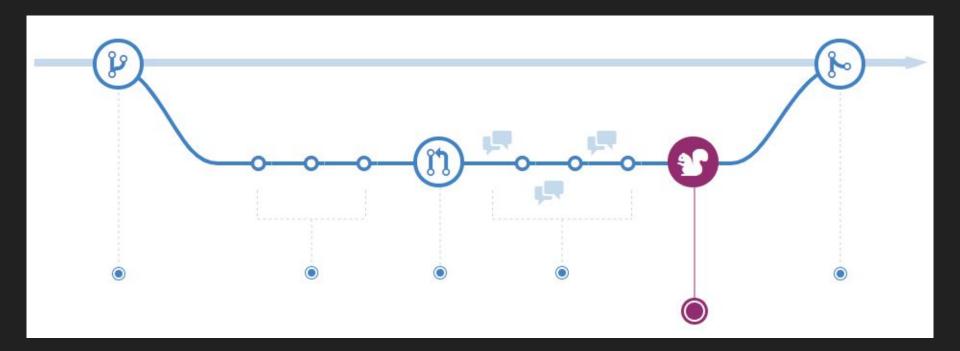
Creating Pull Requests

- Push branch up to prepare for merging with main
- Can be done anytime when writing code
- Title & Description should be meaningful, explain what issue / ticket is fixed by your changes



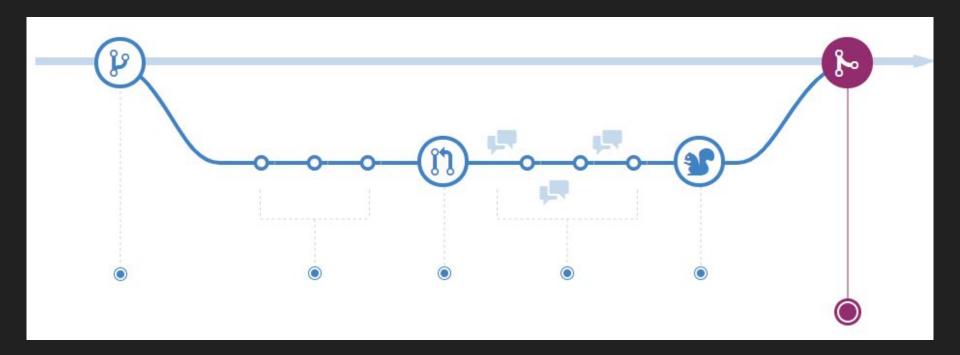
Code Review

- Done when pull request review is requested
- Back and forth process until reviewer approves



Automated Testing/Deploy

- Most DevOps tools will allow you to set up automated testing
- Run automated testing before merging



Merge to Main!

• Merge to main when your PR is approved and your automated testing passes!

Code Reviews

How to Do Code Reviews like a Human: https://mtlynch.io/human-code-reviews-1/

General Guidelines

As the Reviewee

 Don't make big PRs. Aim for less than 500 lines of changes. Reviewers are more likely to not catch bugs in a larger PR

As the Reviewer

- Be polite, and make requests instead of commands.
 - Could give this variable a more descriptive name? Instead of Change this to be more descriptive
- Focus more on performance, simplicity and maintainability
 - Style can often be handled using style guides or linting tools / code formatters
- "LGTM" what people usually say to approve



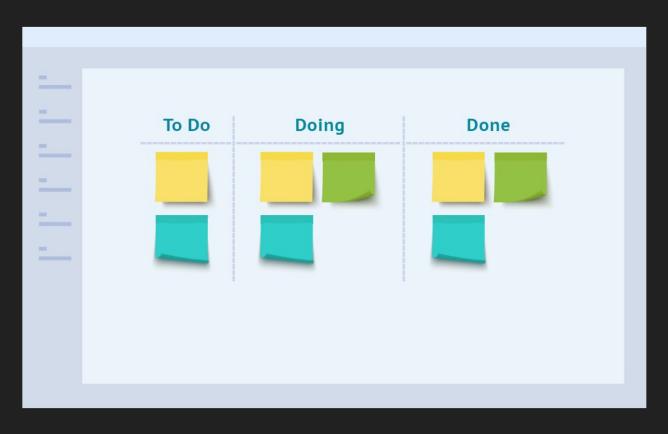
Kanban Boards

Developed in Toyota around 1940s

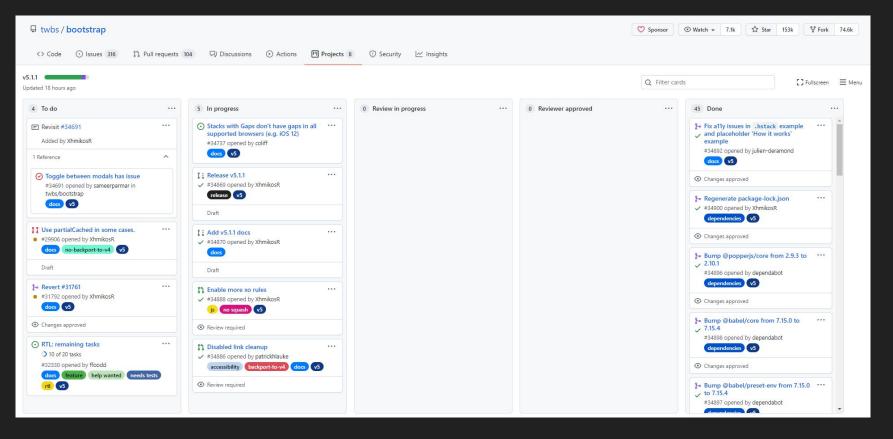


Meaning signboard in Japanese, allow people to know state of the project in one look

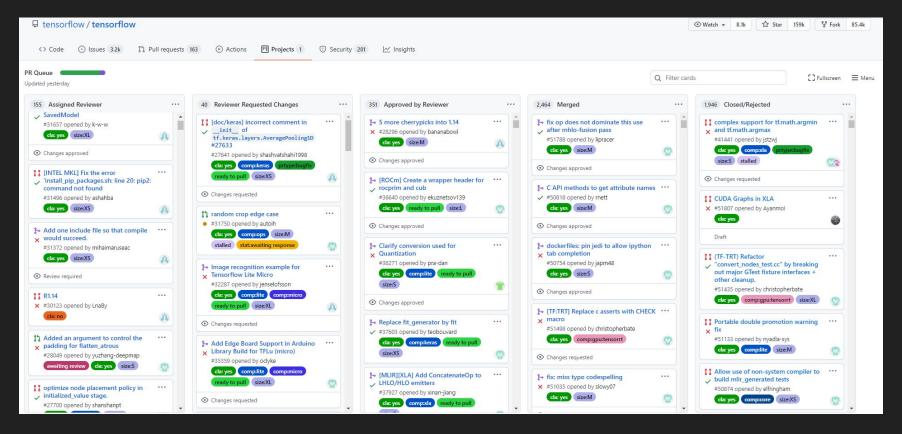
Overview



Github Projects - Twitter Bootstrap



Github Projects - Google TensorFlow



Activity Time. Pair up!