Participating in Code Reviews as a Tester

CHRISKENST

Automation Engineer | Writer | Speaker | Board Member

@ckenst

Get the Materials

https://github.com/ckenst/tester-code-reviews-webinar/

@ckenst

Why Participate in Code Reviews?

- Code Reviews are common practice and open to anyone with access
- See how something is implemented which produces a different set of knowledge from having tested something
- Have a conversation about how this thing is being built and why
- Better inform your testing efforts
- Become more "technical"

@ckenst

Branches

Using the Git workflow which is an increasingly common way for development teams (and testers who work within development teams) to release and manage software. Each set of changes is in a separate **branch**.
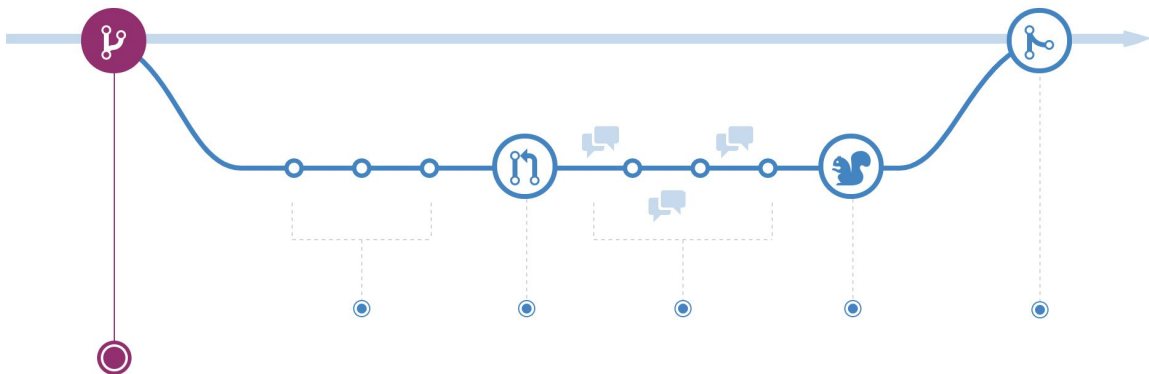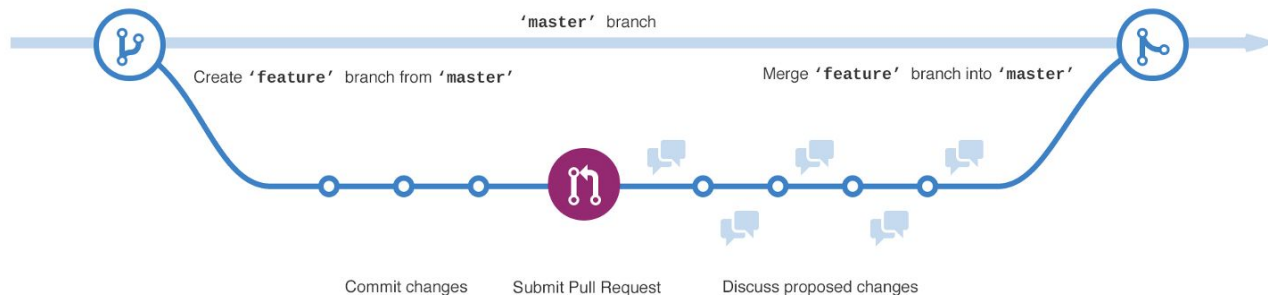
Create a branch

@ckenst

Pull Requests

Also known as a PR, it is the nicely packaged set of changes someone is hoping to merge & deploy.

Once a PR is created, lots of fun things can happen with CI

GitHub's PR interface

The Code Reviews

PR is up. Now it's time to peer review the changes, learn and discuss.
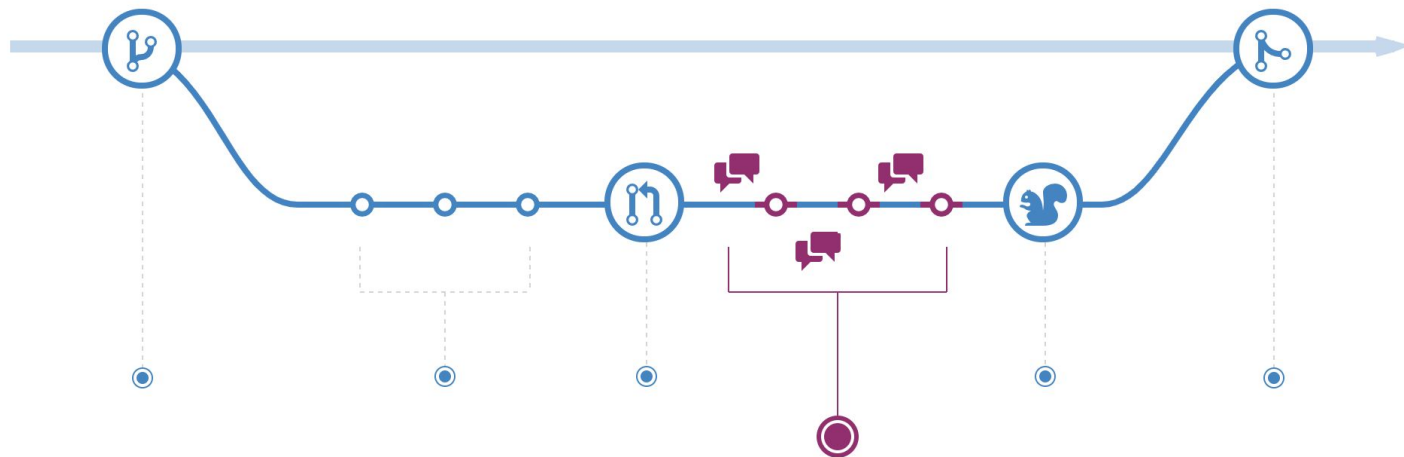
Discuss and review your code

@ckenst

The Goal: Merging & Deploying Changes
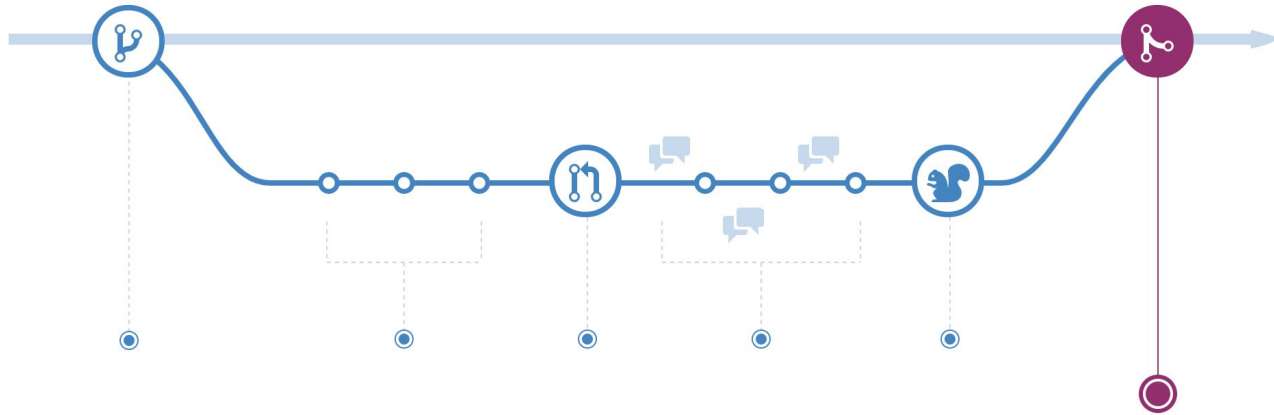
Merge

@ckenst

Merged changes = testable features.

Unmerged changes = testable in CRs.

My Code Review Story

- All PRs had to be approved by 1 person, no merging without 1 passing CR
- Company was very big on pairing
- I started pairing with developers to walk through fixes
- They started asking me to do Code Reviews of bugs I reported
- Now I always try to review them

Categories of changes

I think it's useful to think about changes in terms of categories both from a risk standpoint but also because some categories are easier to start participating in:

- Documentation
- Bug Fixes
- Maintenance
- Refactors
- Features

Understanding Changes - Not code familiar

- What files have changed? Take a an mental inventory
  a. Are there extra files you weren't intending to see? Less files?
  b. Do these changes belong there?
- How many individual changes? Big risk, small risk?
- Are things readable? Do names reflect the things they are supposed to represent?
- Are there text changes (copy changes)?
- Are there any code comments you can find? Do they say scary things?

Understanding Changes - Code familiarity

- Are there any obvious logic errors?
- Does this code write debugging information to a log file somewhere?
  a. PrintLn or console.log
- Does this code use any third-party services? Which ones?
  a. Make a note of this and follow up
  b. Do you have access to this service for testing?
- Are there any potential security problems with the code?
  a. Maybe no one is paying attention to the 3rd party services / scans as part of your CI system. Point these out and ask about warnings, risks, etc
- How was this code written? What design patterns and conventions are being used?

@ckenst

Understanding Changes & Testing

- Are we including any unit or integration tests with these changes? If so, can I understand what the tests are doing?
  a. What is already being tested?
  b. How might this alter what your plans are?
- Create new Test Ideas
  a. You already know what files are changing, how does this affect your strategy?
  b. Can you already start thinking of tests you'll run?

@ckenst

Be Different, Think Different

- Internal Code Review Standards
  - Have them?
  - Are they followed?
  - If you know others are following a checklist, don't duplicate it
- Bring your own context to the equation. What do you know about the application or changes?
  - Fill in the gaps
- Less pressure with more people doing CRs

@ckenst

Discussing your understanding and questions, maybe leave a comment

Examples

Live Code Reviews on GitHub

@ckenst

Where Can I Get Started?

- Your job! (Did I mention pairing?)
- [This repo!](#)
- [TestingConferences.org](#) -> most of our PRs contain all text updates. If you can read text you'll be just fine. Leave a comment or two.
  - We've had over 80 people submit contributions and I'd love to have a similar amount asking questions on each PR, doing Code Reviews
- Find a project on GitHub and start looking

@ckenst

Questions?

@ckenst

Get In Touch

- Let me know what works and what doesn't work for you
  - Share your success and failures
- Contact
  - chris@kenst.com
  - @ckenst on twitter, linkedin, github
  - www.kenst.com

@ckenst