Getting Started with Open Source Maintenance

Thank you for joining us! ✨

Let's introduce ourselves:

- Tell us where you are joining us from!
- What's one thing you like to do for fun outside of work? (Netflix counts!)

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Facilitators

Regina Arcilla, iOS Developer
Volunteer @ WWCodeMobile

Jackie Chan, Software Engineer
Evangelist @ WWCodeMobile

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Purpose of Talk

Better understanding of maintaining open source projects

Intended Audience:

1. WWCode Mobile Maintainers for coding projects
    - iOS
    - Android
    - Mobile Game
2. Anyone else who wants to further their understanding of how to maintain a project

Agenda

- What is Open Source Maintenance?
- General Best Practices
- WWCode Mobile GitHub Setup
- Roles and Expectations
- Maintainer Workflow
- GitHub Repo Organization

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What is Open Source Maintenance?

The process of maintaining an open source project involves tasks such as deciding on project direction, reviewing code contributions, determining which portions of source code goes into a release or build, and moderating the community.

General Best Practices

- Write down your project's vision and communicate your expectations
    - README.md
- Learn to say no
- Keep the conversation friendly
- Spread the word
    - Social Media
    - Q&A Platforms: Stack Overflow, Reddit
- Attract helpful contributors
    - Consider shoutouts (#applaud), rewards

General Best Practices

- Address issues in a timely manner
  - No one will show interest in contributing to an open-source project if it doesn't address potential bugs, security issues, or feature addition
- Adopt a Test-Driven Development approach
- Write good documentation
- Use source control (ex. Git)
- Regular monitor and evaluate system performance

WWCodeMobile GitHub Setup

- Ideally, open source projects have their own repo to more easily manage permissions and changes made to project
- WWCodeMobile GitHub:
  - A repo under the WomenWhoCode organization
  - The projects will be saved in a repo within this repo
    - Should fork entire WWCodeMobile

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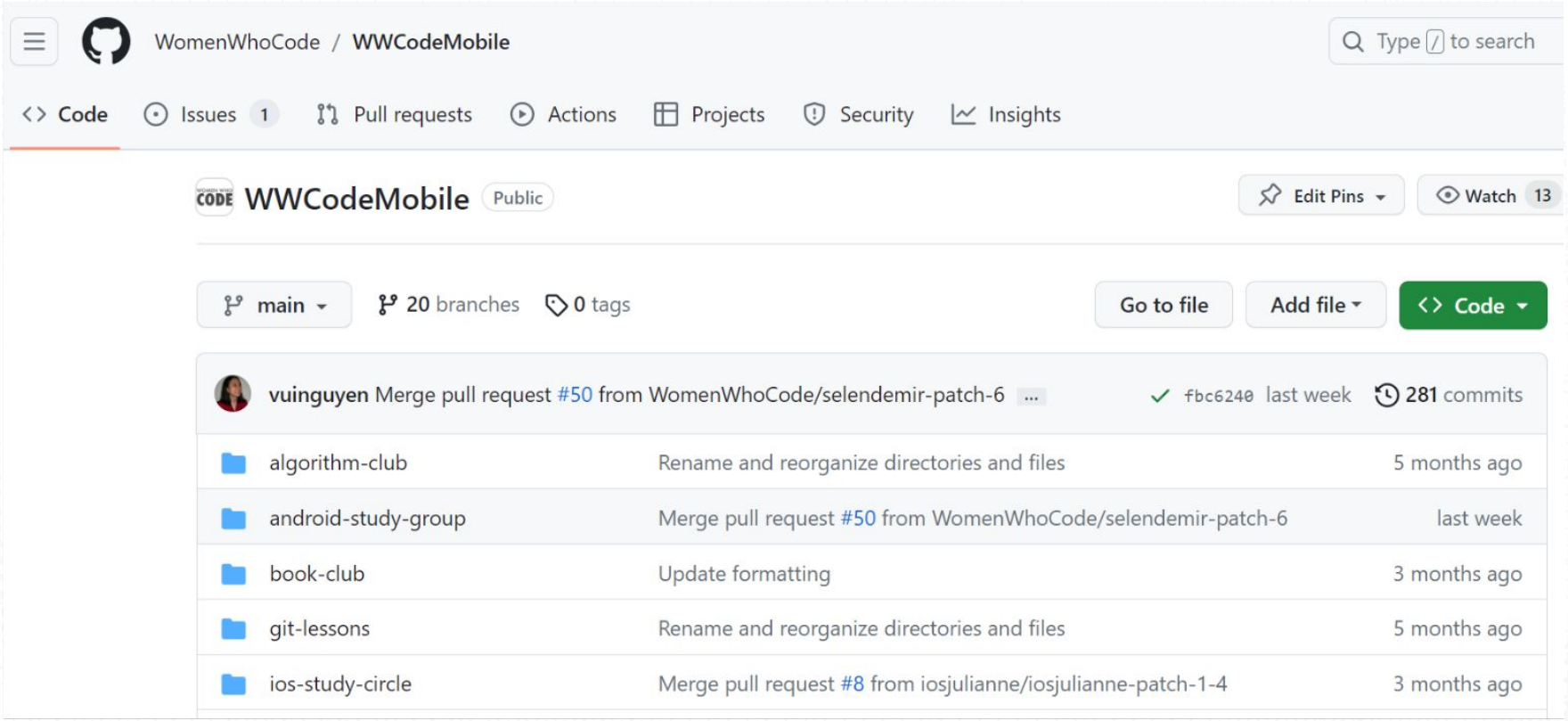
WWCodeMobile GitHub Screenshot



WWCodeMobile Project Roles and Expectations

3 role types ordered by increasing levels of repo access:

Contributor → Non-lead Maintainer → Lead Maintainer

Contributors

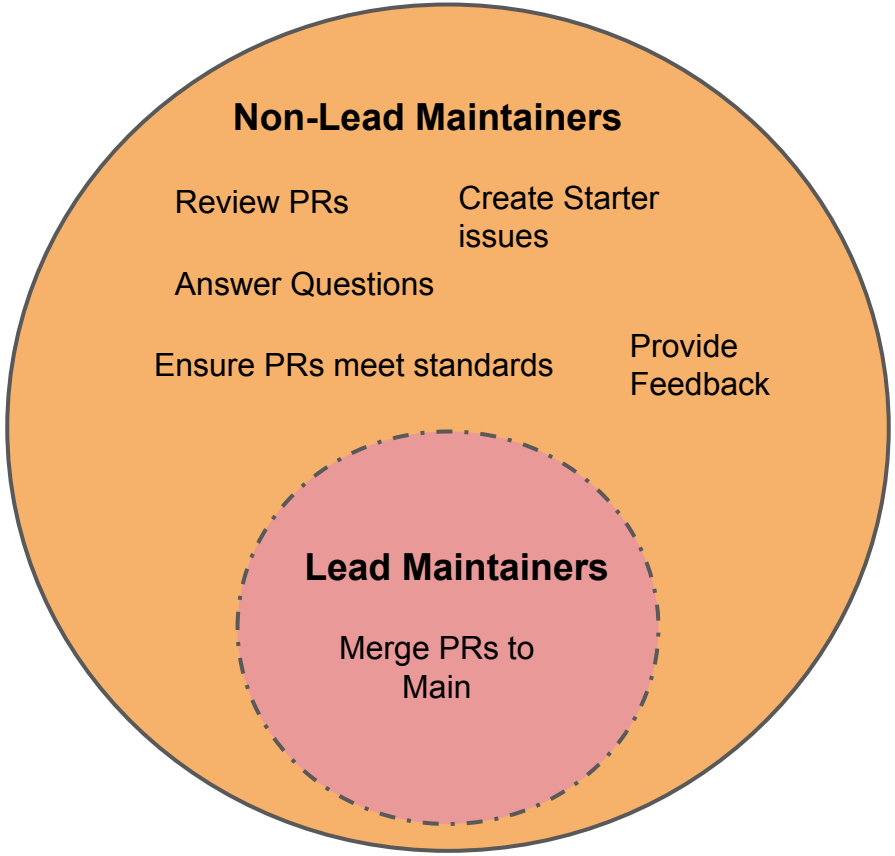
- Role Expectations:
  - Work on features or resolve issues by opening a Pull Request (PR)
  - Ask questions by either leaving comments under the original GitHub issue or pinging maintainers on relevant slack channel
  - Should tag PR with project-name labels
  - Ideally wait up to ~1 week for their changes to be merged by maintainers

Non-Lead Maintainers

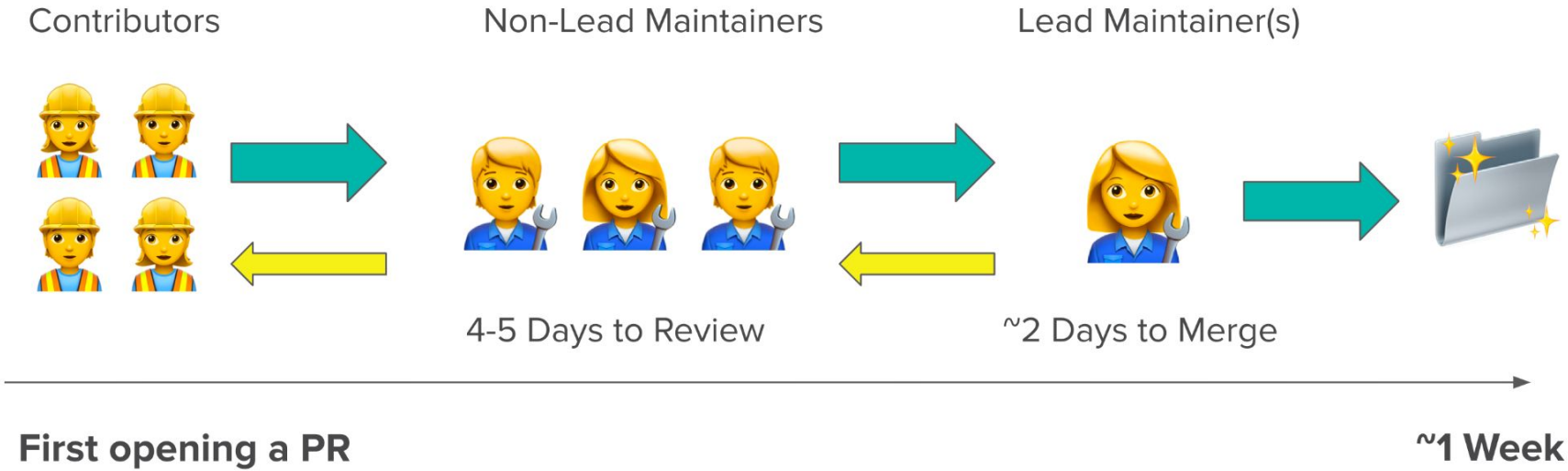
- 1 or more per project
- **“First pass PR reviewers”**
- Role Expectations:
  - Answer contributor questions (aim for a 1-2 day turnaround)
  - Provide feedback and/or request for changes on PR
  - Follow up with contributors when appropriate
  - Organize reviews among non-lead maintainers using the project label filter
  - Take 4-5 business days for PR review
  - Tag Lead Maintainers when PR is merge-ready

Lead Maintainers

- Max 2 per project
- **“Final pass PR reviewers”**
- Role Expectations:
  - Monitor Github mentions made by non-lead maintainers for merge-ready PRs
  - Finalize code quality for submissions
  - Merge PR
  - Follow up with non-lead maintainers when appropriate
  - Take 2 business days to merge a contributor’s PR after being reviewed by a non-lead maintainer
  - If there are 2 lead maintainers, reasonably split responsibilities


Non-Lead Maintainers
Review PRs
Create Starter issues
Answer Questions
Ensure PRs meet standards
Provide Feedback
Lead Maintainers
Merge PRs to Main

Maintainer Workflow



Github Open Source Project Directory Structure

/projects

- /resources
- /ios
- /android
- /mobile-game

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GitHub Repo Organization

- README.md
- CONTRIBUTING.md
- Style guide
  - Logical file organizations
  - Keep file names short, but meaningful
  - Make use of consistent, relevant elements
  - Avoid special characters and spaces
  - Document and share file naming conventions

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Questions? Thoughts?

Let's discuss!

Resources

- https://github.com/WomenWhoCode/WWCodeMobile/
- https://www.freecodecamp.org/news/how-to-maintain-an-open-source-project/
- https://opensource.guide/best-practices/
- https://opensource.google/documentation/reference/thirdparty/maintenance
- https://hardiks.medium.com/best-practices-for-effective-software-maintenance-9493934470b5
- https://blog.codacy.com/best-practices-to-manage-an-open-source-project
- https://datamanagement.hms.harvard.edu/plan-design/file-naming-conventions
- https://medium.com/code-factory-berlin/github-repository-structure-best-practices-248e6effc405
- https://www.linuxfoundation.org/blog/open-source-maintainers-what-they-need-and-how-to-support-them

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Thank you

Keep connecting:

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- Jackie Chan
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