Commit early! Commit often!

A gentle introduction to the joy of Git and GitHub

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Example files: https://github.com/saspy-bffs

Who "gits" it?

Raise Your Hand if...

- ✓ you've had issues working with code sent to you as an email attachment?
- ✓ you've had issues determining which version of a program is the "most recent"?
- ✓ you've suspected the word "final" in a filename is a lie?

Common Workflows for GitHub

Theme. GitHub lowers the friction of collaboration (even when working alone)

Workflow 1. Commits in "Main Branch"

Workflow 2. Commits in "Feature Branch" + Pull Request

Workflow 3. Fork + Commits in "Feature Branch" + Pull Request

Workflow 4. Fork + Clone + Commits in "Feature Branch" + Push + Pull Request

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Workflow 1. Commits in "Main Branch"

Advantages

- Uses the fewest Git concepts
- Immutable commit history provides a detailed project audit trail

Disadvantages

- Discourages "exploratory coding"
- Difficult to simultaneously collaborate on the same file
- Everyone has the same permissions to change the main branch

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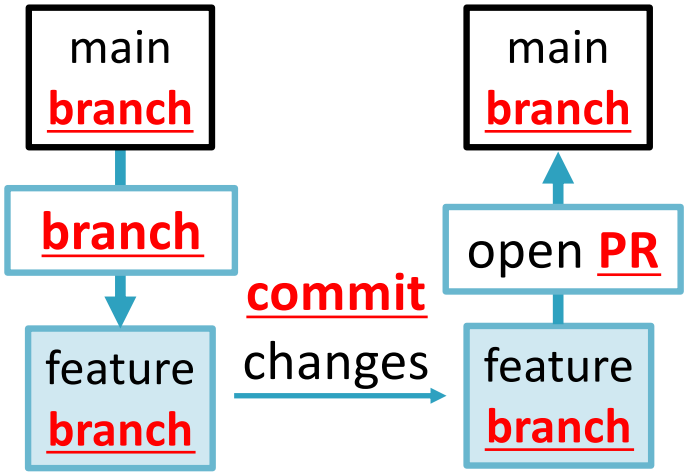
Workflow 2. Commits in "Feature Branch" + Pull Request (aka PR)



Advantages
- **Immutable commit history**
- **Enables "exploratory coding"**
- **Enables simultaneous collaboration**
- **Enables differentiated permissions (controlling changes to main branch)**

Main Disadvantage: Added complexity

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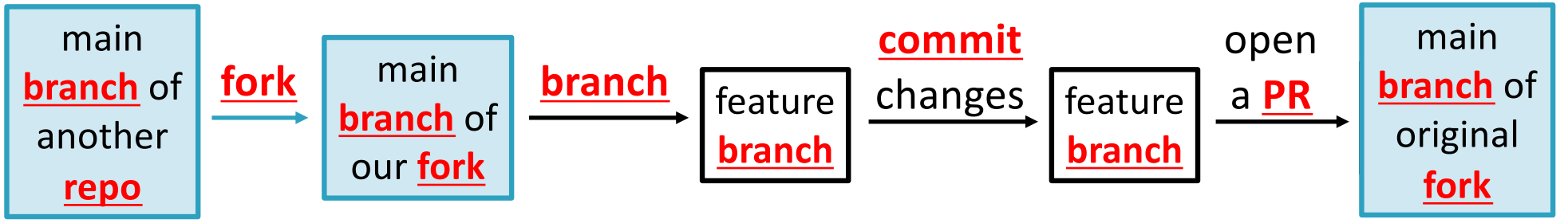
Workflow 3. Fork + Commits in "Feature Branch" + Pull Request (aka PR)

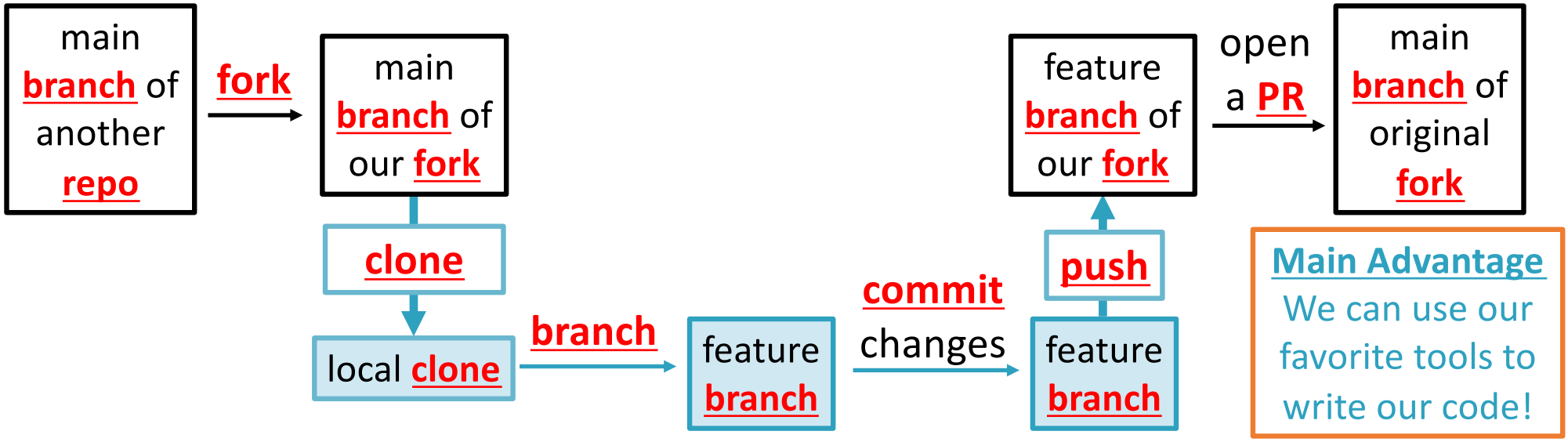


Main Advantage: This enables us to "suggest" unsolicited changes to someone's project (e.g., open-source projects on GitHub).

Common Workflows for GitHub

Theme. GitHub lowers the friction of collaboration (even when working alone)

Workflow 4. Fork + Clone + Commits in "Feature Branch" + Push + Pull Request



Common Workflows for GitHub

Theme. GitHub lowers the friction of collaboration (even when working alone)

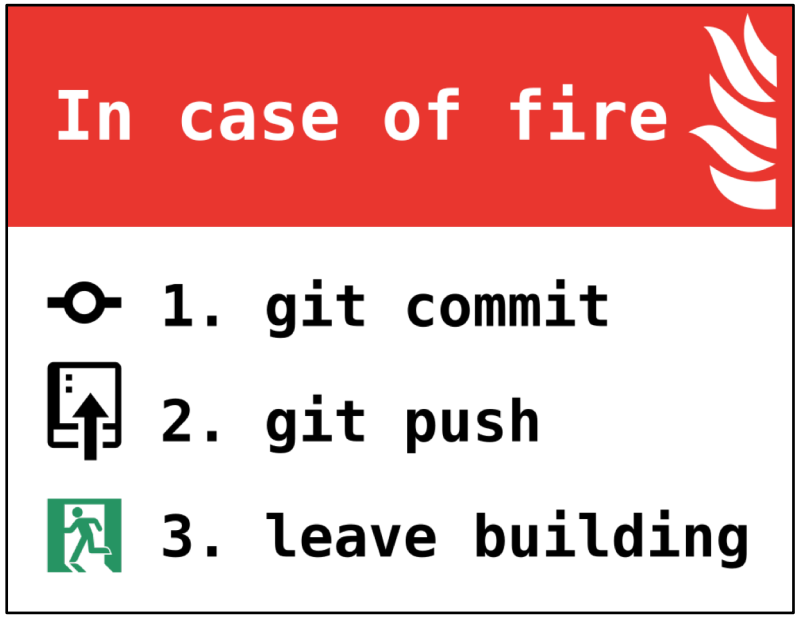
Workflow 1. **Commits** in "Main **Branch**"

Workflow 2. Commits in "Feature Branch" + **Pull Request**

Workflow 3. **Fork** + Commits in "Feature Branch" + Pull Request

Workflow 4. Fork + **Clone** + Commits in "Feature Branch" + **Push** + Pull Request

Today I Learned...



Source: https://github.com/hendrixroa/in-case-of-fire

Call to Action!

- **Takeaway**. Git and GitHub are amazing tools for collaboration, even when collaborating with just your (past or future) self!
- **Just Do It**. Start putting code for personal projects on GitHub, even if it's not polished!
- **Embrace the Open Source Ethos**. Go fork a GitHub repo, make a small change (e.g., fix a typo), and open a PR today!
- **Keep up the Good Work**. All of the materials for this workshop are on GitHub, including a detailed overview of the Git CLI!