Developing with GitHub

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This tutorial is modified from Dr. J. Huang's tutorial for sPHENIX
His original talk could be found here

Check list to get started

1. Register at https://github.com/

2. Send me yuhw.pku@gmail.com your user account name

3. Send your RCF SSH public key to GitHub:
https://help.github.com/articles/generating-ssh-keys/#step-4-add-your-ssh-key-to-your-account

4. Try it out: https://github.com/E1039-Collaboration/e1039-wiki/wiki/Start-up-guide-with-an-example

Collaborative editing on GitHub

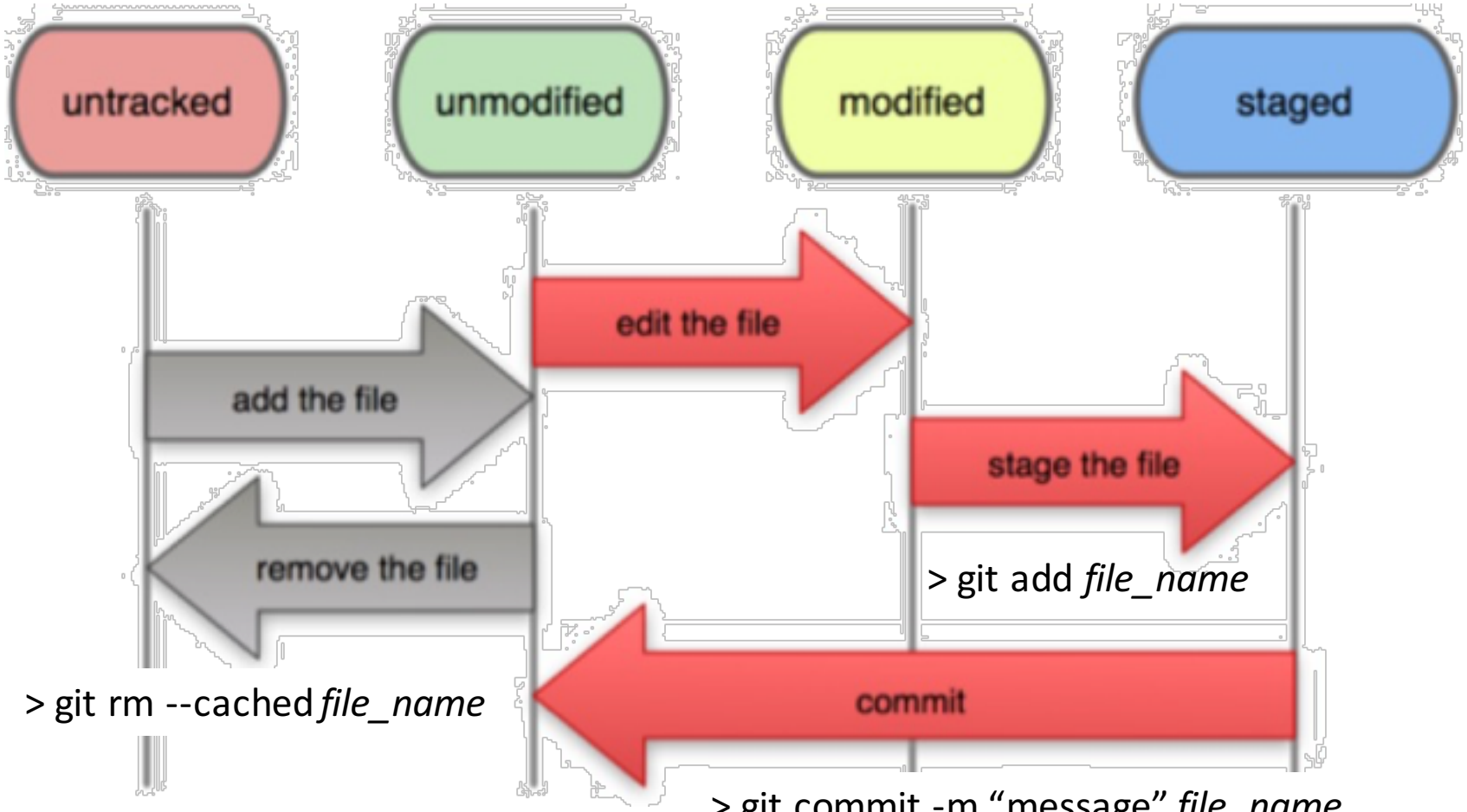
- GitHub support two types of collaborative editing, we would use both for different repositories

- For the analysis repository, see "Example work flow 2"
  - Every collaborator we free to add and edit
  - Example result: https://github.com/E1039-Collaboration/seaquest-analysis/commit/1cfe01d450d983e4b236907749ccb5a2635d1316

- For nightly-built software (e.g. coresoftware repositories)
  See "Example work flow 3"
  - Collaborators can folk the repository -> make modification -> send a pull request.
  - Examples results: https://github.com/E1039-Collaboration/seaquest-offline/pull/3
  - Similar flow to CMS software management (https://github.com/cms-sw/cmssw)

Example work flow 1, local file operation

Read More: https://git-scm.com/docs/gittutorial



> git add *file_name*

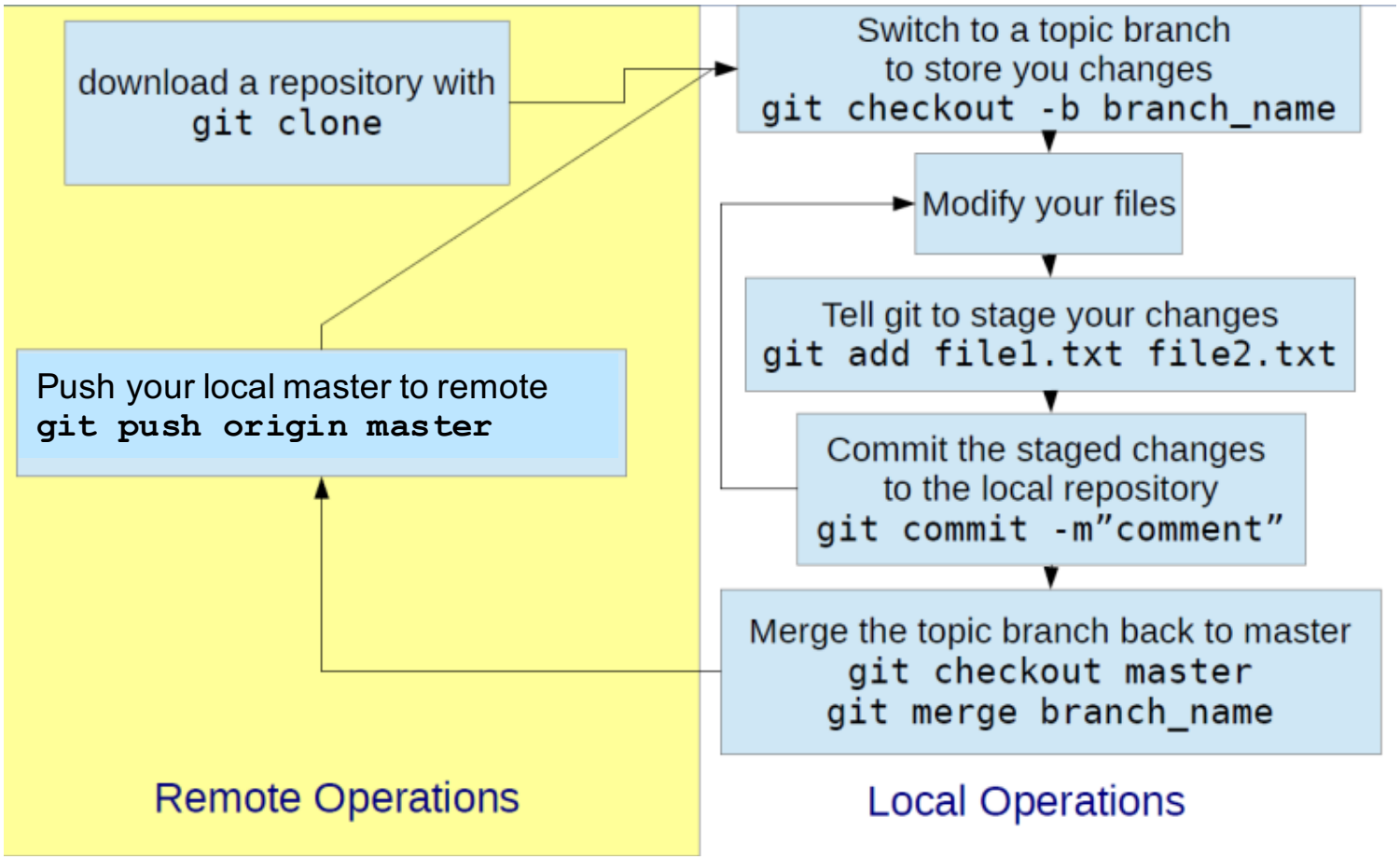
> git rm --cached *file_name*

> git commit -m “message” *file_name*

> git commit -am “message” # submit all changes

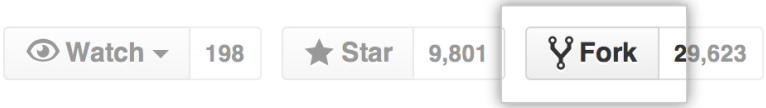
Example work flow 2, collaborative editing analysis repository

```
> git clone git@github.com:E1039-Collaboration/seaquest-analysis.git
> cd seaquest-analysis
```



Example work flow 3, Fork & pull request
GitHub coresoftware repository 1/2

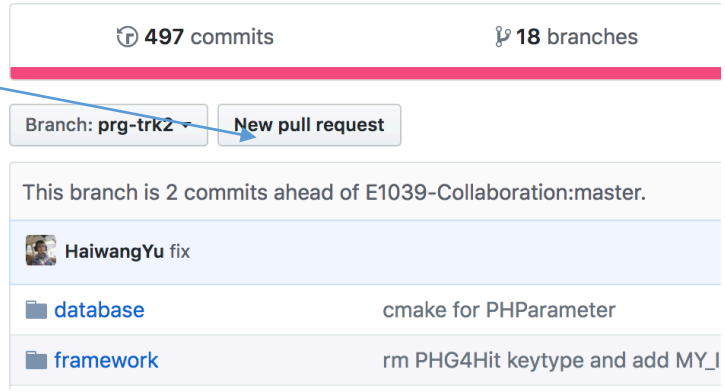
- Fork the sPHENIX/coresoftware in your GitHub account
  - Login to your GitHub account
  - Go to https://github.com/sPHENIX-Collaboration/coresoftware
  - Fork it into your account:



- Setup your fork and sync your fork to sPHENIX
  - `>git clone git@github.com:HaiwangYu/seaquest-offline.git`
  - `>git remote add upstream git@github.com:E1039-Collaboration/seaquest-offline.git`
  - `> git remote -v  # check the setup`
  - `> git fetch upstream  # download update from sPHENIX main`
  - `> git merge upstream/master  # merge updates to your local`
  - `> git push origin master  # upload`

Example work flow 3, Fork & pull request GitHub coresoftware repository 2/2

- Make modification and upload changes to your fork
  - `> git push origin master`
- Then submit a pull request to suggest your change to sPHENIX/coresoftware
  - Goto your GitHub account, select your fork of coresoftware
  - Submit a pull request:



- Development team will test, comment and approve the change following the pull request