Happy Scientist Seminar Series #2

独乐乐不如众乐乐 -孟子

IT IS MORE JOYFUL TO SHARE THE JOY THAN TO KEEP IT TO ONESELF - MENCIUS.
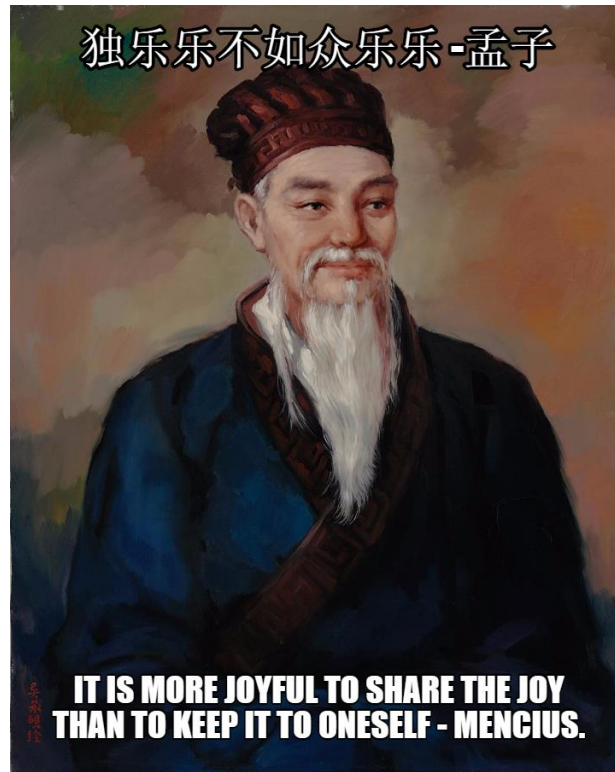
More on Collaborating with GitHub

Creating a Repository

Repositories on GitHub website are created by someone administrative privileges. This creates an empty repository waiting to be used.

Once the repository is created the owner will be able to set all the permissions for it.

Anyone can create a local repository on their machine. This repository can then be cloned to GitHub.

Setting up Your Repository

- Create an admin team and a work team
- (Optional) Create a local repository
- Contact an administrator to create the repository on GitHub providing the repository name and the admin team that will have access
- (Optional) Export the local repository to GitHub
- Update and manage the repository

Working as a Team

One objective to working as a team is to

Or is it? Read the second word carefully.

Fortunately GitHub has tools to help make this a reality. There are also external tools such as LGTM.

Forks

or

Forks are copies of existing repositories. Any changes made to the copy do effect the original repository. Consider this like a fork in the road.

Branches

Every repository has a main branch. Consider this like the trunk of a tree.

Any branch from main (the trunk) will have a copy of the code at the time it branched from main.

A branch can also branch from a branch.

Unlike forks, branches are all in the same repository.

Merging

Now the problems begin.

Merging

Unlike trees, branches in Git can merge back into the trunk or other branches.

If the sections of code that changed in the branch didn't change in the branch it is merging with there is no problem.

What happens if this is not the case?

That is where the tools come in.

Proper Merging

- Limit who can do a merge (LGTM or GitHub)
- Have someone look at the code and decide what the best way to merge them is
- Test the merged code
- Have the person(s) with merging privilege approve the merge

Examples

- Creating a team
- Creating a repository
- Managing a team
- Uploading an existing repository
- Managing a repository