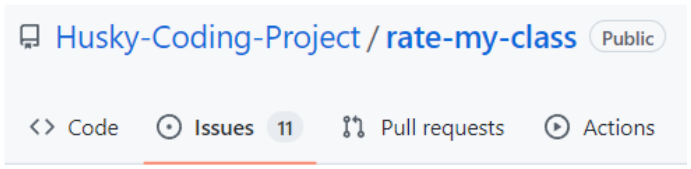
Project Development Guide

A quick guide on how your team can contribute code to their project.

1) Pick an issue to fix/implement

Your project team is highly recommended to have an **issue board**/backlog ready to pull issues from. It is recommended to use the built-in Github issue board.



Questions to ask yourself beforehand

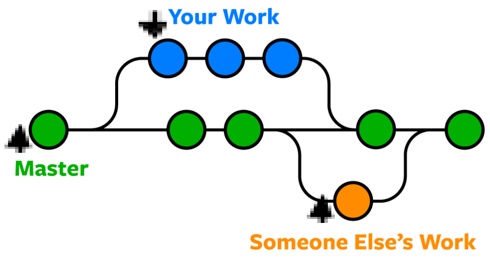
- Will you need help with your issue?
- Is it truly a priority or part of the MVP? (minimum viable product)
- Are you able to take it on within reasonable time?
- Do you need to work with someone on this? What are the questions you have about this issue that need to be answered before you start coding?
- What research needs to be done to answer these questions or to solve this issue?

Issue creation

Creating an issue itself is a complicated process. The creation of good issues can streamline your project and help tremendously.

2) Create a branch with issue number

What is a branch and why use a branch?



Branches are movable pointers to the commits made to a project. They essentially point to the latest commit made to a specific branch so you can see the current state of your selected branch. New branches do not affect the master branch until you want to "merge" the branches.

Using a branch allows one to start an update/implementation without affecting the original branch in case of errors or issues.
If the code was forced into the main branch, then there may be troublesome issues you won't be able to revert.

Creating a branch

Now that you have your issue ready in Github, you should create a new branch to implement it in. Remember to copy the issue number!

Here's the branch creation in our Github guide

The branch name is recommended to follow the HCP style guide conventions.

Ex. git checkout -b 132-bug-login-timeout-error.
This details the issue number "132" and the type of issue it is ("bug") along with a short but descriptive title for the bug "login-timeout-error".

3) Write and commit your code

IMPORTANT: Be very careful to commit your code on your selected branch and not on the main branch

What is a commit?

A commit is a snapshot in time of your selected git repository that records the state of your code. It provides you with a way to revert back to old commits if necessary and also compare the changes to your codebase between commits.

How to commit well

HCP Github/git committing guide

Commit tips summary

- Commit as **often** as possible to be able to track and revert your code well.
- Commits should be small and self-contained
    - Ex. If you fixed 2 bugs, each bug should be a different commit. Login is one, image fix is another.
    - Ex. If you tested and bug-fixed the login, that should be 1 commit

Commit Message

- A commit message is **VITAL** to making a commit understandable

- The **commit summary** should be short, descriptive, and in present tense. It is the title of the commit message
- The **commit message paragraph** is highly recommended for greater detail, it should explain the change, why the change was needed, and what side-effects it may cause

  You MUST check that you are still on your branch "T132…" by using "git branch" or "git status". If you are accidentally on another branch then you may cause problems.

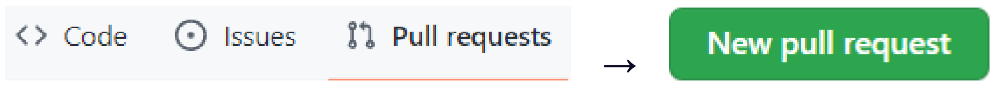
4) Create pull request, get reviews and feedback

What is a pull request

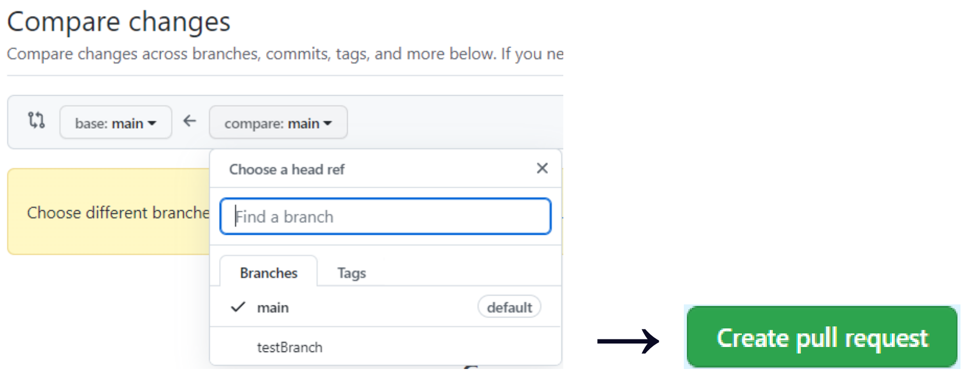
You are requesting the Github repository to merge the changes on your branch with the master/main branch.

Creating a pull request

Once you have committed your code and are satisfied with the changes, you should create a "**pull request**" in Github.



You should choose the branch you want to merge with the main/master branch, in the example below it is called "testBranch". After you select your branch it shows a "compare changes" screen, only then will you be able to create the pull request. (Remember to leave a detailed comment!)


Compare changes

Compare changes across branches, commits, tags, and more below. If you ne

The pull request allows your team to review your code and give feedback to see if it is a welcome change.

Here's some more technical information about pull requests and here's a guide on how to create a pull request in Github.

5) Get feedback, review, and merge

Why should you "review and approve" the merge/change?

The merge should be discussed with your team or else, as said before, issues may occur. Every programmer makes mistakes, no matter how great they are. As a result, you must depend on your team to catch those mistakes so that you ensure that you only ship high-quality code to your main branch. Just like the editor for a journalist edits their article before publishing, find someone on your team familiar with your work to edit and test your code before merging.

Review process

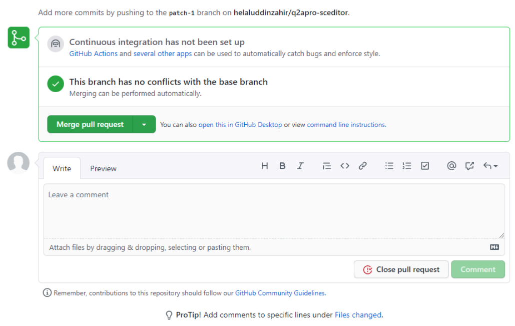
The review process should be discussed briefly with your team or team members familiar with your work. You should try to describe your changes and expand upon what will result from your changes

Once you have that feedback, remember to review your code again as well as writing new tests if applicable. After you are done with the review process and no more changes are needed to your branch code, you can merge the ``changes to your Github main/master branch.

Github pull request / merging

In our HCP repositories, we configure it so that every pull request requires at least **one** reviewer to review and approve a pull request to the main branch. Only once you get the pull request approved, then you'll be able to merge it in.

In "pull requests", you should be able to click the "Merge pull request" button as seen below. Writing a short and detailed comment about the merge is highly recommended!



Add more commits by pushing to the `patch-1` branch on **helaluddinzahir/q2apro-sceditor**.

Continuous integration has not been set up
GitHub Actions and several other apps can be used to automatically catch bugs and enforce style.

This branch has no conflicts with the base branch
Merging can be performed automatically.

You can also open this in GitHub Desktop or view command line instructions.

Leave a comment

Attach files by dragging & dropping, selecting or pasting them.

Remember, contributions to this repository should follow our GitHub Community Guidelines.

ProTip! Add comments to specific lines under Files changed.