# GitHub Pull Request

## From Start To Finish - PS

- Course Overview

- In this course on **<u>GitHub Pull Requests,</u>** we'll walk through the options we can use on the Get Hub website.

- Show options on git have desktop and show options on the command line.

- We'll go through the common scenarios we'll encounter when using pull requests, including viewing, creating approvals and reviewing code on both branches that we have and others.

- By the end of this course, we'll know how to use pull requests as useful tool that helps you and your team creating a better experience for everyone in your coding pipeline before beginning.

- For this course have a familiarity with GitHub and how to use git commands as well as have some knowledge on using collaborative tools.

- We will be understanding Pull requests from start to finish and lead to a more stable, better written in useful code base.

- Course Overview

# Get The Right Tools First

GitHub itself. You'll need an account at http://www.github.com

Git installed on your machine

Use the command line tool, or use GitHub Desktop

A text editor, Atom is a good one, from the people who brought you GitHub

Have your command line tool or GitHub desktop setup before you proceed

- Course Overview

PREREQUISITES:

**GitHub**

**How to use git commands**

**Collaborative tools**

- What's a Pull Request - Overview

So, what is a pull request?
- A Process
- Analogy
- Why it matters

Tools

Administration

Demo
- Show the entire process of a Pull Request

## Before We Begin

Have some knowledge about git:

how to commit and push from your computer.

Have a GitHub account:

ready to start executing git commands.

- What's a Pull Request – Overview

- By using pull requests, we can have that tool that helps us save from problems later.

- It's also a very commonly accepted process that organization's used daily, so it's a very useful skill.

- We're going to show how it's a process, show the analogy.

- We'll also talk about the tools needed to get started.

- We'll go through the administration that can set the team up to how the rules for who does what for pull requests.

-  And then we will see demo with  actual pull request from start to finish.

- Pull requests are kind of interesting because we need two people to tango, usually one to actually create the code and then open the pool request and then the other one to actually review and approve the pull request.

- Pull Request Anology

- Pull Request Analogy

- What's a Pull Request – Definition From GitHub

## A Pull Request

Pull requests let you tell others about changes you've pushed to a branch in a repository on GitHub. Once a pull request is opened, you can discuss and review the potential changes with collaborators and add follow-up commits before your changes are merged into the base branch.

Source: https://help.github.com/en/github/collaborating-with-issues-and-pull-requests/about-pull-requests

- What's a Pull Request

Pull Request Is a Process



- I like to say that pull requests is  our process.
- There's quite a few different actions in the process that we'll have to do, including git commands as well as things that we'll have to do on the website.
-  But when we put them all together, it is a bunch of actions that become a process.
- We have a few main actions and pull requests from this graphic.
- For example, you may need to check out or create a branch to start commit some changes, create view and, pull request, then review some code, accept it and then ask for changes and finally merge it back into your master branch.

- What's a Pull Request

- GitHub actually calls it a pull request because it lets us tell others about the changes we pushed to a branch.

- The action that they would do is pull those changes in once that's merged.

- This means we might hear merge request from places like GitLab or we might hear pull requests from places such as GitHub.

- What's a Pull Request
- So let's look at the individual steps we may be doing for pull requests.

Pull Request Is a Process

issues/fix-the-bug

features/your-friends-stuff

Checkout

Create a new branch
to start adding your
files.

- The 1st one happens to be check out.
- This is what we do when you're creating a new branch.
- So if we have a new feature or a bug that we have to fix, the thing that we do is create a new branch.
- This uses the checkout command and get so we create a new branch **called issues Fixed the bug**.
- If we're viewing of pull requests, we might actually just check out the branch that someone is using and then look at their code that way.

- What's a Pull Request – Pull request process



Commit

Commit your own files
to the branch you
created.



Create

First create a Pull
Request on GitHub.

- **Commit** → commit is one of the essential things that we use in git.
- What we'd have to do is commit our files to the branch we created, or if we have fixes that are needed after a review of a pull request, we can also commit those.

- **Create**→ That's what we'll do when we go to Github under our branch.
- We create a pull request of the things that have changed in a branch.

- # What's a Pull Request – Pull request process

- **Reviewing→** It is all the comments and things that we need to do before we can get to win approval.
- So if we're reviewing, we can have on this file on this line, this needs to change.
- We can also have a generic question about how does this actually work?
- Should we try to change this and then finally approve?
- When everything looks good, we can say  go ahead and this can now be put into our code base.

- **Merge→** The merge is when everything is accepted and reviewed and everything looks good.
- We want to merge that code now back into a master branch.
-  We can then delete the branch that we were working on because we no longer need it.

**Review**

Comment on the code and execute the code yourself to review its quality.

**Approve**

When everything looks good, approve so the code can be put into the codebase.

**Merge**

Move the files in that branch back into the master branch.

- What's a Pull Request – Why Pull request

# But Why?

Providing checks and balances! Accountability for the person writing the code, and the rest of the team.

Educate! Line by line code reviews can help the team align to a standard of code formatting. They also show the rest of the team your work.

Keep the master branch clean. No one wants a broken build.

- What's a Pull Request – Administration

## Repo Permissions

| | Read | Triage | Write | Maintain | Admin |
|---|---|---|---|---|---|
| Close, reopen, and assign pull requests | | X | X | X | X |
| Submit reviews on pull requests | X | X | X | X | X |
| Request pull request reviews | | X | X | X | X |
| Submit reviews that affect a pull request's mergeability | | | X | X | X |

Source: https://help.github.com/en/github/setting-up-and-managing-organizations-and-teams/repository-permission-levels-for-an-organization

- **What's a Pull Request – Administration**
- There are a few that are actually important to pull requests that we will point out.
- In case we had different permissions in our repo that might not allow us to do them, if you're going to close open assigned pull requests, we have to make sure that we have at least triage, rights?
- Maintainer admin permissions not just read, this is going to be important because when we create our first pull request and if we don't have the permissions its not going to work.
- However, if we just submit reviews on a pull request that someone opened and put you as a reviewer, we can just have a read permission and put comments in there.
- If you wanted to open a pull request review again, just like closing reopen are assigning them, we'll have to have triage, maintain and admin permissions as well.
- To submit reviews that effect for the pull request merge ability, meaning the ability to merge our branch back into master we're going to have permissions of right maintain or admin reading, only triage won't work.
- The repo permissions are only able to be set in, get up pro or enterprise, and in the free version, we're not going to be able to put that.

- What's a Pull Request –