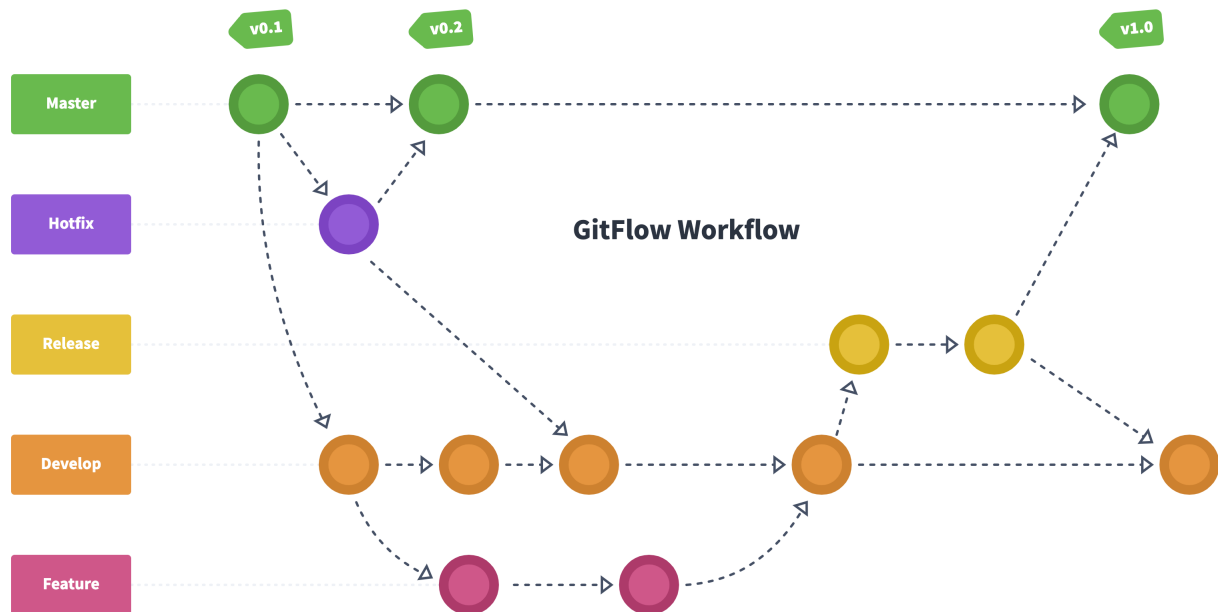


Github Flow

CSCC01 - Smit Patel
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1 Branch Structure

- In the Git flow workflow, there are five different branch types:
 1. Main (used to be called master)
 - The purpose of the main branch is to contain the production ready code that can be released.
 2. Develop
 - The purpose of the develop branch is to integrate new features from feature branches.
 - Once there are enough features, the develop branch is merged onto the release branch.
 3. Feature
 - The purpose of the feature branch is to integrate new features.
 - Once a feature branch is completed it is merged onto the develop branch via a pull request.
 4. Release
 - The release branch serves as a container for all the new features that will be added to the main branch.
 5. Hot-fix
 - The Hotfix branch will primarily be used when bugs are discovered on the main branch.
 - Once the bug is fixed, the hotfix branch will be merged back into the main and develop branch.
- The work flow of git flow is:
 1. A develop branch is created from master
 2. A release branch is created from develop
 3. Feature branches are created from develop
 4. When a feature is complete it is merged into the develop branch using pull requests
 5. When the release branch is done it is merged into develop and master
 6. If an issue in master is detected a hotfix branch is created from master
 7. Once the hotfix is complete it is merged to both develop and master



2 Workflow

- I (Smit) will take care of the release and main branch. This means the rest of the team should only have to deal with:
 1. Integrating new features.
 2. Fixing bugs.

2.1 Pre-Req

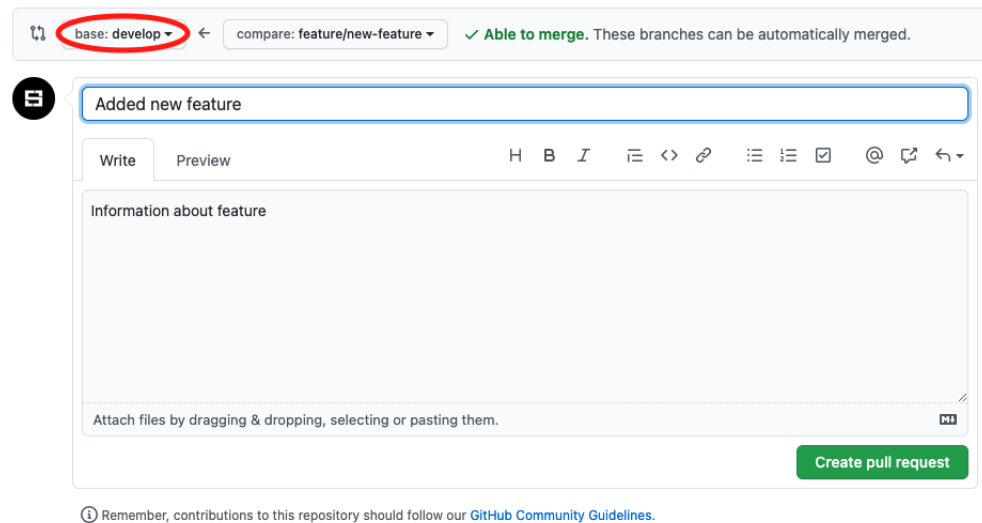
- Everyone should install the `git-flow` tool-set for the command line. (This isn't actually mandatory, but it will make things simpler)
- Install Commands:
 - MacOS: `brew install git-flow`
 - Linus: `apt-get install git-flow`
 - Windows: /

2.2 Integrating New Features

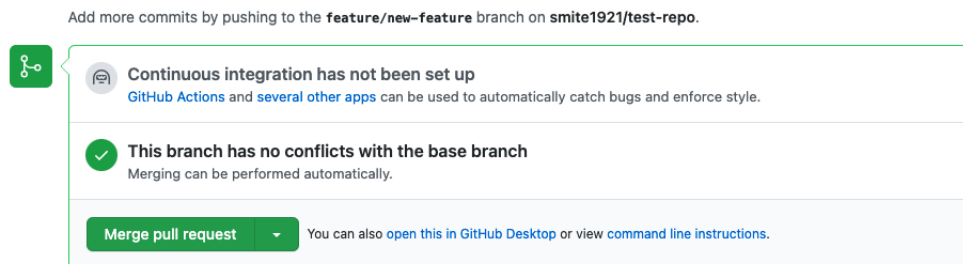
1. `$ git flow feature start [name of feature branch]` - This creates a feature branch from develop.
2. Implement your feature, add your commits.
3. `$ git flow feature publish [name of feature branch]` - This will push your feature branch to github.
4. Submit a pull request.
 - (a) After your branch is pushed to GitHub, you should see a notification on the repository page. Click the big green button.



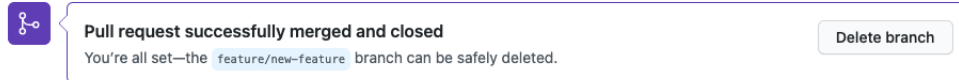
- (b) On the pull request page, make sure you select the develop branch for the branch you want to merge to. Leave a informative comment about the feature you implemented. Once your done click the green button and wait for your pull request to be approved.



5. Once your pull request is approved, you can merge your changes.



6. We then update the remote changes on the develop branch to our local repository.
 - (a) `$ git checkout develop` - Switches your branch to develop
 - (b) `$ git pull` - Applies the remote changes to local repo.
 - (c) `$ git flow feature finish [name of feature branch]` - Deletes your local feature branch.
7. Now you can safely delete the remote feature branch.



3 Additional Resources

- <https://www.atlassian.com/git/tutorials/comparing-workflows/gitflow-workflow>
- <https://www.gitkraken.com/learn/git/git-flow>