

# Homework 5

## Git II

**Due: Saturday, February 11, 10:00PM (Hard Deadline)**

### Submission Instructions

For this assignment, all of your submissions will be to GitLab.

### Optional Reading

*Git is a purely functional data structure*, by Philip Nilsson, from Jayway.

<http://www.jayway.com/2013/03/03/git-is-a-purely-functional-data-structure/>

I highly encourage reading this when you have some time to read the article carefully and think deeply about the material. This article presents an excellent way of thinking about git and how it operates.

## 1 Evaluating git usage

Earlier this semester, we asked you to use git with at least one project. Now you will set up that project to be shared with the course staff. Visit <https://gitlab.eecs.umich.edu> and create a new project named **exactly** `c4cs-w17-wk5`. Be sure to create this project as **Private** (not Internal or Public).

Add this new repository as a remote (`git remote add ...`) to your existing project.

Push the project to this new remote.

In GitLab, grant **Reporter** permission to `mterwil` and `mmdarden`. (Choose “Members” from the drop-down list from the settings gear in the top right to manage this permission).

We will run a test script, checking our access to everyone’s repository on Thursday.

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## 2 Handling merge conflicts

### 2.1 Content Conflict

Clone <https://gitlab.eecs.umich.edu/c4cs/c4cs-w17-conflict1.git>

This repository has a `master` branch and a `merge_me` branch that have diverged. Merge the `merge_me` branch into `master`, resolving the conflict.

When you are done, running `bash test.sh` should print “Success” and running `python main.py` should print something reasonable (if factually inaccurate now, hooray!).

Create a new repository in your GitLab named **exactly** `c4cs-w17-conflict1`. Be sure to create this project as **Private** (not Internal or Public).

Push your changes to your new repository. (*Note: This will be a different “remote”*)

In GitLab, grant **Reporter** permission to `mterwil` and `mmdarden`. (Choose “Members” from the drop-down list from the settings gear in the top right to manage this permission).

We will run a test script, checking our access to everyone’s repository on Thursday night.

### 2.2 File Path Conflict

Repeat the same steps for <https://gitlab.eecs.umich.edu/c4cs/c4cs-w17-conflict2.git>

Be sure to read over the commit history so that you are sure that the result of your merge has the right data!