

Distributing, Collecting, and Autograding Assignments with GitHub Classroom

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This workshop introduces participants hands-on to GitHub Classroom, a free, web-based application that enables teachers to distribute, collect, and autograde programming assignments in any language. GitHub Classroom effectively provides an abstraction layer atop Git and GitHub, automating tasks for students and teachers that would otherwise be time-consuming and tedious via a CLI or GUI, particularly for larger courses. To distribute an assignment, a teacher need only create a “repository” with starter code (and optional tests) in their own “organization” on GitHub, which students can then “accept,” automatically creating within that same organization a copy thereof to which the student has write access. To submit work, students need only upload (or push) files to the same, which automates execution of any tests. Students’ submissions (and the results of any such tests) are then accessible via the teacher’s own dashboard. GitHub Classroom does not strictly require familiarity with Git of students and teachers; basic operations can be performed via GitHub’s GUI. But some comfort with cloning, adding, committing, and pushing files with Git itself is ideal. By workshop’s end, participants will be prepared to use GitHub Classroom in their own courses if they so choose. And by way of GitHub Classroom can participants’ students acquire all the more comfort with Git itself by courses’ end.

Keywords: autograding; classroom management; distribution code; Git; grading; starter code

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