

# CS 2400 GitHub Classroom

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## GitHub Organization

- Use organizations to keep all students' repositories private and in one place
- **Recommendation:** One organization per class
- Allows creation of teams
- Add TA's as owners

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## Prerequisite

- GitHub Teacher Account
- <https://education.github.com/teachers>

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## GitHub Classroom, Cont.

- Shows which students are working on the assignment
- Direct link to the commits and repository
- Comment directly on code lines
- Create issues
- Private repositories owned by the teacher

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## Travis-CI

- If you choose to run student code automatically (unit tests, shell scripts)
- Runs in a clean environment
- Choose the compiler, installation, etc.
- Students get immediate feedback
- Easier to grade
- Monitor student progress

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## Template Structure

- **README.md**
  - They are required to enter their name and id
  - Includes *git* instructions (cloning and editing)
- Empty **.cc** file
- **Makefile**
  - Create the executable and run the tests
- A test directory "**\_TEST**"
  - **Catch2** header file
  - Test cases "**TEST\_cases.cc**"
  - Script file "**run\_tests.sh**" (if needed)

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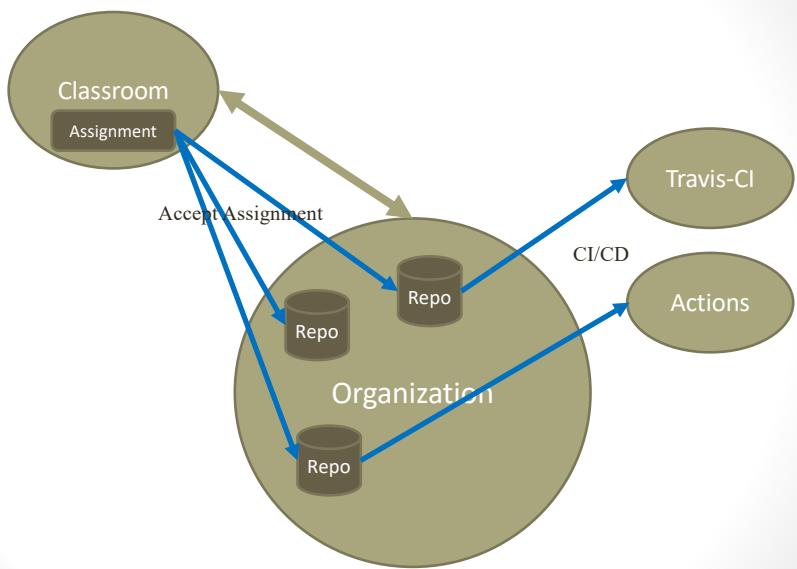
## GitHub Actions (CI/CD)

- Part of GitHub workflow
- 10,000 action minutes per month per organization
- It seems faster

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## Tips

- Include instructions in **README.md** file for cloning and getting started.
- Show the students the testing results
- Encourage them to push often
- Get them in the habit of sending a link to the repository or a line number when they have questions
- Show them how to tag a user
- For more advance students:
  - Use issues, milestones, and projects

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