

**CMPSC 480**  
**Software Innovation 1**  
**Fall 2019**

ASSIGNMENT 10:  
*Code Review*

**Point value:** 40 pts.  
**Assigned:** 21 November, start of class  
**Due:** 5 December, start of class

### Objective

To improve code quality, usability, and legibility through the process of external, second-party review.

### Goals

- To practice providing constructive feedback on code
- To practice receiving constructive feedback on code
- To exercise formalizing feedback for a code review process

### Reading Assignment

- Best Practices for Code Review
- Human Code Reviews
- The Ten Commandments of Egoless Programming
- An example of Mozilla's code review
  - Often cited as one of the most civil on the web

### Assignment Activity & Required Deliverables

In this activity you will act as a reader/reviewer for a classmate's code project, and they will act as a reader/reviewer for your code project.

In pairs (or trios, as needed) you will each spend 20 minutes either reviewing a classmate's code or having yours reviewed:

- (5 minutes) Providing context and necessary background for reviewers to fully understand projects
- (10 minutes) Examining or demonstrating code
- (5 minutes) Summarizing issues discovered during code review to formalize your conversation in an issue added to the reviewed code's GitHub repository

*For the reviewee: Preparing your code*

- Select 100-150 lines of your code for your classmate to review
- Re-familiarize yourself with the context surrounding the code so that you can provide supporting explanation

*For the reviewer: Reviewing the code*

- As your reviewee walks you through the code, take note of any point out issues or questions you have about implementation
- As you read the code, review the following areas:
  - Formatting/legibility/style (e.g. follows a style guide or is at least consistent internally)
  - Adherence to best practices (e.g. no hard-coded values, appropriate use of comments)
  - Reliability (i.e. does code appear to have visible bugs or issues?)
  - Code's ability to be tested (i.e. is the code as modular or are procedures isolated?)
- Suggest fixes to the code author in an issue added to the project's GitHub repository

As a summary for your review, file a report in your reviewee's GitHub issues tracker using the following format, filling in appropriate information, checking off the areas in which you found issues:

```
## Code author:
## Code reviewer:
### Date of review:

### Issues
- [ ] Formatting/legibility/style
- [ ] Best practices
- [ ] Reliability
- [ ] Testability
```

Follow the above checklist with a 100-150 word report of issues discovered and general suggestions for alternate approaches. Use #####-level (level 4) headings for each topic for which you have notes.

## Evaluation

This assignment will be evaluated using the following criteria:

- Submission contains appropriate number of documents as described in the **Assignment Activity & Required Deliverables** section.

## Turning in the Assignment

File issues the repository of your assigned reviewee.