Open-Source Software Practice

11. Collaboration

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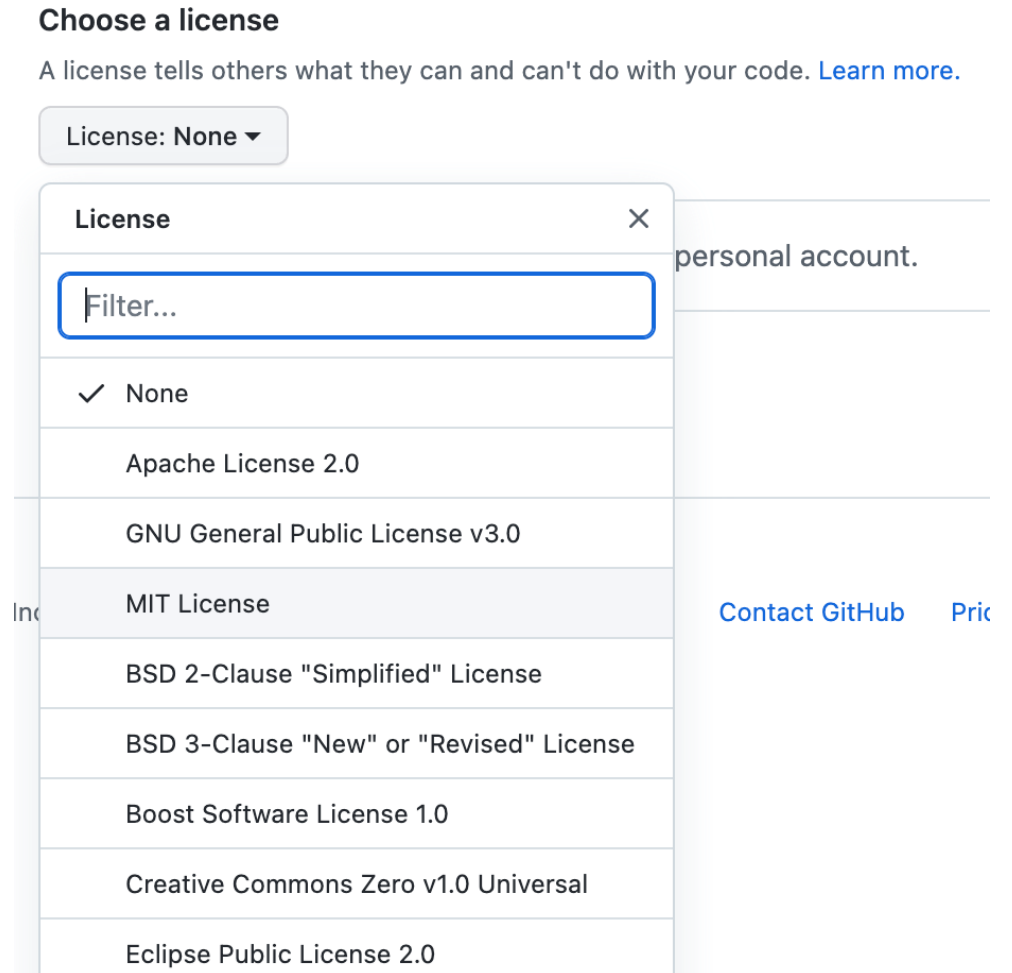
Sungkyunkwan University

Final Exam

- Nov 22nd (Tuesday) @ classroom (85718)

- ~ 30 minutes

- Bring your laptop or tablet.

Goals

1. License
2. Markdown
3. Issue
4. Fork
5. Pull request
6. Code review

Let's Practice – 1 (license)

1. Create an empty Git repository with an **MIT** license and **README.md** included.

2. Go to LICENSE on GitHub and see what it looks like.

3. Visit https://choosealicense.com/licenses/mit/ to see more!

Let's Practice – 2 (markdown)

1. Read https://www.markdownguide.org/basic-syntax/

2. Read https://github.com/adam-p/markdown-here/wiki/Markdown-Cheatsheet
   - What is the difference between the original and the GitHub-flavored?

3. Go to README.md on GitHub and add some contents.

Let's Practice – 2 (markdown)

- See a preview

skku-stat / README.md   in main

```
<> Edit file          👁 Preview

1   # skku-stat
2
3   ## Hey,
4
5   - This is the link you asked for: [link](google.com)
```

Let's Practice – 3 (issue)

1. Let's do teamwork. Suppose there are three members: A, B, and C.

2. A: Make their repository public.

3. A: Make an issue template for a bug report
    - Setting -> General -> Features -> Set up templates

4. B and C: Leave an issue by filling in the template.

5. A, B, and C: Add labels to the issue.

6. A, B, and C: Add replies to the issue. You can mention each other using @.

Let's Practice – 4 (fork)

1. B and C: Fork A's repository (from A/skku-stat to B/skku-stat).
   - A/skku-stat becomes an upstream repository.
   - A's: 1.0.0, B's: 1.0.0, C's: 1.0.0

2. B: Make changes to README.md of B/skku-stat
   - Use the Web interface for convenience.
   - A's: 1.0.0, B's: **1.0.1**, C's: 1.0.0

3. B: Leave a pull request on A/skku-stat.

4. A: Merge the pull request.
   - A's: **1.0.1**, B's: 1.0.1, C's: 1.0.0

Let's Practice – 4 (fork)

5. C: Try to make changes to README.md of C/skku-stat

• Warning! C's version is outdated: A's: 1.0.1, B's: 1.0.1, C's: 1.0.0

6. C: Sync the branch first.

   • A's: 1.0.0, B's: 1.0.1, C's: **1.0.1**
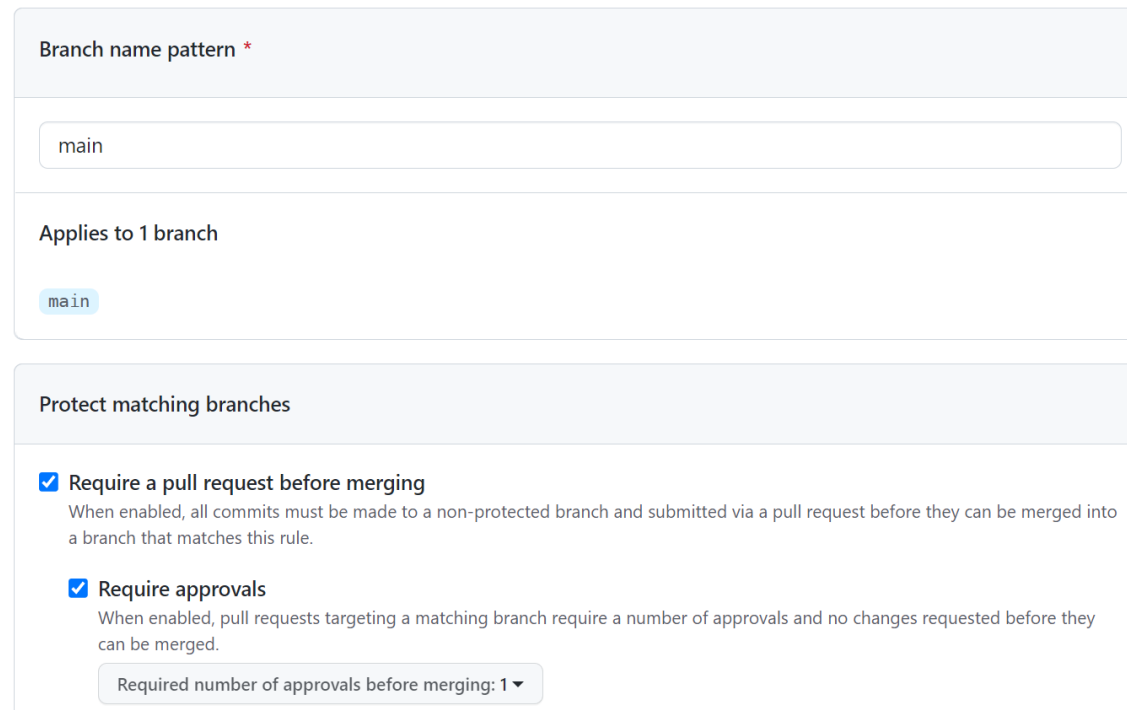
Let's Practice – 4 (fork)

7. C: Make changes to README.md of C/skku-stat
    - A's: 1.0.0, B's: 1.0.1, C's: **1.0.2**

8. C: Make a pull request

9. A: Accept the pull request
    - A's: 1.0.2, B's: 1.0.1, C's: 1.0.2

- Lesson learned: Avoid a situation where multiple developers are making pull requests to the same branch. Split the branch to smaller, focused branches!

Let's Practice – 5 (review)

1. A: Make code review necessary. Settings -> Branches -> Branch protection rule.

Branch name pattern *

main

Applies to 1 branch

`main`

Protect matching branches

☑ **Require a pull request before merging**
When enabled, all commits must be made to a non-protected branch and submitted via a pull request before they can be merged into a branch that matches this rule.

    ☑ **Require approvals**
    When enabled, pull requests targeting a matching branch require a number of approvals and no changes requested before they can be merged.

    Required number of approvals before merging: 1 ▾

Let's Practice – 5 (review)

2. B: Make a small change to B/skku-stat and leave a pull request.

3. C: Go to the "Files changed" tab of the pull request, and then approve the change.

4. A: merge the pull request
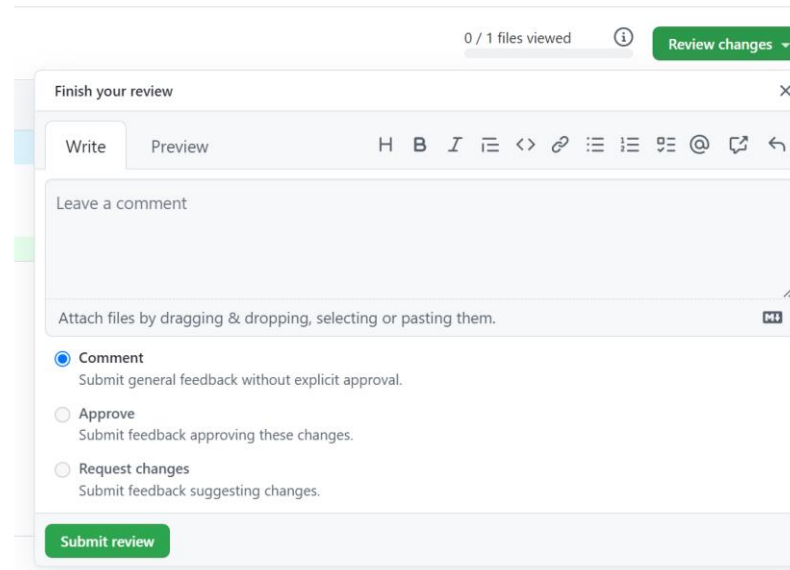
Let's Practice – 6 (repeat)

- Change the role of A, B, and C. Repeat.