

## 1 Activity Overview

The aim of this activity is to make sure everyone is familiar with Git, GitHub, Markdown, and L<sup>A</sup>T<sub>E</sub>X. As discussed in the first class, all the course materials and your assignments will be posted on GitHub. The benefits of using GitHub in education is already known [? ]. Some of them include:

1. You don't need to prepare for your deliverables. Your latest assignments will be shared with course staffs.
2. You can work on your assignment anywhere there is an internet connection.
3. You will gain industry-relevant skills and practices.
4. You will be able to contribute to the course contents with pull requests.

## 2 Exercises

**Exercise 1.** This is a warm-up exercise. Visit the Git Tutorial website [? ] and finish all the stages.

**Exercise 2.** Visit the L<sup>A</sup>T<sub>E</sub>X Tutorial website [? ] and finish up to step 8. Make a commit for each step in order to show your progression.

**Exercise 3.** Read the Markdown tutorial [? ], and create a “README.md” file in your repository. The file should contain a brief description about your final L<sup>A</sup>T<sub>E</sub>X document, and it should start with the following line:

```
# is-521
```

**Exercise 4.** In this final exercise, you will be intentionally creating a merge conflict, and you will eventually have to resolve it. Each student is given a private repository for this exercise. Please follow the steps below.

1. Create a branch called ‘test’.
2. Make sure you are in the branch ‘master’.

3. Make a modification on the “README.md” file. Specifically, you want to make the header to be capitalized:

```
# IS-521
```

4. Make a commit.
5. Now switch to the branch ‘test’ you created.
6. Make a modification on the “README.md” file. Specifically, you want to make the header to be:

```
# is-521: Git Exercise
```

7. Make a commit. This time, you want to make the author name of the commit to be:

```
Unknown <unknown@unknown.com>
```

. You can change the user name by modifying the file at “.git/config” or by using the command:

```
git commit --author=...
```

.

8. Switch back to the branch ‘master’.
9. Merge the change you made in the ‘test’ branch.
10. Resolve the conflict. The final header would look like:

```
# IS-521: Git Exercise
```

11. After resolving the conflict, push your modifications to your own assignment repository. Make sure your git repository includes the final merge commit.
12. Annotate the last commit with a tag “Activity-1”, and push the tag to the assignment repository.