

## Lab 4 - CSC 317 & INF 307

### Part 1 – Git Revert

1. Create a new project folder called `lab4_id` (e.g. `lab4_pscsc190001`).
2. Initialize the folder as a git repo (`git init`)
3. Create a file called `file1.txt` within your project folder and add some content
4. Add the changes in `file1.txt` to the staging area (`git add file1.txt`) and commit (`git commit -m "message"`)
5. Make some more changes to `file1.txt`, add to staging area, and commit
6. Use `git log --decorate --oneline` to look at the commit history
7. Use `git revert` on the newest commit, to remove the changes the last commit added (`git revert <ref>`)
8. Did the revert command add or remove a commit?

### Part 2 – Git Merge

1. We would be using the same `lab4_id` project folder (e.g. `lab4_pscsc190001`).
2. Modify the content of `file1.txt`
3. Add the changes in `file1.txt` to the staging area (`git add file1.txt`) and commit (`git commit -m "message"`)
4. Create a new branch called `mybranch` and switch to it (`git checkout -b mybranch`)
5. Modify the contents of `file1.txt`, add to the staging area and commit.
6. Use `git diff mybranch master` to see the difference between the two branches
7. Switch to the `master` branch
8. Merge the changes in `mybranch` into the `master` branch (`git merge mybranch`)
9. View the content of `file1.txt` and discuss your observations.
10. Delete `mybranch` (`git branch -d mybranch`)
11. Create a new branch called `feature` and check it out
12. Edit the `file1.txt`, add it to the staging area, and commit
13. Switch back to the `master` branch
14. Create a file `file2.txt` with some content
15. Add `file2.txt` to staging area and commit
16. What is the output of `git log --oneline --graph --all`?
17. Diff the branches
18. Merge the `feature` branch into `master`
19. What is the output of `git log --oneline --graph --all` now? Observe the extra merge commit created.

### Part 3 – Overview of GitHub (Exploring the UI)

Due to time constraints, watch this short YouTube tutorial at your own pace (<https://www.youtube.com/watch?v=PQsJR8ci3J0>)