

COMP 9783 Front-end Development

Lab-5-1 - GitHub Lab. (4% of the course mark)

Name:

Student Number:

This lab is designed to introduce you to the fundamental concepts and workflows of GitHub, a popular platform for version control and collaboration. By the end of this lab, you will be familiar with the basic operations of GitHub, including creating repositories, making commits, branching, and collaborating with others.

Lab objectives:

1. Become proficient in basic GitHub operations such as creating repositories, making commits, creating branches, and merging changes.
2. Understand the importance of version control in software development and how GitHub facilitates collaboration and history tracking.
3. Develop skills in collaborating with others on software projects using GitHub's features like pull requests, issues, and branches.
4. Learn how to organize code using repositories and branches effectively, ensuring a structured and manageable codebase.
5. Get familiar with common Git commands used in conjunction with GitHub, such as git clone, git add, git commit, git push, git pull, and git merge.
6. Learn and adhere to best practices for using GitHub, including clear commit messages, meaningful branch names, and effective pull request reviews.
7. Improve their project management skills by utilizing GitHub's issue tracking and project boards for task management and progress tracking.

Creating a GitHub account:

1. Navigate to: <https://github.com> and click on the **Sign up** button.
2. Follow the prompts to enter your **Email** and **Password**.

Pay attention to the password complexity.

3. Enter your username and ensure that it is available.

Username may only contain alphanumeric characters or single hyphens, and cannot begin or end with a hyphen.

4. Follow the verification steps to continue.
5. Enter the code sent from the email.

Install GitHub Desktop

1. **Navigate** to <https://desktop.github.com>
2. **Download** and **Install** the **GitHub Desktop version** for your **OS**.
3. When prompted, login with your GitHub **username / email** and **password**.
4. Verify the following by clicking on **File >> Options...**
 - a. **Accounts** - Ensure that your **GitHub account** is **signed in**.
 - b. **Git** - Ensure that your **name** and **email** is **properly set**.

Creating Repos:

1. Navigate to: <https://github.com> and click on the **Sign in** button.
2. Enter your **username / email address** and **password** to sign in.
3. Click on the **+** button and choose, **New Repository**.
4. Enter the repository name: **COMP9783-55868-Public**
5. Enter the Description: **COMP9783-55868-Public Repo Lab**.
6. Choose **Public** as repo type and click **Create repository**.
7. Open **GitHub Desktop** and click on **File >> Clone repository...**
8. Choose **COMP9783-55868-Public** and click on **Clone**.

Pay attention to the local path, this is where you would find the repo locally.

9. Go to the local path and create a file named: **readme.md**.

10. Edit **readme.md** and add the following text below (**replace First name and Last name with your own First name and Last name**) and save the changes:

This is my first public repo by First name and Last name

This is my first public repo description

11. Open GitHub Desktop, ensure that the changes are visible, add a **commit title** and **description** and click on **Commit to main**.

12. Click on **Publish branch**.

13. Navigate to GitHub.com and go to the **COMP9783-55868-Public** repo.

- It should display the **formatted version** of **readme.md**.

14. Navigate to:

<https://docs.github.com/en/get-started/writing-on-github/getting-started-with-writing-and-formatting-on-github/basic-writing-and-formatting-syntax> to see the syntax for formatting content.

15. Make changes to **readme.md** and try to do something similar:

Final-Project app title

Final-Project app text here...

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Features

- **Feature 1:** Feature text here...
- **Feature 2:** Feature text here...

16. Open GitHub Desktop, ensure that the changes are visible, add a **commit title** and **description** and click on **Commit to main**.

17. Click on **Publish branch**.

18. Navigate to GitHub.com and go to the **COMP9783-55868-Public** repo.

- It should display the **formatted version** of **readme.md**.

Submission:

1. Copy the **GitHub repo url** to the **Comments** section of the Lab submission form BrightSpace.