

Submission

For this assignment, you need to

- submit the screenshot for the final question to the Lab assignment 7 in Brightspace.
- submit the link to *your branch* to the Lab assignment 5b in Brightspace. (You will know what *your branch* is later in this lab assignment.)

Install Git

Follow instructions from this [link \(https://git-scm.com/book/en/v2/Getting-Started-Installing-Git\)](https://git-scm.com/book/en/v2/Getting-Started-Installing-Git) to install Git.

Important note: (For Windows users), if asked during the installation, select the option that add git to the PATH environment so that you can use it from the command prompt.

In this lab assignment, you will be practicing fundamental git commands. For extensive usage of git, a graphical user interface (GUI) could be convenient. [Source \(https://git-scm.com/downloads/guis/\)](https://git-scm.com/downloads/guis/) is here. Note that, we will not be using any GUI today.

Quick reference to git commands can be found from a cheatsheet. An example is from [this link \(https://dev.to/doabledanny/git-cheat-sheet-50-commands-free-pdf-and-poster-4gcn\)](https://dev.to/doabledanny/git-cheat-sheet-50-commands-free-pdf-and-poster-4gcn).

Setup your Github account ¶

You should by now have an account on Github. If not, please follow the instructions provided in brightspace.

PART 1 - WORK AS A GROUP

A Github repository for your group

For your group, pick an account (amongst yours), and create a repository named TIL6010-LabAssignments . For the settings, use the following:

- Set the repository as Public.
- Select 'Add a README file'

Add collaborators

At your repository page, go to Settings. In the menu on the left, you will find Collaborators under Access. From there, invite your groupmates as collaborators for the repository



The other members need to accept invitations and should have access to the repository afterwards.

Clone the repository

Now, go to the main page of your repository (which is the `<> Code` page). You can notice that the repository has a branch `main`, a `README.md` file.

Now let's clone this repository to your local computer. Navigate to the `Code` button (highlighted in green) and click on that.



You will be provided with 3 different ways to clone a repository. Copy the link under `HTTPS`.

Now, open your terminal, change directory to location (in your computer) where you want to store the repository. (Use the `cd` command).

Clone the repository using the `git clone` command. Here is an example

```
git clone https://github.com/nguyenthientin/TIL6022-LabAssignments.git
```

If successful, you will have the folder `TIL6022-LabAssignments` created. Inside, there should be a `README.md` file.

Your first commit

Now, pick one member of the group,

- Open the `README.md` file, add some text (whatever you like), save and close the file.
- Create a folder named `Lab5`. Then create a file `lab5.txt` under this folder.

Question 1: What is the current status of the repository? A screenshot is sufficient enough.

Use `git status`

```

C:\Users\aikva>cd C:\Users\aikva\Downloads\Master TIL\TIL programming\GitShit

C:\Users\aikva\Downloads\Master TIL\TIL programming\GitShit>git clone https://github.com/dmtmol/TIL6010-LabAssignments.git
Cloning into 'TIL6010-LabAssignments'...
remote: Enumerating objects: 3, done.
remote: Counting objects: 100% (3/3), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Receiving objects: 100% (3/3), done.

C:\Users\aikva\Downloads\Master TIL\TIL programming\GitShit>cd C:\Users\aikva\Downloads\Master TIL\TIL programming\GitShit\TIL6010-LabAssignments

C:\Users\aikva\Downloads\Master TIL\TIL programming\GitShit\TIL6010-LabAssignments>git status
On branch main
Your branch is up to date with 'origin/main'.

Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   README.md

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        Lab5/

no changes added to commit (use "git add" and/or "git commit -a")

C:\Users\aikva\Downloads\Master TIL\TIL programming\GitShit\TIL6010-LabAssignments>

```

Question 2: Commit the changes you have made to the README.md file. For this, you need 2 steps.

First, stage the file using `git add`. Observe the status of the repository afterwards.

For example, to stage the file README.md: `git add README.md`. If you want to add all files, use `git add .`

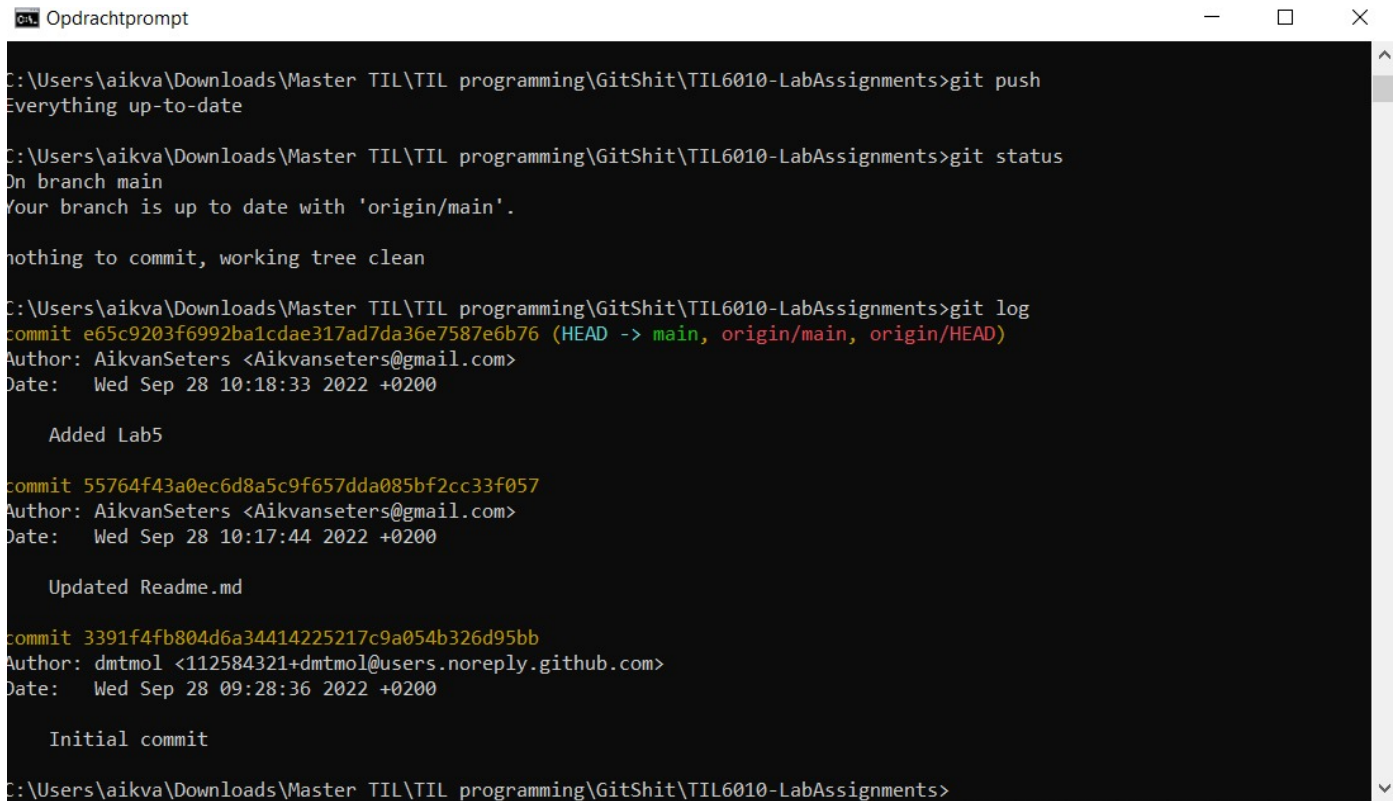
Second, commit the changes using `git commit`. Observe the status of the repository afterwards.

Usage as `git commit -m "message"`. A good message should describe the changes well.

An example: `git commit -m "updated README.md"`

Question 3: Show the commit tree of the repository. Take a screenshot of the output

Use `git Log`



```
C:\Users\aikva\Downloads\Master TIL\TIL programming\GitShit\TIL6010-LabAssignments>git push
Everything up-to-date

C:\Users\aikva\Downloads\Master TIL\TIL programming\GitShit\TIL6010-LabAssignments>git status
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean

C:\Users\aikva\Downloads\Master TIL\TIL programming\GitShit\TIL6010-LabAssignments>git log
commit e65c9203f6992ba1cdae317ad7da36e7587e6b76 (HEAD -> main, origin/main, origin/HEAD)
Author: AikvanSeters <Aikvanseters@gmail.com>
Date:   Wed Sep 28 10:18:33 2022 +0200

    Added Lab5

commit 55764f43a0ec6d8a5c9f657dda085bf2cc33f057
Author: AikvanSeters <Aikvanseters@gmail.com>
Date:   Wed Sep 28 10:17:44 2022 +0200

    Updated Readme.md

commit 3391f4fb804d6a34414225217c9a054b326d95bb
Author: dmtmol <112584321@dmtmol@users.noreply.github.com>
Date:   Wed Sep 28 09:28:36 2022 +0200

    Initial commit

C:\Users\aikva\Downloads\Master TIL\TIL programming\GitShit\TIL6010-LabAssignments>
```

If you have not commit lab5.txt , please do so with similar steps.

Update local changes to remote repository

Question 4: At the moment, do the local repository and the remote repository have the same content? (i.e. are the two README.md files the same?)

Before syncing any local changes, it's good practice to check if there are changes made to the remote repository. (We know that there has not been any for our case).

Run `git pull` to pull changes from the remote repository.

Then run `git push` to push local changes to the remote repository.

Authentication error

When running `git push` for the first time, you might be asked to enter username and password of your Github account.

In the newest policy of Github, account password cannot be used here. One alternative option is to create a Personal Access Token.

You can follow the [instruction \(https://docs.github.com/en/authentication/keeping-your-account-and-data-secure/creating-a-personal-access-token\)](https://docs.github.com/en/authentication/keeping-your-account-and-data-secure/creating-a-personal-access-token) from Github official document to generate one token.

Afterwards, you should be able to push your code.

Now, other member of your groups can pull the update from the remote repository.

PART 2 - WORK INDIVIDUALLY

Branch

For each member, create a new branch `yourname_lab5` . Change `yourname` according to your name.
Usage `git checkout -b branchname` . Option `-b` will create a branch if it does not exist.

Example: `git checkout -b Peter_lab5`

Run `git status` to see if you are in the new branch

Question 5: Add and commit your work on Lab assignment 5 to the repository

- Create a folder under the `Lab5` folder. Name it as your student id.
- Put your Lab5 solutions (including all `.ipynb`, `.html` files) under the folder.
- Commit the changes

Run `git log` and observe the git tree

Question 6: Push your branch to the remote repository

Question 7: Merge your branch with the main branch.

- Checkout to the `main` branch
- Merge your lab5 branch with the main branch
- Run `git log` to observe changes in the git tree

Question 8: Push your Lab 5 to the remote repository.

Final question: Run `git log`, take a screenshot, and put it below this cell

```

Commit 5c9079c4641e164f88547378d809c5e356186924 (origin/Aik_lab5)
Author: AikvanSeters <Aikvanseters@gmail.com>
Date: Wed Sep 28 10:49:58 2022 +0200

    I think this works

commit 3042e2e892fbaeb629e5710cc030eb0a369ed53f
Author: dmtmol <112584321+dmtmol@users.noreply.github.com>
Date: Wed Sep 28 10:48:14 2022 +0200
...skipping...
commit 6776d3b5cc6607a64a2395df3d6f8ba9fdaae641 (HEAD -> main, origin/main, origin/HEAD)
Merge: 6c3034a 72a9ccc
Author: MartijnKoning1 <m.koning-1@student.tudelft.nl>
Date: Wed Sep 28 11:27:54 2022 +0200

    Merge branch 'main' of https://github.com/dmtmol/TIL6010-LabAssignments

commit 6c3034ab50888e0b5da3289aa25c7dba1a6a2e77 (origin/branchnameMartijn_Lab5, branchnameMartijn_Lab5)
Author: MartijnKoning1 <m.koning-1@student.tudelft.nl>
Date: Wed Sep 28 11:19:55 2022 +0200

    Coded

commit 72a9ccc7e53ab243c92710b18757ef446a4dd98c
Merge: 5c9079c 3042e2e
Author: AikvanSeters <Aikvanseters@gmail.com>
Date: Wed Sep 28 11:05:47 2022 +0200

    Merge branch 'main' of https://github.com/dmtmol/TIL6010-LabAssignments

commit 5c9079c4641e164f88547378d809c5e356186924 (origin/Aik_lab5)
Author: AikvanSeters <Aikvanseters@gmail.com>
Date: Wed Sep 28 10:49:58 2022 +0200

    I think this works

commit 3042e2e892fbaeb629e5710cc030eb0a369ed53f
Author: dmtmol <112584321+dmtmol@users.noreply.github.com>
Date: Wed Sep 28 10:48:14 2022 +0200

    Rename Nieuw tekstdocument.txt to lab5.txt

commit e65c9203f6992ba1cdae317ad7da36e7587e6b76
Author: AikvanSeters <Aikvanseters@gmail.com>
Date: Wed Sep 28 10:18:33 2022 +0200

    Added Lab5

```

Try to recreate similar repository for your project