

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](#) 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](#) 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](#)

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`

```
[(til6022) Barteks-MacBook-Pro:~ Bart$ cd TIL6010-LabAssignments ]
[(til6022) Barteks-MacBook-Pro:TIL6010-LabAssignments Bart$ get status ]
-bash: get: command not found
[(til6022) Barteks-MacBook-Pro:TIL6010-LabAssignments Bart$ git status ]
On branch main
Your branch is up to date with 'origin/main'.

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   Lab_5/.DS_Store
        new file:   Lab_5/Lab_5.txt

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

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`

```
(til6022) Barteks-MacBook-Pro:TIL6010-LabAssignments Bart$ git log
[commit adab7d8865e2d81c66c2a9554d1b6a8bc1cedc5 (HEAD -> main)]
Author: Bartek Szarszewski <Bart@Barteks-MacBook-Pro.local>
Date:   Wed Sep 28 11:16:08 2022 +0200

    README.md

commit 967afb3924d0aa865e7beea0e76e59efa0f98606 (origin/main, origin/HEAD)
Merge: 4e263a9 5efc48e
Author: Michel6022 <michelvantooren@live.nl>
Date:   Wed Sep 28 11:07:08 2022 +0200

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

commit 4e263a98b867ef630993cc2df603f1b4219b4e5e
Author: Michel6022 <michelvantooren@live.nl>
Date:   Wed Sep 28 11:05:20 2022 +0200

    updated README.md

commit 5efc48eb84320e6d0599d63a0e09888dccc76039c
Author: barteksza <112410137+barteksza@users.noreply.github.com>
Date:   Wed Sep 28 11:00:01 2022 +0200

    Update README.md

commit bea2bfb4df4dd10ad6edba2dc3582b442a07bfcc
Author: DavidVlot <112896784+DavidVlot@users.noreply.github.com>
Date:   Wed Sep 28 09:53:24 2022 +0200

    Initial commit
(til6022) Barteks-MacBook-Pro:TIL6010-LabAssignments Bart$
```

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](#) 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 ac5fb485ce8f1f85c06d63bc41b22995ec2b2ad0 (HEAD -> main)
Author: barteksza <b.szarszewski@student.tudelft.nl>
Date:   Wed Sep 28 12:23:10 2022 +0200

    joo tweede test

commit 09dbc66a6d4e308e1a45ed21c2f0df634be0f6ae
Merge: 1dcc169 b1fc4a8
Author: Michel6022 <114566967+Michel6022@users.noreply.github.com>
Date:   Wed Sep 28 12:13:27 2022 +0200

    Merge pull request #5 from DavidVlot/Bart_lab5

    jobartoszhier

commit 1dcc1696e8e9e7304d0bd06ab322c085ded60c7d
Merge: 97976fd ce3a394
Author: Tituskraanen <112898389+Tituskraanen@users.noreply.github.com>
Date:   Wed Sep 28 12:12:26 2022 +0200

    Merge pull request #4 from DavidVlot/Titus_lab5

    testjetitus

commit 97976fdafc5e02ad7d20e60a38294778e7c40843
Merge: 4429878 d6b9e0f
Author: Michel6022 <114566967+Michel6022@users.noreply.github.com>
Date:   Wed Sep 28 12:10:19 2022 +0200

    Merge pull request #3 from DavidVlot/Sten_lab5

    hoi 2

commit 4429878b558be32787960e8be0b87ebeb404b400
Merge: 7f94ae4 ed928d4
Author: Michel6022 <114566967+Michel6022@users.noreply.github.com>
Date:   Wed Sep 28 12:09:40 2022 +0200

    Merge pull request #2 from DavidVlot/Michel_lab5

    Ik wil graag murgen

commit 7f94ae4a0bc6672f69a07c04735323263a6772d4
Merge: 967afb3 6d012f2
Author: DavidVlot <112896784+DavidVlot@users.noreply.github.com>
Date:   Wed Sep 28 12:00:48 2022 +0200

    Merge pull request #1 from DavidVlot/David_lab5

    just a nice test

commit b1fc4a8eca40dbd9dba30e50291f83bfb26d1a7 (origin/Bart_lab5)
Author: barteksza <b.szarszewski@student.tudelft.nl>
Date:   Wed Sep 28 11:57:23 2022 +0200

    jobartoszhier

commit 6d012f226c80dba8225a3d42bebae5ea61f94c68 (origin/David_lab5, origin/DavidVlot)
Author: DavidVlot <D.B.D.Vlot@student.tudelft.nl>
Date:   Wed Sep 28 11:44:42 2022 +0200

    just a nice test

commit d6b9e0fbea539f5aca437b47d0ab420847a05646 (origin/Sten_lab5)
:
```

Try to recreate similar repository for your project