

# Lab 7 solutions

September 27, 2023

## 1 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.)

## 2 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](#)

## 3 Setup your Github account

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

## 4 PART 1 - WORK AS A GROUP

### 4.1 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'

### 4.2 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.

### 4.3 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.

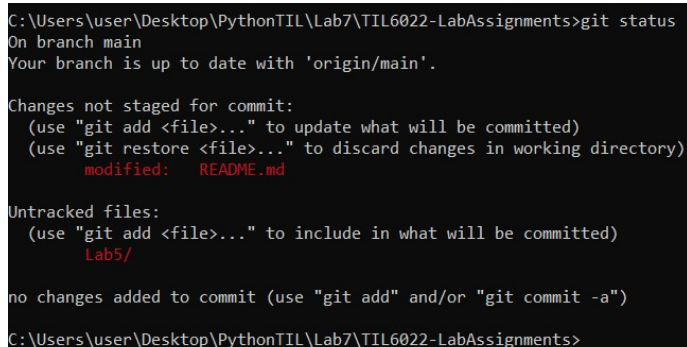
### 4.4 Your first commit

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.

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

Use `git status`



```
C:\Users\user\Desktop\PythonTIL\Lab7\TIL6022-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\user\Desktop\PythonTIL\Lab7\TIL6022-LabAssignments>
```

#### 4.4.2 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"`

```

Author identity unknown

*** Please tell me who you are.

Run

git config --global user.email "you@example.com"
git config --global user.name "Your Name"

to set your account's default identity.
Omit --global to set the identity only in this repository.

fatal: unable to auto-detect email address (got 'user@DESKTOP-A8EIQ42.(none)')

C:\Users\user\Desktop\PythonTIL\Lab7\TIL6022-LabAssignments> git config --global user.email "z.zervos@student.tudelft.nl"

C:\Users\user\Desktop\PythonTIL\Lab7\TIL6022-LabAssignments> git config --global user.name "Zacharias Zervos"

C:\Users\user\Desktop\PythonTIL\Lab7\TIL6022-LabAssignments>git commit -m "updated README.md"
[main 3151f4d] updated README.md
1 file changed, 3 insertions(+), 1 deletion(-)

C:\Users\user\Desktop\PythonTIL\Lab7\TIL6022-LabAssignments>

```

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

Use *git log*

```

C:\Users\user\Desktop\PythonTIL\Lab7\TIL6022-LabAssignments>git log
commit 3151f4d6e175b6bf491693cb1a8d070f45526b84 (HEAD -> main)
Author: Zacharias Zervos <z.zervos@student.tudelft.nl>
Date:   Wed Sep 27 11:50:29 2023 +0200

    updated README.md

commit b97ac84398793843acd44e4a0b6443303ae85a89 (origin/main, origin/HEAD)
Author: SiderisV <146180637+SiderisV@users.noreply.github.com>
Date:   Wed Sep 27 11:21:16 2023 +0200

    Initial commit

C:\Users\user\Desktop\PythonTIL\Lab7\TIL6022-LabAssignments>

```

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

```

C:\Users\sid_b\OneDrive\Υπολογιστής\py project\TIL6022-LabAssignments>git add Lab7

C:\Users\sid_b\OneDrive\Υπολογιστής\py project\TIL6022-LabAssignments>git commit -m "new update Lab7"
[main dea5332] new update Lab7
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 Lab7/Lab7.txt

C:\Users\sid_b\OneDrive\Υπολογιστής\py project\TIL6022-LabAssignments>git status
On branch main
Your branch is ahead of 'origin/main' by 3 commits.
  (use "git push" to publish your local commits)

nothing to commit, working tree clean

C:\Users\sid_b\OneDrive\Υπολογιστής\py project\TIL6022-LabAssignments>git log
commit dea53320f623bd70df9d147f23726f0dfb63b861 (HEAD -> main)
Author: Vasileios Sideris <V.Sideris@student.tudelft.nl>
Date:   Wed Sep 27 12:02:36 2023 +0200

    new update Lab7

commit 86a5bace9780ceb52037ef6e8273b1fc98451c76
Author: Vasileios Sideris <V.Sideris@student.tudelft.nl>
Date:   Wed Sep 27 11:54:41 2023 +0200

    is updated README.md

commit 5afee0b3ff74b93b75b1aca61ef9f54e5d880ef5
Author: Ironmaker27 <sid_bil@yahoo.gr>
Date:   Wed Sep 27 11:39:51 2023 +0200

    updated README.md

commit b97ac84398793843acd44e4a0b6443303ae85a89 (origin/main, origin/HEAD)
Author: SiderisV <146180637+SiderisV@users.noreply.github.com>
Date:   Wed Sep 27 11:21:16 2023 +0200

    Initial commit

```

## 4.5 Update local changes to remote repository

### 4.5.1 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.

```

C:\Users\user\Desktop\PythonTIL\Lab7\TIL6022-LabAssignments>git commit -m "updated lab5.txt"
On branch main
Your branch is ahead of 'origin/main' by 1 commit.
  (use "git push" to publish your local commits)

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

nothing added to commit but untracked files present (use "git add" to track)

C:\Users\user\Desktop\PythonTIL\Lab7\TIL6022-LabAssignments>git pull
Already up to date.

C:\Users\user\Desktop\PythonTIL\Lab7\TIL6022-LabAssignments>git push
info: please complete authentication in your browser...
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Writing objects: 100% (3/3), 305 bytes | 305.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/SiderisV/TIL6022-LabAssignments.git
   b97ac84..3151f4d  main -> main

C:\Users\user\Desktop\PythonTIL\Lab7\TIL6022-LabAssignments>

```

## 4.6 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.

# 5 PART 2 - WORK INDIVIDUALLY

## 5.1 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

```

Initial commit

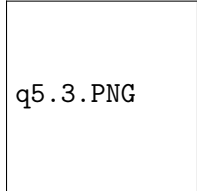
C:\Users\sid_b\OneDrive\Υπολογιστής\py project\TIL6022-LabAssignments>git checkout -b Vasileios_lab7
Switched to a new branch 'Vasileios_lab7'

C:\Users\sid_b\OneDrive\Υπολογιστής\py project\TIL6022-LabAssignments>git status
On branch Vasileios_lab7
nothing to commit, working tree clean

```

### 5.1.1 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



q5.3.PNG

Run git log and observe the git tree

### 5.1.2 Question 6: Push your branch to the remote repository

```
C:\Users\sid_b\OneDrive\Υπολογιστής\py project\TIL6022-LabAssignments>git push
Enumerating objects: 13, done.
Counting objects: 100% (13/13), done.
Delta compression using up to 4 threads
Compressing objects: 100% (10/10), done.
Writing objects: 100% (10/10), 340.66 KiB | 17.93 MiB/s, done.
Total 10 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/SiderisV/TIL6022-LabAssignments.git
2ce4a71..d58b434  main -> main
```

### 5.1.3 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

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

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

```
C:\Users\sid_b>cd C:\Users\sid_b\OneDrive\Υπολογιστής\py project\TIL6022-LabAssignments

C:\Users\sid_b\OneDrive\Υπολογιστής\py project\TIL6022-LabAssignments>git log
commit d58b434be9cd7e401080f72ab56c09f48ba7561d (HEAD -> main, origin/main, origin/HEAD)
Author: SiderisV <V.Sideris@student.tudelft.nl>
Date:   Wed Sep 27 13:48:58 2023 +0200

    kati

commit 2ce4a71b34d05c36766c1a5e7826e80a3d4aaa88
Author: SiderisV <V.Sideris@student.tudelft.nl>
Date:   Wed Sep 27 13:39:29 2023 +0200

    new new new

commit fd9f34d6b7d3e22c0f5fd32d0091c0be4b5e72ff
Merge: dea5332 3151f4d
Author: SiderisV <V.Sideris@student.tudelft.nl>
Date:   Wed Sep 27 12:20:09 2023 +0200

    Resolved merge conflict in README.md

commit dea53320f623bd70df9d147f23726f0dfb63b861
Author: Vasileios Sideris <V.Sideris@student.tudelft.nl>
Date:   Wed Sep 27 12:02:36 2023 +0200

    new update Lab7

commit 86a5bace9780ceb52037ef6e8273b1fc98451c76
Author: Vasileios Sideris <V.Sideris@student.tudelft.nl>
Date:   Wed Sep 27 11:54:41 2023 +0200

...skipping...
commit d58b434be9cd7e401080f72ab56c09f48ba7561d (HEAD -> main, origin/main, origin/HEAD)
Author: SiderisV <V.Sideris@student.tudelft.nl>
Date:   Wed Sep 27 13:48:58 2023 +0200

    kati

commit 2ce4a71b34d05c36766c1a5e7826e80a3d4aaa88
Author: SiderisV <V.Sideris@student.tudelft.nl>
Date:   Wed Sep 27 13:39:29 2023 +0200

    new new new

commit fd9f34d6b7d3e22c0f5fd32d0091c0be4b5e72ff
Merge: dea5332 3151f4d
```

6 Try to recreate similar repository for your project