

Computer Networks

@CS.NCTU

Lab. 0: Learn Git and Python

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Objectives

1. Learn how to use Git for version control
2. Learn how to write a Python function

Task

1. Clone a Git project (20%)
2. Push a Git project (20%)
3. Write a Python function that return the sum of every digit of your student ID (40%)
4. Commit a Git update (20%)

Git & GitHub

- **Git** is a free open source [distributed version control system](#) designed to handle everything from small to very large projects with speed and efficiency
 - [連猴子都能懂的 Git 入門指南 \(CH\)](#)
 - Slides - [Let's Git \(CH\)](#)
 - [Git Handbook \(EN\)](#)
 - Online practice - [Try Git](#) / [Codecademy – Learn Git](#)
- **GitHub** is a web-based hosting service for version control using Git



GitHub

1. Create GitHub Account

2. Fill out the form

[NCTU CN 2021 - GitHub Account](#)

3. Join the assignment [Lab0](#)

Sign in to GitHub
to continue to GitHub Classroom

Username or email address

Password [Forgot password?](#)

Join the classroom:

NYCUCN2021

To join the GitHub Classroom for this course, please select yourself from the list below to associate your GitHub account with your school's identifier (i.e., your name, ID, or email).

Can't find your name? [Skip to the next step →](#)

Identifiers

Installation

- Mac / Windows: <https://git-scm.com>
- Linux:

```
# For Debian / Ubuntu install command  
$ sudo apt-get install git-all  
# For Fedora / CentOS install command  
$ sudo yum install git-all
```

Task 1: Clone the Project

- Download required files from GitHub

```
$ git clone https://github.com/NYCUCN/lab0-<GITHUB_ID>
```

- Get and set repository or global options

```
$ git config --global user.name "<NAME>"  
$ git config --global user.email "<EMAIL>"
```

Task 2: Add/Push the Project

- Set a new remote URL to your repository

```
$ git remote set-url origin  
https://github.com/NYCUCN/lab0-<GITHUB\_ID>.git
```

- Push/Upload your repository to GitHub

```
$ git push origin main
```


Task 3: Write a Python Function

- Write a Python function that return the sum of every digit of your student ID
 - Example: 310551096 $\rightarrow 3+1+0+5+5+1+0+9+6 = 30$
 - You should do the calculation in your python code, instead of just printing out the calculated result
- Some useful tutorials:
 - Python 3.5.7 documentation [\(CN\)](#)/[\(EN\)](#)
 - [CodeData – Python 2 Tutorial \(CN\)](#)
 - [w3schools.com – Learn Python \(EN\)](#)

Task 4: Commit the Modification

- Modify the file “lab0.py”

```
# git add <FILENAME>  
$ git add lab0.py
```

or

```
$ git add .
```

- Record changes to the repository

```
# git commit -m "<COMMIT_MESSAGE>"  
$ git commit -m "Initial commit"
```

- Upload to GitHub

```
$ git push origin main
```

Due

- Sep. 24 23:59, 2021
- Don't need to submit to E3
- Only need to commit your .py file to your github repository