# 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

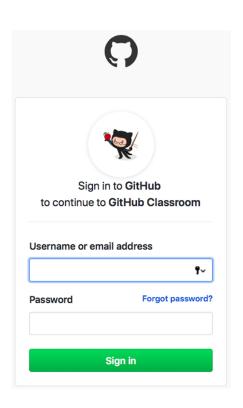
- 1. Clone a Git project (20%)
- 2. Push a Git project (20%)
- 3. Write a Python function that return the sum of every digit of your student ID (40%)
- 4. Commit a Git update (20%)

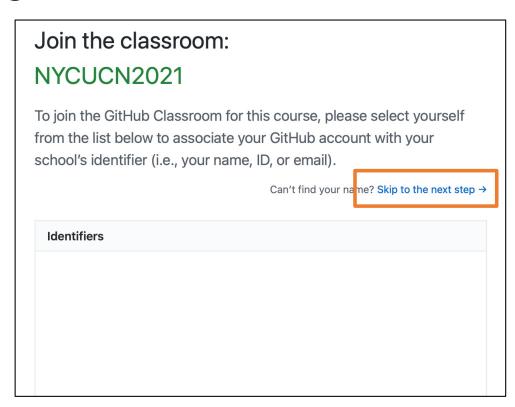
#### Git & GitHub

- 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 <u>Let's Git (CH)</u>
  - Git Handbook (EN)
  - Online practice <u>Try Git</u> / <u>Codecademy Learn Git</u>
- 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 <u>Lab0</u>





#### Installation

- Mac / Windows: <a href="https://git-scm.com">https://git-scm.com</a>
- 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