C Homework Manual

Introduction

This manual tells how to download and upload C homework using git.

Preface

Before following this manual, you are expected to:

1. Have configured a usable development environment, that is to say, have got a shell.
2. Have been familiar with several basic commands based on shell, such as *cd*, *ls*, *cat*, *mkdir*, *cp*, *mv*, *rmdir*, *rm*, etc.
3. Have known a little about how to use vim and git.

Install & Configure git

Install

Assumption of your Ubuntu Operating System, follow commands below:

$ sudo apt-get install git

Configure

Set up username and email:

$ git config --global user.name <"username">

$ git config --global user.email <email>

Contents between <> are your username and email, e.g.:

$ git config --global user.name "Kuojian Lu"

$ git config --global user.email gli_glu@163.com

Note: Please use your name or student number as git username.

Allow vim as your default editor of git:

$ git config --global core.editor vim

Check out your config:

$ git config --list

The config file of git is located at **~/.gitconfig** (or may be at **/etc/gitconfig**), which may be hidden (if so, use **ls –a** to make it appear in your screen). You can check by *cat*, or directly edit it by vim:

$ cat ~/.gitconfig (OR $ cat /etc/gitconfig)

$ vim ~/.gitconfig (OR $ vim /etc/gitconfig)

Install ssh

Install

Assumption of your Ubuntu Operating System, follow commands below:

$ sudo apt-get install ssh

Generate key

$ ssh-keygen

Use the command above to generate key for ssh, including public key and private key.

Get public key

The info of ssh is located at **~/.ssh**, which may be hidden. The file id_rsa.pub in the **~/.ssh** directory saves your public key of ssh for your host. You can get it as below:

$ cat ~/.ssh/id_rsa.pub

Releatively, the file id_rsa saves your private key. However, you need pay no attention to it here.

Get authorization

Copy your public key and send it to email: gli_glu@163.com, in order to get access to the git server. Only by this way can you upload your homework using git.

Note:

1. Subject of the email letter is mandatory as <Public Key: stu_no, name>, e.g. Public Key: 19140215, Kuojian Lu.
2. Content of the email letter contains your complete public key, just one line.

Download homework project

Git server used here is provided by GitHub: https://github.com/NNU-CS16/TCPL. Use the command below to clone homework from server, just for the first time, which I mean, when time for your first-time homework, you should use this command, and later on, there is no necessity to clone again.

$ git clone git@github.com:NNU-CS16/TCPL.git

Make sure you have got access to the git server before cloning.

Upon successfully cloning, one folder named **TCPL**, the homework project for the course of The C Programming Language this term, will be added to your current directory. There are three subfolders in **TCPL:**

1. **homework**: Homework assigned for you to do after **e**ach lesson, e.g., subfolder **160922** stands for homework assigned in September 22, 2016.
2. **commit**: Your works should be committed in this folder. One subfolder stands for one piece of homework. Ditto, subfolder 160922 stands for your work of homework assigned in September 22, 2016.
3. **document**: Some references are saved in this folder FYI. You can download them by WinScp to your windows.

In case of your confusion about the structure of files and folders, one example has been listed in this homework project.

Upload homework

Do your homework in this project, and make your work follow the structure of files and folders. When completing, you can use the command to check your change to this project:

$ git status

Add your change:

$ git add *

Commit your change:

$ git commit

Git editor will appear, in order for you to write some comments for this commitment. Comments you will write may be like: Add work for 160922 – 19140215, Kuojian Lu.

Check your commit:

$ git log

Update homework project

Later on, you are able to update the homework project, either to download the latest homework, or to get others' works.

$ git pull

Note:

1. Just do what you should do. Avoid to change others' works and this project.
2. You may use other git commands to manage your works, as long as you are familiar how to.