

How to Use GitHub

FU Zihao

2018/1/18

Contents

- ▶ Brief Introduction
- ▶ Register an Account
- ▶ Create a Repository
- ▶ Operate by GUI
- ▶ Operate by Commands

Brief Introduction

What is git

- ▶ Git is a free and open source distributed version control system;
- ▶ Git can help people to cooperate on code;
- ▶ Git can compare the same file edited by different people and help to merge these changes into one;



What is GitHub


- ▶ Github is a web-based hosting service for version control using git;
- ▶ Github can be regarded as a node of git;
- ▶ Many people share their code on GitHub. Many open source projects are released on GitHub.
- ▶ Put your code on GitHub can help others to getting to know your skills and interest.



Register an Account


Register an Account


► Go to <https://github.com/join>


 [Features](#) [Business](#) [Explore](#) [Marketplace](#) [Pricing](#) [Sign in](#) or [Sign up](#)

Join GitHub

The best way to design, build, and ship software.

 **Step 1:**
Create personal account

 **Step 2:**
Choose your plan


 **Step 3:**
Tailor your experience

Create your personal account

There were problems creating your account.

Username

Email address

Password
 

Use at least one lowercase letter, one numeral, and seven characters.


By clicking on "Create an account" below, you are agreeing to the [Terms of Service](#) and the [Privacy Policy](#).


Create an account


You'll love GitHub

Unlimited collaborators

Unlimited public repositories


 Great communication

 Frictionless development


 Open source community

Register an Account

► Go to <https://github.com/join>


 Search GitHub


Pull requestsIssuesMarketplaceExplore


+ 

Welcome to GitHub

You've taken your first step into a larger world, @cuhkgithub111.

 **Completed**
Set up a personal account

 **Step 2:**
Choose your plan

 **Step 3:**
Tailor your experience

Choose your personal plan

☒ Unlimited public repositories for free.

☐ Unlimited private repositories for \$7/month. [\(view in HKD\)](#)

Don't worry, you can cancel or upgrade at any time.

☐ **Help me set up an organization next**
Organizations are separate from personal accounts and are best suited for businesses who need to manage permissions for many employees.
[Learn more about organizations](#)


☐ **Send me updates on GitHub news, offers, and events**
Unsubscribe anytime in your email preferences. [Learn more](#)

Continue

Both plans include:

- ✓ Collaborative code review
- ✓ Issue tracking
- ✓ Open source community
- ✓ Unlimited public repositories
- ✓ Join any organization

© 2018 GitHub, Inc. [Terms](#) [Privacy](#) [Security](#) [Status](#) [Help](#)



[Contact GitHub](#) [API](#) [Training](#) [Shop](#) [Blog](#) [About](#)

Register an Account

► Verify your e-mail

EMAIL **COMPOSE** **TOOLS** **ABOUT**

[« Back to inbox](#) [Reply](#) [Forward](#) [Show Original](#)

[GitHub] Please verify your email address.

From: **noreply@github.com**, To: **cuhkgithubtut1**, Date **2018-01-16 05:29:42**

Hi **@cuhkgithubtut1**!

Help us secure your GitHub account by verifying your email address (**cuhkgithubtut1@sharklasers.com**). This lets you access all of GitHub's features.

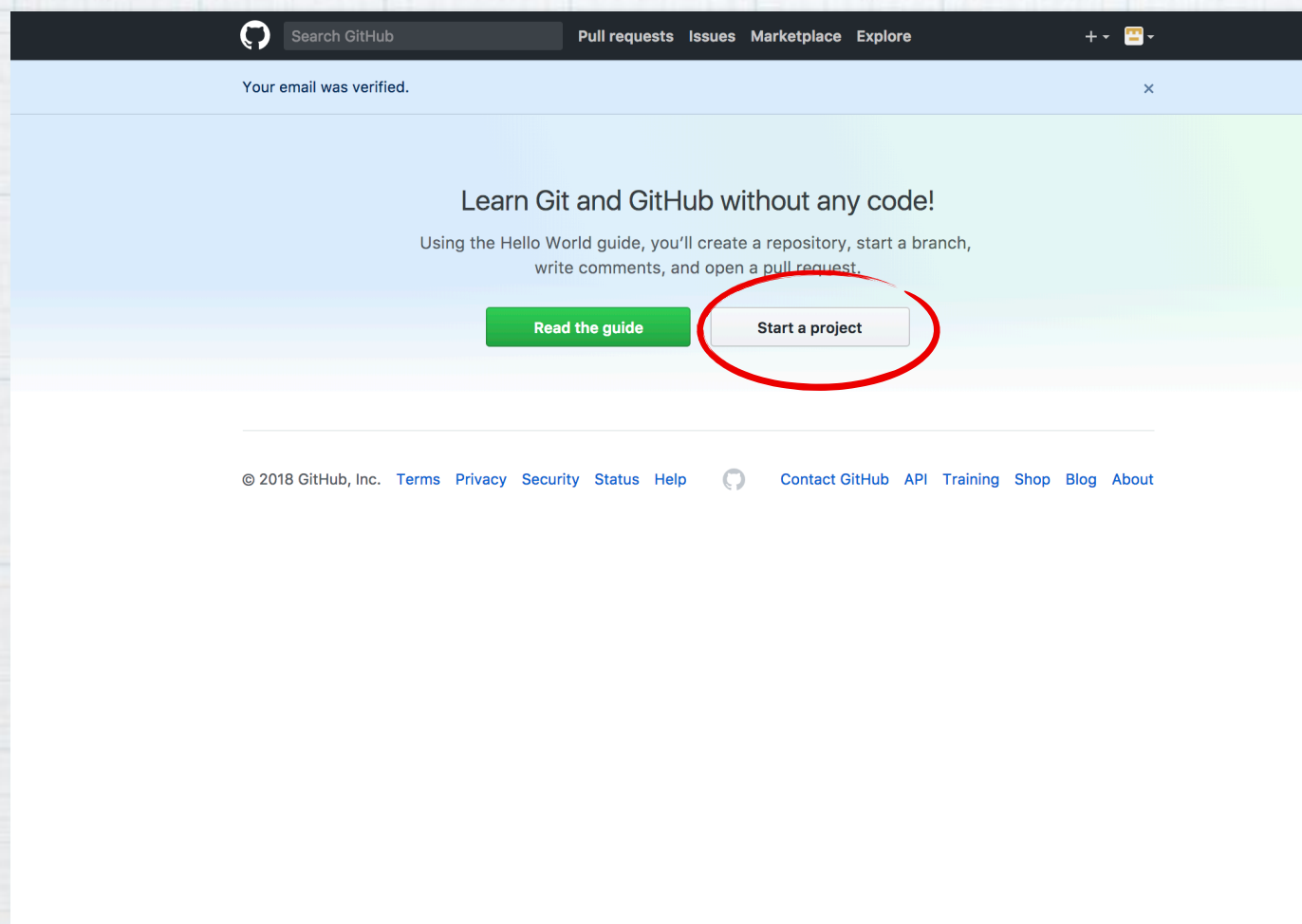
Verify email address

Button not working? Paste the following link into your browser:
https://github.com/users/cuhkgithubtut1/emails/44138267/confirm_verification/fb2caf1fc24f2

You're receiving this email because you recently created a new GitHub account or added a new email address. If this wasn't you, please ignore this email.

Register an Account

- ▶ After verified your e-mail, it's the time to start your first project on GitHub.



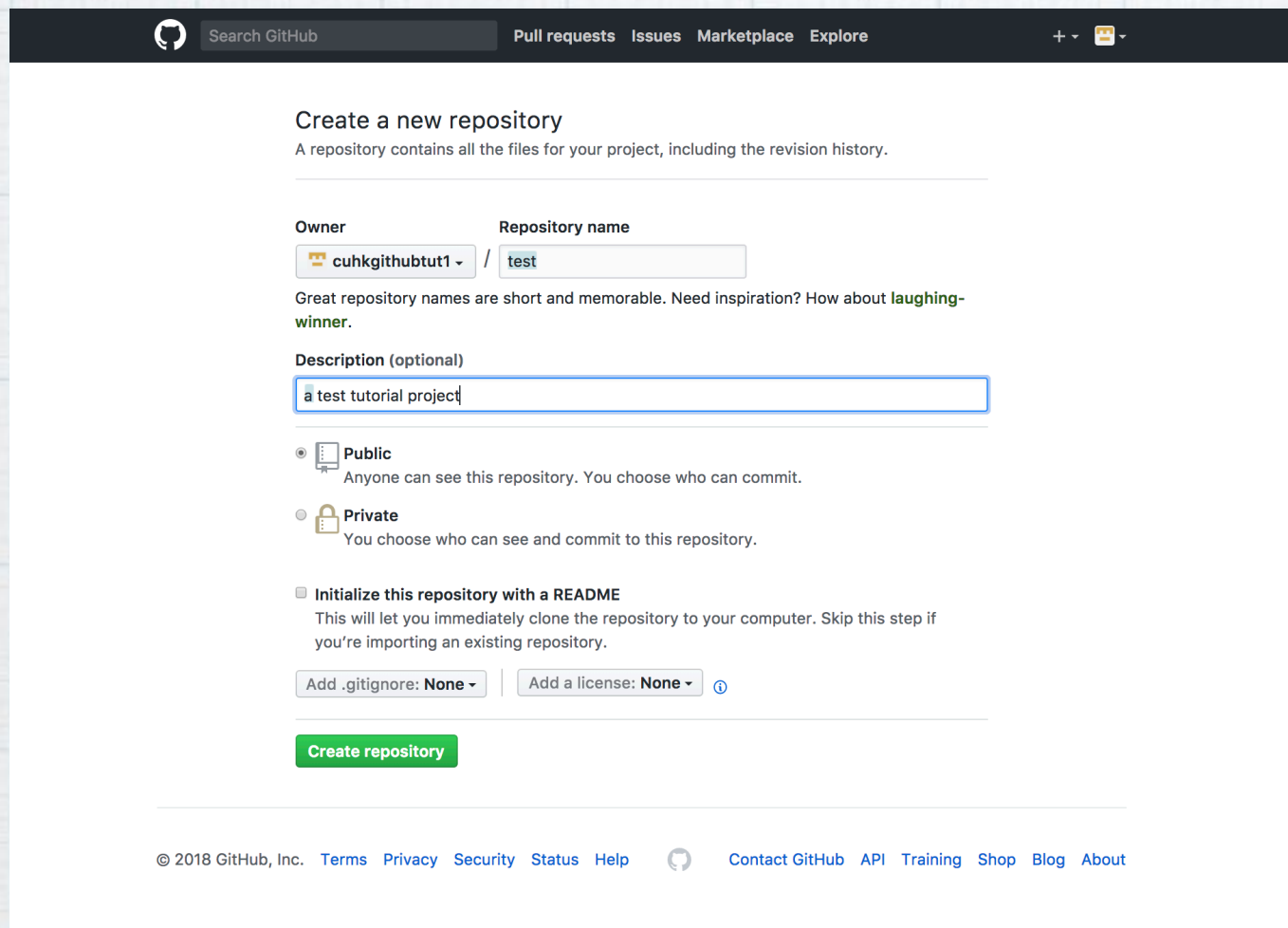
Create a Repository

What is a Repository

- ▶ A repository is the place to store your code and version information. You can regard it as an ordinary folder and put all your code into the folder;
- ▶ A Repository contains some version control information in “.git” subfolder. DO NOT modify it!
- ▶ You just write your program in a repository on your local machine and push it to GitHub.

Create a Repository

- Fill in the repository name and description
- Free account can only create public repository and every one else can see it.



The screenshot shows the GitHub 'Create a new repository' page. At the top is a dark navigation bar with the GitHub logo, a search bar, and links for 'Pull requests', 'Issues', 'Marketplace', and 'Explore'. Below this, the page title 'Create a new repository' is followed by a subtitle: 'A repository contains all the files for your project, including the revision history.' The form fields include: 'Owner' (a dropdown menu showing 'cuhkgithubut1'), 'Repository name' (a text input field containing 'test'), 'Description (optional)' (a text input field containing 'a test tutorial project'), and two radio button options for visibility: 'Public' (selected) and 'Private'. Below these are checkboxes for 'Initialize this repository with a README' and 'Add .gitignore' (set to 'None'). At the bottom is a green 'Create repository' button. The footer contains copyright information and various links.

Search GitHub Pull requests Issues Marketplace Explore

Create a new repository

A repository contains all the files for your project, including the revision history.

Owner Repository name

cuhkgithubut1 / test

Great repository names are short and memorable. Need inspiration? How about **laughing-winner**.

Description (optional)

a test tutorial project

☒ **Public**
Anyone can see this repository. You choose who can commit.

☐ **Private**
You choose who can see and commit to this repository.

☐ **Initialize this repository with a README**
This will let you immediately clone the repository to your computer. Skip this step if you're importing an existing repository.

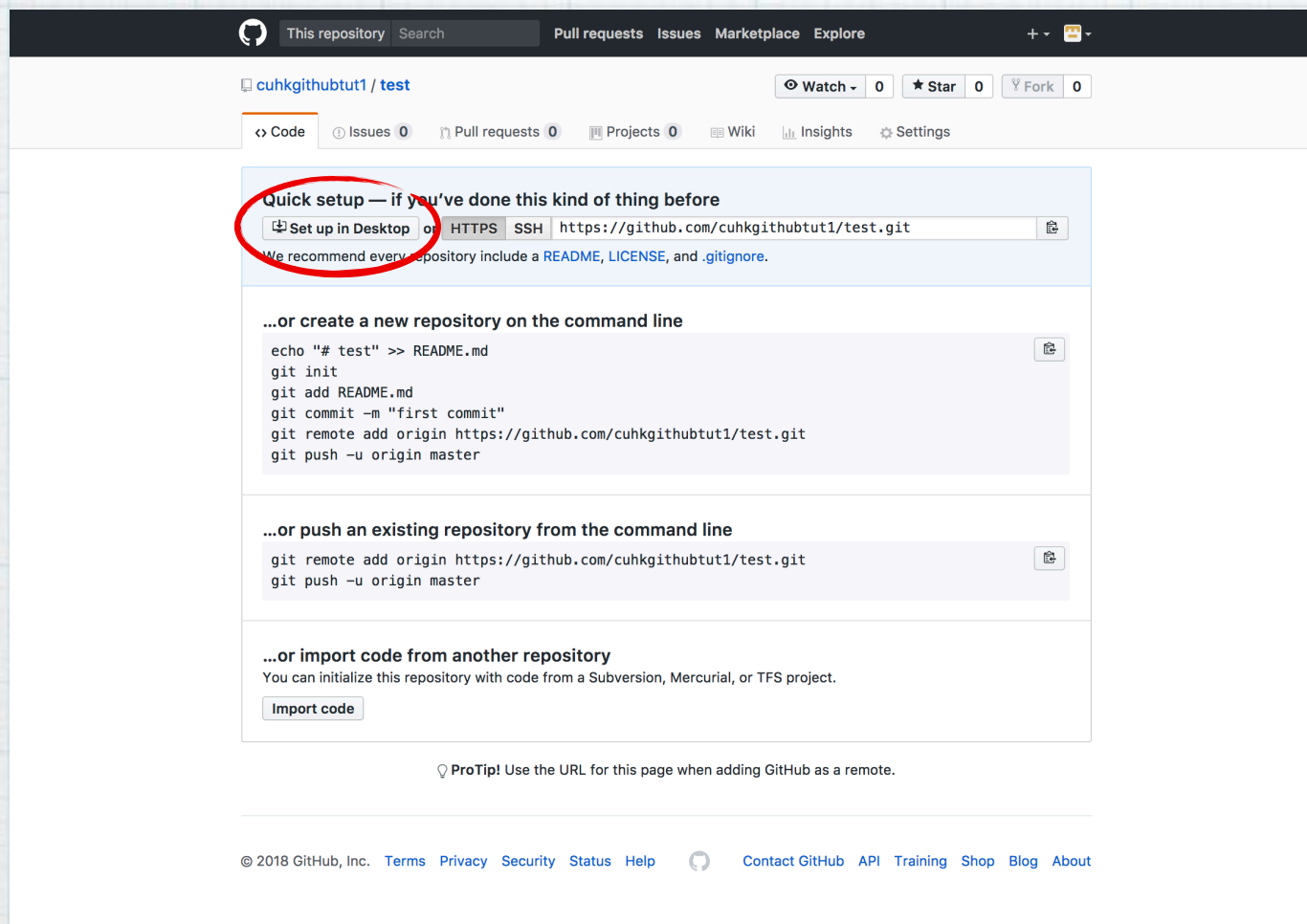
Add .gitignore: **None** Add a license: **None**

Create repository

© 2018 GitHub, Inc. Terms Privacy Security Status Help Contact GitHub API Training Shop Blog About

Create a Repository

- Now, we have an empty repository



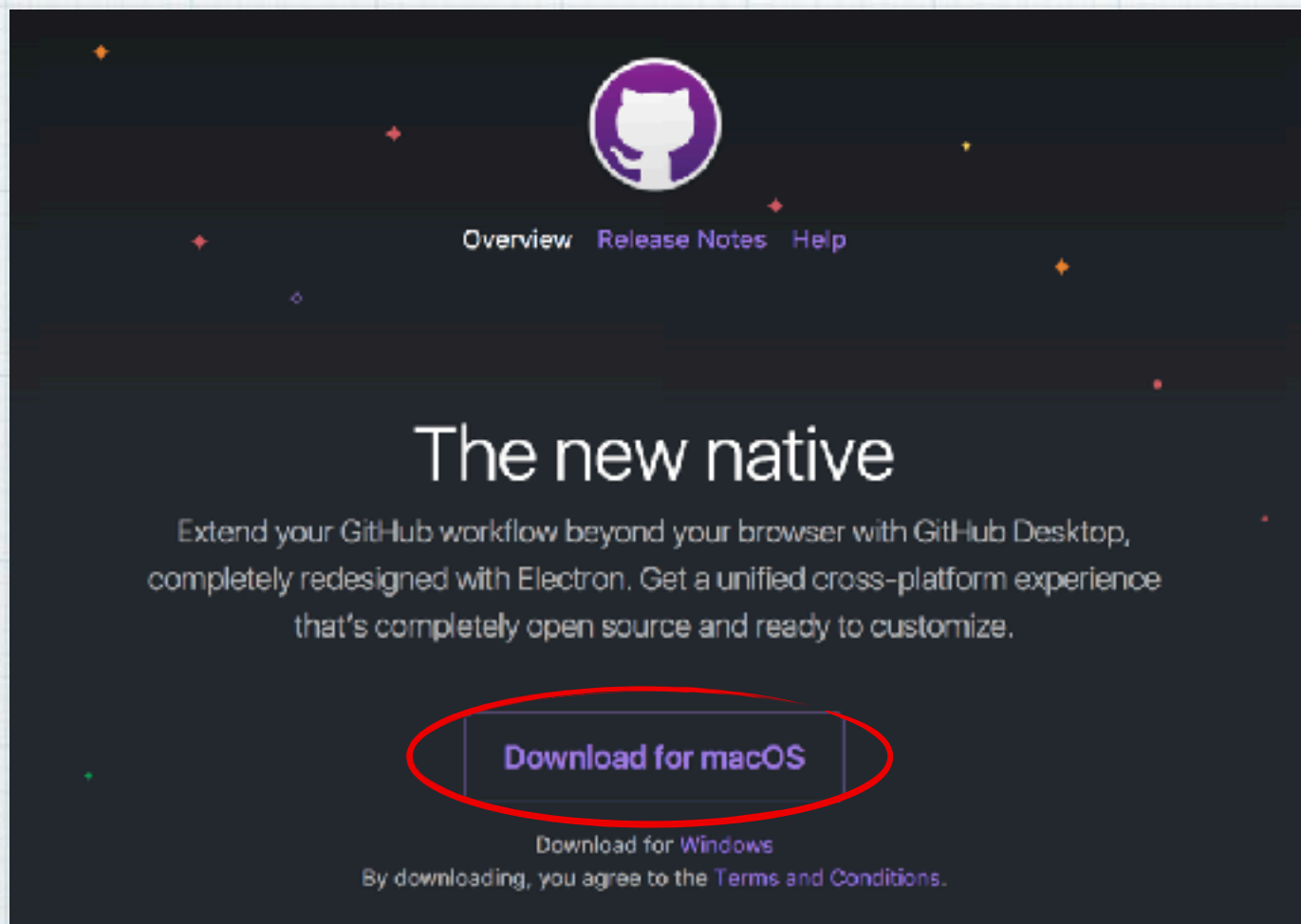
Operate by GUI

Introduction to Github Desktop



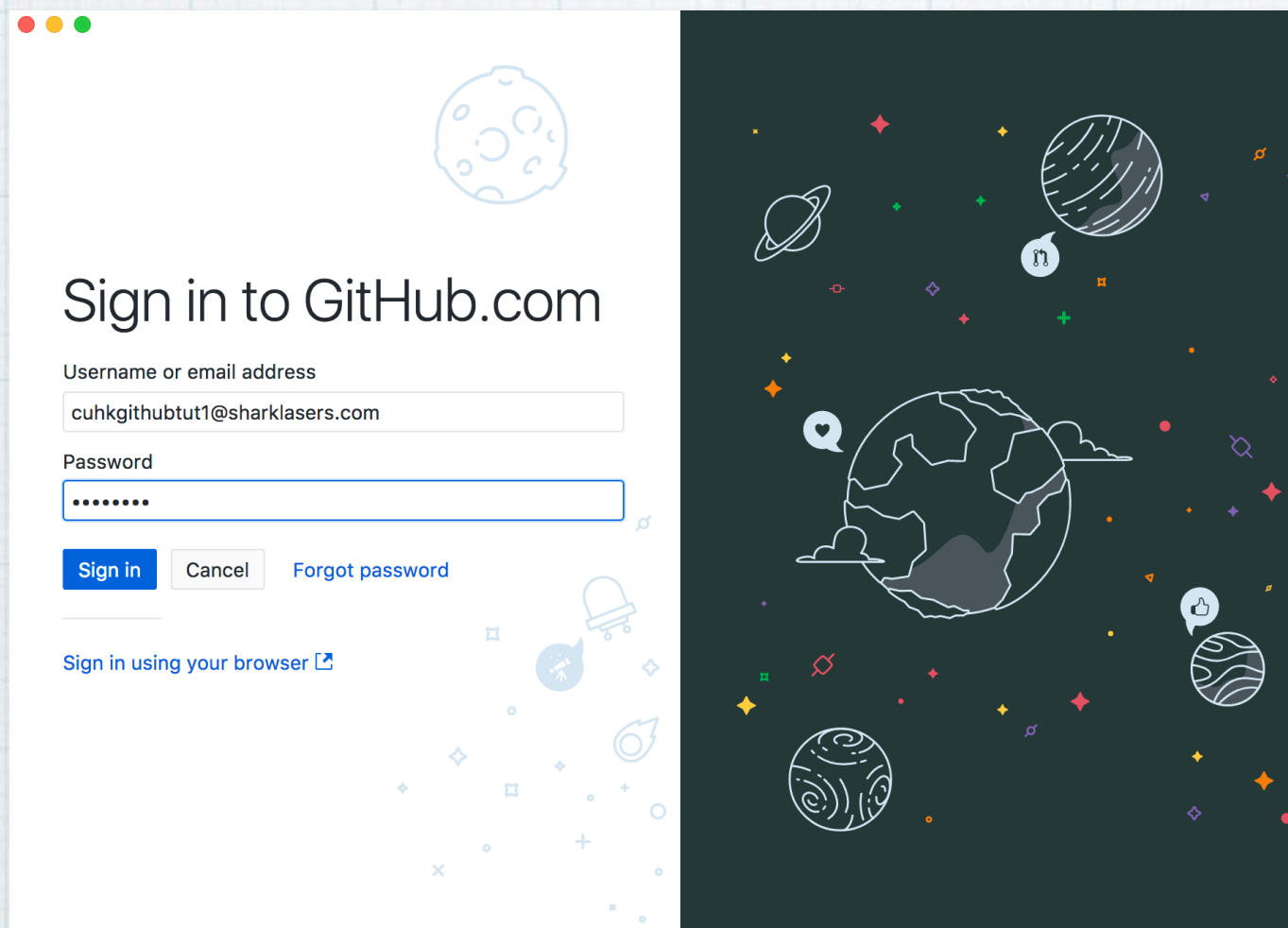
Operate by GUI

- Download at <https://desktop.github.com/>



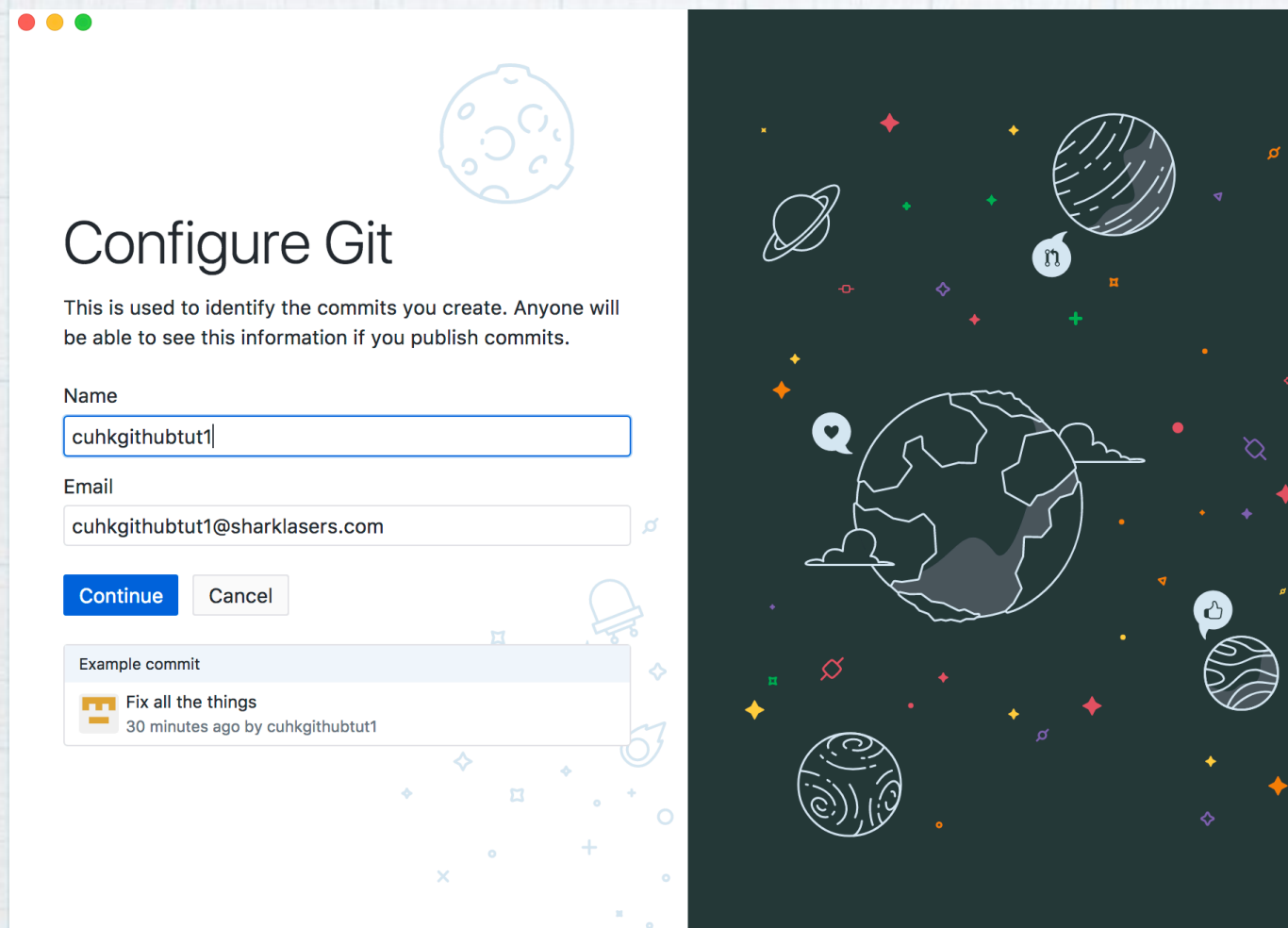
Operate by GUI

- Login with your account



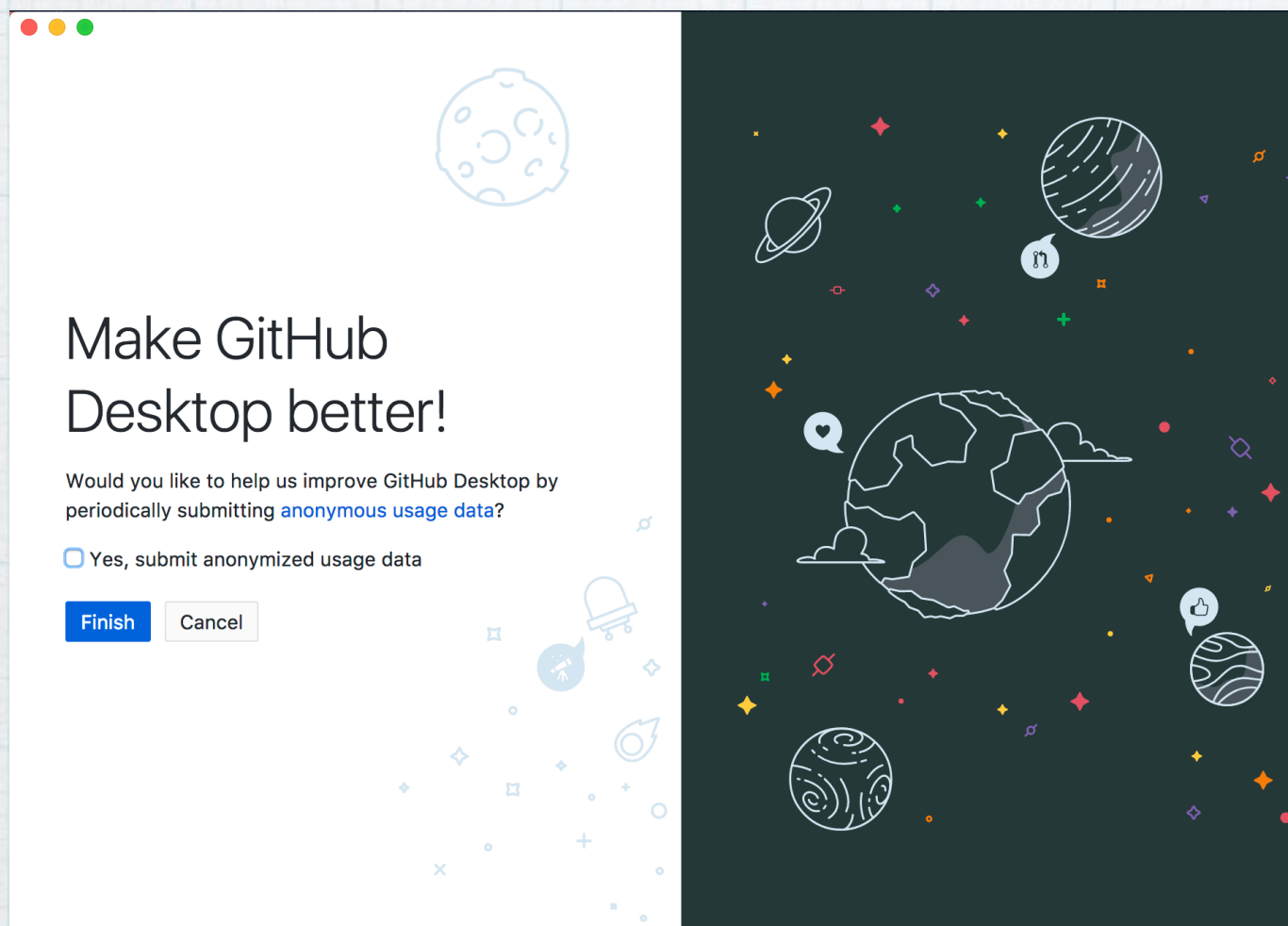
Operate by GUI

- Fill your name and email. This will be used to indicate who have modified the code.



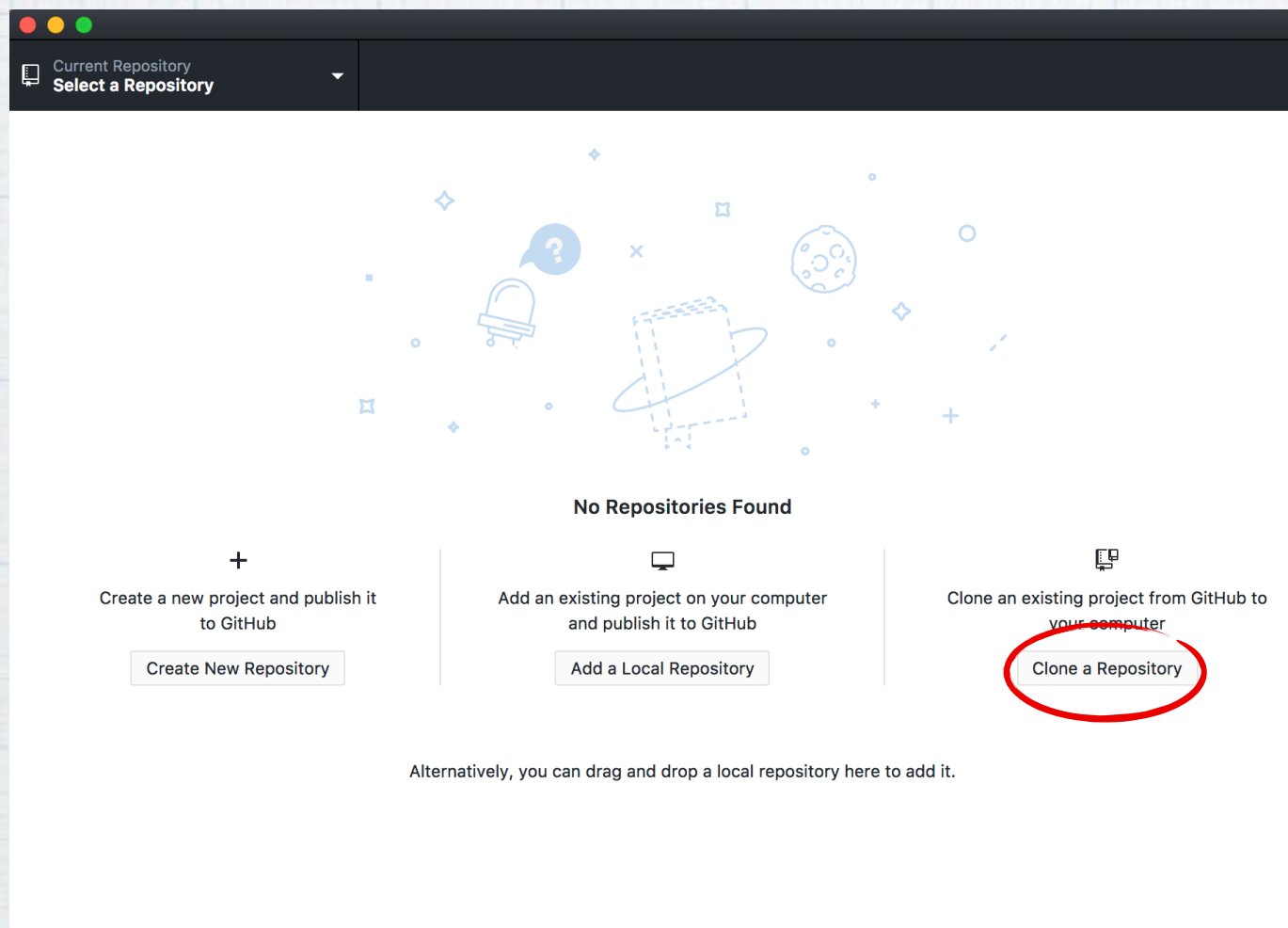
Operate by GUI

- Finish configuration



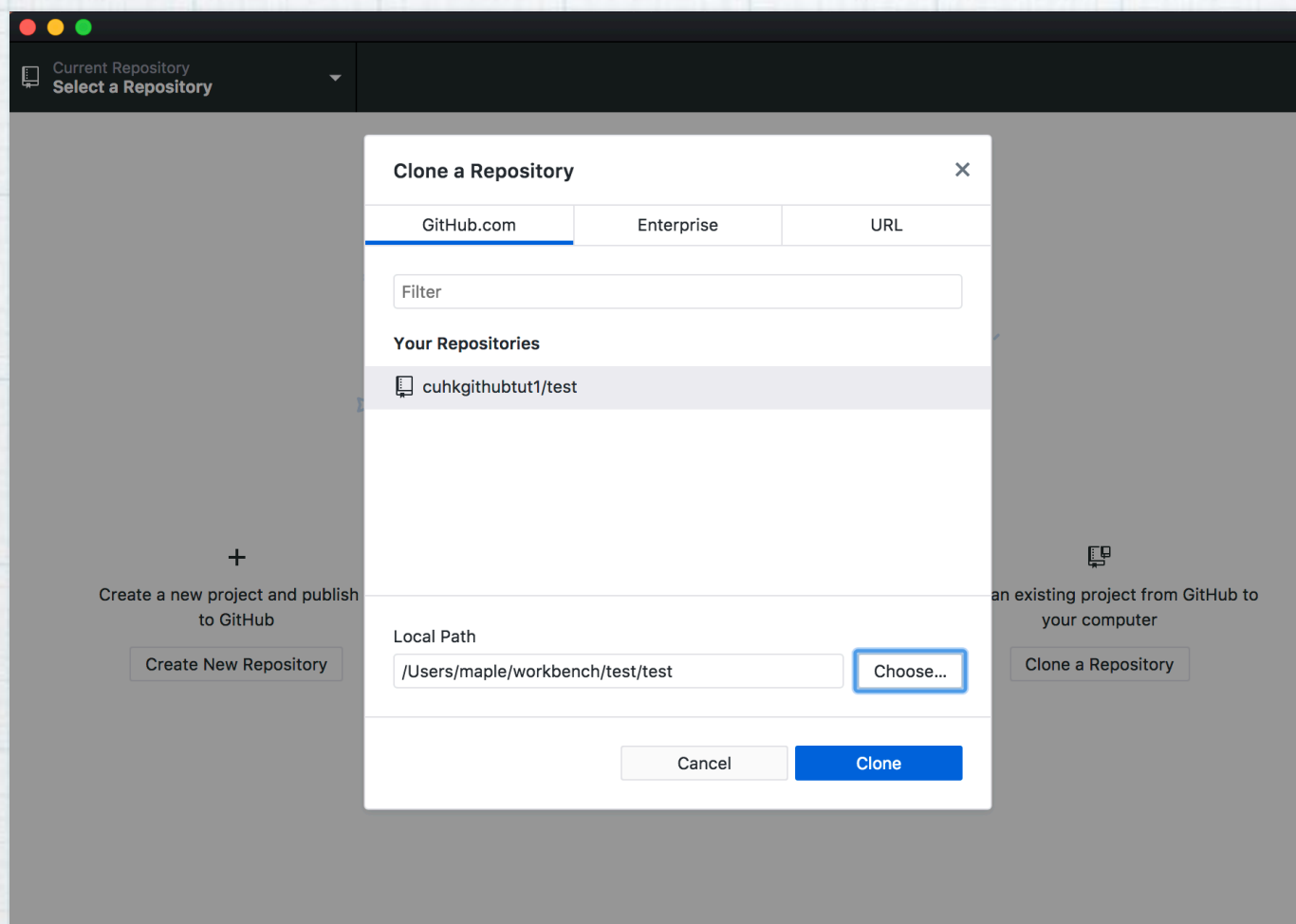
Operate by GUI

► The main interface



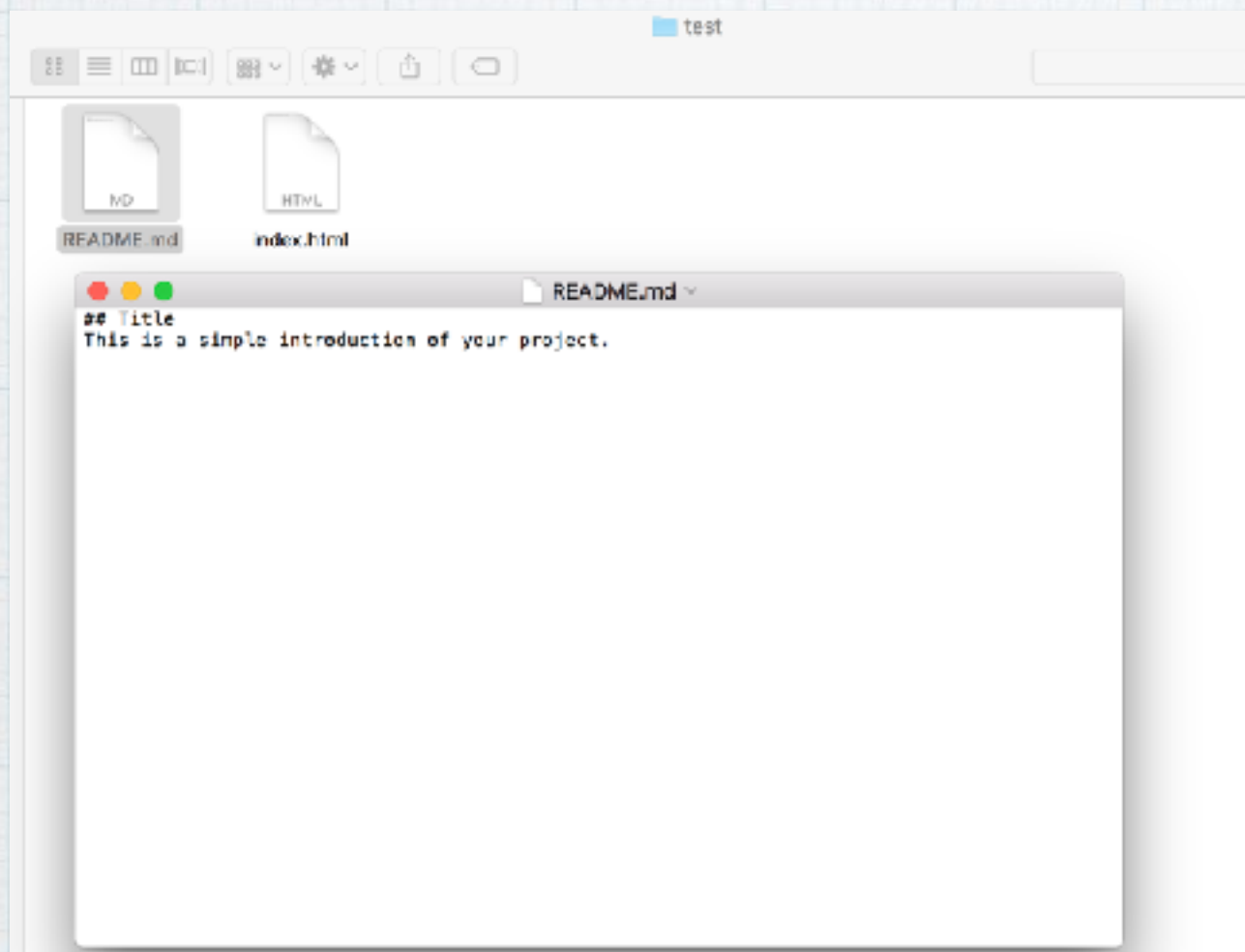
Operate by GUI

- ▶ We will clone the repository we just created to our local disk.
- ▶ Clone is a operation that copy a repository from other place to your local disk.



Operate by GUI

- ▶ Modify the folder, add some code file, etc.
- ▶ We add a README.md file. This is a markdown file and will be used as the default introduction page of your project on GitHub.



What is markdown

- ▶ Markdown is a simple language to make formatted text;
- ▶ Just write raw text, and GitHub will render it;

```
1 # This is my title
2 Some table results is shown below.
3
4 | name | price |
5 | ---- | ---- |
6 | apple | 12 |
7
8 # Some code sample
9
10 ```c
11 #include <iostream>
12 int main(){
13     std::cout<<"Hello"<<std::endl;
14     return 0;
15 }
16 ```
17
```

This is my title

Some table results is shown below.

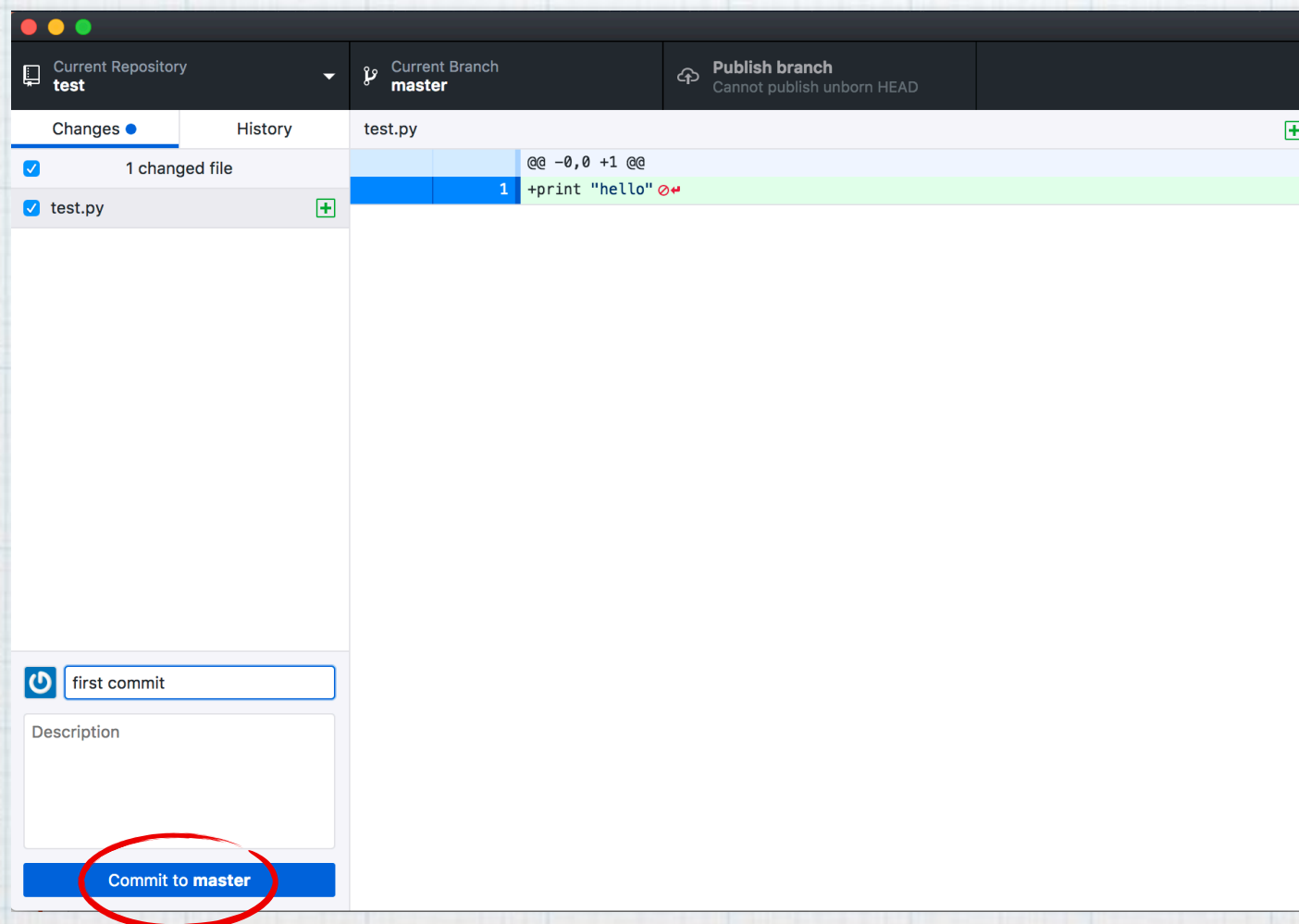
name	price
apple	12

Some code sample

```
#include <iostream>
int main(){
    std::cout<<"Hello"<<std::endl;
    return 0;
}
```

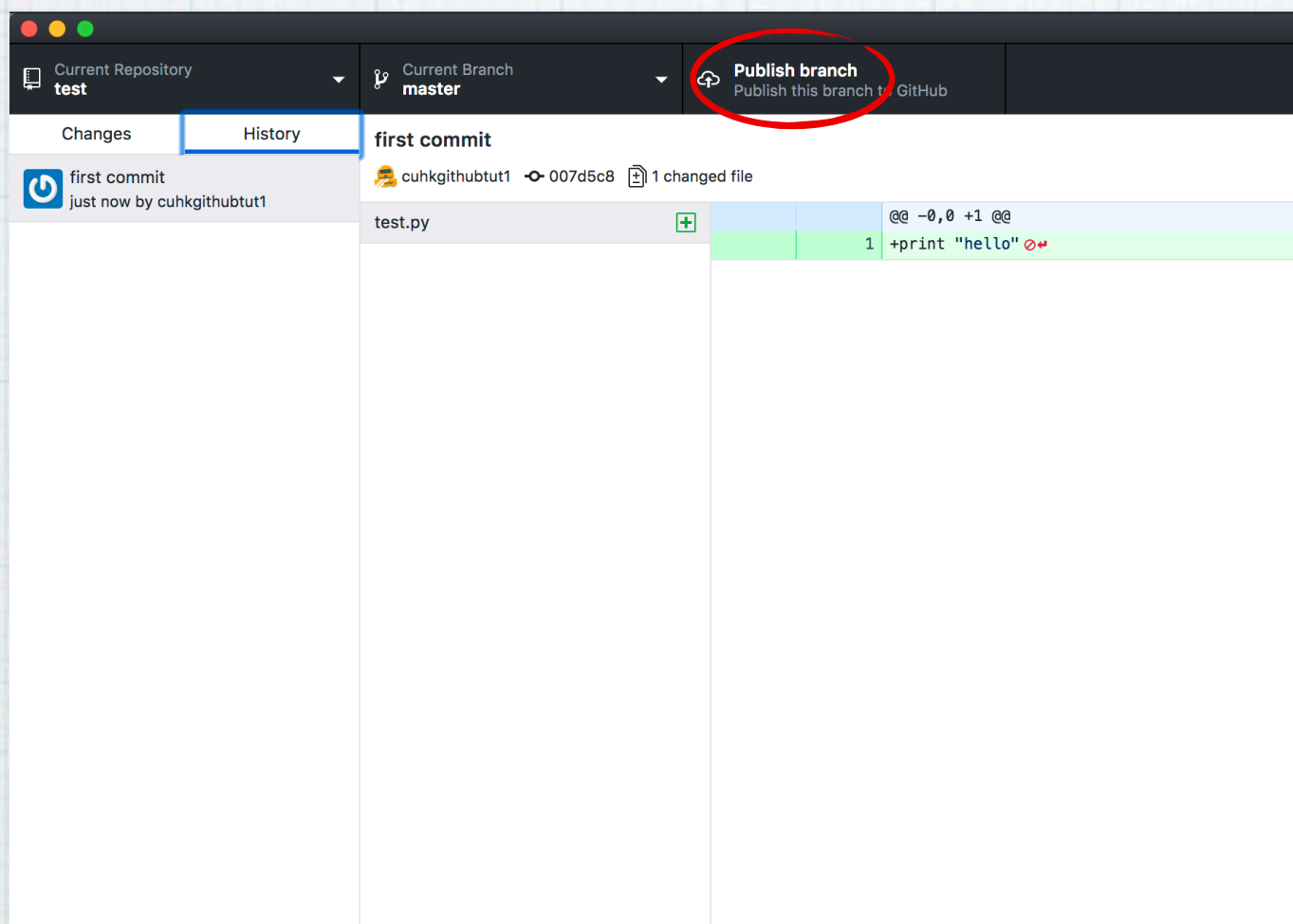
Operate by GUI

- ▶ We can see our modification on the Changes panel
- ▶ Commit the modification to our local master branch



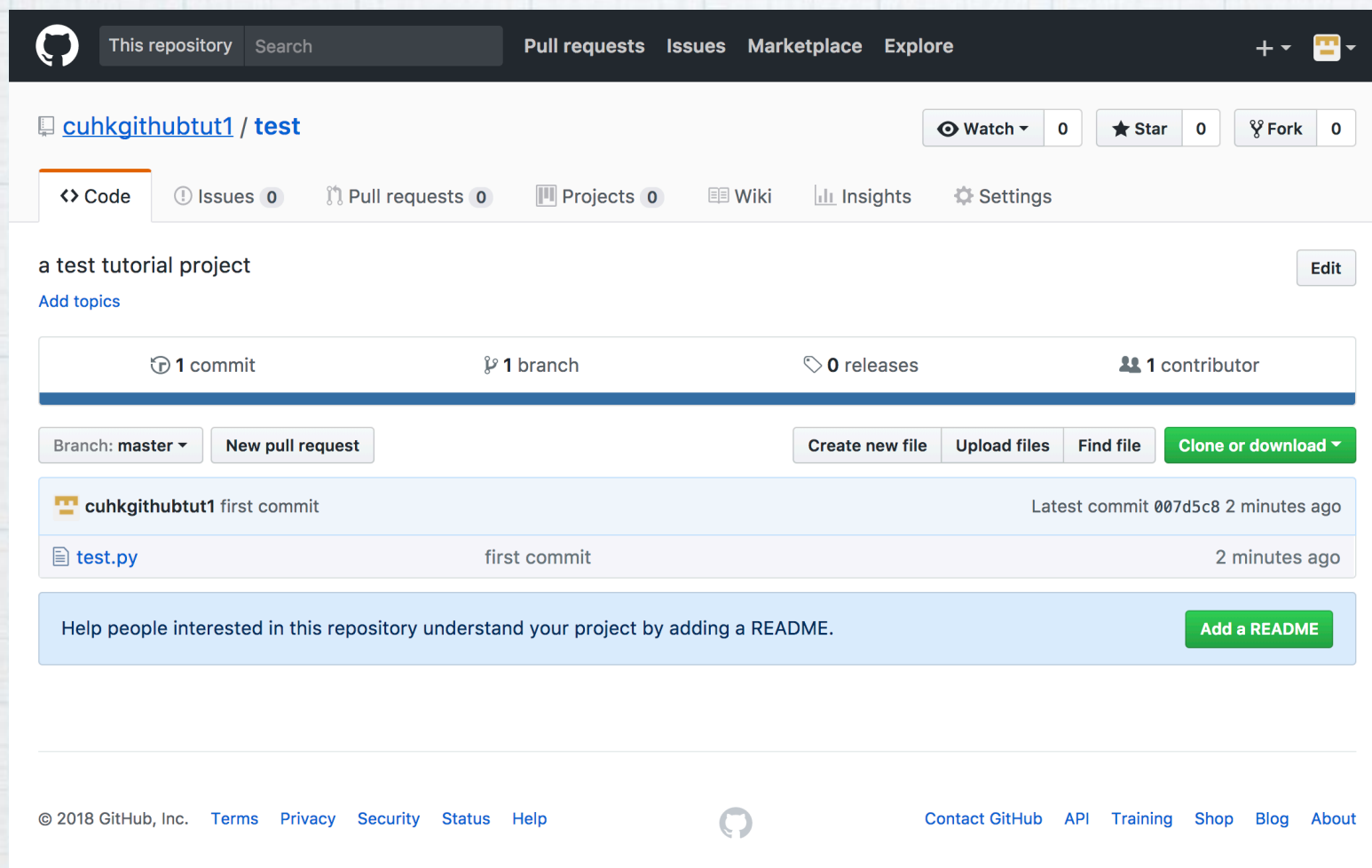
Operate by GUI

- ▶ We can see our modification on the history panel
- ▶ Click the “Publish branch” to upload our modification to GitHub



Operate by GUI

- Finally, we can see our code on GitHub.



Operate by Commands

Operate by Commands

- ▶ `git clone https://github.com/cuhkgithubbtut1/test.git`
- ▶ make some changes in file `test.c`
- ▶ `git add test.c`
- ▶ `git commit -m "I have changed test.c"`
- ▶ `git push origin master`
- ▶ `git pull` (others can use this to get latest version)

Thanks!