

一 基本概念

1 仓库 (repository)

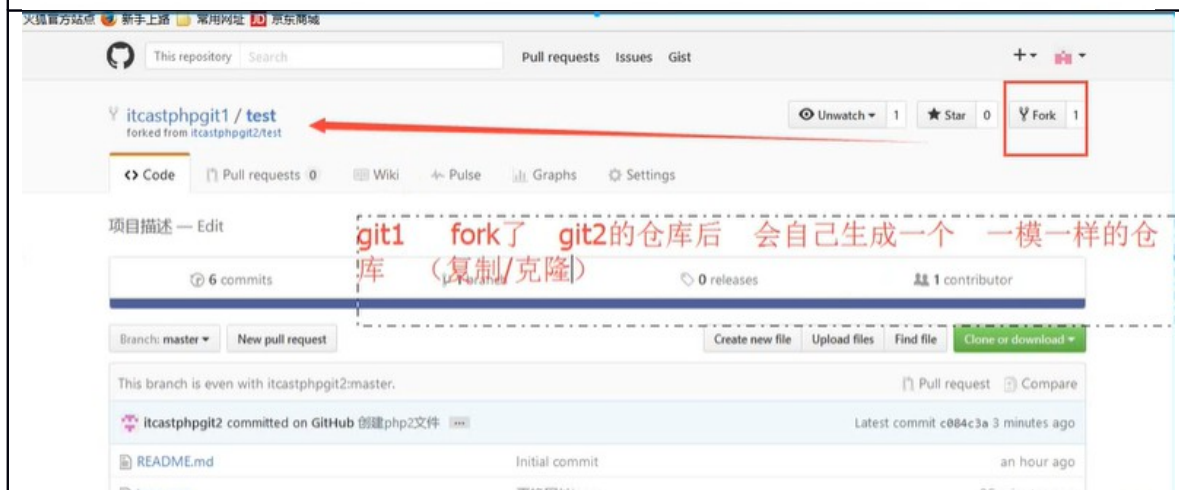
用来存放项目代码，每个项目对应一个仓库

2 收藏 (star)

收藏项目、方便下次观看

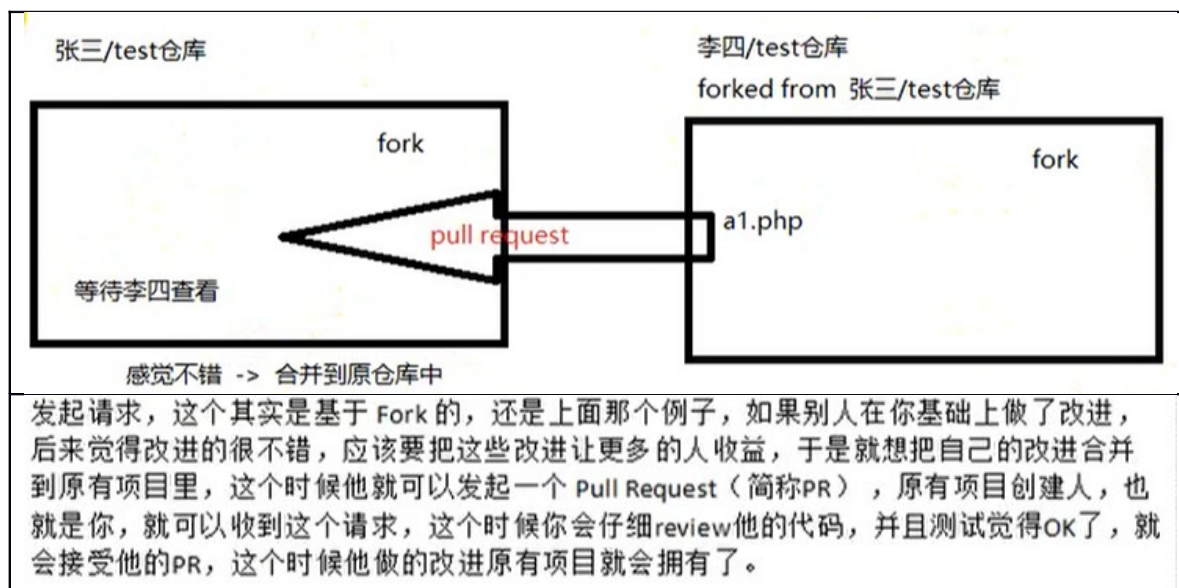
3 复制/克隆 (fork)

这个不好翻译，如果实在要翻译我把他翻译成分叉，什么意思呢？你开源了一个项目，别人想在你这个项目的基础上做些改进，然后应用到自己的项目中，这个时候他就可以 Fork 你的项目（打开项目主页点击右上角的fork按钮即可），然后他的 GitHub 主页上就多了一个项目，只不过这个项目是基于你的项目基础（本质上是在原有项目的基础上新建了一个分支），他就可以随心所欲的去改进，但是丝毫不会影响原有项目的代码与结构。



注意：该 fork 项目是独立存在的

4 发起请求 (Pull Request)



5 关注 (watch)

这个也好理解就是观察，如果你 Watch 了某个项目，那么以后只要这个项目有任何更新，你都会第一时间收到关于这个项目的通知提醒。

6 事务卡片 (Issue)

发现代码BUG，但是目前没有成型代码，需要讨论时用；
问题的意思，举个例子，就是你开源了一个项目，别人发现你的项目中有bug，或者哪些地方做的不够好，他就可以给你提个 Issue，即问题，提的问题多了，也就是 Issues，然后你看到了这些问题就可以去逐个修复，修复ok了就可以一个个的 Close 掉。

二 GitHub 的注册

1 注册

Setp 1: 账号注册

Step 1:
Set up a personal account

Step 2:
Choose your plan

Step 3:
Tailor your experience

Create your personal account

Username

itcastphpgit2

This will be your username — you can enter your organization's username next

Email Address

2860799935@qq.com

You will occasionally receive account related emails. We promise not to share your email with anyone.

Password

.....

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

You'll love GitHub

填写用户名

Unlimited collaborators

Unlimited public repositories

填写邮箱（非常重要，需要接受邮件）

Great communication

Frictionless development

Open source community

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

创建github账号

Create an account

Setp 2: 选择仓库类型

Welcome to GitHub

You've taken your first step into a larger world, @itcastphpgit2.

Completed
Set up a personal account

Step 2:
Choose your plan

Step 3:
Tailor your experience

Choose your personal plan

选择你的计划

免费无线使用公开的仓库（任何人都可以访问和fork该仓库项目）

Unlimited public repositories for free.

Unlimited private repositories for \$7/month.

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

私有的，收费需要美元

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.

默认继续下一步

Continue

Both plans include:

Collaborative code review

Issue tracking

Open source community

Unlimited public repositories

Join any organization

Setp 3: 用户调查相关，跳过即可

完成截图 Completed

Step 2: Choose your plan

Step 3: Tailor your experience

How would you describe your level of programming experience?

☐ Very experienced

☐ Somewhat experienced

☐ Totally new to programming

What do you plan to use GitHub for? (check all that apply)

☐ Project Management

☐ Research

☐ Design

☐ Development

☐ School projects

☐ Other (please specify)

Which is closest to how you would describe yourself?

☐ I'm a professional

☐ I'm a hobbyist

☐ I'm a student

☐ Other (please specify)

What are you interested in?

e.g. tutorials, android, ruby, web-development, machine-learning, open-source

Submit

skip this step

跳过这一步

2 注意:

- A. GitHub 在国外可能访问慢，可以翻墙，例如：Shadowsocks
- B. 私有仓库收费，只能指定的人才有权限操作
- C. 新注册用户需要验证邮箱后才能创建 Git 仓库

三 GitHub 仓库管理

1 创建仓库

Create a new repository

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

Owner: itcastphpgit2 / Repository name: test 仓库名称，一般情况及时项目名

Description (optional): 项目描述 项目描述

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 在仓库下多一个 README 的说明文件，来详细描述项目
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 创建仓库

2 仓库功能描述

仓库主页

Repository: itcastphpgit2 / test 用户名 仓库名

Unwatch 1 Star 0 Fork 0 新建 issue

Code Issues 0 Pull requests 0 Wiki Pulse Graphs Settings 关注 收藏 复制克隆项目

项目描述 — Edit 可以点击 edit 修改项目描述

1 commit 1 branch 0 releases 1 contributor 直接下载或者通过 git 克隆

Branch: master New pull request

Create new file Upload files Find file Clone or download 创建文件 上传文件 搜索仓库文件

itcastphpgit2 Initial commit

README.md Initial commit just now

README.md

test 仓库主页

项目描述

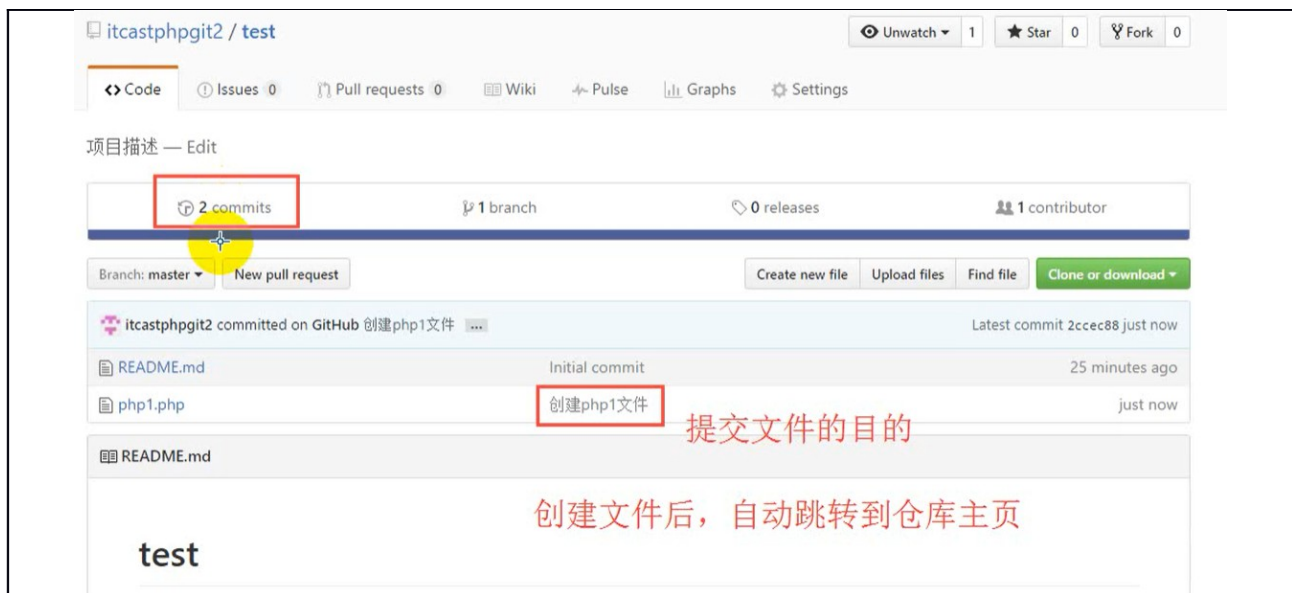
3 创建文件

The image consists of three vertically stacked screenshots of the GitHub web interface, illustrating the process of creating a new file in a repository.

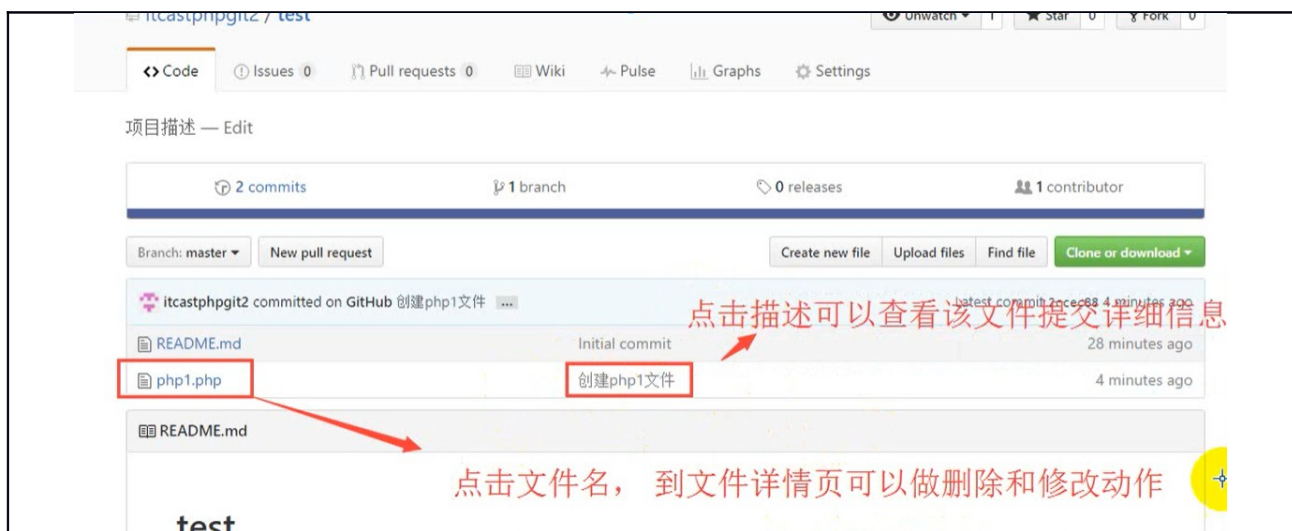
Top Screenshot: Shows the repository page for `itcastphpgit2 / test`. The `test` directory is selected. A red box highlights the `Create new file` button. A red arrow points from this button to a dashed box containing the text `点击创建文件` (Click to create file).

Middle Screenshot: Shows the `test / php1.php` file creation page. A red box highlights the file name input field, with a red arrow pointing to it from the text `点击进入test仓库主页` (Click to enter the test repository homepage). Another red box highlights the content area, with a red arrow pointing to it from the text `填写文件名` (Enter filename). A third red box highlights the commit message input field, with a red arrow pointing to it from the text `填写文件内容` (Enter file content). Below this, a yellow circle with a plus sign is shown, with a red arrow pointing to it from the text `下面表单需要填写每次提交的目的, 原因: 为了方便其他开发者知道本次添加或修改的原因` (The form below needs to be filled with the purpose of each commit, reason: to make it easy for other developers to know the reason for this addition or modification).

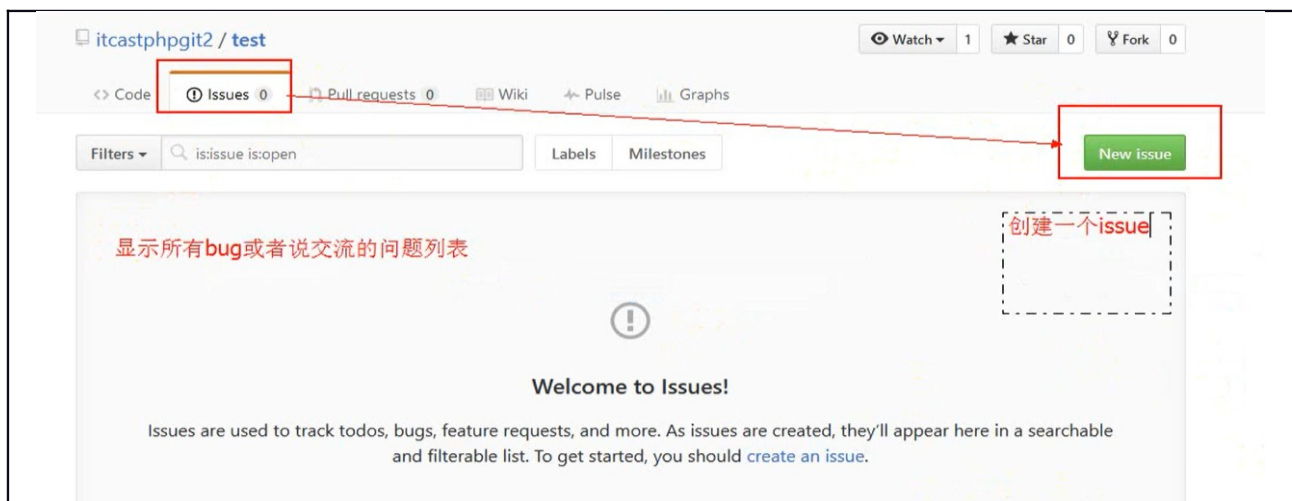
Bottom Screenshot: Shows the `Commit new file` dialog. A red box highlights the `创建php1文件` (Create php1 file) commit message, with a red arrow pointing to it from the text `本次提交的概括标题` (Summary title of this commit). Another red box highlights the `第一次使用github创建项目文件` (First time using github to create project file) commit message, with a red arrow pointing to it from the text `第一次使用github创建项目文件`.



4 修改删除文件



四 GitHub Issues

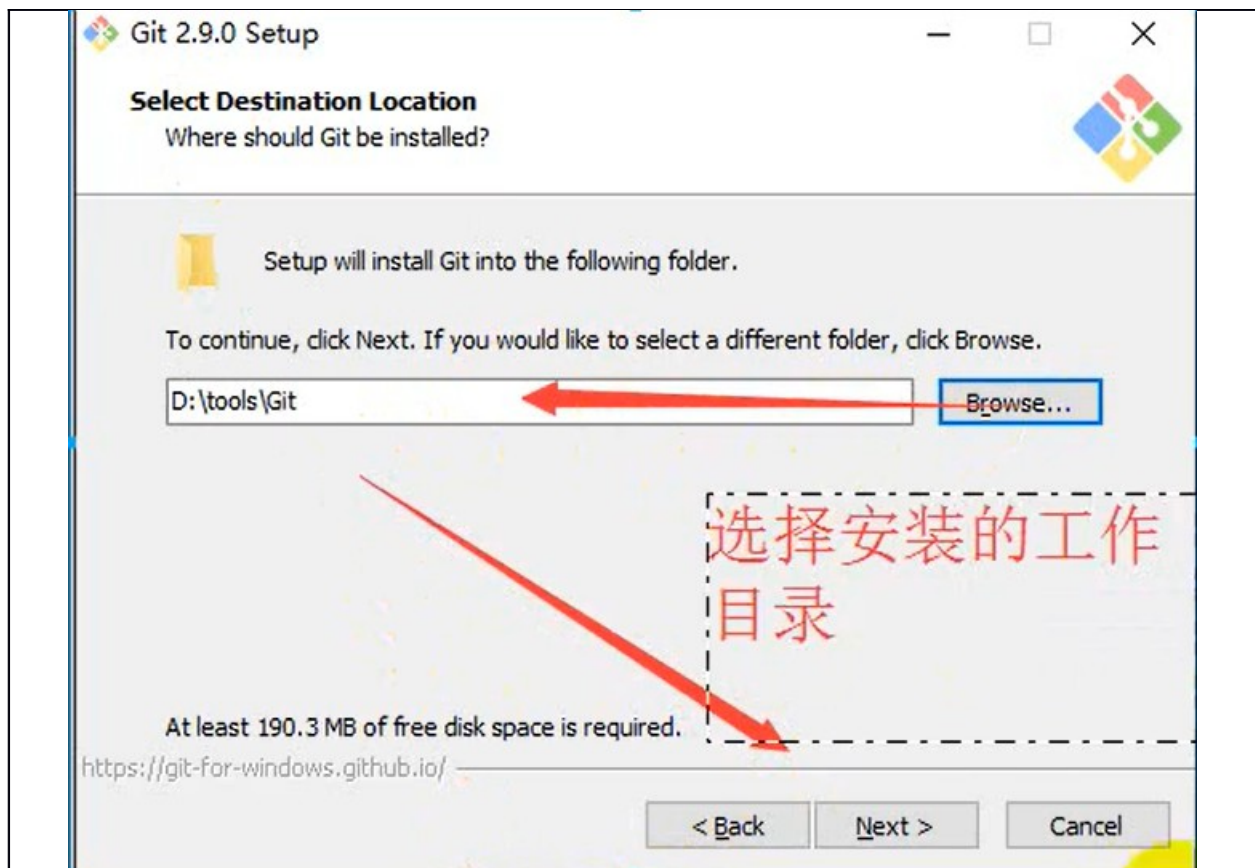


五 安装 Git

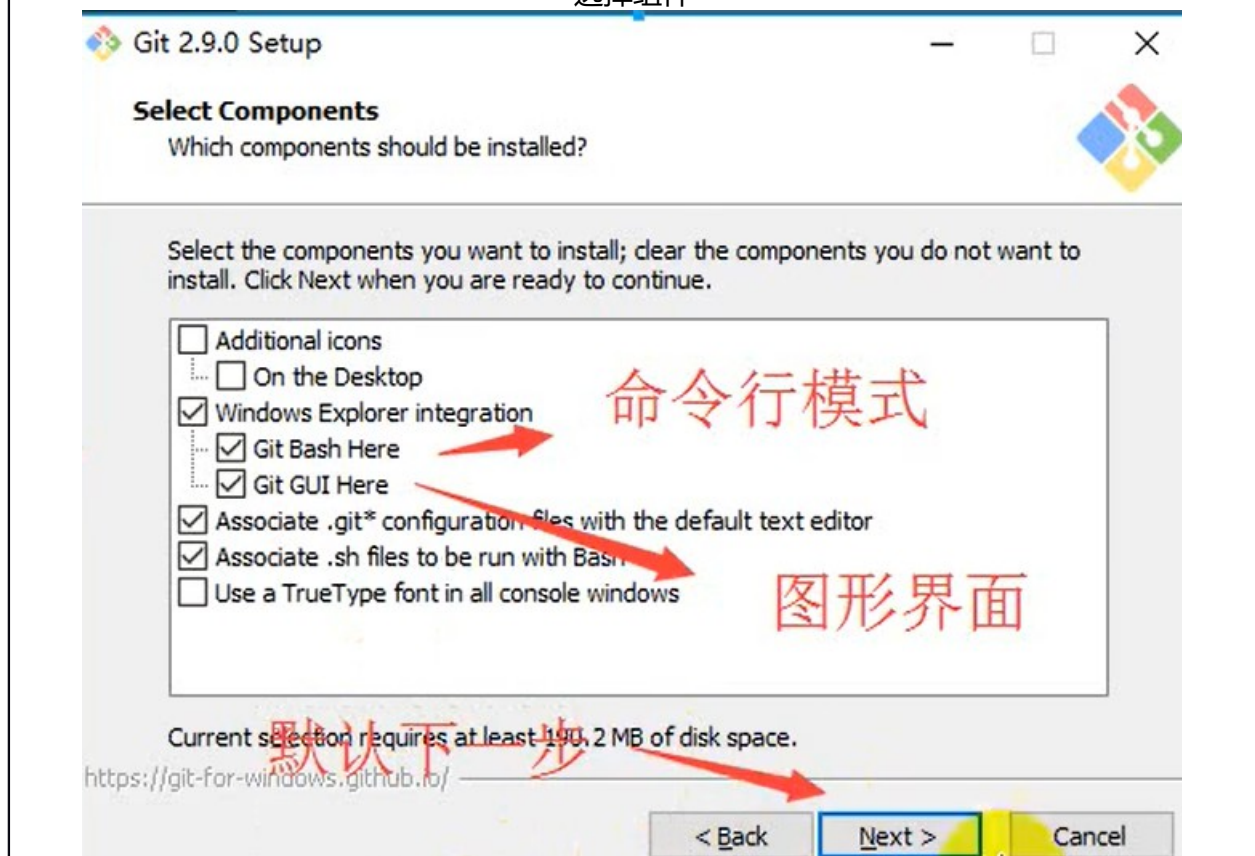
1 Git 官网下载

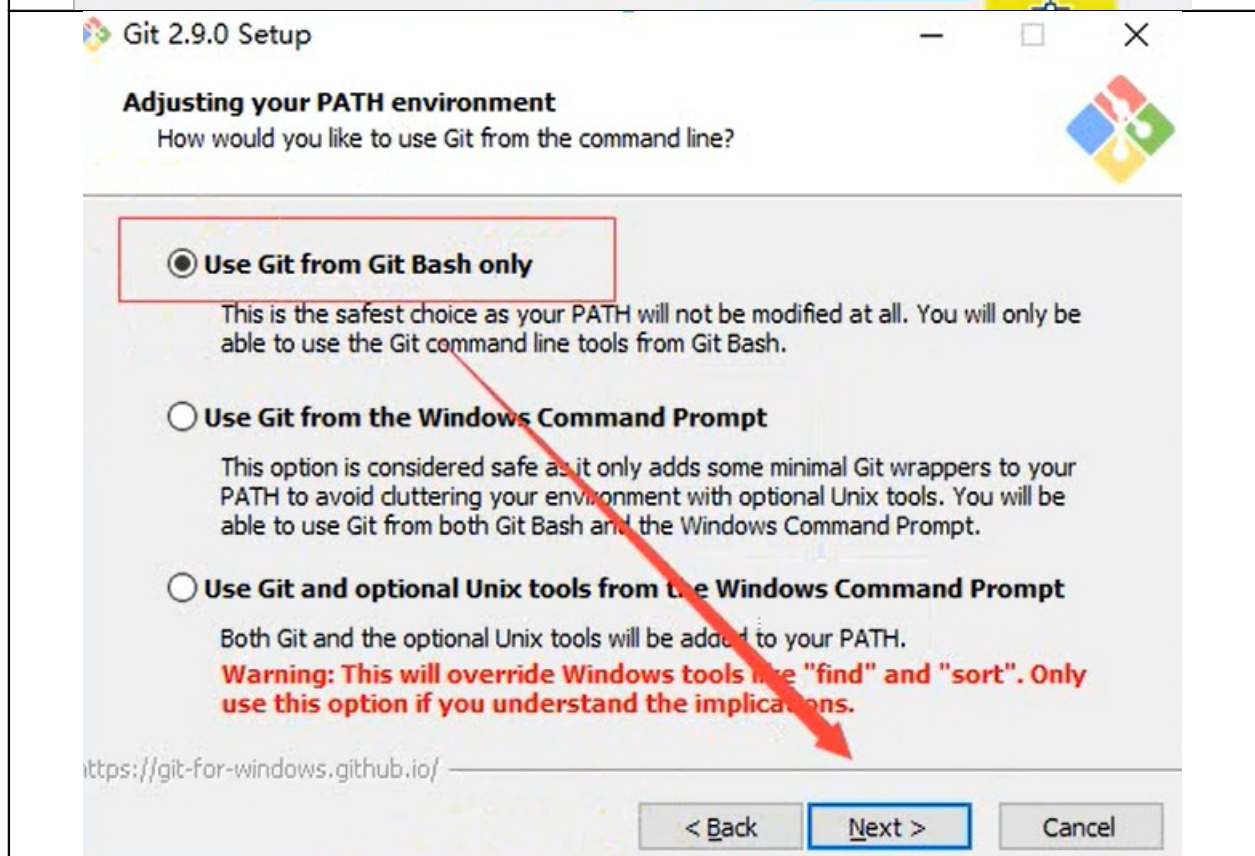
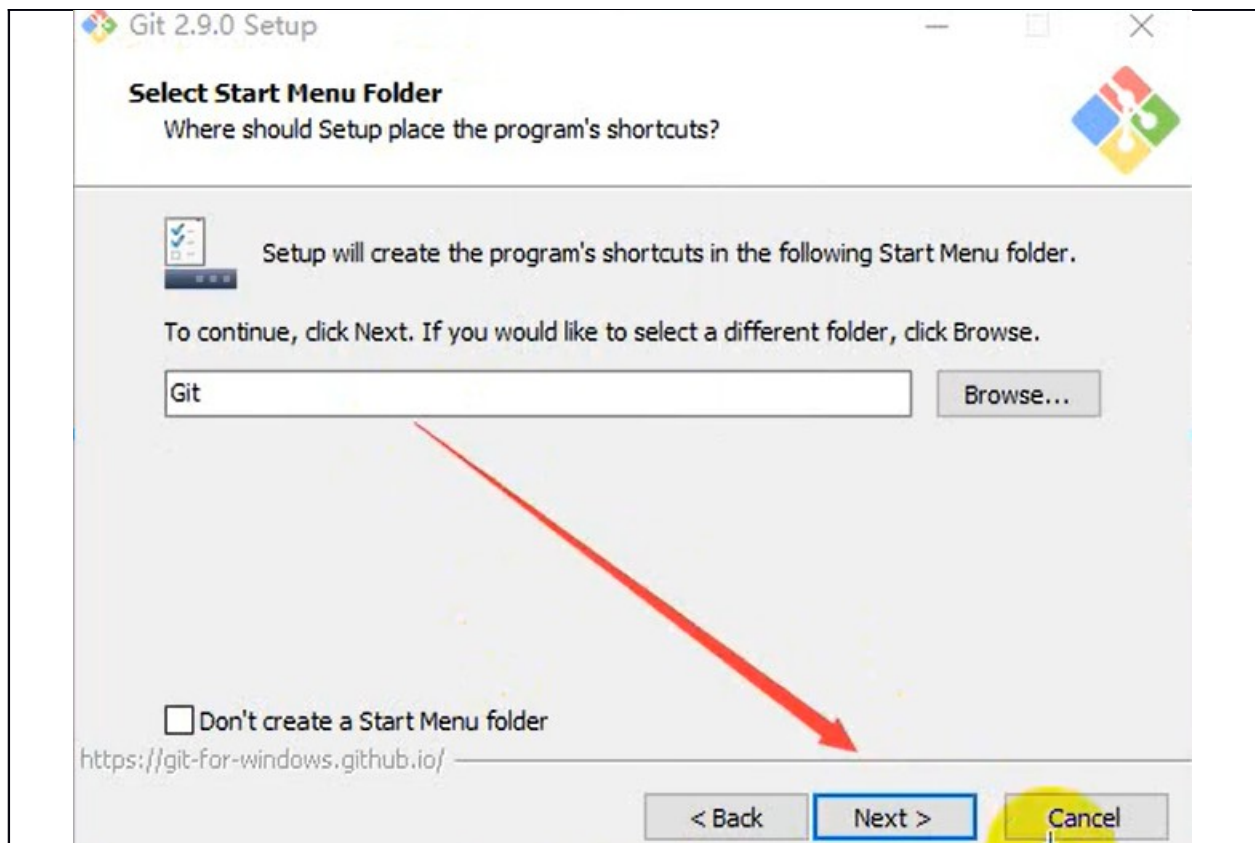
2 双击安装





选择组件





后面的三步默认 next 即可

3 安装完成（检验是否安装成功）



六 Git 基本工作流程

1 结构

在 Git 中，从理解上来讲是分成三种区，分别是工作目录、暂存区以及 Git 仓库。其中工作目录是我们写代码的文件，暂存区是已经把代码进行了 add 操作，但是并没有进行 commit 操作。Git 仓库则是已经把代码提交到仓库中了，只要仓库不丢失，代码是不会丢失的了

Git工作区域



2 流程

git status 查看文件状态

git add : 工作区→暂存区

git commit: 暂存区→仓库

向仓库中添加文件流程



七 Git 初始化及仓库创建和操作

1 初始化基本信息

初始化用户名
git config --global user.name 'SXS'

初始化邮箱
git config --global user.email '15723468981@163.com'

MINGW64:/e/gitProject

```
user@computer MINGW64 /e/gitProject (master)
$ ls

user@computer MINGW64 /e/gitProject (master)
$ pwd
/e/gitProject

user@computer MINGW64 /e/gitProject (master)
$ git config --global user.name 'SXS'

user@computer MINGW64 /e/gitProject (master)
$ git config --global user.email '15723468981@163.com'

user@computer MINGW64 /e/gitProject (master)
$
```

查看配置

此电脑 > WIN10 (C:) > 用户 > user

.android .cisco .config .eclipse .IntelliJIde a2019.3 .jetbrains .jrebel .p2 3D 对象 ansel

OneDrive Roaming 保存的游戏 联系人 链接 视频 收藏夹 搜索 图片 文档

桌面 .gitconfig .luke .yarnrc connection ns.xml NTUSER.D AT yarn.lock 控制面板

C:\Users\user\.gitconfig - Notepad++

文件(F) 编辑(E) 搜索(S) 视图(V) 编码(N) 语言(L) 设置(I) 工具(O) 宏(M) 运行(R) 插件(P) 窗口(W) ?

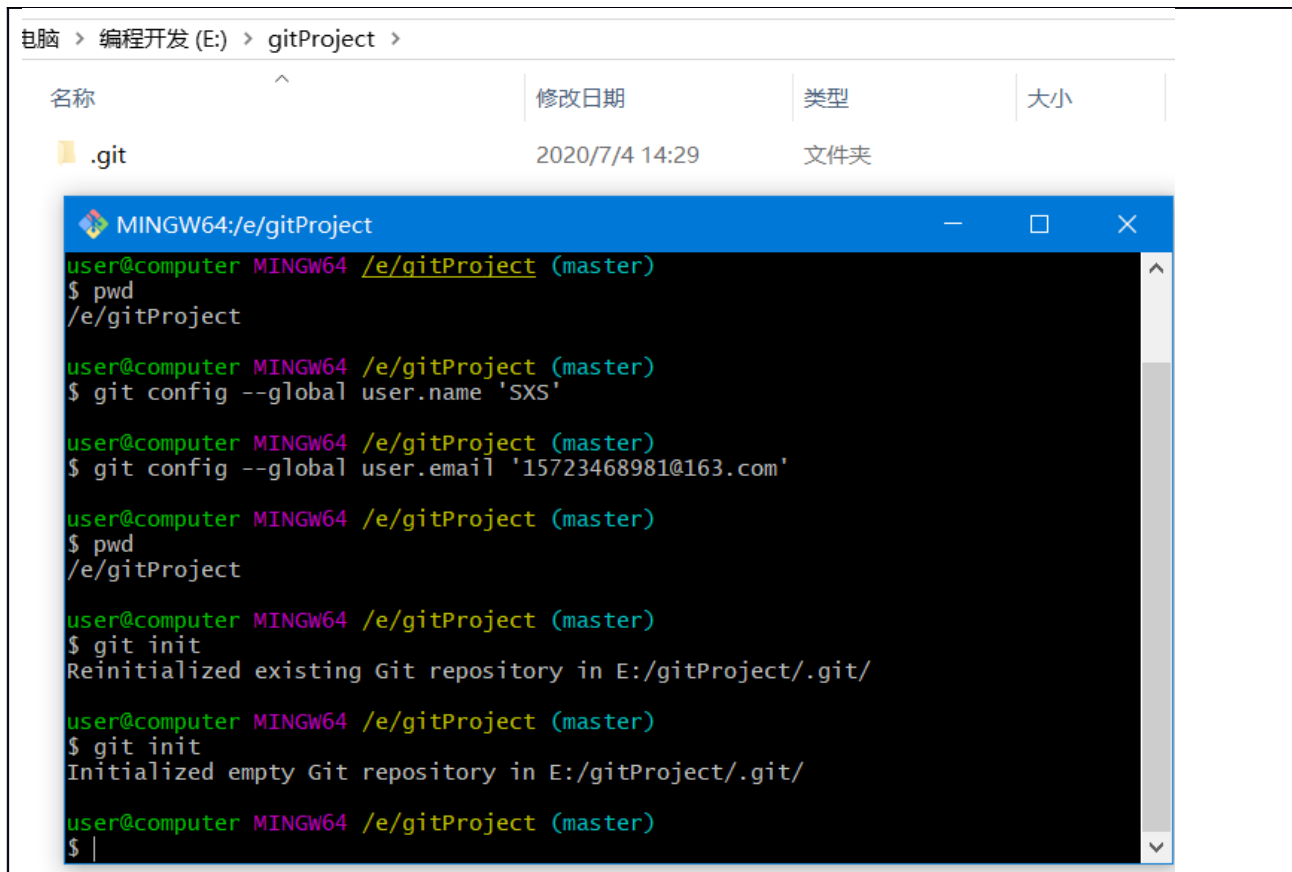
pricing.html index.html company-list.html company-single.html test.html .gitconfig

1 [user]
2 name = SXS
3 email = 15723468981@163.com
4

2 初始化仓库

当前目录为 gitProject

git init :将当前目录设置为仓库，该目录会生成 .git 目录



3 相关操作

创建一个文件: touch shu.txt

添加到本地暂存区: git add

添加到本地仓库: git commit

```

MINGW64:/e/gitProject
user@computer MINGW64 /e/gitProject (master)
$ touch shu.txt

user@computer MINGW64 /e/gitProject (master)
$ git status
On branch master

No commits yet

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

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

user@computer MINGW64 /e/gitProject (master)
$ git add shu.txt

user@computer MINGW64 /e/gitProject (master)
$ git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   shu.txt

user@computer MINGW64 /e/gitProject (master)
$ git commit
Aborting commit due to empty commit message.

user@computer MINGW64 /e/gitProject (master)
$ git commit shu.txt
Aborting commit due to empty commit message.

user@computer MINGW64 /e/gitProject (master)
$ git commit -m '测试提交到仓库' shu.txt
[master (root-commit) c408207] 测试提交到仓库 1 file changed, 0 insertion
s(+), 0 deletions(-)
 create mode 100644 shu.txt

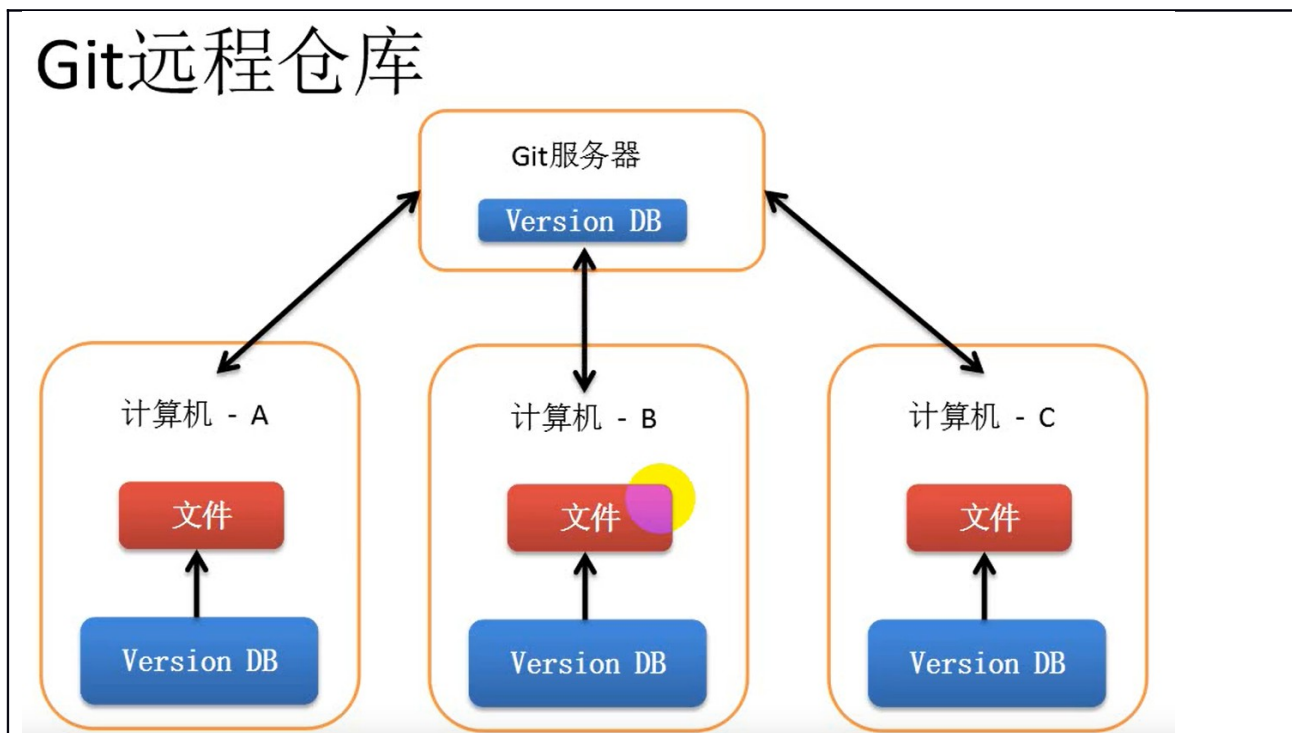
user@computer MINGW64 /e/gitProject (master)
$

```

删除修改等...

八 Git 管理远程仓库

1 远程仓库



2 本地仓库同步到远程 git 仓库



3 远程仓库的项目复制 (clone) 到本地仓库

```
git clone 项目地址

user@computer MINGW64 /e/gitProject (master)
$ git clone https://github.com/eyes-xm-java/eyes-xm-java.git
Cloning into 'eyes-xm-java'...
remote: Enumerating objects: 1062, done.
remote: Counting objects: 100% (1062/1062), done.
remote: Compressing objects: 100% (528/528), done.
remote: Total 64227 (delta 443), reused 849 (delta 324), pack-reused 63165
Receiving objects: 100% (64227/64227), 13.08 MiB | 9.86 MiB/s, done.
Resolving deltas: 100% (33992/33992), done.

user@computer MINGW64 /e/gitProject (master)
```

3.A 碰到的问题

第一次输入秘密后如果输错，下次不弹出密码输入框，这里可以到
进入控制面板》用户账号》凭据管理器？ windows 凭据》普通凭据，在里面找到 git，点开编辑密码，
更新为最新密码之后就可以正常操作了。
也可以删除，下载再次输入密码



九 在本地和远程仓库之间免密登录

1 配置 SSH

```
先在本地图生成 ssh，命令输入完成一直回车
$ ssh-keygen -t rsa -C 15723468981@qq.com
```

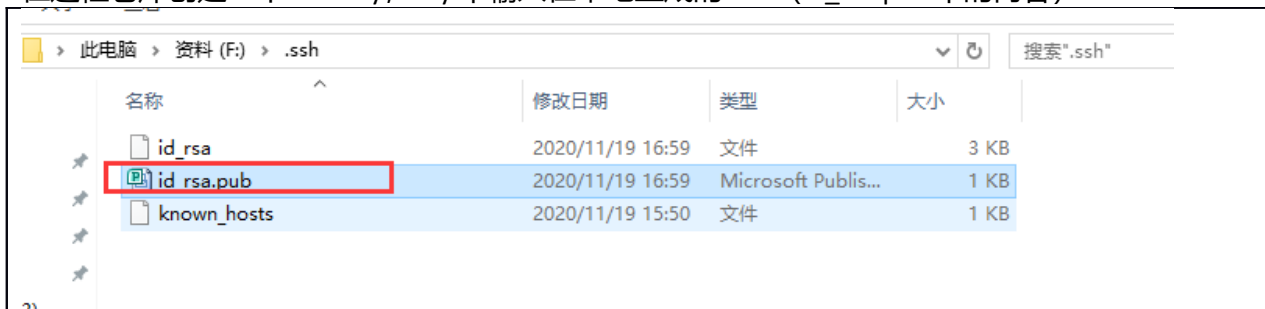
```

user@computer MINGW64 ~/Desktop
$ ssh-keygen -t rsa -C 15723468981@qq.com
Generating public/private rsa key pair.
Enter file in which to save the key (/c/Users/user/.ssh/id_rsa): yes
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in yes
Your public key has been saved in yes.pub
The key fingerprint is:
SHA256:DDpPF4fgyzdX9TA0KE9RTmJ9EYbreNlK/XKRYP2ctog 15723468981@qq.com
The key's randomart image is:
+---[RSA 3072]-----+
|
| .         +*X+O|
| . . . .o*o=|
| o o .+. +..|
| o + o ..+ .|
| o + S . + =.+|
| + o o . = Bo|
| .         + + +|
|          E o..o|
|              o|
+-----[SHA256]-----+
user@computer MINGW64 ~/Desktop
$

```

2 公钥发送给远程

在远程仓库创建一个 SSH key，key 中输入在本地生成的 SSH (id_rsa.pub 中的内容)



3 测试

测试连通性: `ssh -T git@github.com`

如果本地和远程成功同学，则可以在 /.ssh 目录中，发现有 known_hosts 文件

如果失败检查 key 的回车符等等

十 分支合并 (Merge)

- 1 快速合并
- 2 三方合并
- 3 冲突解决