

# Git vs SVN

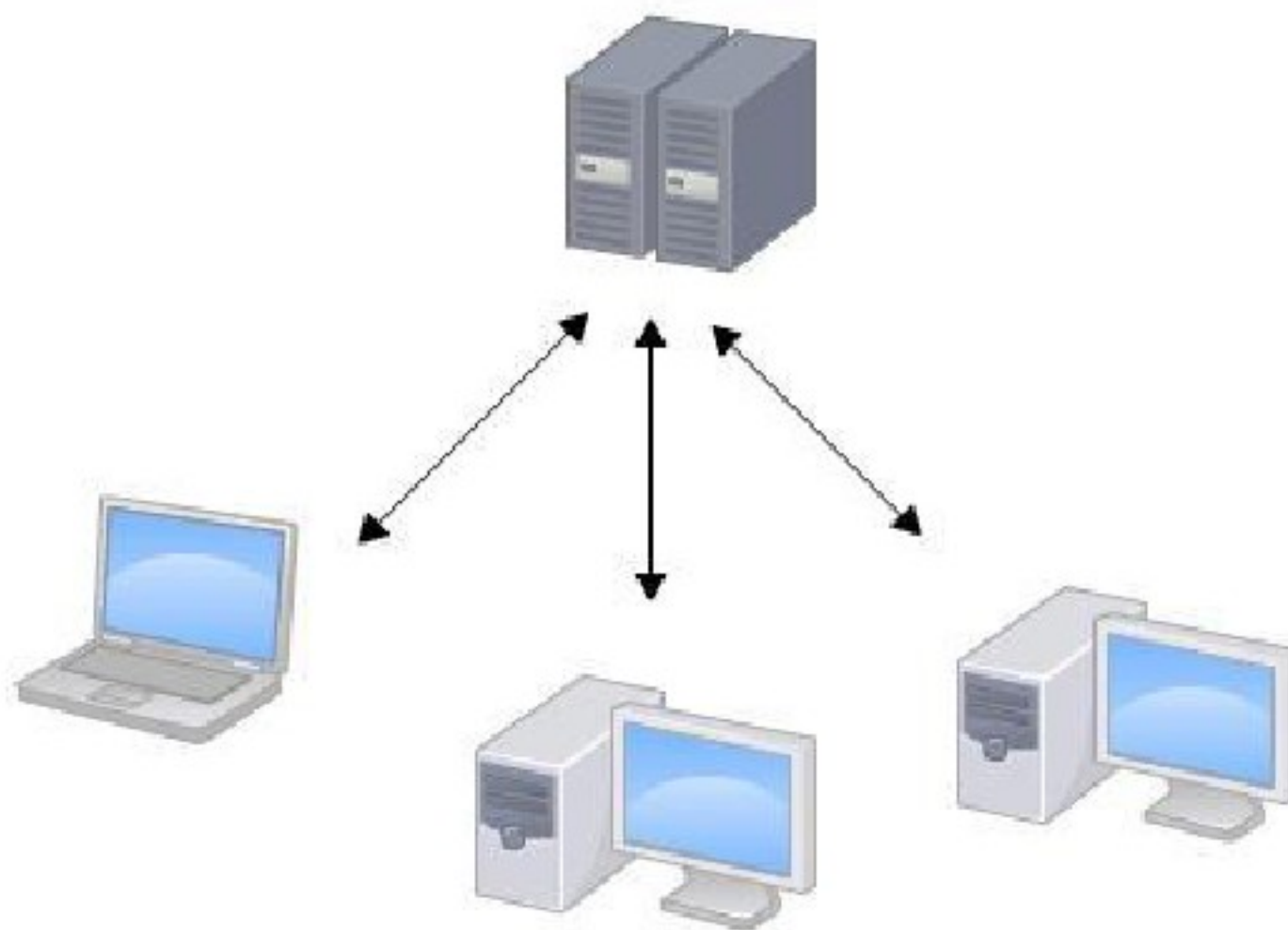
Git衍生品: gitlab, github

# Git起源

- \* Linus在1991年创建了开源的Linux，从此，Linux系统不断发展，已经成为最大的服务器系统软件了。
- \* Linus坚定地反对CVS和SVN，这些集中式的版本控制系统不但速度慢，而且必须联网才能使用。有一些商用的版本控制工具，虽然比CVS和SVN好用，但是那是付费的，和Linux的开源精神不符。
- \* Linus花了两周时间自己用C写了一个分布式版本控制系统，这个就是Git！

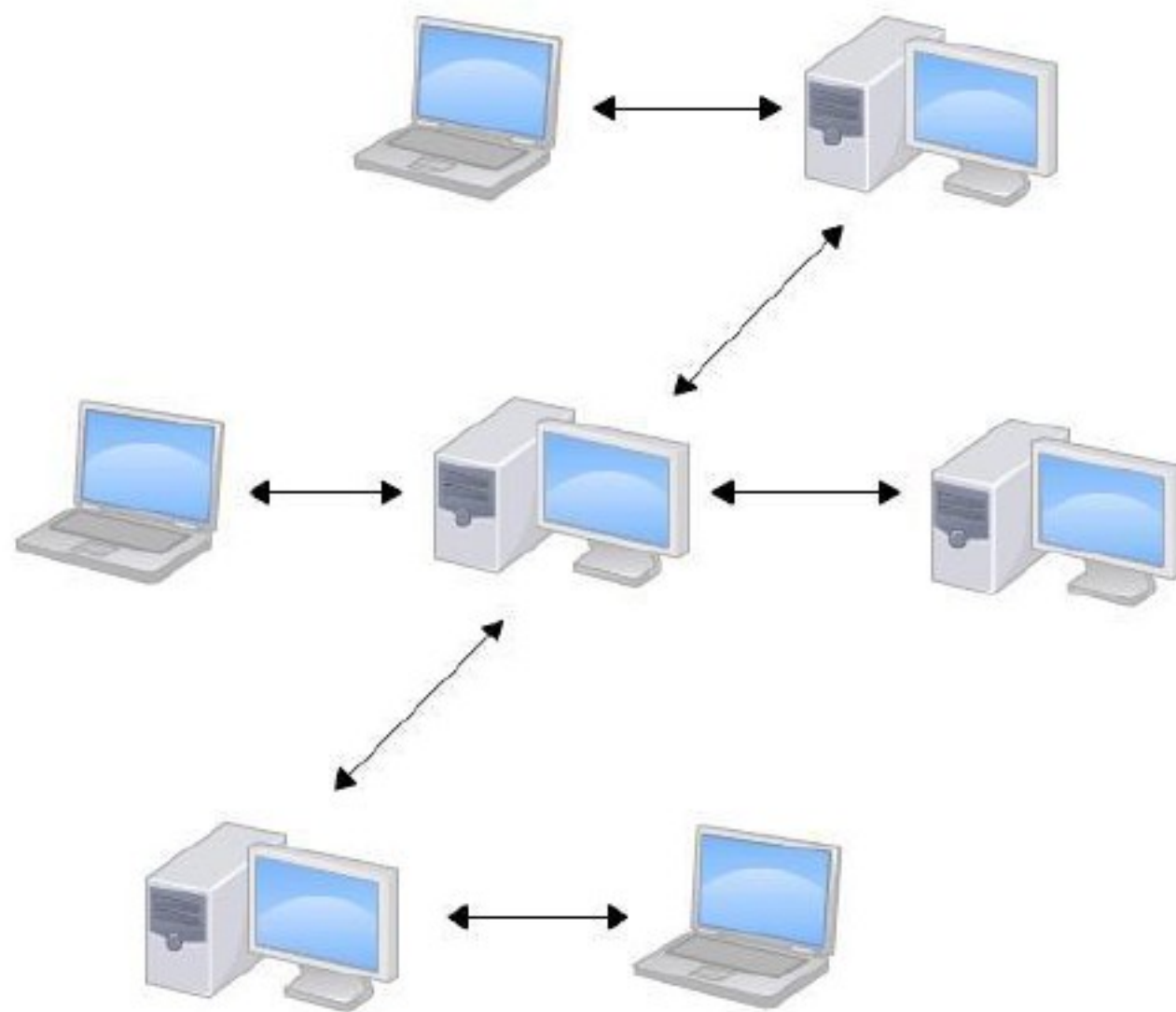
# 集中式VS分布式

集中式



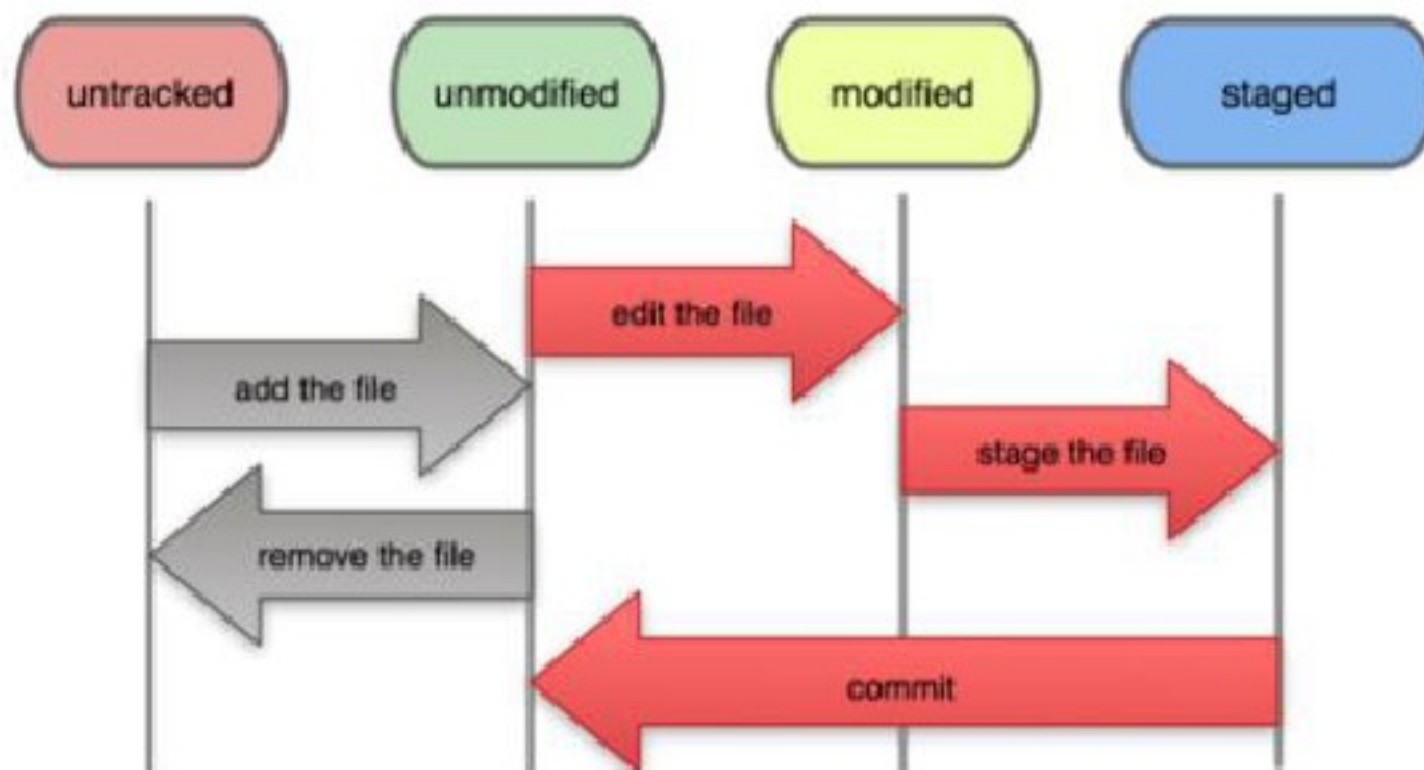
# 集中式VS分布式

分布式



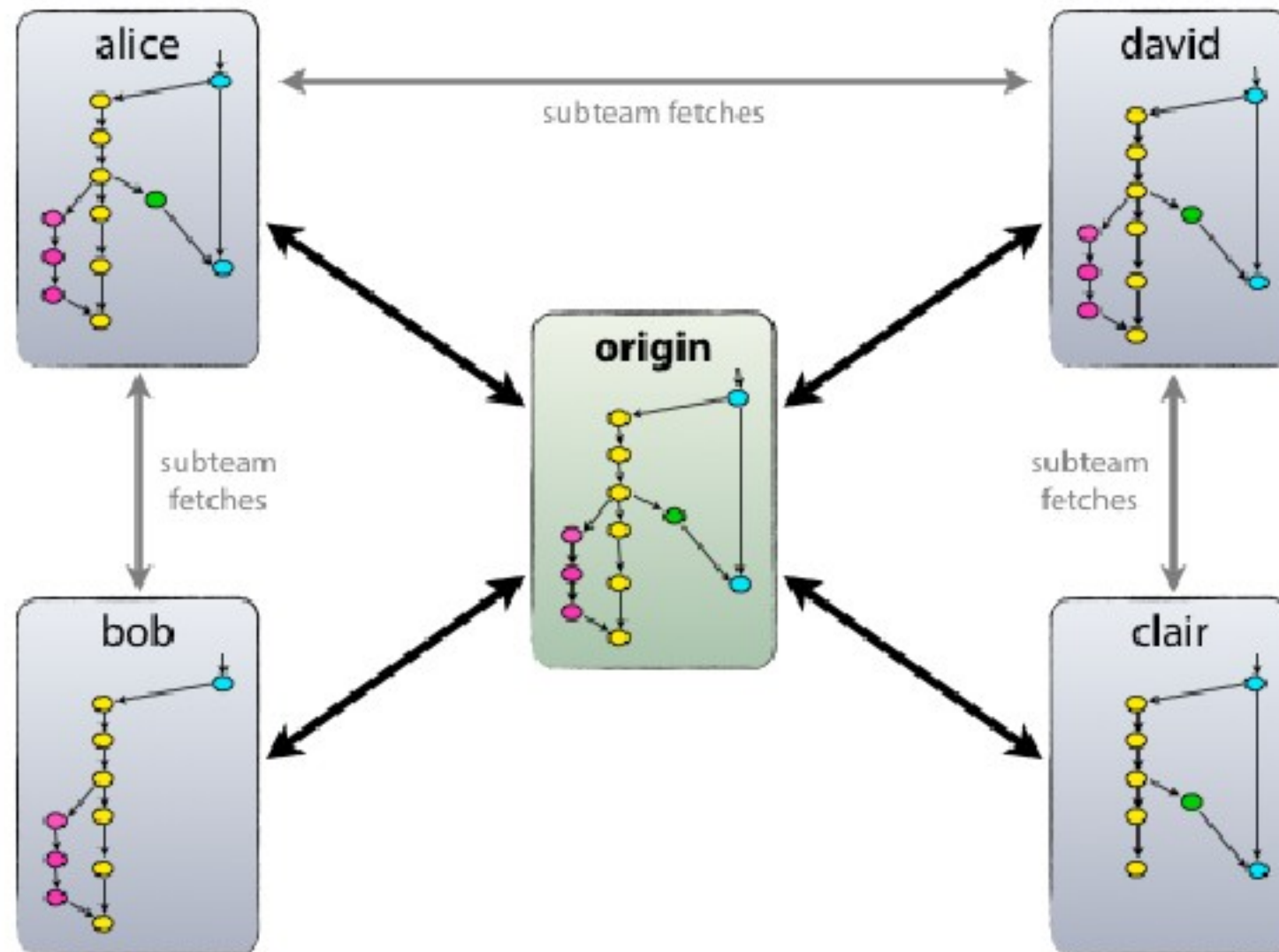
# Git 文件状态

Figure 2.1: The lifecycle of the status of your files  
**File Status Lifecycle**

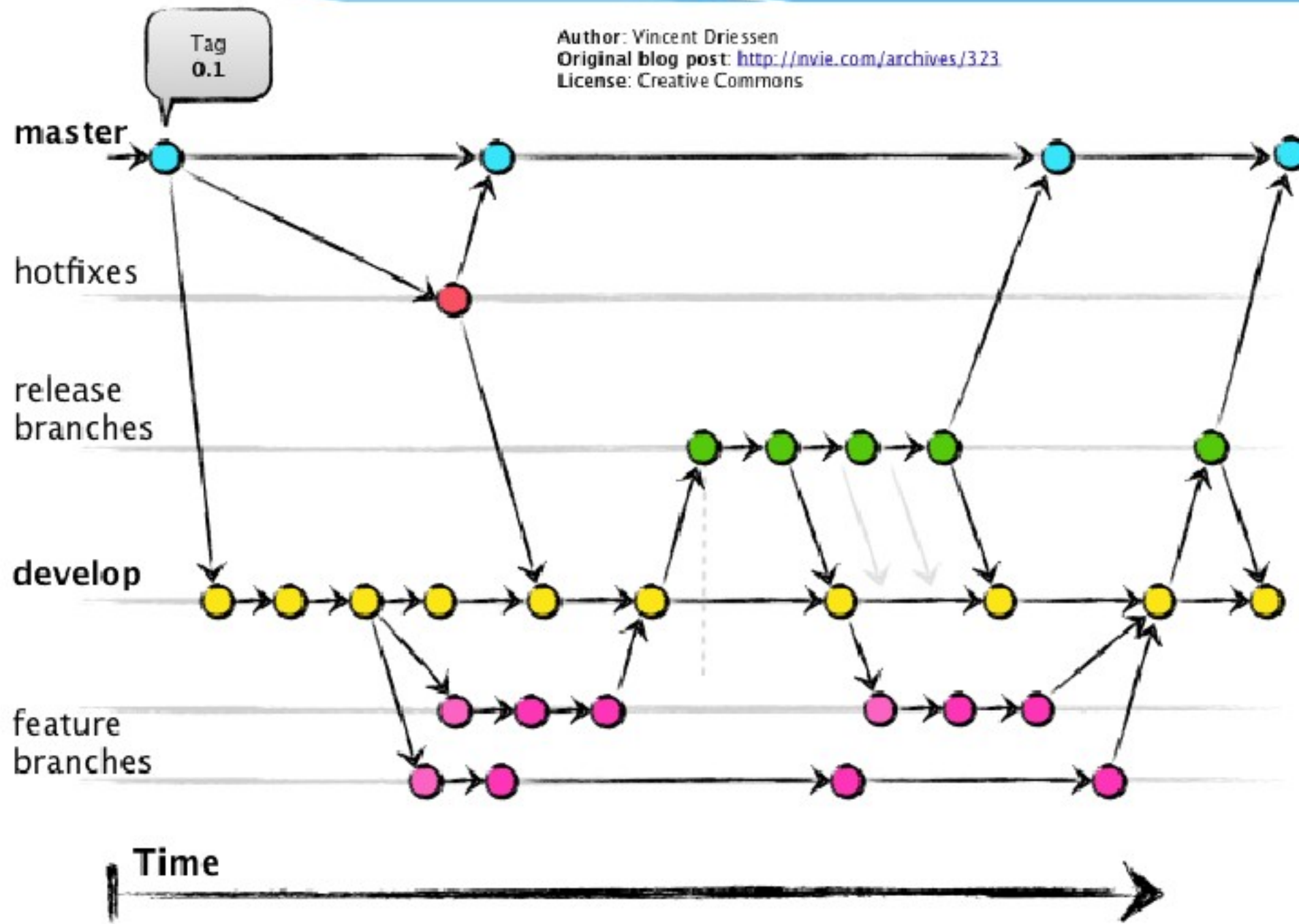


# Git 分支

Git分支管理是一门艺术

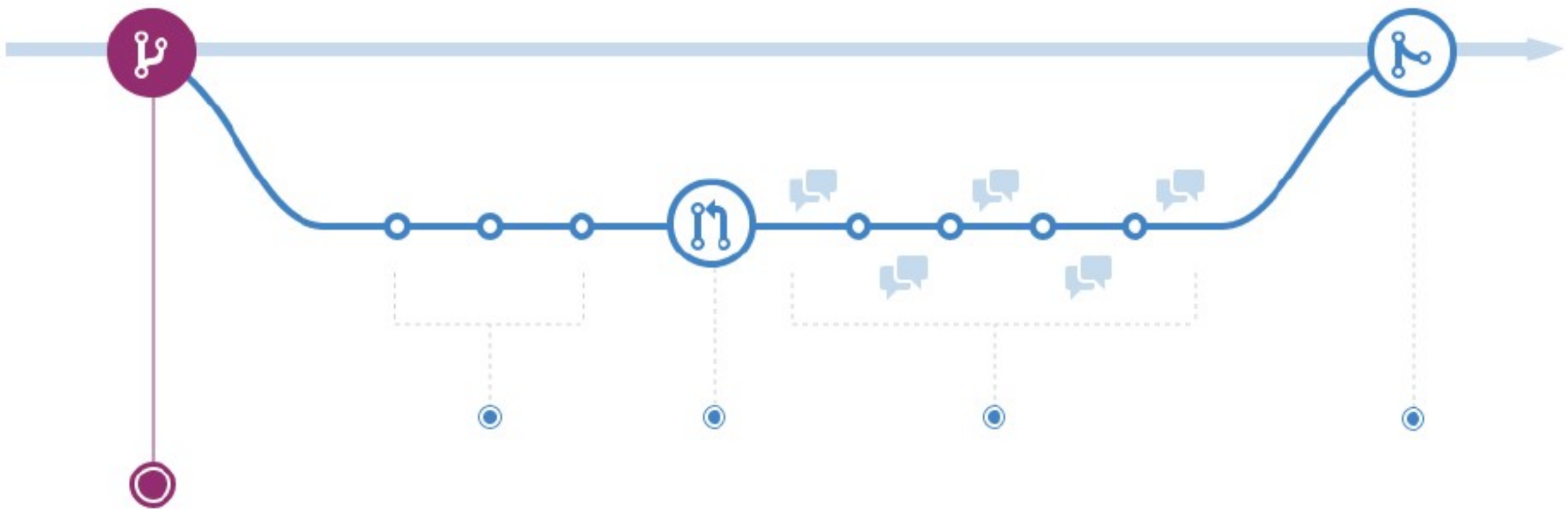


# Git flow vs Github flow



Git flow

# Git flow vs Github flow



Github Flow



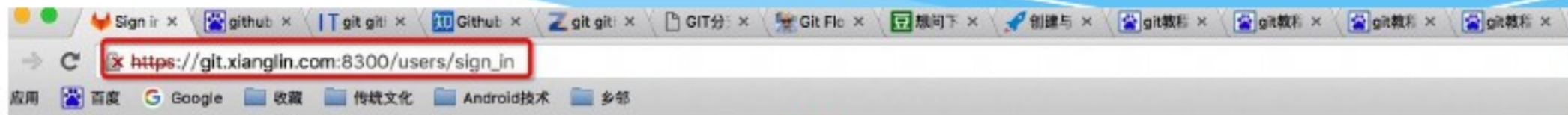
# GitLab 使用

\* 公司内部GitLab服务器地址:

<https://git.xianglin.com:8300/>

- 一. 注册账号
- 二. 等待验证通过
- 三. 查看所在项目组
- 四. 添加SSH Key
- 五. 提交代码, 发送pull request
- 六. Comment和code review

# Gitlab 账户注册



## GitLab Community Edition

### Open source software to collaborate on code

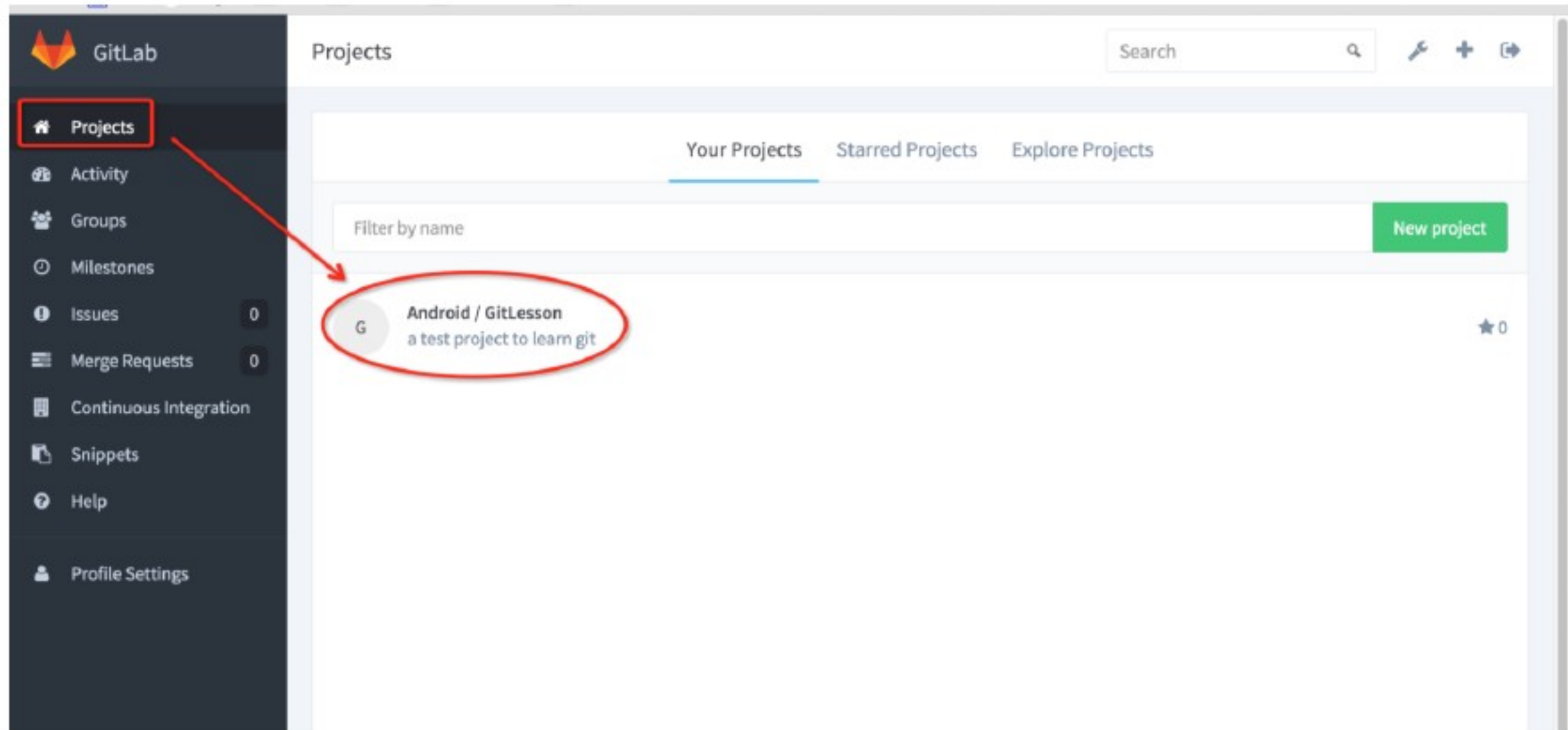
Manage git repositories with fine grained access controls that keep your code secure. Perform code reviews and enhance collaboration with merge requests. Each project can also have an issue tracker and a wiki.

#### Existing user? Sign in

 Remember me[Forgot your password?](#)

#### New user? Create an account

# 查看所在项目



# 查看所在组

The screenshot displays the GitLab interface. On the left is a dark sidebar with navigation items: Projects, Activity, Groups (highlighted with a red box), Milestones, Issues (0), Merge Requests (0), Continuous Integration, Snippets, Help, and Profile Settings. A red arrow points from the 'Groups' menu item to the 'Android' group entry in the main content area. The main content area is titled 'Groups' and has a search bar and utility icons at the top right. Below the title are tabs for 'Your Groups' and 'Explore Groups'. A welcome message reads: 'Welcome to the groups! Group members have access to all group projects.' A green '+ New Group' button is in the top right. The 'Android' group is listed with an Android icon, the name 'Android as Owner', and the details '1 project, 3 users'. To the right of the group entry are icons for settings and sharing.

GitLab

Groups

Search

Your Groups Explore Groups

Welcome to the groups!  
Group members have access to all group projects.

+ New Group

**Android** as Owner  
1 project, 3 users

Settings Share

# 添加SSH Key

一.生成SSH密钥过程:

1.查看是否已经有了ssh密钥: `cd ~/.ssh`

如果没有密钥则不会有此文件夹,有则备份删除

2.生存密钥:

```
$ ssh-keygen -t rsa -C "XXX@xianglin.cn"
```

按3个回车,密码为空。

Your identification has been saved in /home/tekkub/.ssh/id\_rsa.

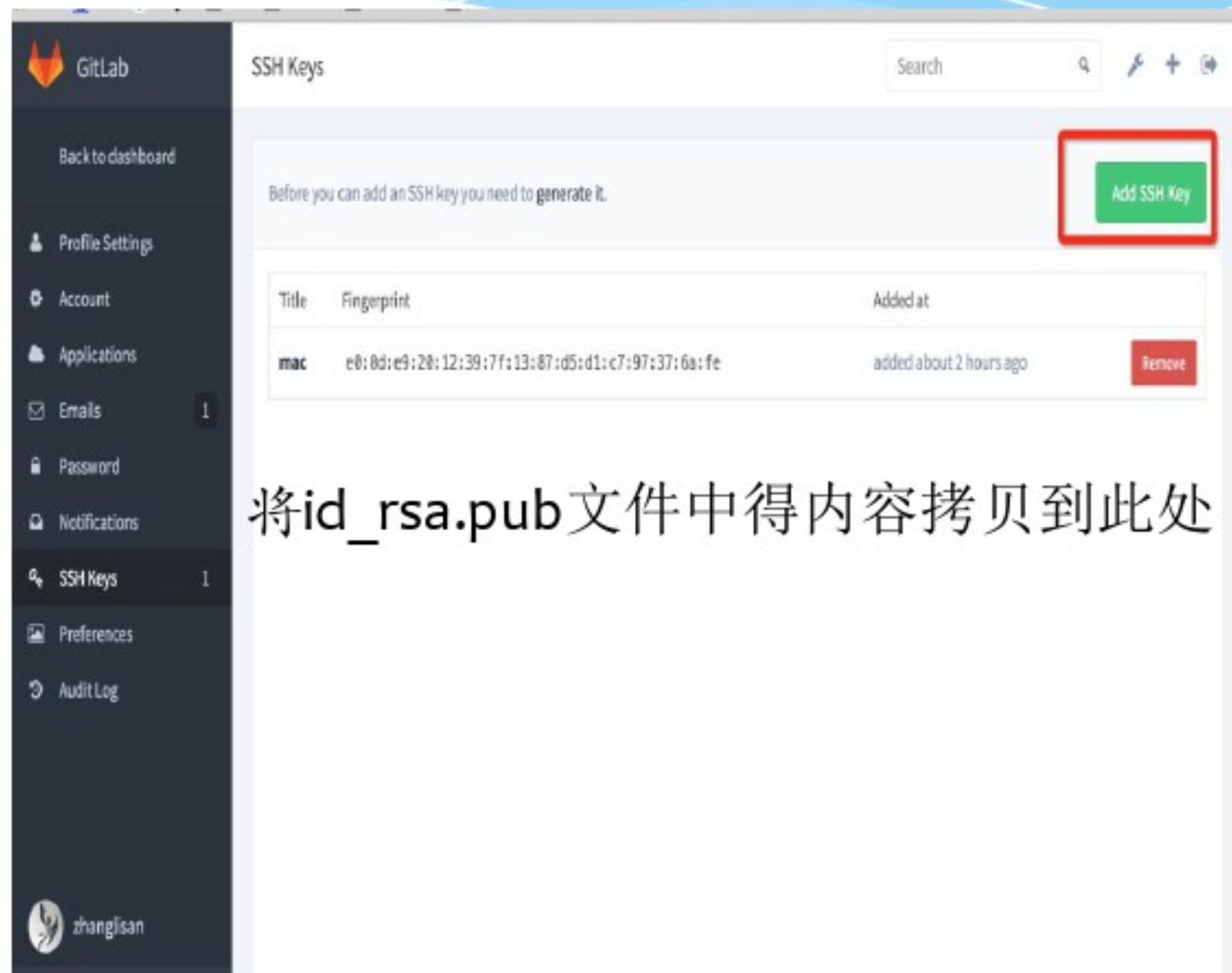
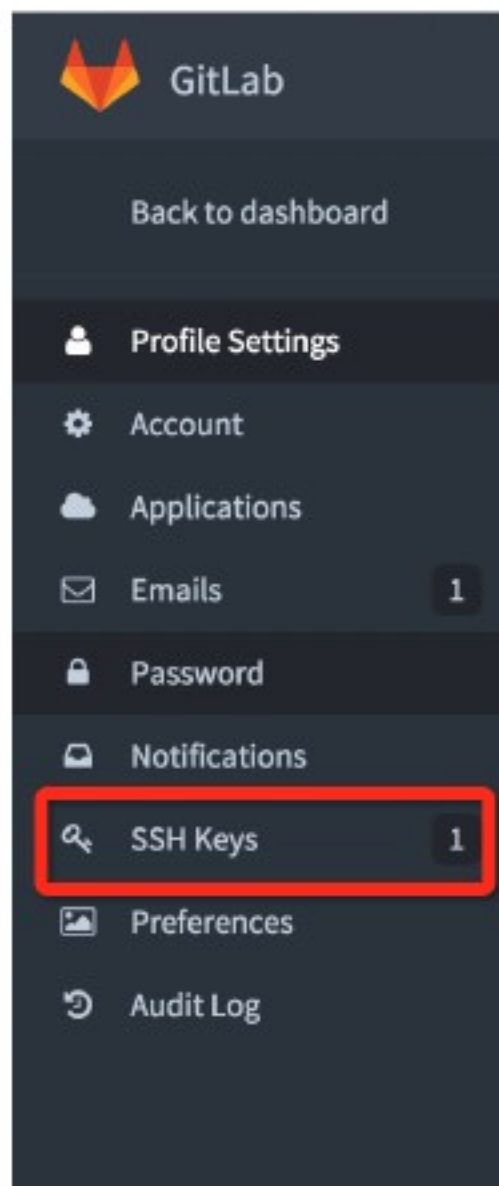
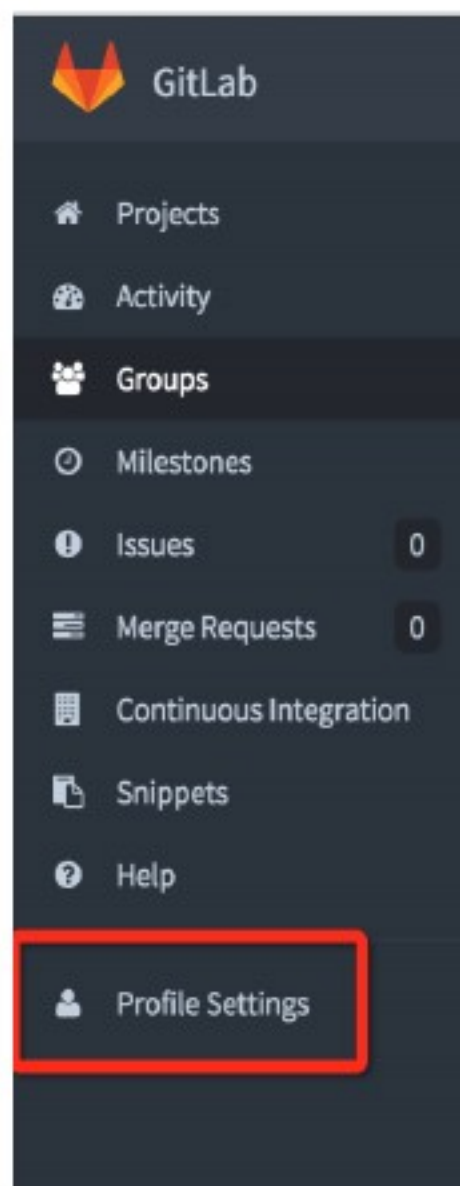
Your public key has been saved in /home/tekkub/.ssh/id\_rsa.pub.

The key fingerprint is:

.....

最后得到了两个文件: `id_rsa`和`id_rsa.pub`

# 添加SSH Key



# 新建 merge request

The screenshot shows the GitLab interface for a project named 'Android / GitLesson'. On the left sidebar, the 'Project' menu item is highlighted with a red box. In the main content area, the project name 'GitLesson' is displayed with a subtitle 'a test project to learn git'. Below this, there are buttons for 'STAR 0', 'FORK 0', 'DOWNLOAD', and a '+' button, which is also highlighted with a red box. The '+' button is used to create new merge requests, issues, or other project items. Below the buttons, the project's SSH and HTTPS URLs are shown, along with the repository name 'git lesson' and the user's access level, 'Owner'.

GitLab

Android / GitLesson

Search in this project

Back to group

Project

Activity

Files

Commits

Network

Graphs

Milestones

Issues 0

Merge Requests 0

Members

Labels

Wiki

zhanglisan

G

GitLesson

a test project to learn git

★ STAR 0

FORK 0

DOWNLOAD

+

SSH HTTPS git@git.xianglin.com:Android/GitLessc private

2 commits 1 branch 0 tags 0.65 MB

Add Changelog Add License Add Contribution guide

git lesson

You have Owner access to this project.

# 合并request

The screenshot shows the GitLab interface for the 'Android / GitLesson' project. The left sidebar contains navigation links: Back to group, Project, Activity, Files, Commits, Network, Graphs, Milestones, Issues (0), Merge Requests (0), Members, Labels, Wiki, and the user profile 'zhanglisan'. The main content area is titled 'Android / GitLesson - Merge Requests' and includes a search bar, filter buttons for 'Open', 'Merged', 'Closed', and 'All', a 'Filter by title or description' input, and a '+ New Merge Request' button. Below these are dropdown menus for 'Assignee', 'Author', 'Milestone', and 'Label', along with a 'sort: Recently created' dropdown. The main area currently displays 'No merge requests to show'.



# 发送pull request

The screenshot displays the GitLab interface for the 'Android / GitLesson' project. On the left is a dark sidebar with navigation options: Back to group, Project, Activity, Files, Commits, Network, Graphs, Milestones, Issues (0), Merge Requests (0), Members, Labels, Wiki, and a user profile for 'zhangfisan'. The main content area is titled 'Android / GitLesson - Merge Requests' and includes a search bar. A notification states 'You pushed to feature1 branch 2 minutes ago'. Below this, there are buttons for 'Create Merge Request' and '+ New Merge Request' (highlighted with a red box). The interface also features filters for 'Open' (0), 'Merged' (0), 'Closed' (0), and 'All' (0), along with a search filter 'Filter by title or description'. There are also dropdown menus for 'Assignee', 'Author', 'Milestone', and 'Label', and a 'sort: Recently created' dropdown. The main content area currently shows 'No merge requests to show'.

# 发送 pull request

GitLab

Android / GitLesson - Merge Requests

Search in this project

Compare branches for new Merge Request

**Source branch**

Android/GitLesson

feature1

modified read 35df e68e  
zhanglisan authored 2 minutes ago Browse Code >

**Target branch**

Android/GitLesson

master

init this project 3275213e  
zhanglisan authored about 2 hours ago Browse Code >

Compare branches

Back to group

- Project
- Activity
- Files
- Commits
- Network
- Graphs
- Milestones
- Issues 0
- Merge Requests 0
- Members
- Labels
- Wiki

zhanglisan

# 发送 pull request

GitLab

Android / GitLesson · Merge Requests

Search in this project

Parsed with *GitLab Flavored Markdown*. Attach files by dragging & dropping or selecting them.

**Assign to** Select a user Assign to me 指定某人来合并代码

**Milestone** No open milestones available. Create new milestone

**Labels** No labels yet. Create new label

**Source Branch** feature1

**Target Branch** master

Change branches

Submit new merge request Cancel

Commits 1 **Changes 1** 文件差异

09 Jan, 2016 **modified read** 35dfe68e  
1 commit zhanglisan authored 4 minutes ago Browse Code >

# Comment和Code Review

The screenshot shows the GitLab Merge Request interface for the project 'Android / GitLesson'. The page title is 'Merge Requests'. A search bar is located at the top right. The main content area shows a request to merge 'feature2' into 'master'. A green button labeled 'Accept Merge Request' is circled in red, with the Chinese text '接收合并请求' (Receive merge request) below it. To the right of this button are options for 'Remove source branch' and 'Modify commit message'. Below the merge request details, there are tabs for 'Discussion 0', 'Commits 1', and 'Changes 1'. The 'Changes 1' tab is active, showing a diff for the file 'README.md'. The diff shows a change from '-git lesson' to '+git lesson'. A red box highlights the diff area, and a blue box highlights the 'Write' area below it, with the Chinese text '此处可以增加批注' (Comments can be added here) in the center. The left sidebar contains navigation links for 'Back to group', 'Project', 'Activity', 'Files', 'Commits', 'Network', 'Graphs', 'Milestones', 'Issues 0', 'Merge Requests 2', 'Members', 'Labels', 'Wiki', and the user profile 'zhanglisan'.

GitLab

Android / GitLesson · Merge Requests

Search in this project

Request to merge **feature2** into **master**

Accept Merge Request  Remove source branch  Modify commit message

接收合并请求

Discussion 0 Commits 1 Changes 1

Showing 1 changed file

README.md

1	-git lesson
2	1 \ No newline at end of file
2	+git lesson
3	+
4	+Feature2

Write Preview Edit in fullscreen

此处可以增加批注

# 总结

- \* 1.git的使用
- \* 2. git flow 和 github flow
- \* 3.github、gitlab的使用
- \* 4.好用的功能和工具： pull request和comment
- \* Git GUI工具推荐Source Tree