

第1章 gitlab安装部署

1.官方网站

```
1 | https://about.gitlab.com/install/#centos-7
```

2.安装依赖

```
1 | yum -y install policycoreutils-python.x86_64 openssh-server curl
```

3.安装gitlab

方法1:直接下载指定版本的清华源rpm包(推荐)

下载地址:

```
1 | https://mirrors.tuna.tsinghua.edu.cn/gitlab-ce/yum/el7/
```

安装命令:

```
1 | yum localinstall gitlab-ce-12.0.3-ce.0.el7.x86_64.rpm -y
```

方法2:添加清华源, 然后安装

官网地址:

```
1 | https://mirrors.tuna.tsinghua.edu.cn/help/gitlab-ce/
```

配置YUM源:

```
1 | cat > /etc/yum.repos.d/gitlab-ce.repo << 'EOF'  
2 | [gitlab-ce]  
3 | name=Gitlab CE Repository  
4 | baseurl=https://mirrors.tuna.tsinghua.edu.cn/gitlab-ce/yum/el$releasever/  
5 | gpgcheck=0  
6 | enabled=1  
7 | EOF
```

安装命令

```
1 | yum -y install gitlab-ce
```

4.修改配置文件

修改external_url为本机IP

```
1 | vim /etc/gitlab/gitlab.rb  
2 | external_url 'http://10.0.0.200'
```

5.重新加载配置并启动

这一步耗时比较长，耐心等待

```
1 | gitlab-ctl reconfigure
```

6.web页面访问

初次登陆gitlab需要我们设置密码，密码长度不低于8位



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.

Change your password

New password

.....

Confirm new password

.....

[Change your password](#)

Didn't receive a confirmation email? [Request a new one](#)

Already have login and password? [Sign in](#)

设置完密码之后我们就可以登陆了，用户名为root,密码为刚才设置的密码：

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.

Sign in Register

Username or email
root

Password
.....

Remember me [Forgot your password?](#)

[Sign in](#)

登录后的界面：

The screenshot shows the GitLab homepage. At the top, there is a dark navigation bar with the GitLab logo, a search bar, and various navigation links like 'Projects', 'Groups', and 'More'. Below the navigation, the main title 'Welcome to GitLab' is displayed, followed by the tagline 'Faster releases. Better code. Less pain.' The page is divided into four main sections: 'Create a project' (with a document icon), 'Create a group' (with a people icon), 'Add people' (with a user icon), and 'Configure GitLab' (with a gear icon). Each section has a brief description and a small icon.

7.gitlab常用命令

查看当前状态

```
1 | gitlab-ctl status
```

启动服务

```
1 | gitlab-ctl start
```

停止服务

```
1 | gitlab-ctl stop
```

停止单个服务

```
1 | gitlab-ctl stop nginx
```

启动单个服务

```
1 | gitlab-ctl start nginx
```

查看服务日志

```
1 | gitlab-ctl tail
```

第2章 gitlab权限说明

1.用户-项目组-项目说明

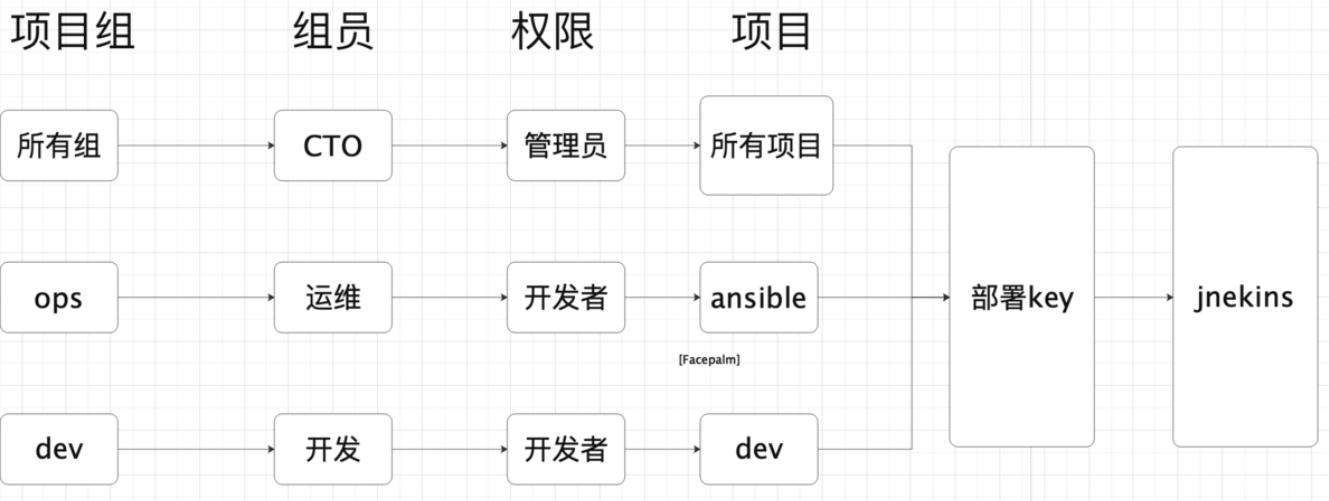
- 1 1.项目由项目组来创建，而不是由用户创建
- 2 2.用户通过加入到不同的组，来实现对项目的访问或者提交
- 3 3.项目可以设置为只有项目组可以查看，所有登陆用户可以查看和谁都可以看三种

2.建议的操作流程

- 1 1.创建组
- 2 2.基于组创建项目
- 3 3.创建用户，分配组，分配权限

3.说明图

ROOT



第3章 gitlab权限实验

1.需求分析

文字版

```
1 1. 创建2个组
2 dev
3 ops
4
5 2. 创建2个项目
6 ansible
7 game
8
9 3. 创建3个用户
10 cto
11 olyya_ops
12 oldya_dev
13
14 4. 分配权限
15 cto 对所有组都有权限, 拥有合并分支的权限
16 oldya_dev 对dev组有所有权限, 可以推拉代码
17 oldya_ops 对ops组有所有权限, 可以推拉代码, 对dev组有拉取代码的权限
```

图表版

用户	项目组	项目	权限
cto	dev ops	ansible game	pull push merge
oldya_dev	dev	game	pull push
oldya_ops	ops	ansible	pull push
		game	pull

2. 创建组

2.1 创建dev组

Group name

Group URL

 dev

Group description (optional)

Group avatar

 Choose file... No file chosen

The maximum file size allowed is 200KB.

Visibility level

Who will be able to see this group? [View the documentation](#)

 Private

The group and its projects can only be viewed by members.

 Internal

The group and any internal projects can be viewed by any logged in user.

 Public

The group and any public projects can be viewed without any authentication.

Create group

Cancel

2.2 创建ops组

Group name

Group URL

Group description (optional)

Group avatar

No file chosen

The maximum file size allowed is 200KB.

Visibility level

Who will be able to see this group? [View the documentation](#)

- Private
The group and its projects can only be viewed by members.
- Internal
The group and any internal projects can be viewed by any logged in user.
- Public
The group and any public projects can be viewed without any authentication.

Create group
Cancel

2.3 检查

GitLab Admin Area - Groups

Overview

Groups

Search by name

Last created

New group

Group	Actions
dev	0 Bytes 0 issues 1 merge request Edit Delete
ops	0 Bytes 0 issues 1 merge request Edit Delete

3. 创建项目

3.1 创建game项目



Welcome to GitLab

Code, test, and deploy together



Create a project
Projects are where you store your code, access issues, wiki and other features of GitLab.



Add people
Add your team members and others to GitLab.

Blank project Project name <input type="text" value="game"/>	Create from template	Import project
Project URL <input type="text" value="http://10.0.0.200/ dev"/> Project slug <input type="text" value="game"/> <p>Want to house several dependent projects under the same namespace? Create a group.</p> <p>Project description (optional)</p> <div style="border: 1px solid #ccc; padding: 5px; min-height: 100px;"> Description format </div>		
Visibility Level ? <div style="border: 2px solid red; padding: 5px; margin-bottom: 5px;"> <input checked="" type="radio"/> Private Project access must be granted explicitly to each user. </div> <div> <input type="radio"/> Internal This project cannot be internal because the visibility of dev is private. To make this project internal, you must first change the visibility of the parent group. </div> <div> <input type="radio"/> Public This project cannot be public because the visibility of dev is private. To make this project public, you must first change the visibility of the parent group. </div>		
<div style="border: 2px solid red; padding: 5px;"> <input checked="" type="checkbox"/> Initialize repository with a README Allows you to immediately clone this project's repository. Skip this if you plan to push up an existing repository. </div>		
<input style="background-color: #2e7131; color: white; border: 1px solid #2e7131; padding: 5px; border-radius: 5px; font-weight: bold;" type="button" value="Create project"/>		<input style="border: 1px solid #ccc; padding: 5px; border-radius: 5px;" type="button" value="Cancel"/>

dev > game > Details

Project 'game' was successfully created.

G

game

Project ID: 1

[Bell](#) [Star 0](#) [Fork 0](#) [Clone](#)

[Add license](#) [1 Commit](#) [1 Branch](#) [0 Tags](#) [0 Bytes Files](#)

master
game / +
History
Find file
Web IDE
?

Initial commit
3581b32b

Administrator authored just now

README
 Auto DevOps enabled
 Add CHANGELOG
 Add CONTRIBUTING
 Add Kubernetes cluster

Name	Last commit	Last update
README.md	Initial commit	just now

3.2 创建ansible项目

Blank project Create from template Import project

Project name
ansible

Project URL
http://10.0.0.200/ ops

Project slug
ansible

Want to house several dependent projects under the same namespace? [Create a group.](#)

Project description (optional)

Description format

Visibility Level ?

Private
Project access must be granted explicitly to each user.

Internal
This project cannot be internal because the visibility of ops is private. To make this project internal, you must first [change the visibility](#) of the parent group.

Public
This project cannot be public because the visibility of ops is private. To make this project public, you must first [change the visibility](#) of the parent group.

Initialize repository with a README
Allows you to immediately clone this project's repository. Skip this if you plan to push up an existing repository.

Create project Cancel

A **ansible**
Project ID: 3

Add license 1 Commit 1 Branch 0 Tags 0 Bytes Files

master ansible / + History Find file Web IDE

Initial commit
Administrator authored just now 0a5fffcda

README Auto DevOps enabled Add CHANGELOG Add CONTRIBUTING Add Kubernetes cluster

Name	Last commit	Last update
README.md	Initial commit	just now

4. 创建用户

4.1 创建cto用户

GitLab Admin Area - Users

Active 1 Admins 1 2FA Enabled 0 2FA Disabled 1 External 0 Blocked 0 Without projects 0

New user

Name	Created on	Last activity
Administrator Admin It's you! admin@example.com	5 Aug, 2020	5 Aug, 2020

Account

Name	cto
	* required
Username	cto
	* required
Email	cto@qq.com
	* required

Password

Password Reset link will be generated and sent to the user.
User will be forced to set the password on first sign in.

Access

Projects limit	100000
Can create group	<input checked="" type="checkbox"/>
Access level	<input type="radio"/> Regular Regular users have access to their groups and projects <input checked="" type="radio"/> Admin Administrators have access to all groups, projects and users and can manage all features in this installation

创建密码

Admin Area

Overview

Dashboard

Projects

Users

Groups

Jobs

Runners

Gitaly Servers

Admin Area > Users

Active 2 Admins 2 2FA Enabled 0 2FA Disabled 2 External 0 Blocked 0 Without projects 1 New user

Search by name, email or username Name

Name	Created on	Last activity
 cto Admin cto@qq.com	5 Aug, 2020	Never
 Administrator Admin It's you! admin@example.com	5 Aug, 2020	5 Aug, 2020

Edit 

Admin Area > Users

Edit user: cto

Account

Name	cto
* required	
Username	cto
* required	
Email	cto@qq.com
* required	

Password

Password
Password confirmation

4.2 创建oldya_dev用户

Account

Name	<input type="text" value="oldya_dev"/>
	* required
Username	<input type="text" value="oldya_dev"/>
	* required
Email	<input type="text" value="oldya_dev@qq.com"/>
	* required

Password

Password Reset link will be generated and sent to the user.
User will be forced to set the password on first sign in.

Access

Projects limit	<input type="text" value="100000"/>
Can create group	<input checked="" type="checkbox"/>
Access level	<input checked="" type="radio"/> Regular Regular users have access to their groups and projects <input type="radio"/> Admin Administrators have access to all groups, projects and users and can manage all features in this installation

修改密码

Account

Name	<input type="text" value="oldya_dev"/>
	* required
Username	<input type="text" value="oldya_dev"/>
	* required
Email	<input type="text" value="oldya_dev@qq.com"/>
	* required

Password

Password	<input type="password" value="....."/>
Password confirmation	<input type="password" value="..... "/>

4.3 创建oldya_ops用户

Account

Name	oldya_ops
	* required
Username	oldya_ops
	* required
Email	oldya_ops@qq.com
	* required

Password

Password Reset link will be generated and sent to the user.
User will be forced to set the password on first sign in.

Access

Projects limit	100000
Can create group	<input checked="" type="checkbox"/>
Access level	<input checked="" type="radio"/> Regular Regular users have access to their groups and projects <input type="radio"/> Admin Administrators have access to all groups, projects and users and can manage all features in this installation

修改密码

Edit user: oldya_ops

Account

Name	oldya_ops
	* required
Username	oldya_ops
	* required
Email	oldya_ops@qq.com
	* required

Password

Password
Password confirmation

4.4 检查

Name	Created on	Last activity	
oldya_ops oldya_ops@qq.com	5 Aug, 2020	Never	Edit ⚙️
oldya_dev oldya_dev@qq.com	5 Aug, 2020	5 Aug, 2020	Edit ⚙️
cto Admin cto@qq.com	5 Aug, 2020	Never	Edit ⚙️
Administrator Admin It's you! admin@example.com	5 Aug, 2020	5 Aug, 2020	Edit

5. 授权

5.1 dev组添加用户

Group	Last created	Members	Projects	Artifacts	Action
dev	82 KB	1	1	1	Edit Delete
ops	82 KB	1	1	1	Edit Delete

添加cto账户

Group: dev

Edit

Group info:

D

Name: **dev**

Path: **dev**

Description:

Visibility level: **Private**

Created on: **Aug 5, 2020 11:54am**

Storage: **82 KB** (82 KB repositories, 0 Bytes wikis, 0 Bytes build artifacts, 0 Bytes LFS)

Group Git LFS status: **Enabled for all projects**

Add user(s) to the group:

Read more about project permissions [here](#)

cto **选择用户**

Maintainer **选择角色** ▾

Add users to group **添加用户到组**

dev group members 1 Manage access

Administrator @root It's you Given access 28 minutes ago Owner

添加oldya_dev用户

Add user(s) to the group:

Read more about project permissions [here](#)

oldya_dev

选择用户

Developer

选择角色 开发者

Add users to group

添加用户到组

dev group members 2

Manage access



Administrator @root It's you

Given access 29 minutes ago

Owner



cto @cto

Given access just now

Maintainer

添加oldya_ops用户

Add user(s) to the group:

Read more about project permissions [here](#)

oldya_ops

选择用户

Reporter

读取角色

Add users to group

dev group members 3

Manage access



Administrator @root It's you

Given access 31 minutes ago

Owner



cto @cto

Given access 2 minutes ago

Maintainer



oldya_dev @oldya_dev

Given access just now

Developer

检查

dev group members 4

Manage access



Administrator @root It's you
Given access 32 minutes ago

Owner



cto @cto
Given access 3 minutes ago

Maintainer



oldya_dev @oldya_dev
Given access 1 minute ago

Developer



oldya_ops @oldya_ops
Given access just now

Reporter

5.2 ops组添加用户

Search by name

Last created

New group

D dev

82 KB 1 4 Edit Delete

O ops

82 KB 1 1 Edit Delete

添加cto用户

Add user(s) to the group:

Read more about project permissions [here](#)

cto

Maintainer

Add users to group

ops group members 1

 Manage access



Administrator @root It's you
Given access 33 minutes ago

Owner

添加ops用户

Add user(s) to the group:

Read more about project permissions [here](#)

oldya_ops

Developer

Add users to group

ops group members

2

 Manage access



Administrator @root It's you

Given access 34 minutes ago

Owner



cto @cto

Given access just now

Maintainer

检查

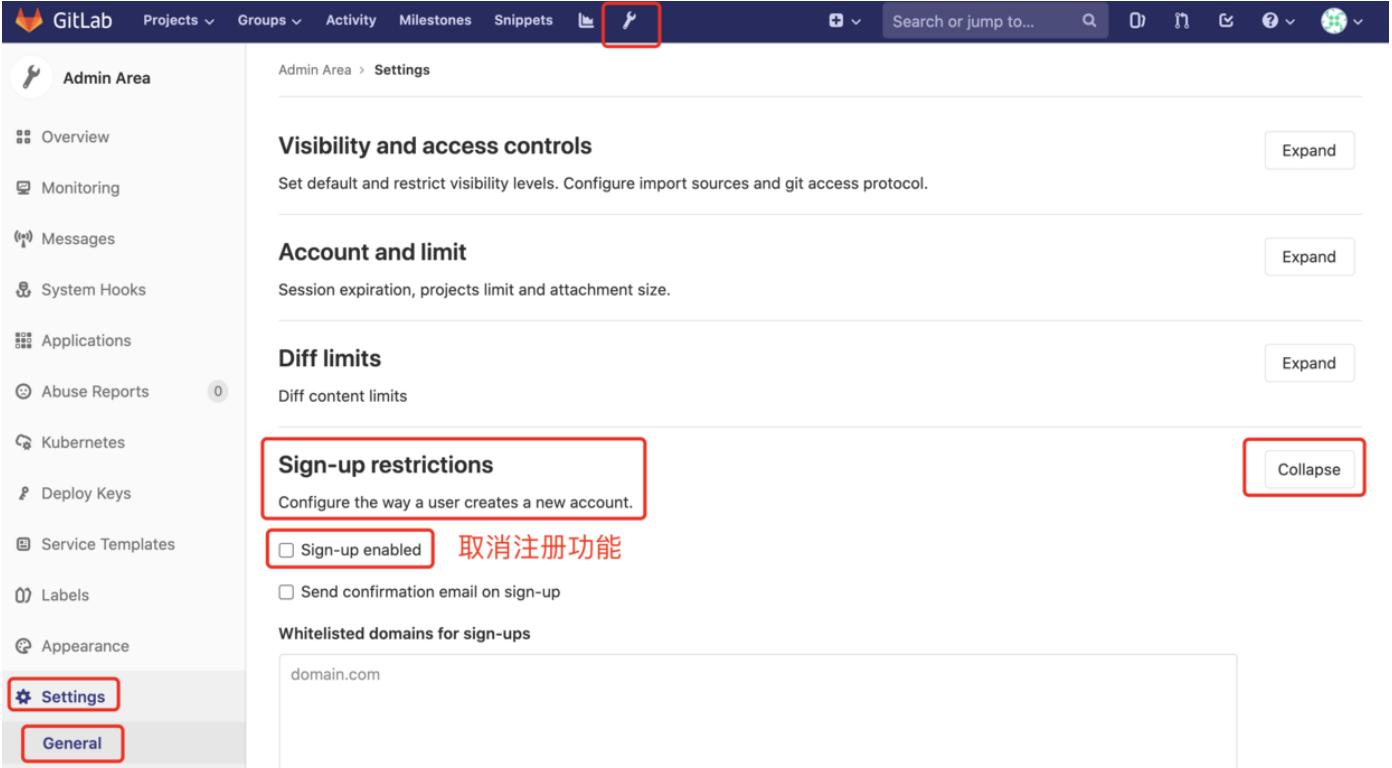
ops group members 3

 Administrator @root It's you
Given access 34 minutes ago Owner

 cto @cto
Given access just now Maintainer

 oldya_ops @oldya_ops
Given access just now Developer

6.取消用户注册



The screenshot shows the GitLab Admin Area settings page. The left sidebar has 'Settings' selected. The main area shows the 'Visibility and access controls' and 'Account and limit' sections, both with 'Expand' buttons. The 'Sign-up restrictions' section is highlighted with a red box. It contains a sub-section 'Configure the way a user creates a new account.' with two options: 'Sign-up enabled' (unchecked) and 'Send confirmation email on sign-up' (unchecked). A 'Collapse' button is also present in this section.

7.dev用户拉取上传测试

7.1 dev用户登陆并修改密码

New Password

Set up new password

Please set a new password before proceeding.

After a successful password update you will be redirected to login screen.

Current password

.....

当前密码

New password

.....

新密码

Password confirmation

.....

确认新密码

Set new password

7.2 添加SSH公匙

要想dev用户能免密克隆上传项目，需要将开发者电脑的ssh公钥上传到项目的仓库中

生成SSH密钥对

```
1 | ssh-keygen -f /root/.ssh/id_rsa -N ''
```

复制公钥

```
1 | [root@web-7 ~]# cat .ssh/id_rsa.pub
2 | ssh-rsa
AAAAB3NzaC1yc2EAAAQABAAQDZS9kTGl0k8zhCSPWp/gsg7115ymn91bS7ADuTp4B+5fkt3Ty0+T
dgUKD786mkyNH9bJK3W3rwN5SviQJCOKemPVCJCzmewbdubweez/zfxQFZ/iOvB6uiWD1THbfEG8OUxT7OVQ
iVffwhyXdtGnifcpu/hNWmDWDArFX1R7fvT84QpIOvWC8TKpHM//6EsQgPv4lfM1oLOXNEcoW7DGmQhuWkhii
YBzjiYxfRfZo6H5G0WNMwx1pic9MnLbbIBxRp201gtPJZjykSe8le2wJiUU0i6DAObjSo2Nfshwjdc020qac
KFG/1sH9GsUzLBj3l44Tuj6HdPH/0poejCxP root@web-7
```

将公钥信息添加到项目里

User Settings > SSH Keys

SSH Keys

SSH keys allow you to establish a secure connection between your computer and GitLab.

Add an SSH key

To add an SSH key you need to [generate one](#) or use an [existing](#).

Key

Paste your public SSH key, which is usually contained in the file `'~/.ssh/id_rsa.pub'` and begins with 'ssh-ed25519' or 'ssh-rsa'.

```
ssh-rsa
AAAAB3NzaC1yc2EAAAQABAAQDZS9kTGlml0k8zhCSPWp/gsg7ll5ymn91bS7ADuTp4
B+5fk3Tyg+TdgUKD786mkyNH9bJK3W3rwN55vIQJCCOKemPVCJCzmewbdubweeZ/ZfXQFZ/
jOvB6uiWD1THbfEG8OUXT7OVQVffwhYXdtGniFCpu/hNWmDWDArFXR7fVT84QpIovWC8TKp
HM//6EsQgPv4lfM1oLOXNEcoW7DGmQhuWkhjYBzjiYxfRfZo6H5G0WNMwx1piC9MnLbbIBxR
p201gtPJyjkSe8le2wJlUUi6DAObjSo2Nfshwdc020qaCKFG/1sh9GsUzlBJ3I44TuJ6hdPH/0
poejCxP root@web-7
```

把开发者电脑的SSH公钥信息复制在这里

Title

`root@web-7`

Name your individual key via a title

Add key

Your SSH keys (0)

There are no SSH keys with access to your account.

7.3 克隆项目

game

Project ID: 1

No license. All rights reserved · 1 Commit · 1 Branch · 0 Tags · 82 KB Files

master game / +

Initial commit
Administrator authored 52 minutes ago

README Auto DevOps enabled

Name	Last commit	Last update
README.md	Initial commit	52 minutes ago

game

Clone with SSH
`git@10.0.0.200:dev/game.git`

Clone with HTTP
`http://10.0.0.200/dev/game.g`

git克隆命令

```

1 [root@web-7 ~]# git clone git@10.0.0.200:dev/game.git
2 正克隆到 'game'...
3 The authenticity of host '10.0.0.200 (10.0.0.200)' can't be established.
4 ECDSA key fingerprint is SHA256:FD6YcWj3q66GnZZX7Qa36YpguJn7g70H3sJQu9Y7OcM.
5 ECDSA key fingerprint is MD5:e8:e1:ab:63:d4:91:la:c4:f6:3e:fb:cf:27:93:40:f0.

```

```
6 Are you sure you want to continue connecting (yes/no)? yes
7 Warning: Permanently added '10.0.0.200' (ECDSA) to the list of known hosts.
8 remote: Enumerating objects: 3, done.
9 remote: Counting objects: 100% (3/3), done.
10 remote: Total 3 (delta 0), reused 0 (delta 0)
11 接收对象中: 100% (3/3), done.
12
13 [root@web-7 ~]# ll
14 总用量 0
15 drwxr-xr-x 3 root root 35 8月 5 20:54 game
16
17 [root@web-7 ~]# ll game/
18 总用量 4
19 -rw-r--r-- 1 root root 8 8月 5 20:54 README.md
```

7.4 创建新分支并修改代码提交

```
1 [root@web-7 ~]# cd game/
2
3 #创建新分支
4 [root@web-7 ~/game]# git checkout -b game_v1
5 切换到一个新分支 'game_v1'
6
7 #创建首页文件
8 [root@web-7 ~/game]# echo "v1" > index.html
9
10 #提交修改的文件到暂存区
11 [root@web-7 ~/game]# git add .
12
13 #提交暂存区记录到本地仓库
14 [root@web-7 ~/game]# git commit -m "create index"
15 [game_v1 0febfb4c] create index
16 1 file changed, 1 insertion(+)
17 create mode 100644 index.html
18
19 #推送到远程仓库的分支
20 [root@web-7 ~/game]# git push origin game_v1
21 Counting objects: 4, done.
22 Compressing objects: 100% (2/2), done.
23 Writing objects: 100% (3/3), 271 bytes | 0 bytes/s, done.
24 Total 3 (delta 0), reused 0 (delta 0)
25 remote:
26 remote: To create a merge request for game_v1, visit:
27 remote: http://10.0.0.200/dev/game/merge_requests/new?
28 remote: merge_request%5Bsource_branch%5D=game_v1
29 remote: To git@10.0.0.200:dev/game.git
30 * [new branch]          game_v1 -> game_v1
```

7.5 gitlab创建合并请求

dev > game > Merge Requests

You pushed to [game_v1](#) 4 minutes ago

Create merge request

Project Repository Issues Merge Requests

Title **create index**

Start the title with **WIP:** to prevent a **Work In Progress** merge request from being merged before it's ready.
Add **description templates** to help your contributors communicate effectively!

Description **by oldya_dev
create index.html**

Write Preview

Markdown and quick actions are supported

Attach a file

Assignee **cto**

Milestone **Milestone**

Labels **Labels**

Source branch **game_v1**

Target branch **master**

Delete source branch when merge request is accepted.

Squash commits when merge request is accepted. ?

Submit merge request

Cancel

7.6 cto用户合并分支

使用cto用户登陆，然后将分支合并到master主干

G game

Project Repository Issues Merge Requests CI / CD

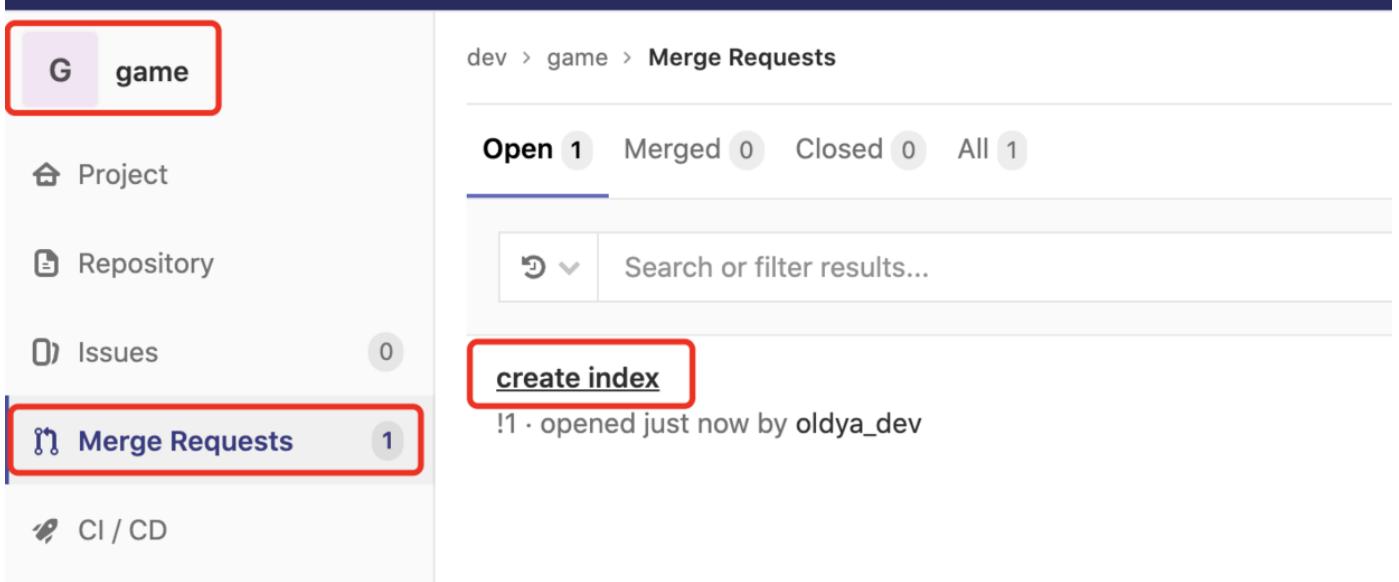
dev > game > Merge Requests

Open 1 Merged 0 Closed 0 All 1

Search or filter results...

create index

!1 · opened just now by oldya_dev



G game

Project Repository Issues Merge Requests Wiki Snippets Settings

dev > game > Merge Requests > !4

Open Opened just now by oldya_dev Edit

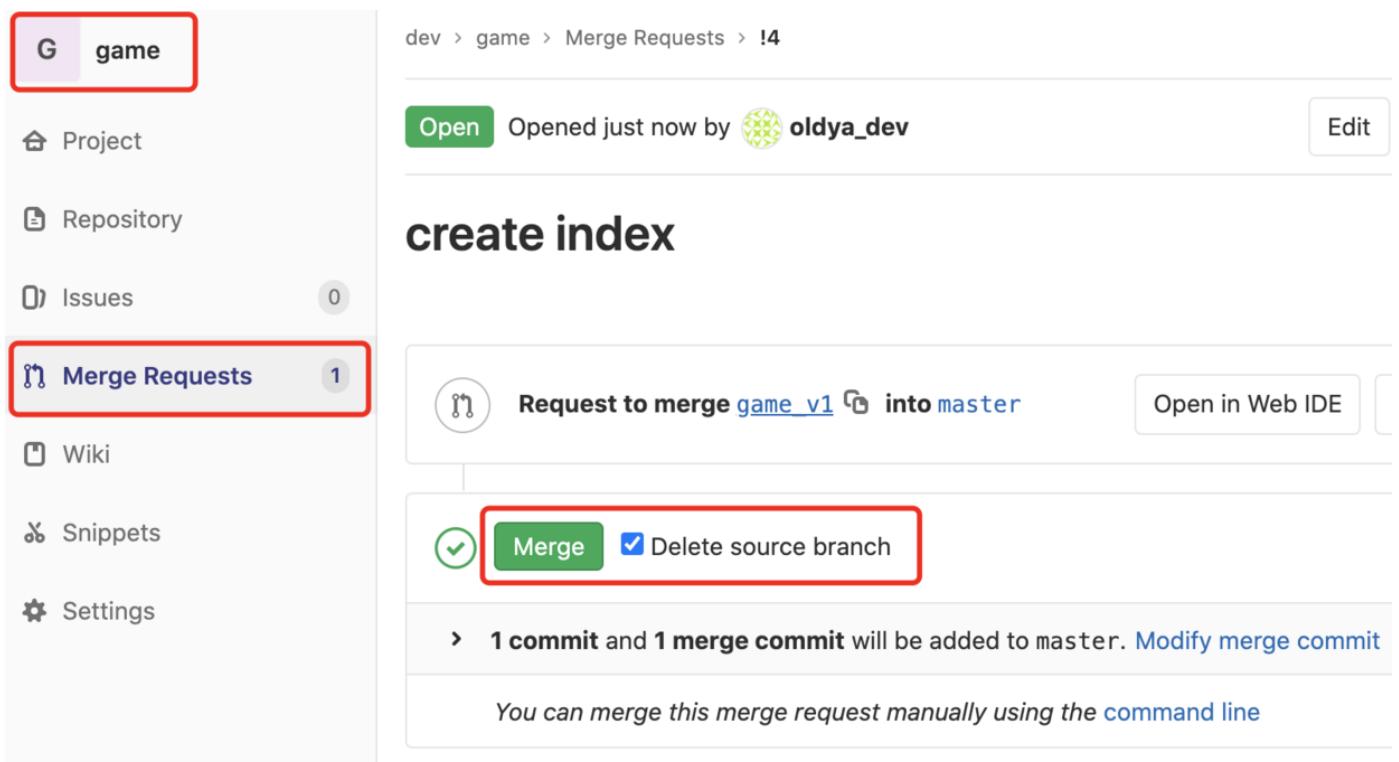
create index

Request to merge game_v1 into master

Merge Delete source branch

> 1 commit and 1 merge commit will be added to master. Modify merge commit

You can merge this merge request manually using the command line



The screenshot shows a GitLab merge request page for a project named 'game'. The merge request, titled 'Request to merge game_v1 into master', was opened 2 minutes ago by 'oldya_dev' and has been merged by 'cto' just now. A red box highlights the 'Merged by cto just now' message. The status bar at the bottom indicates that the changes were merged into 'master' with commit hash '24faa6a6'. The source branch has been deleted. Below the message, there are like, dislike, and emoji buttons. The discussion section shows activity from 'cto' merging the branch and mentioning it in the commit.

7.7 检查

The screenshot shows a GitHub repository details page for a repository named 'game'. The repository has a Project ID of 1 and contains 3 commits, 1 branch, 0 tags, and 133 KB files. The 'master' branch is selected. The main commit is a merge commit titled 'Merge branch 'game_v1' into 'master''. It was authored by 'cto' 1 minute ago and has a commit hash of '24faa6a6'. Below the commit, there are buttons for README, Add CHANGELOG, Add CONTRIBUTING, and Set up CI/CD. A table shows file history, with a row for 'index.html' labeled '分支合并后的文件' (File after branch merge) and another row for 'README.md' labeled 'Initial commit'.

8.ops用户拉取上传测试

8.1 oldya_ops用户创建SSH密钥对

```
1 [root@web-8 ~]# ssh-keygen -f /root/.ssh/id_rsa -N ''
2 Generating public/private rsa key pair.
3 Created directory '/root/.ssh'.
4 Your identification has been saved in /root/.ssh/id_rsa.
5 Your public key has been saved in /root/.ssh/id_rsa.pub.
6 The key fingerprint is:
7 SHA256:eUe4jLkE0Hyp0yU3tCkqtGZRF5/i0rDnT415V60Neag root@web-8
8 The key's randomart image is:
9 +---[RSA 2048]----+
10 |      .o. o.      |
11 |      oo.+ ++     |
12 |      o .+o+=..   |
13 |      . ooo.B + . o.|
14 |      = ..S = + + +|
15 |      o . . B o = =.| 
16 |      + + E + o| 
17 |      + . . . | 
18 |      ... | 
19 +---[SHA256]-----+
20
21 [root@web-8 ~]# cat .ssh/id_rsa.pub
22 ssh-rsa
AAAAB3NzaC1yc2EAAAQABAAQDJrUsBKg8bKRhwOBuEMmctufi0c4R7OEMcOR6WvYzR8O20EB8NR4mb/TJg45vOFOKuGT+NIwknvhMGrKAAdl6UA1m5C9e1EZVZI13ZbuOsKTiiEyN/kXTzmpgkhBC2js8zHkGVJ4w4+QThax9y15hAbUZBkuccwZJKYktWnRMcbp2Fe/qBBJauenvcvpeWonneOCyeH57FUrQNmYoJpJeW6WwMEs27IhULfjVKC7u78wXRXTGZF1x6lwKymgOevLp0rdZA12E8pnvFBfwzCW1nk+uVwfSSYXYrVBoSAk2D2Qy+YSCxxx9Grjs2tRMFO5iT0Bp7dbgKS12Hb3sfJoqR root@web-8
```

8.2 gitlab项目添加公钥信息

User Settings > SSH Keys

SSH Keys

SSH keys allow you to establish a secure connection between your computer and GitLab.

Add an SSH key

To add an SSH key you need to [generate one](#) or use an [existing key](#).

Key

Paste your public SSH key, which is usually contained in the file '~/.ssh/id_ed25519.pub' or '~/.ssh/id_rsa.pub' and begins with 'ssh-ed25519' or 'ssh-rsa'. Don't use your private SSH key.

```
ssh-rsa
AAAAAB3NzaC1yc2EAAAQABAAQDJrUsBKg8bKRhwOBuEMmctufi0c4R7OEMcOR6Wv
YzR8O20EB8NR4mb/TJg45vOFoKuGT+NlwknvhMGrkAdl6UA1m5C9e1EZVZl13ZbuOsKtiiEvN
/kXTzmpgkhBC2IS8zHKGV4w4+QThax9y5hAbUZBkuccwZJKYktWnRMcbp2Fe/qBBJauenv
cvpeWonneOCyeH57FUrqNmYoJpJeW6WwMEs27hULfjVKC7u78wXRXTGZFlx6lwKymgOevL
p0rdZA12E8pmvFBfwzCW1nk+uVwfSSYXrVBsSAk2D2Qy+YSCxxx9GrIS2tRMF05iT0Bp7dbg
KSI2Hb3sfJogR root@web-8
```

Title

oldya_ops 用户机器的公钥

root@web-8

Name your individual key via a title

Add key

Your SSH keys (0)

There are no SSH keys with access to your account.

8.3 克隆项目

克隆代码

```
1 [root@web-8 ~]# git clone git@10.0.0.200:ops/ansible.git
2 正克隆到 'ansible'...
3 The authenticity of host '10.0.0.200 (10.0.0.200)' can't be established.
4 ECDSA key fingerprint is SHA256:FD6YcWj3q66GnZZX7Qa36YpguJn7g70H3sJQu9Y70cM.
5 ECDSA key fingerprint is MD5:e8:e1:ab:63:d4:91:1a:c4:f6:3e:fb:cf:27:93:40:f0.
6 Are you sure you want to continue connecting (yes/no)? yes
7 Warning: Permanently added '10.0.0.200' (ECDSA) to the list of known hosts.
8 remote: Enumerating objects: 3, done.
9 remote: Counting objects: 100% (3/3), done.
10 remote: Total 3 (delta 0), reused 0 (delta 0)
11 接收对象中: 100% (3/3), done.
```

8.4 创建新分支并修改代码提交

```
1 [root@web-8 ~/ansible]# ls
2 README.md
3
4 #切换分支
5 [root@web-8 ~/ansible]# git checkout -b add_nginx
6 切换到一个新分支 'add_nginx'
7
8 #创建新文件
9 [root@web-8 ~/ansible]# echo "nginx" >> nginx.yaml
```

```
10
11 #查看跟踪状态
12 [root@web-8 ~/ansible]# git status
13 # 位于分支 add_nginx
14 # 未跟踪的文件：
15 #   (使用 "git add <file>..." 以包含要提交的内容)
16 #
17 #       nginx.yaml
18 提交为空，但是存在尚未跟踪的文件（使用 "git add" 建立跟踪）
19
20 #提交更新文件到暂存区
21 [root@web-8 ~/ansible]# git add .
22
23 #提交暂存区文件到本地仓库
24 [root@web-8 ~/ansible]# git commit -m "add nginx.yaml"
25 [add_nginx c368e6a] add nginx.yaml
26   1 file changed, 1 insertion(+)
27   create mode 100644 nginx.yaml
28
29 #查看状态
30 [root@web-8 ~/ansible]# git status
31 # 位于分支 add_nginx
32 无文件要提交，干净的工作区
33
34 #提交本地仓库文件到远程分支
35 [root@web-8 ~/ansible]# git push origin add_nginx
36 Counting objects: 4, done.
37 Compressing objects: 100% (2/2), done.
38 Writing objects: 100% (3/3), 280 bytes | 0 bytes/s, done.
39 Total 3 (delta 0), reused 0 (delta 0)
40 remote:
41 remote: To create a merge request for add_nginx, visit:
42 remote:   http://10.0.0.200/ops/ansible/merge_requests/new?
43 remote:     merge_request%5Bsource_branch%5D=add_nginx
44 To git@10.0.0.200:ops/ansible.git
45 * [new branch]      add_nginx -> add_nginx
```

8.5 登陆gitlab创建合并请求

Title Start the title with `WIP:` to prevent a **Work In Progress** merge request from being merged before it's ready.
Add [description templates](#) to help your contributors communicate effectively!

Description

Assignee Assign to me

Milestone

Labels

Source branch

Target branch Change branches

Delete source branch when merge request is accepted.

Squash commits when merge request is accepted. ?

Submit merge request Cancel

8.6 cto用户合并分支

A ansible

ops > ansible > Merge Requests > !1

Open Opened just now by  oldya_ops Edit Close merge request

add nginx.yaml

add nginx.yaml by oldya_ops 20200805

Merge Requests 1

Request to merge add_nginx into master Open in Web IDE Check out branch Q

Merge **Delete source branch**

> 1 commit and 1 merge commit will be added to master. [Modify merge commit](#)

You can merge this merge request manually using the [command line](#)

0 0 0

A ansible

ops > ansible > Merge Requests > !1

Merged Opened 1 minute ago by oldya_ops Edit Report abuse

add nginx.yaml

add nginx.yaml by oldya_ops 2020805

Request to merge add_nginx into master

已经合并了

Merged by cto just now Revert Cherry-pick

The changes were merged into master with b0b9fed9

The source branch has been deleted

0 0 0

Discussion 0 Commits 1 Changes 1 Show all activity

cto @cto merged just now
cto @cto mentioned in commit b0b9fed9 just now

8.7 检查

A ansible

ops > ansible > Details

A ansible Project ID: 3

Add license 1 Commit 1 Branch 0 Tags 102 KB Files

master ansible / +

Merge branch 'add_nginx' into 'master'
cto authored 1 minute ago

README Add CHANGELOG Add CONTRIBUTING Enable Auto DevOps

Name	Last commit
README.md	Initial commit
nginx.yaml	合并后的文件
	add nginx.yaml

8.8 oldya_ops 测试能否修改上传game代码

```
1 #ops用户可以正常克隆代码
2 [root@web-8 ~]# git clone git@10.0.0.200:dev/game.git
3 正克隆到 'game' ...
4 remote: Enumerating objects: 7, done.
5 remote: Counting objects: 100% (7/7), done.
6 remote: Compressing objects: 100% (4/4), done.
7 remote: Total 7 (delta 0), reused 0 (delta 0)
8 接收对象中: 100% (7/7), done.
9
10 #进入项目目录
11 [root@web-8 ~]# cd game/
12 [root@web-8 ~/game]# ls
13 index.html README.md
14
15 #切换新分支
16 [root@web-8 ~/game]# git checkout -b ops
17 切换到一个新分支 'ops'
18
19 #创建新文件
20 [root@web-8 ~/game]# touch ops.txt
21
22 #检查
23 [root@web-8 ~/game]# git status
24 # 位于分支 ops
25 # 未跟踪的文件:
26 #    (使用 "git add <file>..." 以包含要提交的内容)
27 #
28 #        ops.txt
29 提交为空，但是存在尚未跟踪的文件（使用 "git add" 建立跟踪）
30
31 #提交新文件到暂存区
32 [root@web-8 ~/game]# git add .
33
34 #提交暂存区文件到本地仓库
35 [root@web-8 ~/game]# git commit -m "add ops.txt"
36 [ops 9017ede] add ops.txt
37 1 file changed, 0 insertions(+), 0 deletions(-)
38 create mode 100644 ops.txt
39
40 #检查
41 [root@web-8 ~/game]# git status
42 # 位于分支 ops
43 无文件要提交，干净的工作区
44
45 #提交到远程分支提示报错，没有提交权限
46 [root@web-8 ~/game]# git push origin ops
47 > GitLab: You are not allowed to push code to this project.
```

```
48 fatal: Could not read from remote repository.  
49  
50 Please make sure you have the correct access rights  
51 and the repository exists.  
52 [root@web-8 ~]#
```

第4章 gitlab备份

1.备份

编辑配置文件，添加备份路径：

```
1 | vim /etc/gitlab/gitlab.rb  
2 |  
3 | gitlab_rails['backup_path'] = "/var/opt/gitlab/backups"
```

重新生效配置：

```
1 | gitlab-ctl reconfigure
```

创建备份目录：

```
1 | mkdir /backup
```

备份命令：

```
1 | [root@gitlab-200 ~]# gitlab-rake gitlab:backup:create  
2 | 2020-08-05 07:27:09 +0800 -- Dumping database ...  
3 | Dumping PostgreSQL database gitlabhq_production ... [DONE]  
4 | 2020-08-05 07:27:11 +0800 -- done  
5 | 2020-08-05 07:27:11 +0800 -- Dumping repositories ...  
6 | 2020-08-05 07:27:11 +0800 -- done  
7 | 2020-08-05 07:27:11 +0800 -- Dumping uploads ...  
8 | 2020-08-05 07:27:11 +0800 -- done  
9 | 2020-08-05 07:27:11 +0800 -- Dumping builds ...  
10 | 2020-08-05 07:27:11 +0800 -- done  
11 | 2020-08-05 07:27:11 +0800 -- Dumping artifacts ...  
12 | 2020-08-05 07:27:11 +0800 -- done  
13 | 2020-08-05 07:27:11 +0800 -- Dumping pages ...  
14 | 2020-08-05 07:27:11 +0800 -- done  
15 | 2020-08-05 07:27:11 +0800 -- Dumping lfs objects ...  
16 | 2020-08-05 07:27:12 +0800 -- done  
17 | 2020-08-05 07:27:12 +0800 -- Dumping container registry images ...  
18 | 2020-08-05 07:27:12 +0800 -- [DISABLED]  
19 | Creating backup archive: 1596583632_2020_08_05_13.2.2_gitlab_backup.tar ... done  
20 | Uploading backup archive to remote storage ... skipped  
21 | Deleting tmp directories ... done
```

```
22 done
23 done
24 done
25 done
26 done
27 done
28 done
29 Deleting old backups ... skipping
30 Warning: Your gitlab.rb and gitlab-secrets.json files contain sensitive data
31 and are not included in this backup. You will need these files to restore a backup.
32 Please back them up manually.
33 Backup task is done.
```

刚才备份的时候我们发现有一条警告，意思是gitlab-secrets.json文件里包含了敏感信息，需要我们手动备份，所以恢复的时候需要将备份文件和这个json文件一起恢复才行。

备份gitlab-secrets.json配置文件

```
1 cp /etc/gitlab/gitlab-secrets.json /backup/
```

查看备份结果：

```
1 [root@gitlab-200 ~]# ll /backup/
2 总用量 220
3 -rw----- 1 git git 204800 8月 5 07:27
4 1596583632_2020_08_05_13.2.2_gitlab_backup.tar
4 -rw----- 1 root root 18771 8月 5 07:30 gitlab-secrets.json
```

2. 恢复

恢复时最好不要有数据写入，所以我们可以先停止服务

```
1 gitlab-ctl stop
```

将json文件复制到指定位置：

```
1 cp /backup/gitlab-secrets.json /etc/gitlab/
```

恢复操作：

```
1 gitlab-rake gitlab:backup:restore BACKUP=1596583632_2020_08_05_13.2.2
```

重新载入配置

```
1 gitlab-ctl reconfigure
```

第5章 gitlab汉化

官方自带中文，只不过翻译的不完整。

The screenshot shows the GitLab settings interface. At the top right, there's a sidebar with user information (Administrator @root), a search bar, and various navigation icons. Below the sidebar, the main content area has a heading "Create a group" with a "Create" button. On the left, a sidebar menu includes "GPG Keys", "Preferences" (which is highlighted with a red box), "Active Sessions", and "Authentication log". The main content area has a "Localization" section with a "Language" dropdown set to "Chinese, Simplified - 简体中文" (also highlighted with a red box). A note below the dropdown says "This feature is experimental and translations are not complete yet". There are also sections for "First day of the week" (set to "System default (Sunday)") and a "Save changes" button (also highlighted with a red box).