

# DevOps-版本控制系统-GitLab部署



## 使用RPM包部署

这里使用的系统是CentOS8，清华源：[mirrors.tuna.tsinghua.edu.cn/gitlab-ce/](https://mirrors.tuna.tsinghua.edu.cn/gitlab-ce/)

```
## 下载软件包
wget https://mirrors.tuna.tsinghua.edu.cn/gitlab-ce/yum/el8/gitlab-ce-13.7.0-ce.0.el8.x86_64.rpm

## 安装
rpm -ivh gitlab-ce-13.7.0-ce.0.el8.x86_64.rpm

## 日志输出
warning: gitlab-ce-13.7.0-ce.0.el8.x86_64.rpm: Header V4 RSA/SHA256 Signature,
key ID f27eab47: NOKEY
Verifying...                               ##### [100%]
Preparing...                               ##### [100%]
Updating / installing...
 1:gitlab-ce-13.7.0-ce.0.el8                ##### [100%]
It looks like GitLab has not been configured yet; skipping the upgrade script.

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    ***                                ***
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```

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```

Thank you for installing GitLab!

GitLab was unable to detect a valid hostname for your instance.  
Please configure a URL for your GitLab instance by setting `external\_url` configuration in `/etc/gitlab/gitlab.rb` file.  
Then, you can start your GitLab instance by running the following command:

```
sudo gitlab-ctl reconfigure
```

For a comprehensive list of configuration options please see the Omnibus GitLab readme  
<https://gitlab.com/gitlab-org/omnibus-gitlab/blob/master/README.md>

Help us improve the installation experience, let us know how we did with a 1 minute survey:  
[https://gitlab.fra1.qualtrics.com/jfe/form/SV\\_6kVqZANThUQ1bZb?installation=omnibus&release=13-7](https://gitlab.fra1.qualtrics.com/jfe/form/SV_6kVqZANThUQ1bZb?installation=omnibus&release=13-7)

## 配置

安装完成后可以发现以下信息，需要修改gitlab.rb配置文件。

GitLab was unable to detect a valid hostname for your instance. Please configure a URL for your GitLab instance by setting `external_url` configuration in `/etc/gitlab/gitlab.rb` file. Then, you can start your GitLab instance by running the following command: `sudo gitlab-ctl reconfigure`

编辑 `/etc/gitlab/gitlab.rb` 可以看到默认的域名配置。如果是学习使用则可以继续使用该域名，不用再做其他配置。

```
32 external_url 'http://gitlab.example.com'
```

如果是需要修改该域名，则需要这样做：

```
## 修改gitlab.rb
external_url 'http://gitlab.devops.com'
## 重新配置
gitlab-ctl reconfigure
```

## 服务运行控制

```
## 启动服务
gitlab-ctl start
## 重启服务
gitlab-ctl restart
## 查看状态
gitlab-ctl status
## 停止
gitlab-ctl stop
```

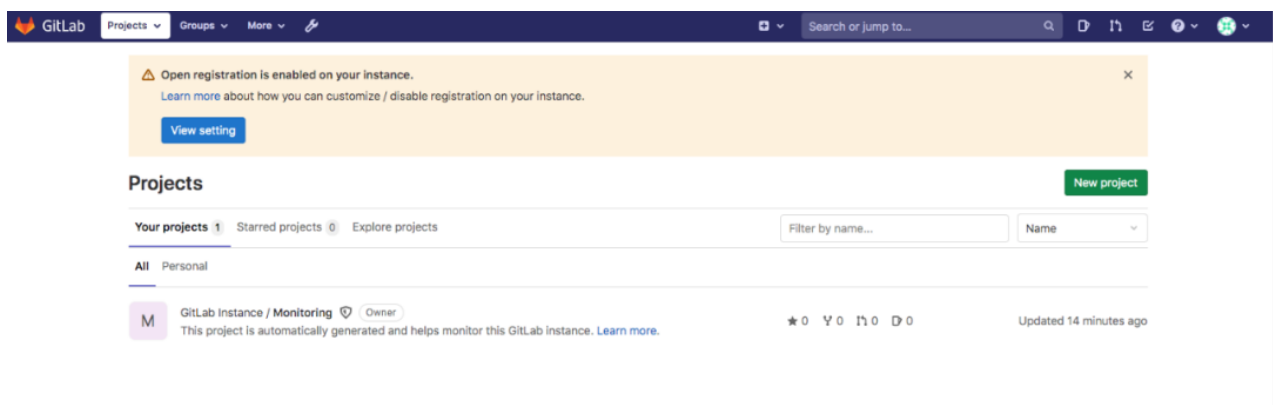
## 访问测试

由于使用的是 `gitlab.devops.com` 这个域名，需要在dns或者本地hosts中添加该解析记录。

```
vi /etc/hosts
192.168.1.200 gitlab.devops.com
```

浏览器访问 `http://gitlab.devops.com/`，设置用户密码。默认用户 `root`。这里设置的密码是 `devops1234`。

能够正常进入首页即可，安装完成。



## 扩展：使用外部PG数据库

## 使用docker快速启动PG

You are using PostgreSQL 9.6.16, but PostgreSQL >= 11 is required for this version of GitLab.

```
mkdir /root/gitlab/pgdata

docker run --name dockerPG11 \
-e POSTGRES_PASSWORD=postgres \
-v /root/gitlab/pgdata:/var/lib/postgresql/data \
-p 54322:5432 \
-d postgres:11.5

## 创建数据库
psql -U postgres -h localhost -p 54322
psql (11.5 (Debian 11.5-3.pgdg90+1))
Type "help" for help.
postgres=# create role gitlab login encrypted password 'gitlab';
CREATE ROLE
postgres=# create database gitlabhq_production owner=gitlab ENCODING = 'UTF8';
CREATE DATABASE
postgres=# \c gitlabhq_production
You are now connected to database "gitlabhq_production" as user "postgres".
gitlabhq_production=# CREATE EXTENSION IF NOT EXISTS btree_gist;
CREATE EXTENSION
gitlabhq_production=# CREATE EXTENSION IF NOT EXISTS pg_trgm;
CREATE EXTENSION
postgres=# \q
```

使用postgres用户创建 `EXTENSION`, `btree_gist`, `pg_trgm`。否则会遇到如下错误:

```
STDOUT: psql:/opt/gitlab/embedded/service/gitlab-rails/db/structure.sql:9: ERROR:
permission denied to create extension "btree_gist" HINT: Must be superuser to create this
extension.
```

## 修改gitlab.rb配置文件

编辑 `/etc/gitlab/gitlab.rb`

```
654 gitlab_rails['db_adapter'] = "postgresql"
655 gitlab_rails['db_encoding'] = "utf8"
656 # gitlab_rails['db_collation'] = nil
657 gitlab_rails['db_database'] = "gitlabhq_production"
658 gitlab_rails['db_username'] = "gitlab"
659 gitlab_rails['db_password'] = "gitlab"
660 gitlab_rails['db_host'] = "192.168.1.200"
661 gitlab_rails['db_port'] = 54322
1025 postgresql['enable'] = false

## 配置更新
gitlab-ctl reconfigure
```

## 验证配置生效

```
cat /opt/gitlab/embedded/service/gitlab-rails/config/database.yml

# This file is managed by gitlab-ctl. Manual changes will be
# erased! To change the contents below, edit /etc/gitlab/gitlab.rb
# and run `sudo gitlab-ctl reconfigure`.

production:
  adapter: postgresql
  encoding: utf8
  collation:
  database: gitlabhq_production
  username: "gitlab"
  password: "gitlab"
  host: "192.168.1.200"
  port: 54322
```