

Installing Gitea as Remote Git Repository on your machine

1. Download Gitea software

```
devops@devops-VirtualBox:~$ wget  
https://dl.gitea.io/gitea/1.14.5/gitea-1.14.5-linux-amd64
```

2. Download the GPG key server and signature file that ends with asc, and verify the signature.

```
devops@devops-VirtualBox:~$ gpg --keyserver keys.openpgp.org --recv  
7C9E68152594688862D62AF62D9AE806EC1592E2  
gpg: key 2D9AE806EC1592E2: public key "Teabot <teabot@gitea.io>"  
imported  
gpg: Total number processed: 1  
gpg: imported: 1
```

```
devops@devops-VirtualBox:~$ wget  
https://dl.gitea.io/gitea/1.14.5/gitea-1.14.5-linux-amd64.asc
```

```
devops@devops-VirtualBox:~$ ls gitea*  
gitea-1.14.5-linux-amd64  gitea-1.14.5-linux-amd64.asc
```

```
devops@devops-VirtualBox:~$ gpg --verify gitea-1.14.5-linux-  
amd64.asc gitea-1.14.5-linux-amd64  
gpg: Signature made Friday 16 July 2021 02:25:48 PM IST  
gpg: using RSA key  
CC64B1DB67ABBEECAB24B6455FC346329753F4B0  
gpg: Good signature from "Teabot <teabot@gitea.io>" [unknown]  
gpg: WARNING: This key is not certified with a trusted signature!  
gpg: There is no indication that the signature belongs to  
the owner.  
Primary key fingerprint: 7C9E 6815 2594 6888 62D6 2AF6 2D9A E806  
EC15 92E2  
Subkey fingerprint: CC64 B1DB 67AB BEEC AB24 B645 5FC3 4632  
9753 F4B0
```

3. Rename the file with primary name gitea and make it executable file

```
devops@devops-VirtualBox:~$ mv gitea-1.14.5-linux-amd64 gitea
```

```
devops@devops-VirtualBox:~$ ls -l gitea  
-rw-rw-r-- 1 devops devops 108023432 Jul 16 14:26 gitea
```

```
devops@devops-VirtualBox:~$ chmod +x gitea
```

```
devops@devops-VirtualBox:~$ ls -l gitea  
-rwxrwxr-x 1 devops devops 108023432 Jul 16 14:26 gitea
```

4. Ensure availability of git on your machine

```
devops@devops-VirtualBox:~$ git --version
git version 2.17.1
```

5. Create a git user using below command

```
sudo adduser \
--system \
--shell /bin/bash \
--gecos 'Git Version Control' \
--group \
--disabled-password \
--home /home/git \
git
```

```
devops@devops-VirtualBox:~$ sudo adduser \
> --system \
> --shell /bin/bash \
> --gecos 'Git Version Control' \
> --group \
> --disabled-password \
> --home /home/git \
> git
[sudo] password for devops:
Adding system user `git' (UID 123) ...
Adding new group `git' (GID 127) ...
Adding new user `git' (UID 123) with group `git' ...
Creating home directory `/home/git' ...
```

6. Create required directory structure

```
devops@devops-VirtualBox:~$ sudo su
```

```
root@devops-VirtualBox:/home/devops# mkdir -p
/var/lib/gitea/{custom,data,log}
```

```
root@devops-VirtualBox:/home/devops# ls /var/lib/gitea/
custom data log
```

```
root@devops-VirtualBox:/home/devops# ls -l /var/lib/gitea/
total 12
drwxr-xr-x 2 root root 4096 Jul 31 19:21 custom
drwxr-xr-x 2 root root 4096 Jul 31 19:21 data
drwxr-xr-x 2 root root 4096 Jul 31 19:21 log
```

```
root@devops-VirtualBox:/home/devops# chown -R git:git
/var/lib/gitea/
```

```

root@devops-VirtualBox:/home/devops# ls -l /var/lib/gitea/
total 12
drwxr-xr-x 2 git git 4096 Jul 31 19:21 custom
drwxr-xr-x 2 git git 4096 Jul 31 19:21 data
drwxr-xr-x 2 git git 4096 Jul 31 19:21 log

root@devops-VirtualBox:/home/devops# chmod -R 750 /var/lib/gitea/

root@devops-VirtualBox:/home/devops# ls -l /var/lib/gitea/
total 12
drwxr-x--- 2 git git 4096 Jul 31 19:21 custom
drwxr-x--- 2 git git 4096 Jul 31 19:21 data
drwxr-x--- 2 git git 4096 Jul 31 19:21 log

root@devops-VirtualBox:/home/devops# mkdir /etc/gitea

root@devops-VirtualBox:/home/devops# chown root:git /etc/gitea

root@devops-VirtualBox:/home/devops# chmod 770 /etc/gitea

root@devops-VirtualBox:/home/devops# ls -l /etc
drwxrwx--- 2 root git 4096 Jul 31 19:23 gitea

root@devops-VirtualBox:/home/devops# exit
exit
devops@devops-VirtualBox:~$

```

7. Copy Gitea binary to global location

```
devops@devops-VirtualBox:~$ sudo cp gitea /usr/local/bin/gitea
```

8. Start gitea from command line

```
devops@devops-VirtualBox:~$ sudo su

root@devops-VirtualBox:/home/devops# GITEA_WORK_DIR=/var/lib/gitea/
/usr/local/bin/gitea web -c /etc/gitea/app.ini &

```

9. Install MySQL for use by gitea

```
devops@devops-VirtualBox:~$ sudo apt install mysql-server
```

10. Set the password for root user

```
devops@devops-VirtualBox:~$ sudo mysql
mysql> ALTER USER 'root'@'localhost' IDENTIFIED WITH
mysql_native_password By 'password';
Query OK, 0 rows affected (0.00 sec)

mysql> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.00 sec)

```

```
mysql> exit
Bye
```

11. Create a gitea user to maintain database for gitea, with all privileges

```
devops@devops-VirtualBox:~$ mysql -u root -p
Enter password: <password>
```

```
mysql> SELECT user,authentication_string,plugin,host FROM
mysql.user;
```

user	authentication_string	plugin	host
root	*2470C0C06DEE42FD1618BB99005ADCA2EC9D1E19	mysql_native_password	localhost
mysql.session	*THISISNOTAVALIDPASSWORDTHATCANBEUSEDHERE	mysql_native_password	localhost
mysql.sys	*THISISNOTAVALIDPASSWORDTHATCANBEUSEDHERE	mysql_native_password	localhost
debian-sys-maint	*A966F094C4900DA041BAE7D018FB349A06E00058	mysql_native_password	localhost

4 rows in set (0.00 sec)

```
mysql> CREATE USER 'gitea'@'localhost' IDENTIFIED BY 'password';
Query OK, 0 rows affected (0.01 sec)
```

```
mysql> SELECT user,authentication_string,plugin,host FROM
mysql.user;
```

user	authentication_string	plugin	host
root	*2470C0C06DEE42FD1618BB99005ADCA2EC9D1E19	mysql_native_password	localhost
mysql.session	*THISISNOTAVALIDPASSWORDTHATCANBEUSEDHERE	mysql_native_password	localhost
mysql.sys	*THISISNOTAVALIDPASSWORDTHATCANBEUSEDHERE	mysql_native_password	localhost
debian-sys-maint	*A966F094C4900DA041BAE7D018FB349A06E00058	mysql_native_password	localhost
gitea	*2470C0C06DEE42FD1618BB99005ADCA2EC9D1E19	mysql_native_password	localhost

5 rows in set (0.00 sec)

```
mysql> GRANT ALL PRIVILEGES ON *.* TO 'gitea'@'localhost' WITH GRANT
OPTION;
Query OK, 0 rows affected (0.00 sec)
```

```
mysql> exit;
Bye
```

12. Create Database with respect to gitea user

```
devops@devops-VirtualBox:~$ mysql -u gitea -p
Enter password:
```

```
mysql> CREATE DATABASE mygitdb;
Query OK, 1 row affected (0.00 sec)
```

```
mysql> exit;
Bye
```

13. Check whether MySQL server is running

```
devops@devops-VirtualBox:~$ systemctl status mysql.service
```

```
● mysql.service - MySQL Community Server
```

```
Loaded: loaded (/lib/systemd/system/mysql.service; enabled;  
vendor preset: en
```

```
Active: active (running) since Sat 2021-07-31 20:08:57 IST; 34min  
ago
```

```
Main PID: 16418 (mysqld)
```

14. Access gitea from the browser using the url

<http://localhost:3000/>

In the first screen you would see following required settings.

Our MySQL Database Username: gitea

Our MySQL Database User Password: password

Our MySQL Database: mygitdb

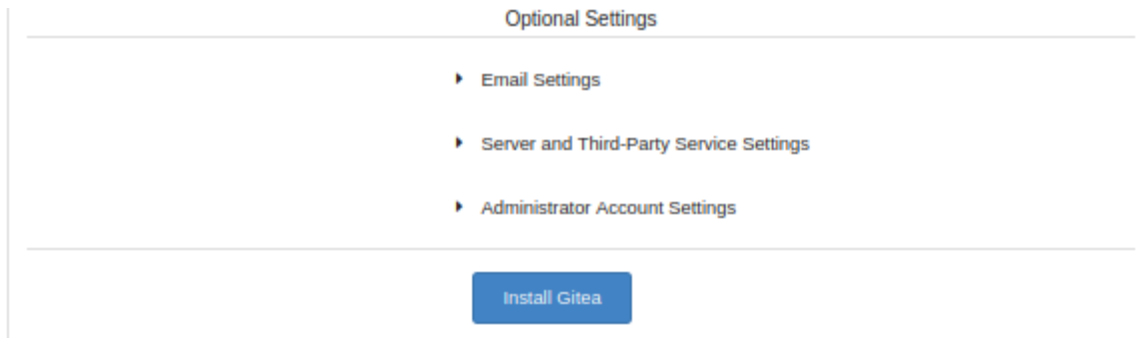


The screenshot shows a web browser window with the address bar set to `localhost:3000`. The page title is "Initial Configuration". Below the title, there is a note: "If you run Gitea inside Docker, please read the [documentation](#) before changing any settings." The main section is titled "Database Settings". It states "Gitea requires MySQL, PostgreSQL, MSSQL or SQLite3." and lists the following fields:

- Database Type: MySQL (dropdown menu)
- Host: 127.0.0.1:3306 (text input)
- Username: gitea (text input)
- Password: (password field with masked characters)
- Database Name: mygitdb (text input)
- Charset: utf8 (dropdown menu)

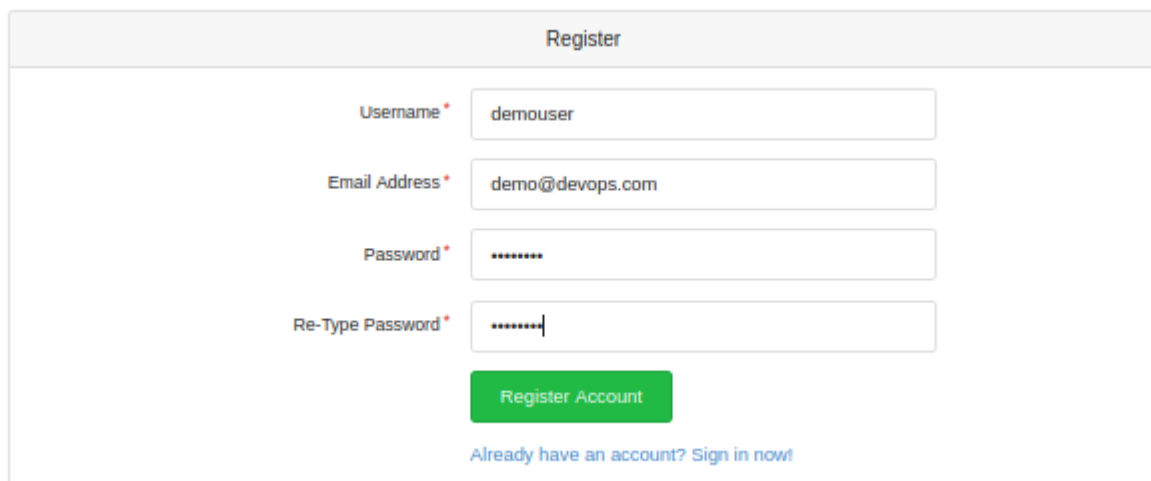
Below the fields, there is a note: "Note to MySQL users: please use the InnoDB storage engine and if you use 'utf8mb4', your InnoDB version must be greater than 5.6."

15. Accept other defaults as is and click on install gitea



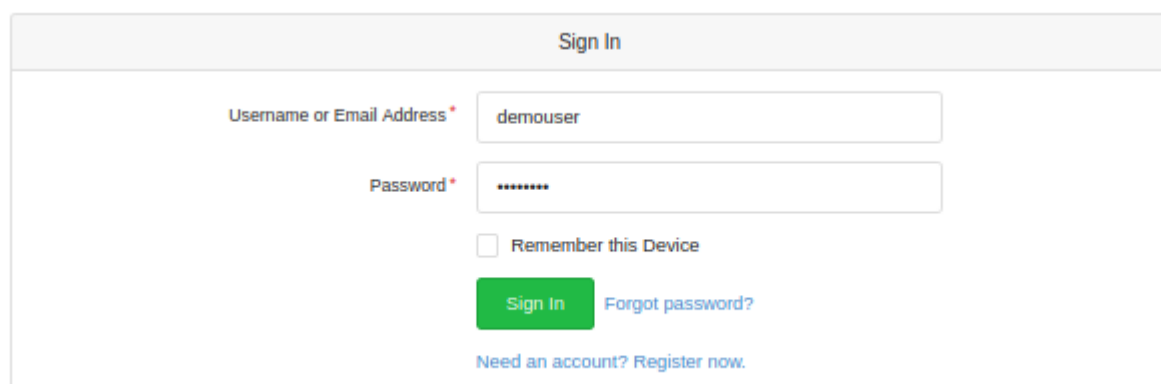
The 'Optional Settings' screen for Gitea installation. It features three expandable sections: 'Email Settings', 'Server and Third-Party Service Settings', and 'Administrator Account Settings'. Each section has a right-pointing arrow icon. At the bottom, there is a blue button labeled 'Install Gitea'.

16. Next you will be taken into sign in page. Since no user is created so far register to create new user with following screen



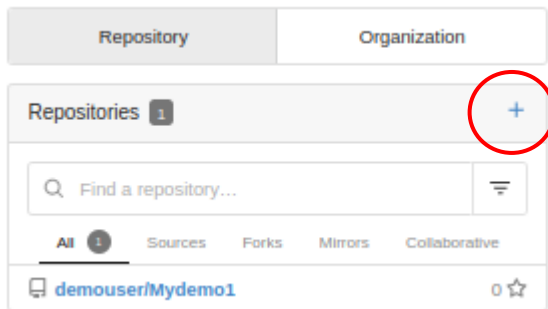
The 'Register' screen for Gitea. It contains four input fields: 'Username *' with the value 'demouser', 'Email Address *' with the value 'demo@devops.com', 'Password *' with masked characters '*****', and 'Re-Type Password *' with masked characters '*****'. Below the fields is a green button labeled 'Register Account'. At the bottom, there is a link that says 'Already have an account? Sign in now!'.

17. After registering the user then signin



The 'Sign In' screen for Gitea. It contains two input fields: 'Username or Email Address *' with the value 'demouser' and 'Password *' with masked characters '*****'. Below the fields is a checkbox labeled 'Remember this Device'. At the bottom, there is a green button labeled 'Sign In' and a link labeled 'Forgot password?'. At the very bottom, there is a link that says 'Need an account? Register now.'.

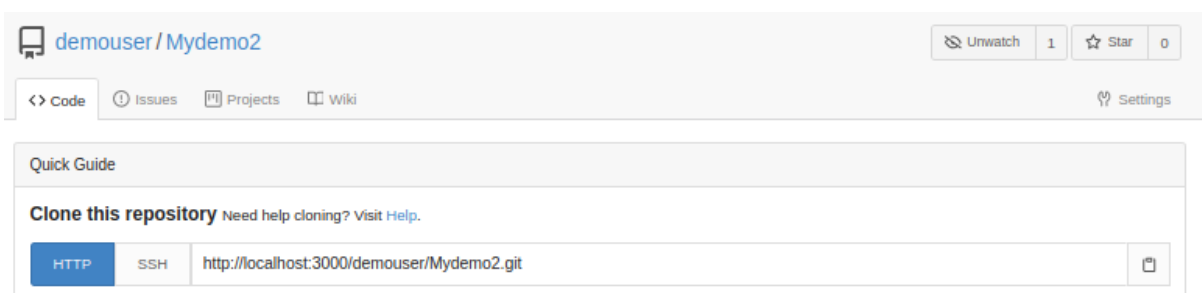
18. You will arrive at the user page, where you can create new repository, by clicking on + symbol in front of Repository



19. This will create a new repository, where you can specify a name for the repository Mydemo2 and do not make it Private repository.

20. Accept other defaults and create the repository

21. You will now see the new repository, where you can find the path to this remote repository.



Copy the path:

<http://localhost:3000/demouser/Mydemo2.git>

22. Now you can use this remote repository as follows

```
devops@devops-VirtualBox:~$ mkdir gitrepo
devops@devops-VirtualBox:~$ cd gitrepo
devops@devops-VirtualBox:~/gitrepo$ vi hello.txt
devops@devops-VirtualBox:~/gitrepo$ ls
hello.txt
devops@devops-VirtualBox:~/gitrepo$ cat hello.txt
Hi Hello World
```

23. Create git local repository, stage the file and commit the code to git local repository

```
devops@devops-VirtualBox:~/gitrepo$ git init
Initialized empty Git repository in /home/devops/gitrepo/.git/
devops@devops-VirtualBox:~/gitrepo$ git add .
devops@devops-VirtualBox:~/gitrepo$ git commit -m hi
*** Please tell me who you are.
```

Run

```
git config --global user.email "you@example.com"
git config --global user.name "Your Name"
```

to set your account's default identity.

Omit --global to set the identity only in this repository.

```
fatal: unable to auto-detect email address (got 'devops@devops-
VirtualBox.(none)')
```

```
devops@devops-VirtualBox:~/gitrepo$ git config user.name devops
devops@devops-VirtualBox:~/gitrepo$ git config user.email
dev@devops.com
```

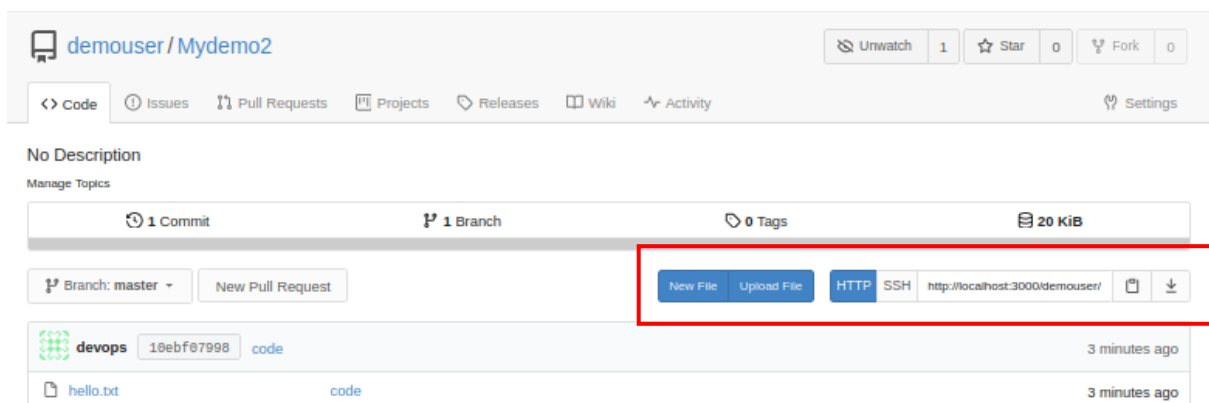
```
devops@devops-VirtualBox:~/gitrepo$ git commit -m code
[master (root-commit) 10ebf07] code
1 file changed, 1 insertion(+)
create mode 100644 hello.txt
```


24. Add the remote repository created in gitea remote repository and push the code to remote repository

```
devops@devops-VirtualBox:~/gitrepo$ git remote add origin  
http://localhost:3000/demouser/Mydemo2.git
```

```
devops@devops-VirtualBox:~/gitrepo$ git push -u origin master  
Username for 'http://localhost:3000': demouser  
Password for 'http://demouser@localhost:3000':  
Counting objects: 3, done.  
Writing objects: 100% (3/3), 213 bytes | 213.00 KiB/s, done.  
Total 3 (delta 0), reused 0 (delta 0)  
remote: . Processing 1 references  
remote: Processed 1 references in total  
To http://localhost:3000/demouser/Mydemo2.git  
 * [new branch]      master -> master  
Branch 'master' set up to track remote branch 'master' from  
'origin'.
```

Now if you return to the gitea remote repository on the browser and refresh the page you would see the hello.txt pushed to this remote repository



25. You can clone it back to local repository using following command with the HTTP url copied from the remote repository

```
devops@devops-VirtualBox:~$ git clone  
http://localhost:3000/demouser/Mydemo2.git  
Cloning into 'Mydemo2'...  
remote: Counting objects: 3, done.  
remote: Total 3 (delta 0), reused 0 (delta 0)  
Unpacking objects: 100% (3/3), done.  
  
devops@devops-VirtualBox:~$ ls  
Mydemo2  
  
devops@devops-VirtualBox:~$ ls Mydemo2  
hello.txt
```