# How to Set Up GitLab Locally (on Ubuntu)

## Pre-requisites

* A fresh Ubuntu 20.04/22.04 VM or server (4 GB RAM minimum, 2 CPU recommended)
* Root (sudo) access
* At least 20 GB disk space

## 1. Update the System

sudo apt update  
sudo apt upgrade -y

## 2. Install Required Dependencies

sudo apt install -y curl openssh-server ca-certificates tzdata perl

(Optional) If you want emails from GitLab, install Postfix (press OK for “Internet Site”):

sudo apt install -y postfix

## 3. Add GitLab Repository and Install GitLab

curl https://packages.gitlab.com/install/repositories/gitlab/gitlab-ee/script.deb.sh | sudo bash

Replace http://gitlab.example.com with your **machine’s IP address** or a domain if you have it.

sudo EXTERNAL\_URL="http://<YOUR\_SERVER\_IP>" apt install gitlab-ee

* Example:  
  sudo EXTERNAL\_URL="http://192.168.1.100" apt install gitlab-ee

*(If you want Community Edition, change* ***gitlab-ee*** *to* ***gitlab-ce****)*

## 4. Configure and Start GitLab

sudo gitlab-ctl reconfigure

This sets up all GitLab services.

## 5. Access GitLab Web Interface

* Open a browser and go to:  
  http://<YOUR\_SERVER\_IP>
* On the first login, GitLab will ask you to set the root password.

## 6. (Optional) Change HTTP Port or Enable HTTPS

* Edit /etc/gitlab/gitlab.rb for advanced settings, such as:
  + Change default HTTP port (external\_url 'http://<ip>:8080')
  + Set up SSL (with your certificate)

After changes:

sudo gitlab-ctl reconfigure

## 7. Add Users and Create Projects

* Log in as root via the browser.
* Add users, groups, and your first project.

## 8. (Optional) Start/Stop/Restart GitLab

sudo gitlab-ctl start  
sudo gitlab-ctl stop  
sudo gitlab-ctl restart

## Quick Troubleshooting

* To check status: sudo gitlab-ctl status
* Logs: /var/log/gitlab/

## Tip: Using Docker (Alternative for Quick Lab)

If you want a quick, disposable GitLab for **testing only**, use Docker:

docker run --detach \  
 --hostname gitlab.local \  
 --publish 8080:80 --publish 8443:443 --publish 2222:22 \  
 --name gitlab \  
 --restart always \  
 --shm-size 256m \  
 gitlab/gitlab-ee:latest

* Access: http://localhost:8080

## Summary Table

| Step | Command/Action |  |
| --- | --- | --- |
| Update system | sudo apt update && sudo apt upgrade -y |  |
| Install dependencies | sudo apt install -y curl openssh-server ... |  |
| Add GitLab repo | `curl [https://…/script.deb.sh](https://.../script.deb.sh) | sudo bash` |
| Install GitLab | sudo EXTERNAL\_URL="..." apt install gitlab-ee |  |
| Configure GitLab | sudo gitlab-ctl reconfigure |  |
| Access web UI | http://<SERVER\_IP> |  |

Now you have a local GitLab instance for all your code, CI/CD, and DevOps needs.