

A GitLab Runner is something that performs work within a CI/CD pipeline. For each step, a "job" is created which gets pushed out to a Runner to perform. A Runner is effectively an agent that can run on the same VM, although preferably on separate VMs. You can hook up multiple runners to a GitLab instance, so that you can scale the number of Runners according to the volume of jobs your pipelines are generating.

To install a runner on Ubuntu:

```
rasta@gitlab:~$ curl -LJO "https://gitlab-runner-downloads.s3.amazonaws.com/latest/deb/gitlab-runner_amd64.deb" rasta@gitlab:~$ sudo apt install git rasta@gitlab:~$ sudo dpkg -i gitlab-runner_amd64.deb

i The Runner will fetch the code from GitLab via git, hence the dependency.
```

The Runner runs as a service, which you can see with

```
rasta@gitlab:~$ sudo systemctl status gitlab-runner
```

The next step is to register the Runner with the GitLab instance.

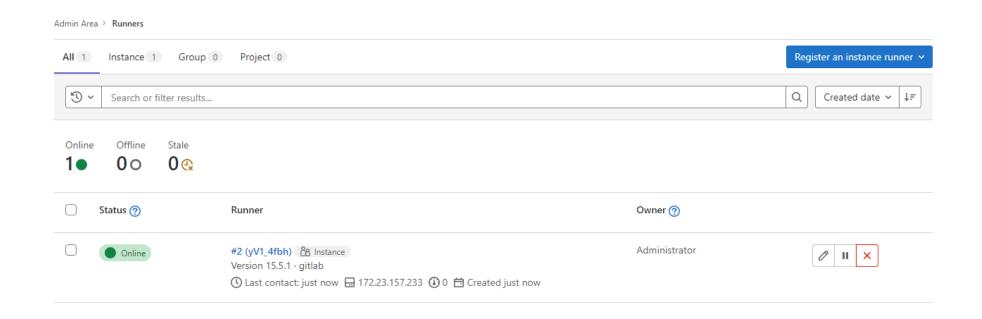
```
rasta@gitlab:~$ sudo gitlab-runner register
```

You'll be prompted for the GitLab URL (http://172.23.157.233 in my case) and a registration token. To get the token, navigate to Admin > Runners whilst logged in as the default root user, and click on Register an Instance Runner. You will see a redacted field from which you can copy the token.

When prompted for an **executor**, select **docker**. This allows the Runner to execute its jobs in a dedicated container. You'll also be asked to provide a default Docker image. Each CI/CD pipeline can be configured with a specific Docker image, but this setting is used by default (in cases where an image is not explicitly defined in a pipeline).

As such, it doesn't really matter what you put here. I chose mcr.microsoft.com/dotnet/sdk:6.0

Complete the setup and a new Runner should appear in the Admin UI.



We do need to make a small change to the configuration file at /etc/gitlab-runner/config.tom for something that we're going to do later.

Scroll down and find the [runners.docker] section at the bottom of the file, then change privileged from false to true. Save the file and restart the service.

We now also need to install Docker for the runner to function.

```
rasta@gitlab:~$ sudo apt install ca-certificates curl gnupg lsb-release
rasta@gitlab:~$ sudo mkdir -p /etc/apt/keyrings
rasta@gitlab:~$ curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo gpg --dearmor -o
/etc/apt/keyrings/docker.gpg
rasta@gitlab:~$ echo "deb [arch=$(dpkg --print-architecture) signed-by=/etc/apt/keyrings/docker.gpg]
https://download.docker.com/linux/ubuntu $(lsb_release -cs) stable" | sudo tee /etc/apt/sources.list.d/docker.list >
/dev/null
rasta@gitlab:~$ sudo apt update
rasta@gitlab:~$ sudo apt -y install docker-ce docker-ce-cli containerd.io docker-compose-plugin
```