

## DevOps task for new team members (mid-senior level)

Here in Cypago, we have many integrations with many flavors and versions. We need to mimic each of those integrations for tests, and the best way to do it is to create a minimal variation of it. In this home assignment, you should perform the following things:

1. Create Terraform configuration, which should create an EKS cluster. This cluster should spread on one AZ and have two nodes - t4g.medium.
2. Deploy ArgoCD on this cluster using Terraform. The ArgoCD should be on its own namespace, and all of its pods should be deployed on only one of the nodes.
3. Deploy a minimal Gitlab server on the cluster using ArgoCD. The GitLab should be functional. Port forwarding it out of the cluster is enough in terms of exposing it.
4. Add a simple script that resets the Gitlab password. Change the password to a user-given password.

Hint: a standard Gitlab server requires more than the resources of a t4g.medium instance, but we trust you to find a way to make it work 🙄

### Important guidelines:

1. Your solution should be simple! It should be reasonably easy to deploy this GitLab instance multiple times on multiple clusters. The argot repository/repositories structure should be as simple as possible.
2. This task should show us how fine you can get with your current abilities. Don't spare conventions on us!
3. Feel free to ask whatever question you have.
4. Feel free to impress with out-of-the-box ideas 😊

### Optional bonuses:

1. Expose the Gitlab with a load balancer.
2. Add persistence so deleting the pod won't affect the data created in the instance.
3. Transform the reset script into a CRD of GitlabRestartEvent with its own controller. This bonus is a very tough one, so don't push yourself too much on it.

Good luck, and have fun!