

Devops Engineer Code Challenge

Code challenge for Devops Engineer in Telefonica Innovacion Digital. We'd like you to design and develop a playable demo to create and deploy a helm chart.

Challenges

Challenge 1

Modify the Ping Helm Chart to deploy the application on the following restrictions:

- Isolate specific node groups forbidding the pods scheduling in this node groups.
- Ensure that a pod will not be scheduled on a node that already has a pod of the same type.
- Pods are deployed across different availability zones.
- Ensure a random script is run on every helm update execution.

Challenge 2

We have a private registry based on Azure Container Registry where we publish all our Helm charts. Let's call this registry `reference.azurecr.io`. When we create an AKS cluster, we also create another Azure Container Registry where we need to copy the Helm charts we are going to install in that AKS from the reference registry. Let's call this registry `instance.azurecr.io` and assume it resides in an Azure subscription with ID `c9e7611c-d508-4fbf-aede-0bedfab1560`.

Provide an automation for the described process using the tool you feel more comfortable with (terraform or ansible are preferred).

You can assume the caller will be authenticated in Azure with enough permissions to import Helm charts into the instance registry and will provide the module a configured helm provider.

Challenge 3

Create a Github workflow to allow installing helm chart from Challenge #1 using module from Challenge #2, into an AKS cluster (considering a preexisting resource group and cluster name).

How do we evaluate the test?

1. How clear your code is.
2. How clear your explanation is.
3. Easiness to run the code.