Flask Application deployment procedure

On each instance, the flask app is deployed when the instance is in a running state. The python application is created in the directory home/ubuntu/flask-server after installing a python virtual environment and flask. The application runs on 0.0.0.0 at port 80. The bash script to be executed in each instance is contained in a python file (app\_cluster1.py and app\_cluster2.py).

For machines in the cluster 1, the app will route the requests to the URL /cluster1, and for machines in cluster 2, the app will route the requests to the URL /cluster2. The text returned is

Instance {AWS\_INSTANCE\_ID} is responding now!

ELB setup

The elastic load balancer is an application load balancer. Two target groups are attached to this load balancer using listeners. The first listener uses the port 8080, the second one uses the port 8000. First, the 2 types of instances are created (four M4.large instances and five T2.large instances or vice versa). Each type of instance will be in a target group. The target groups will each be in an auto scaling group, with minimum one instance and maximum 4 or 5 instance, depending on the number of instances in the target group.