Revature Antarctica

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The purpose of this document is to explain, in detail, the architecture of the Revature Antarctica website. The website consists of several pieces including an instance group, bastion, load balancer and NAT. Below you will find the explanation for each piece’s purpose and how they interact.

**THE GROUP**

The server group is an auto-scaling instance that contains the server code and runs the website. It is managed by the load balancer, accessible through the bastion and given internet access by the NAT.

**THE LOAD BALANCER**

The purpose of the load balancer is to manage HTTPS traffic into the instance group and monitor the health of the individual instances, spawning new ones if the old ones go down. It contains the certificate of the server instances and allows in only the proper type of traffic.

**THE BASTION**

The bastion instance is the only way to access the server instances via SSH. Even the google console is blocked from SSHing into the instances. In order to access them, you must SSH first into the bastion and use that to perform maintenance on the instances.

**AUTO-UPDATING**

The instances are running a Crontab that pulls from the bucket so that any changes to the code will be updated in a few minutes. The images on the site are pulled from a bucket using a cloud function so that they update instantly.

