

# Platform Engineer Test

## Scenario

At Gousto we use the open source event analytics platform [Snowplow](#). Snowplow is made up of a number of different components, one of those being a collector. The collector receives data from Snowplow trackers and logs that data to S3 for storage and further processing.



We would like to introduce a Clojure based collector into our environments. The Clojure collector has been designed to run on [Amazon's Elastic Beanstalk](#). However, we have invested heavily at Gousto in CloudFormation and Ansible based configuration management and so would like to deploy the collector in a similar manner. Your task is to create a CloudFormation template and any other associated supporting files that completely encapsulates the deployment of a Clojure based collector into an AWS environment.

The Clojure collector itself is available as a WAR file from <http://d2io1hx8u87710.cloudfront.net/2-collectors/clojure-collector/clojure-collector-1.1.0-standalone.war>

## Requirements

- The WAR file should be deployed into Tomcat 8
- Please feel free to choose an OS you feel most comfortable with
- All AWS components should be defined using a CloudFormation template or set of templates
- Configuration of the instances themselves should be done using a configuration management tool (We use Ansible but feel free to choose another)
- The Clojure collector should be deployed in a highly available manner
- The Clojure collector should adjust to increases in load
- In order to support the Clojure collector I would like to be alerted when CPU goes above 70% for more than 10 minutes

## Not expected

- In order to be able to process the logs created by the Clojure collector they would normally be shipped to S3, we are not expecting log shipping for this task
- We are not expecting to see any other components of the snowplow architecture

## Tips


- Are all parts of your architecture highly available?
- What about the configuration management tool itself? (Assuming you need infrastructure to run your config management tool at all)

## What does success look like?

The Clojure collector is simply used to drop a 1x1 tracking pixel onto the page. To test your collector has been deployed correctly please make the Curl Request as follows:

```
curl http://<endpoint>:8080/clojure-collector-1.1.0-standalone/i
```

You should see a response contain a GIF image:



A terminal window titled "shuan — -bash — 122x24" showing a series of 18 empty shell prompts. The 19th prompt is followed by the command `curl http://52.48.189.91:8080/clojure-collector-1.1.0-standalone/iGIF89a????!?,D`. A red arrow points from the word "Success!" to the terminal output area, indicating the command was successful.

```
shuan$ curl http://52.48.189.91:8080/clojure-collector-1.1.0-standalone/iGIF89a????!?,D
```

Success!

## What to send us

Please send back a zip file containing all of the assets required for us to stand up your CloudFormation template in our AWS account using our default VPC

Please also include a README explaining your solution along with any relevant instructions to get things set up.

**Good luck!**