

## Exercise – Puppet and Docker (and aws)

### Objective

This exercise is not going to guide you through step by step, but instead ask you to host a docker container on a server. Using what you know from the previous exercises and the slides, see if you can write a puppet module to download and host the container.

### Task

- Create a new **puppet agent** server in aws
- Install the **docker** module on **puppet master**:

```
$ sudo puppet module install puppetlabs-docker
```

- Generate a new module called **helloscalatra** which will pull down the **docker** container for the **hello-scalatra** project we have been using before

```
$ cd /etc/puppetlabs/code/modules
$ sudo puppet module generate qa-helloscalatra
$ sudo vi helloscalatra/manifests/init.pp
```

```
class helloscalatra {
  include 'docker'

  exec {'stop containers':
    command => 'docker rm -f hello-scalatra',
    path => '/usr/bin',
  }

  exec { 'delete image':
    command => 'docker rmi <username>/hello-scalatra',
    path => '/usr/bin',
  }

  docker::image { '<username>/hello-scalatra':
    ensure => 'present',
  }

  docker::run { 'hello-scalatra':
    image    => '<username>/hello-scalatra',
    ports => ['80:8080'],
  }
}
```

You will need to ensure that you open the ports for the project (port 8080)

```
$ puppet parser validate helloscalatra/manifests/init.pp
```

- Install your agent on the new **puppet agent** server:

```
$ curl -k https://<PUPPET-MASTER-  
HOST>:8140/packages/current/install.bash | sudo bash
```

- Execute your agent server:

```
$ puppet agent -t
```

- On the *puppet master* identify your *node* and *create* a *new group* which will apply your *helloscalatra* module.
- If everything has worked, point a browser at the agent's IP address on port 80 and you should see the hello-scalatra project.

[http://\[agent ip\]/scalatra-maven-prototype](http://[agent ip]/scalatra-maven-prototype)

You may need to run the agent twice to ensure the container is started without any problems. There is an error generated the first time the manifest runs as it tries to remove an image that doesn't exist.

## Stretchers

- Use puppet to define and create servers in aws
- Investigate whether this is a good plan or not - much like autosigning certificates, this is a contentious issue

