

Use [Vagrant](#) and [VirtualBox](#) to spin up two virtual machines running a Linux distro of your choice. If you've never done this before, here's a good tutorial (<https://www.vagrantup.com/intro/getting-started>). On one machine, run a MySQL server. On the other machine, run a basic web application written in the language of your choice that exposes the following interface over HTTP:

```
$ curl --data "username=foo@foo.com&password=abc123" -X POST /session
```

```
HTTP/1.1 201 Created
```

```
Content-Type: application/json;charset=UTF-8
```

```
{  
  "token_id": "37ac8a3c02de21d79e598c908e5ac4c4d455d690"  
}
```

Your application should accept any valid email address and password combination. It should use the MySQL server on the other machine to store session IDs. Pay attention to web application security best practices when implementing this session creation endpoint.

Use an appropriate configuration management tool (e.g. Puppet, Chef, Ansible) to:

- Configure and run MySQL and your application
- Restrict network access between the two machines to only traffic required to operate your application
- Harden the operating system and applications on both machines against potential security threats
- Install tools for auditing the operating systems, applications and network for security incidents. Self-written and open source third party tools are acceptable, but do not use proprietary tools written by third parties.

Share your solution by placing the configuration code into a public git repository on a service like [GitHub](#).

Finally, add a README to your git repository that answers the following questions:

- Is there anything you'd do to further secure this application or the systems running it?
- How will you know if a security compromise has occurred?
- Are there any proprietary third party tools you would have used if you could?

***Please make no references to Comcast or any subsidiaries to Comcast when posting to GitHub.***

You will have a week to accomplish the task. Thank you and looking forward to receiving your results.