**Proxmox HA**

Add one more instance of proxmox if you don’t already have 3. So, by the end of this project, you will have a total of 3 instances of proxmox and one instance of Freenas(TrueNas) that is running as your nfs server. We need 3 instances in order to do High Availability. Some of these instances might be virtualized.

**High Availability**

1. You should already have two templates from the previous assignment. (ubuntu and pokemon)
2. Enable HA on proxmox. Assign a pokemon clone to have HA.
3. Make sure that if a node in your cluster fails, that your vm will restart on another node (this takes around 3 minutes).

**Different VLANS**

Clone 3 virtual machines from your ubuntu template. You should have the following setup:

- (vm1) Create this vm in the vlan that is checked out to you on [vm.cs.dixie.edu](http://vm.cs.dixie.edu) webpage.
- (vm2) Do the same as the previous step but in vlan 321
- (vm3) Do the same as the previous step but in vlan 322

See below for ip allocation.

**Helps**

- The nfs iso share is at [144.38.192.167:/vol/student_vm/qemu/iso](http://144.38.192.167:/vol/student_vm/qemu/iso)
- Here are the vlan numberings. You don’t have to do much with ipv6 as your nic should automatically get an ip address. I have listed the default ipv6 gateway that your machine will use.

<table>
<thead>
<tr>
<th>Vlan</th>
<th>ipv4</th>
<th>ipv6</th>
</tr>
</thead>
<tbody>
<tr>
<td>321</td>
<td>10.160.x.y/16</td>
<td>2001:1948:B10:2271::1/64</td>
</tr>
<tr>
<td>322</td>
<td>10.170.x.y/16</td>
<td>2001:1948:B10:2272::1/64</td>
</tr>
</tbody>
</table>

**Inception**

Not necessary to do this, but it is fun.

To virtualize a proxmox instance you need to follow the instructions [here](http://example.com). Essentially add the required line to the file on your physical proxmox server and reboot. Then make sure that your nested instance uses the CPU type of host.

**To Pass off**

Prove that you have done everything. Demonstrate that each vm can ping the gateway. To ping the ipv6 gateway you do something like `ping6 2001:1948:B10:2270::1`.