A Quick Introduction
Faculty of Computer Science
Fall 2020
OpenStack is an open standard cloud computing platform where virtual servers and other resources are made available to users.

Our local OpenStack install is running the Rocky version.
Uses

- Students can create virtual machines and other resources in a private cloud environment
- Students can fully administer their VMs and build from the bottom up (e.g. Web stack)
- Professors can provide a VM image with just the software necessary for a course
- As a scaffold to build up an integrated infrastructure that can borrow resources between projects
Modules Available

- Horizon (dashboard)
- Nova (compute service)
- Glance (image service)
- Neutron (software defined networking)
- Cinder (block storage)
Current Install

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>276 cores in 14 compute nodes</td>
<td>≈ 600 GB RAM in 14 compute nodes</td>
</tr>
<tr>
<td>Untested user managed networks</td>
<td>≈ 140 TB of block storage</td>
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<tr>
<td>1,000 public IP addresses</td>
<td>Dal VPN required from off-campus</td>
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<td></td>
<td>All faculty and students have access</td>
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• Request only what you need.
• Create your volume in block storage instead of locally.
• If a flavor doesn’t suit your needs, please consult with the CS Help Desk as we can adjust.
• If your instance is not longer required, please delete it, or inform cshelp as we can kill them off.
• Long running instances that have been abandoned will be purged.

Best Practices
https://openstack.research.cs.dal.ca/horizon

- Domain: dalfcs
- User Name: <your_CSID>
- Password: <your_CSID_password>