Using pip3 to install Python3 modules

Installing pip3

pip3 is not installed by default. It is only available if you've installed a custom version of Python 3. When you install a custom version, pip3 is installed with it.

- Installing a custom version of Python 3

Using pip3

Once installed, run the following to activate your local Python environment.

```
[server]$ . ~/.bash_profile
```

You now have access to pip3. Confirm this by running the following:

```
[server]$ pip3 --version
pip 18.1 from /home/username/opt/python-3.6.2/l
```

Upgrading pip3

At this point, it's a good idea to upgrade pip3.

```
[server]$  python3 -m pip install --upgrade pip
Collecting pip
  Downloading https://files.pythonhosted.org/pa
    100% |████████████████████████████████| 1.3
Installing collected packages: pip
  Found existing installation: pip 9.0.1
    Uninstalling pip-9.0.1:
      Successfully uninstalled pip-9.0.1
Successfully installed pip-18.1

[server]$  pip3 --version
pip 18.1 from /home/username/opt/python-3.6.2/l
```

Installing custom modules within your virtual environment

When working with Python projects, it's always a good idea to create a virtual environment. This allows you to create an isolated environment, separate from the system version of Python. Any changes you make to this virtual environment only affects the single project, nothing else. In this way, it's a very safe way to test your projects as they can be deleted and rebuilt very easily. View the following article for further details.

To use pip3 to easily install custom modules:

1. Install a custom version of Python3 and create a virtual environment.
2. Make sure you're in the same directory as the virtual environment you created.
3. Run the following command to activate this new virtual environment.

```
[server]$ source venv/bin/activate
```

The name of the current virtual environment appears to the left of the prompt. For example:

```
(venv) [server]$
```

4. Use pip3 to install a module:

```
(venv) [server]$ pip3 install <module>
```

For example, you can use 'python-openstackclient' if you're going to work with openstack.

```
(venv) [server]$ pip3 install python-openst
```