LAB

Explore Kubernetes

Lab Objectives

This lab has you run a few different commands to familiarize yourself with kubectl

Lab Structure - Overview

1. List Kubernetes Pods and nodes
2. List Kubernetes Services and Namespaces
3. Look at Kubernetes components

Lab Overview

Conventions

Lab Guide Conventions

`reboot`	Any text a student needs to enter is printed like this.
<your.ip>	Any time a student needs to insert their own value, the text has brackets.
File	User Interface (UI) buttons and objects are bold.
Special Font	Unusual or important words or phrases are marked with italics.

Code Blocks

Blocks of sample code are set apart from the body and marked accordingly. It is recommended that students do not copy/paste text from the lab into their files. Extra formatting is often transferred in this process and can result in failed operations.

```
# ls -l /var/www/html/index.html
-rw-rw-r--  1 root root 1872 Jun 21 09:33 /var/www/html/index.html
# date
Wed Jun 21 09:33: 2. Deploy WordPress All-In-One and the WordPress CLI
```

List Pods and Nodes

Step by Step Guide

Step	Action
1.	Log into Master server.
3.	In the command line enter the following to list Pods in the default namespace `kubectl get pods` This will output running Pods in the default namespace
4.	Run the following to list Pods in all namespaces . `kubectl get pods --all-namespaces`
5.	Run the following to list nodes `kubectl get nodes`
6.	Now list nodes and additional information (labels etc…) `kubectl get nodes -o wide`

List Services and Namespaces

Step by Step Guide

This process will take approximately 5 minutes.

Step	Action
1.	Run following to list Services `kubectl get services` TIP: Run above command substituting services for svc
2.	Now list Services in all Namespaces `kubectl get svc --all-namespaces`

Step	Action
3.	Let's list all Namespaces `kubectl get namespaces` TIP: Can you shorten namespaces and still get results?
4.	Try to create a new Namespace

Explore Kubernetes

Step by Step Guide

This process will take approximately 5 minutes.

Step	Action
1.	Look at kubectl documentation `kubectl --help` TIP: try adding --help to the end of any kubectl command to learn more
2.	Use kubectl to see what is running on cluster `kubectl get <whatever you want>`
3.	Explore your Kubernetes cluster. Play around with services and PODs.
4.	Look at details of nodes `kubectl describe node <node from cluster>`
5.	Look at POD details `kubectl describe pod -n kube-system kube-dns`
6.	Check out service details `kubectl describe svc kubernetes`
7.	Look at deployment details `kubectl describe deployment -n kube-system kube-dns`

Lab Complete!