YAML

YAML, which stands for Yet Another Markup Language, or YAML Ain't Markup Language (depending who you ask) is a human-readable text-based format for specifying configuration-type information. For example, in this article, we'll pick apart the YAML

- maps, which are groups of name-value pairs
- lists, which are individual items
- maps of maps
- maps of lists
- lists of lists
- lists of maps

First app

- Let’s run our newly built application on the new Kubernetes cluster
- Before we can launch a container based on the image, we need to create a **pod definition**
- **A pod** describe an application running on kubernetes
- A pod can contain one or more tightly coupled containers, that make up app
  - Those apps can easily communicate with each other using their local **port numbers**
- Our app only has **one** container

Demo Placeholder

- Running first app on kubernetes

Demo

- CREATING POD WITH LABELS USING YAML
- a simple manifest that creates 2 containers.

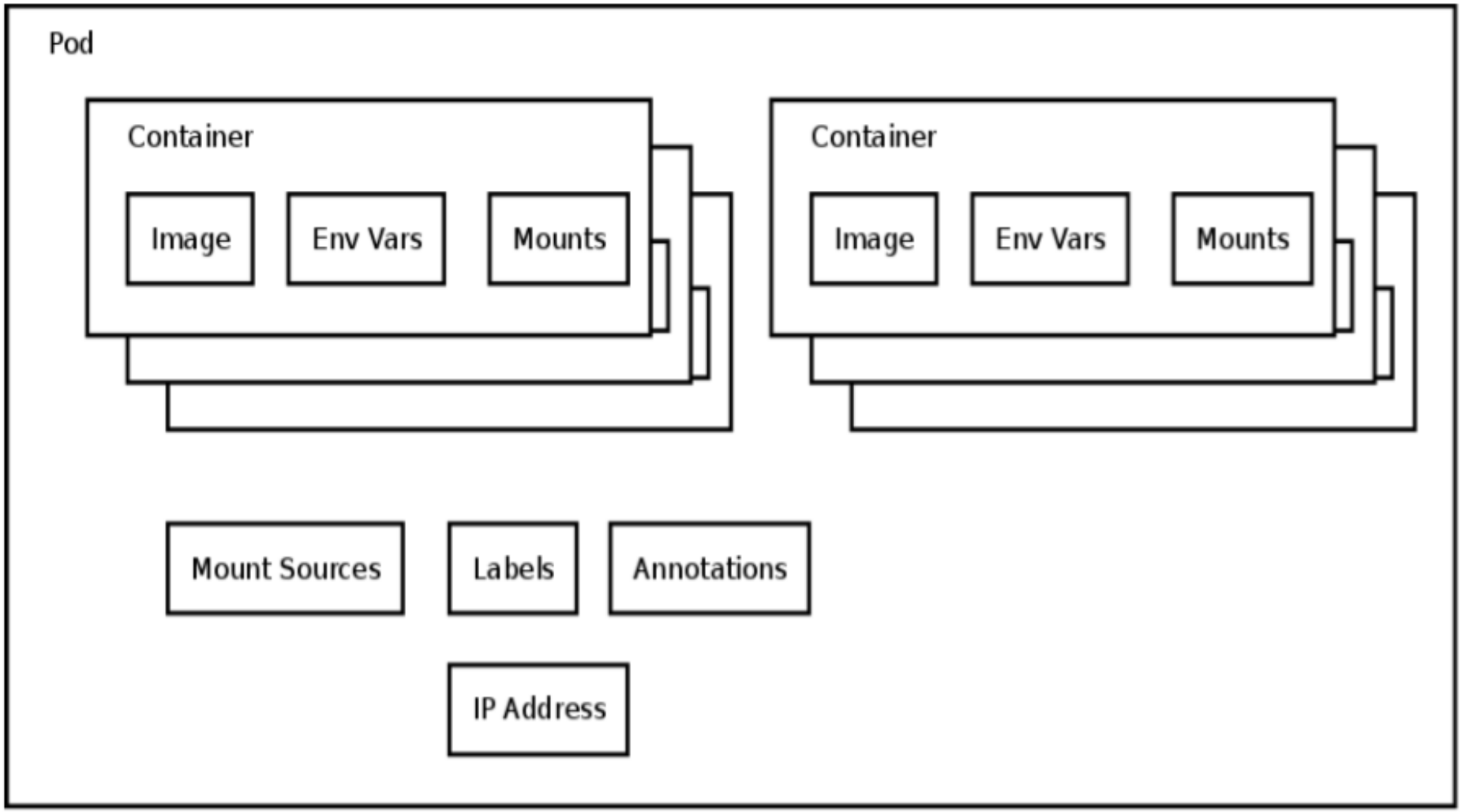
Pods

- Group of one or more containers that are always co-located, co-scheduled, and run in a shared context
- Containers in the same pod have the same hostname
- Each pod is isolated by
  - Process ID (PID) namespace
  - Network namespace
  - Interprocess Communication (IPC) namespace
  - Unix Time Sharing (UTS) namespace
- Alternative to a VM with multiple processes

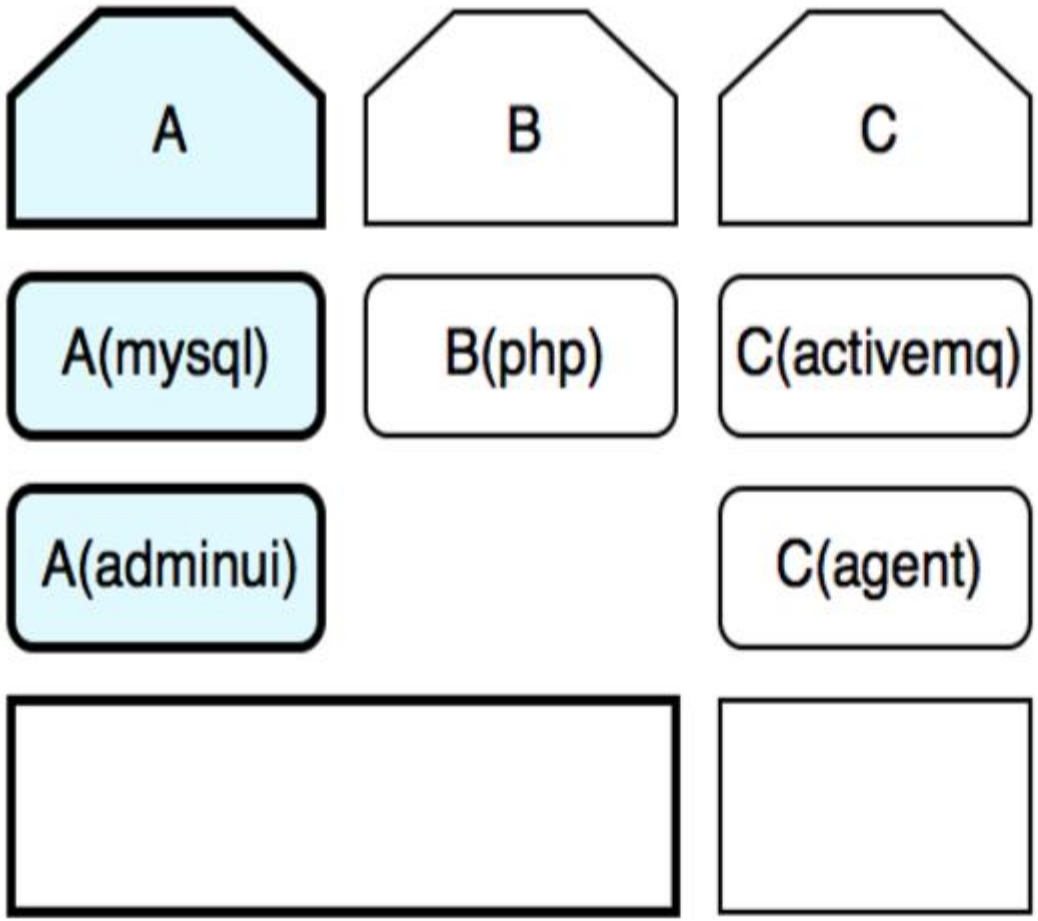
Pod

- Single schedulable unit of work
  - Can not move between machines
  - Can not span machines
- One or more containers
  - Shared network namespace
- Metadata about the container(s)
- Env vars – configuration for the container
- Every pod gets an unique IP
  - Assigned by the container engine, not kube!

Pod


Pod
Container
Image
Env Vars
Mounts
Container
Image
Env Vars
Mounts
Mount Sources
Labels
Annotations
IP Address

POD (CONTINUED)



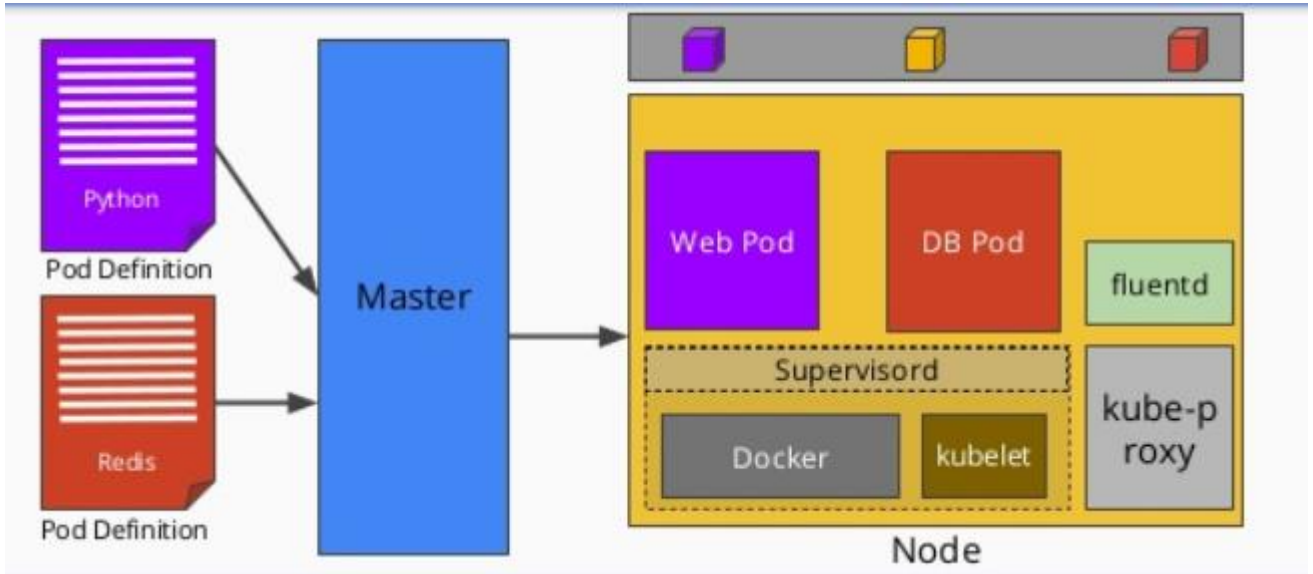
Pods
Group of related containers placed onto the same host

Docker Containers
Application processes and filesystem libraries

Hosts

Runs pods

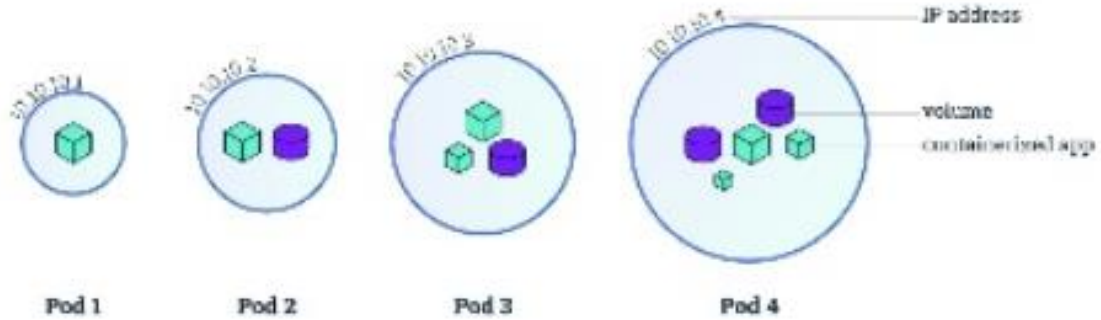
Deploying pod

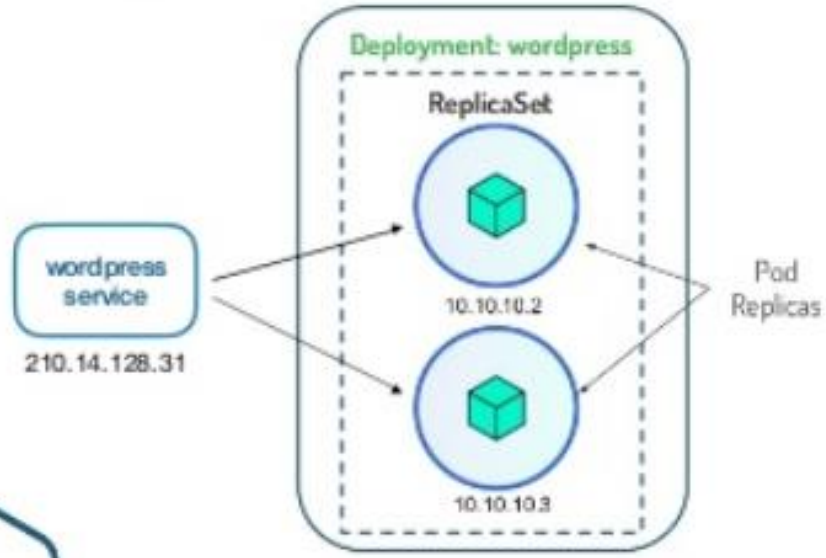


Demo Pods

- How to create a pods

Kubernetes Objects






THANK
YOU!