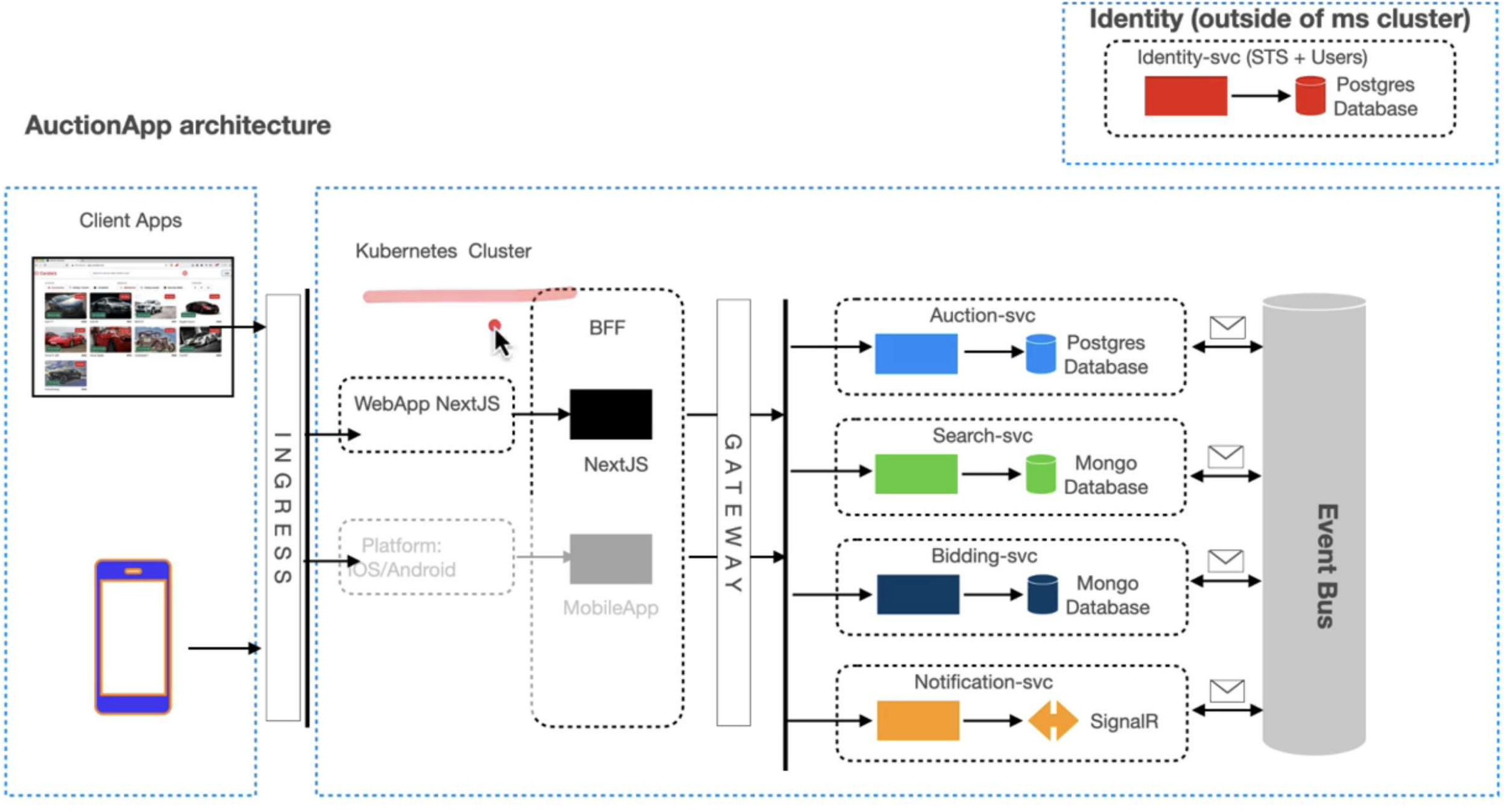
Section 16: Appendix B - Publishing to Kubernetes (locally)

0 / 20 | 2hr 50min

- [ ] 202. Intro to Appendix B - Kubernetes
  10min
- [ ] 203. No 'depends on' in Kubernetes - using Polly to retry instead
  13min
- [ ] 204. Adding a GitHub action to push our Identity Server image to Docker hub
  15min
- [ ] 205. Deploying our IdentityServer to a Digital Ocean server
  7min
- [ ] 206. Configuring the Linux server to host the identity server
  11min
- [ ] 207. Creating the first Kubernetes manifest for a deployment
  11min
- [ ] 208. Adding a persistent volume claim
  7min
- [ ] 209. Adding a load balancer to allow us to connect to the postgres deployment
  5min
- [ ] 210. Adding a cluster ip our services can use
  3min

- [ ] 211. Creating a deployment for RabbitMQ
  7min
- [ ] 212. Creating a Mongodb deployment
  5min
- [ ] 213. Creating the auction service deployment
  11min
- [ ] 214. Creating the search service deployment
  6min
- [ ] 215. Creating the bid service deployment
  5min
- [ ] 216. Creating the notification service deployment
  4min
- [ ] 217. Creating the gateway service deployment
  7min
- [ ] 218. Creating the client app deployment
  8min
- [ ] 219. Adding an nginx ingress controller for docker-compose
  10min
- [ ] 220. Adding SSL to the ingress controller
  10min
- [ ] 221. Fixing Identity Server issues
  16min

AuctionApp architecture



What is Kubernetes

“Kubernetes, or k8s, is an open source platform that automates Linux container operations. It eliminates many of the manual processes involved in deploying and scaling containerized applications,”

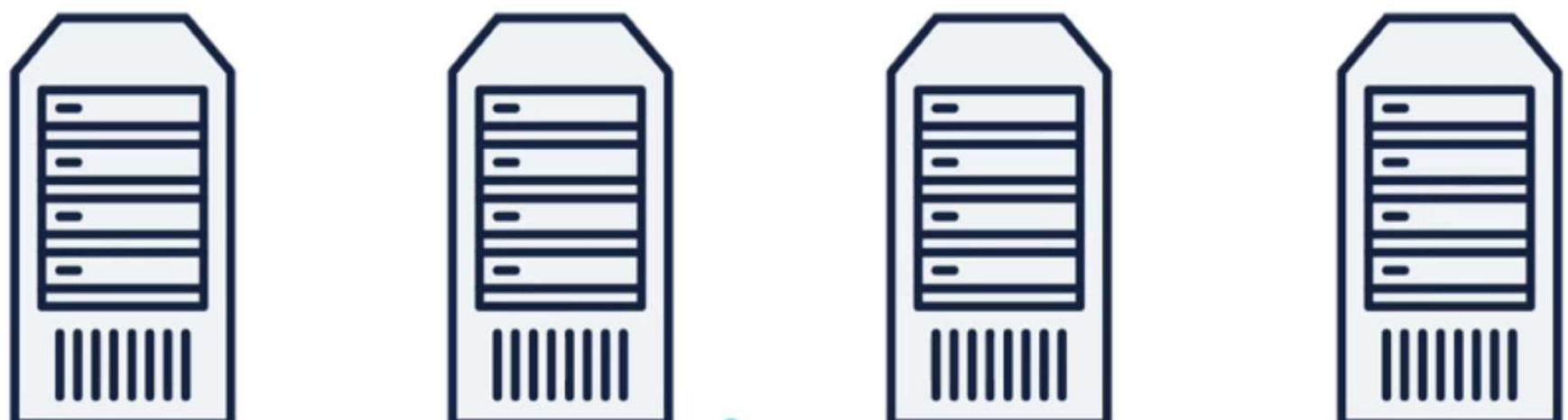
“In other words, you can cluster together groups of hosts running Linux containers, and Kubernetes helps you easily and efficiently manage those clusters.”

- Gordon Haff (Red hat technology evangalist)

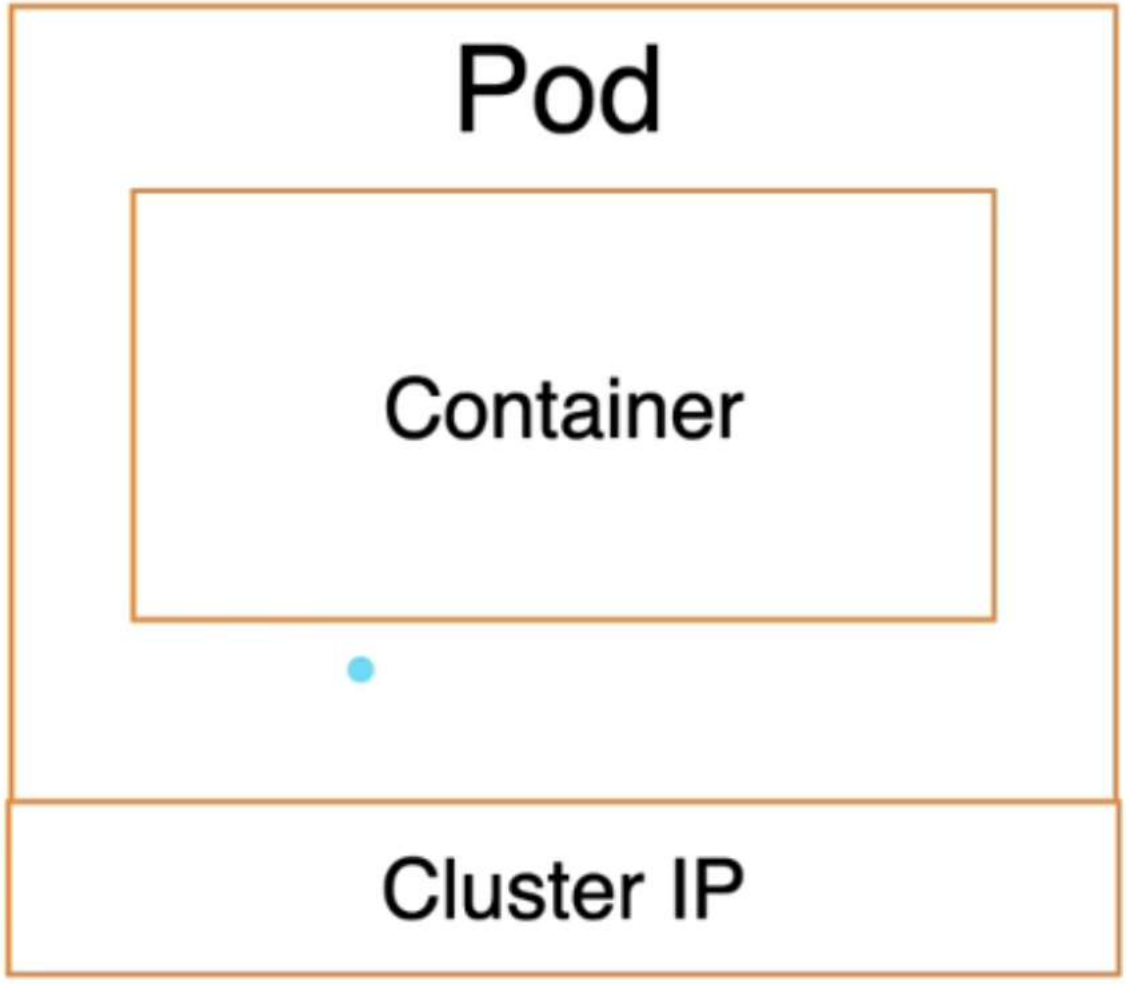
Why Kubernetes?

- Service discovery and load balancing
- Storage orchestration
- Automated rollouts and rollbacks
- Self healing
- Secret and config management

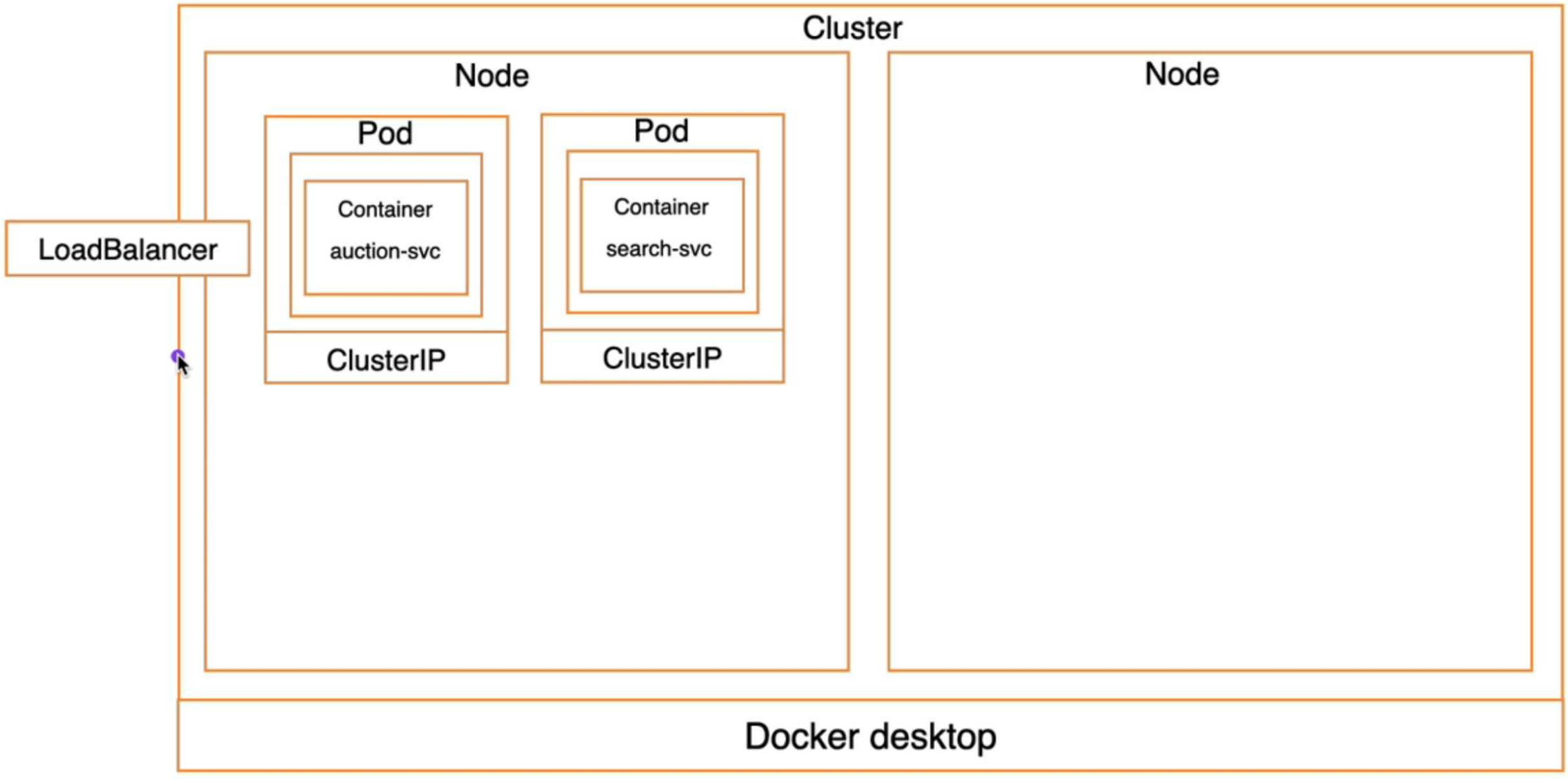
Kubernetes Cluster



Service



Kubernetes Architecture



Manifest

```yaml
apiVersion: v1
kind: Pod
metadata:
  name: my-pod
  labels:
    app: my-app
spec:
  containers:
  - name: my-container
    image: my-image:1.0
```

CarstiesApp project - DigitalOc | Welcome to the developer clou | Repositories | Docker Hub | DNS Management

cloud.digitalocean.com/projects/02d4816c-cce0-4c43-ac57-41c246227555/resources?i=21e798

Search by resource name or public IP (Cmd+B)

Create | 63 | My Team | Estimated costs: $0.00

PROJECTS

- TryCatchLearn
- Demo
- RE
- CarstiesApp
- New Project

MANAGE

- Billing
- Support
- Settings
- API

- Cloudways
- SnapShooter
- Marketplace
- Product Docs

Class project / Educational purposes / Demo app for Microservices course

Resources | Activity | Settings

Welcome to DigitalOcean!

When you build on DigitalOcean, you can have full control of your infrastructure (with product
for you (with products like App Platform, load balancers, and managed databases).

et us handle the infrastructure

Spin up a Droplet

Droplets are virtual machines that anyone can setup in seconds.

Deploy your web app

Build, deploy, and scale apps quickly using a simple, fully-managed solution.

LaunchKit

Create a pro
infrastructur

g Started

re where to start? Let us help you
tand where to begin.

Create something new

Create a Managed Database

Start using Spaces

- Droplets — Create cloud servers
- Kubernetes — Create Kubernetes clusters
- Apps — Deploy your code
- Functions — Create Cloud Functions
- Databases — Create database clusters
- Volumes — Add storage to Droplets
- Spaces — Store and serve static assets
- Domains/DNS — Route your existing domains
- Cloud Firewalls — Increase Droplet security
- Reserved ips — Reserve IP addresses for Droplets
- Load Balancers — Distribute traffic to Droplets
- Resource Alerts — Monitor your Droplets

CarstiesApp project - DigitalOc | Welcome to the developer clou | Repositories | Docker Hub | DNS Management

cloud.digitalocean.com/projects/02d4816c-cce0-4c43-ac57-41c246227555/resources?dropletIsCreating=true&i=[illegible]e798

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MANAGE

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CarstiesApp

Class project / Educational purposes / Demo app for Microservices course

→ Move Resources

Resources | Activity | Settings

DROPLETS (1)

docker-ubuntu-s-1vcpu-1gb-sgp1-01	157.245.192.65	Get started	+◎ +💧 •••

Create something new

Create a Managed Database
Worry-free database management

Start using Spaces
Deliver data with scalable object storage

Spin up a Load Balancer
Distribute traffic between multiple Droplets

Build on what you have

Add a disk to your Droplet
Create a block storage volume

Manage DNS on DigitalOcean
Manage DNS and resources in one place

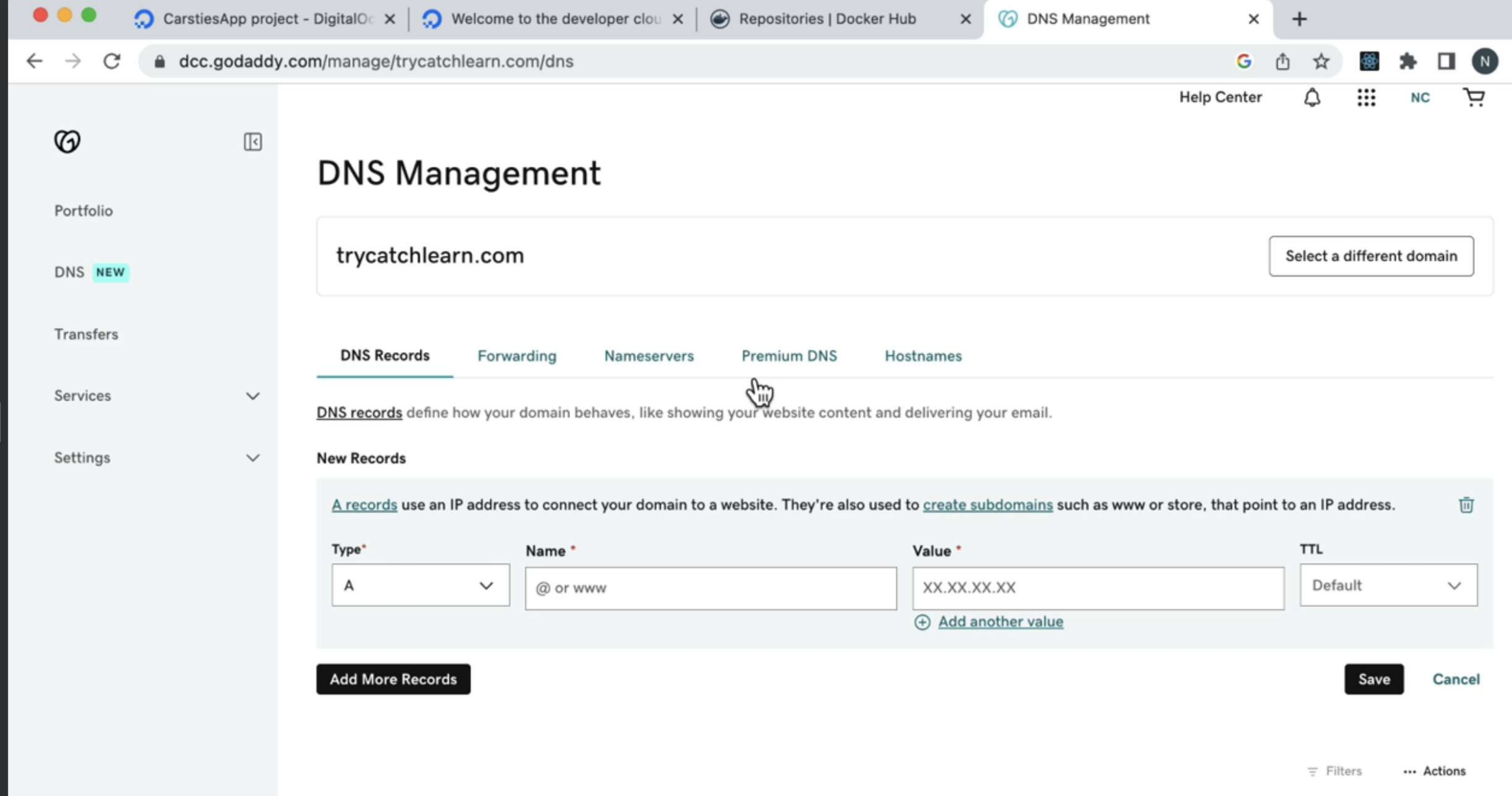
Learn more

Product Docs
Technical overviews, how-tos, release notes, and support material

Tutorials
DevOps and development guidelines

API & CLI Docs
Run your resources programmatically

Ask a question
Connect, share and learn


CarstiesApp project - DigitalO
Welcome to the developer clou
Repositories | Docker Hub
DNS Management
dcc.godaddy.com/manage/trycatchlearn.com/dns
Help Center
NC
Portfolio
DNS NEW
Transfers
Services
Settings
DNS Management
trycatchlearn.com
Select a different domain
DNS Records
Forwarding
Nameservers
Premium DNS
Hostnames
DNS records define how your domain behaves, like showing your website content and delivering your email.
New Records
A records use an IP address to connect your domain to a website. They're also used to create subdomains such as www or store, that point to an IP address.
Type*
A
Name *
@ or www
Value *
XX.XX.XX.XX
TTL
Default
Add another value
Add More Records
Save
Cancel
Filters
Actions