

Deploying an Application on Kubernetes

Ryan Tolboom

New Jersey Institute of Technology

What do we need to know about an app before we deploy on Kubernetes?

What are the different parts of this app?

Which part faces the users?

e Who are the admins?

Which parts are stateful?

What resources does this app require?

What is the baseline for use?

Containerizing the Application

- Developed internally
- Deployed to an internal container registry
- Usually the end result of a CI/
 CD pipeline



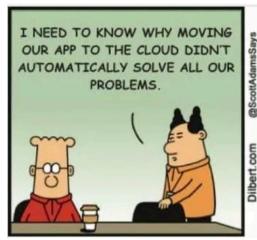
Designing K8s Objects



- Deployments
- Services
- Volumes

Ryan Tolboom K8s Deployment 5 / 8

Testing







- Can users use it?
- Can the admins use it?
- Does is scale?
- Can you update?
- Can you rollback?

Container Registry Options



- self-hosted
- <u>Docker Hub</u> (not private)
- ECR
- GCR
- ACR

Kubernetes Cluster Options

- Self-hosted
- k8s on IaaS
- k8s as a service: (<u>EKS</u> , <u>AKS</u> , <u>GKE</u>)
- What's the CR interop?

