Docker: Develop and Deploy

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3:00pm-3:50pm Wednesday, 2015/08/19
Location: Willow A
http://lccocc2015.sched.org/event/b14e38aa34e4b03b7ac6ea377c2b1f62
Agenda

1. Workshop Setup
2. Containerizing your Apps w/ Docker
3. Building and Shipping Images w/ OpenShift v3
4. Replication and Healing w/ Kubernetes
Workshop Setup

Install the `oc` command-line tool

- USB sticks available in class
- Also available on Github.com/openshift/origin/releases
Authentication

1. Log in to GitHub
2. Log in to OpenShift via the CLI: `oc login --server=openshift-master.onmy.demo.computer`
3. Log in to OpenShift on the web: [https://openshift-master.onmy.demo.computer/console/](https://openshift-master.onmy.demo.computer/console/)
Dockerizing your Applications and/or Services
Config Management

For Node.js: Config-MultiPaaS
Getting Started
with
Docker
Add a Dockerfile to your repo
Composing with Templates

- microservices → templates
- swarm
- k8s templates and object lists
- openshift templates
- AppC
- NuleCule
Building and Shipping Images
Automated Builds on DockerHub
Building and Shipping on OpenShift
Fork

Fork this: https://github.com/ryanj/smoke
Clean Up

oc delete all --all
Source to Image

Build and Deploy your fork of the smoke test repo
New Models

- BuildConfig
- DeploymentConfig
Change Triggers

- Env Change
- Image Change
ImageChange
Deploy an Image
DockerBuild
Builds based on Dockerfiles
Source 2 Image
Combine source repos and base images
WebHooks
Set up a commit WebHook
Git Push to Build and Ship

Or, use GitHub's web-based editor to make a minor change
Replication and Healing with Kubernetes
Scaling

oc scale rc/smoke-1 --replicas=3
Recovery

oc get pods
oc delete POD_ID
Homework

2. Build your own cluster in the cloud: http://github.com/openshift/openshift-ansible
Free K8s Ebook!

https://www.openshift.com/promotions/kubernetes
Thank You!

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