

# Red Hat OpenShift 1002: Containers and How to Use Them?

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**Bradston Henry**

Senior Developer, Developer Advocate | IBM North America Team

Workshop Materials Repo Link:

**<http://ibm.biz/rhos-1002-workshop-resources-bradstondev>**

# About Me:

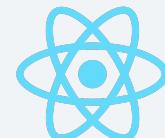
## Bradston Henry

### 7+ Years of Development and Industry Experience

- **Mobile:** iOS, React Native
- **Web:** React, JS/HTML/CSS
- **Cloud:** IBM Cloud, OpenShift, AWS
- **Game Dev:** Unity3D, Unreal(just a little)

### Hobbies

- **Game Development:** Itch.io, GMTK 2021, Android
- **Gaming:** Hades, Apex, Legend of Zelda: Link to the Past (SNES), Overcooked
- **Podcasting:** Super Agile Bros (Spotify, SoundCloud)
- **Breakdancing/Bboying** (Retired)
- **MMA** (Mixed Martial Arts)



# Agenda

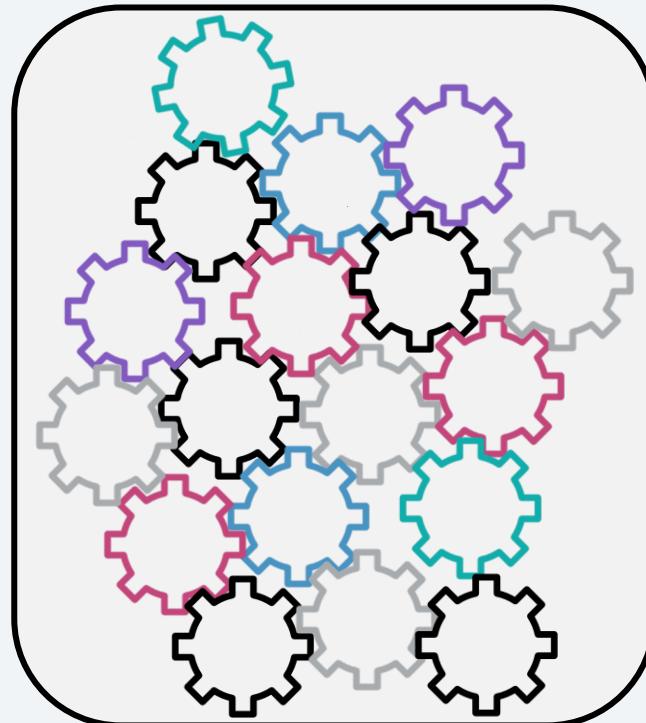
- What are Containers and Its Benefits?
- Real Time Chat App Overview
- Hands-on w/ Containers & RHOS
- What's Next

# What Are Containers?

# What Are Containers and its Benefits?

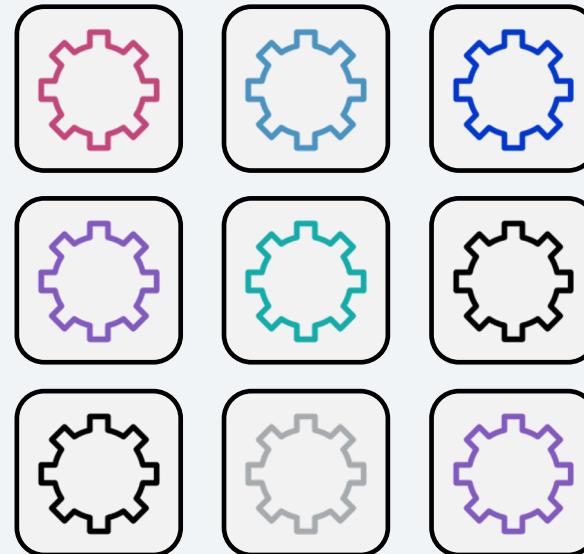
## Monolithic Architecture

Tightly Coupled – Changes are Systemic



## Microservice Architecture

Loosely Coupled – Changes Less Impactful

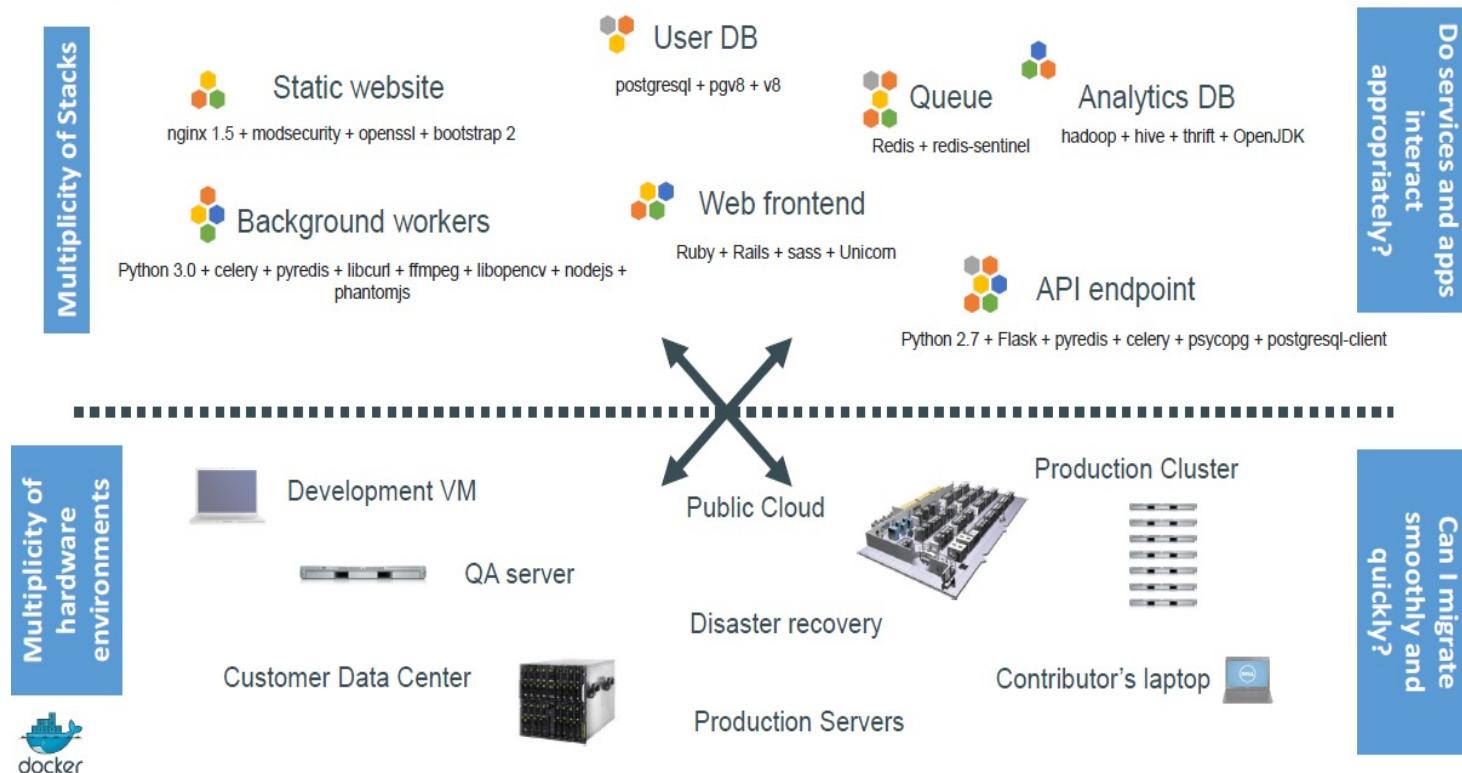


# What Are Containers and its Benefits?

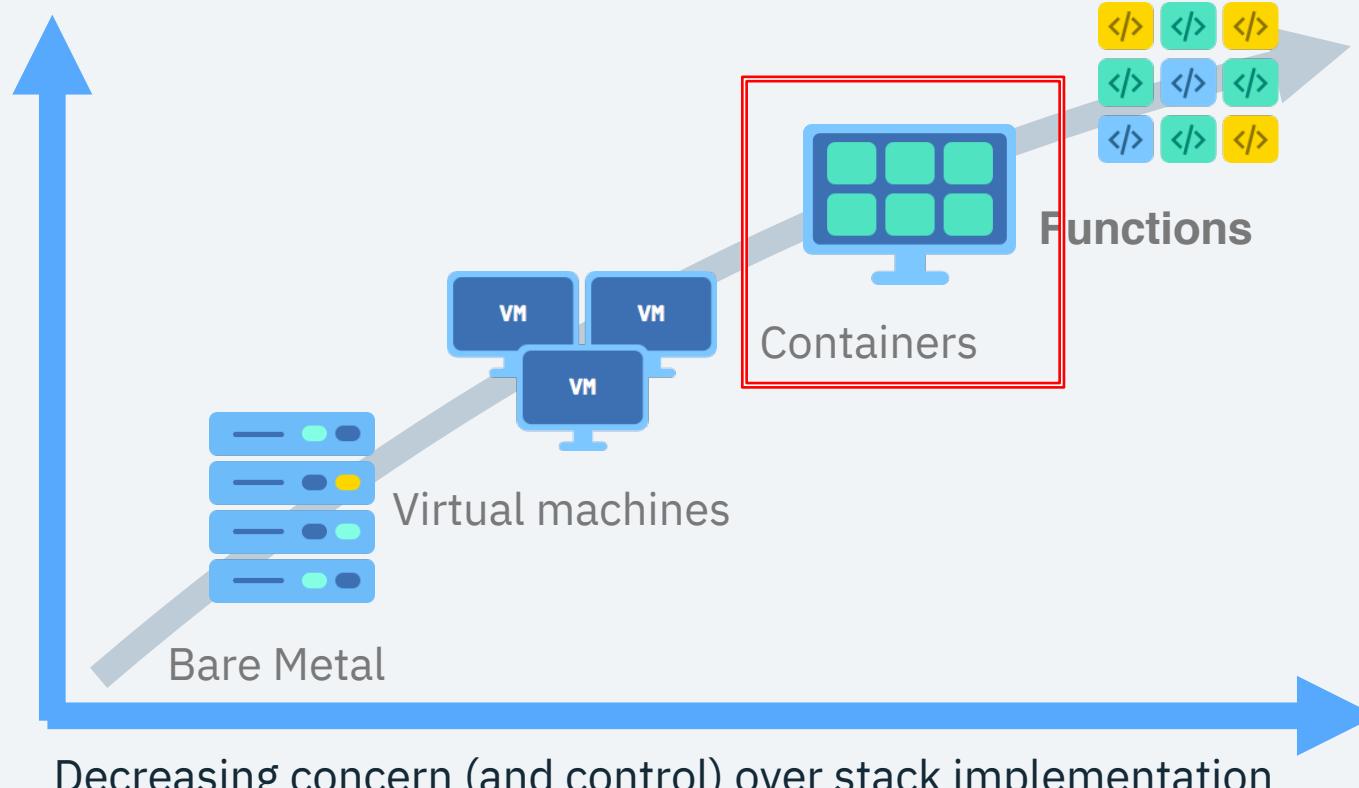


- A standard way to package an application and all its dependencies so that it can be moved between environments and run without changes
- Containers work by isolating the differences between applications inside the container so that everything outside the container can be standardized

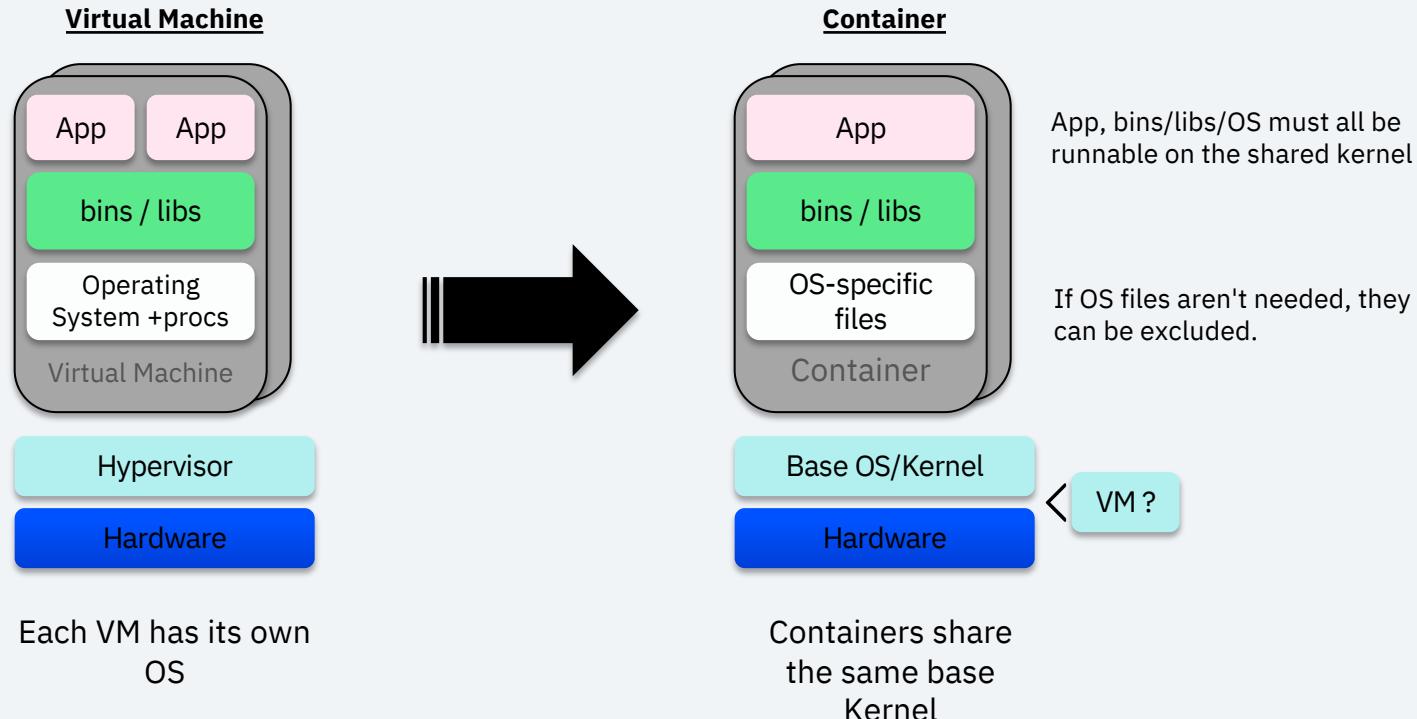
# What Are Containers and its Benefits?



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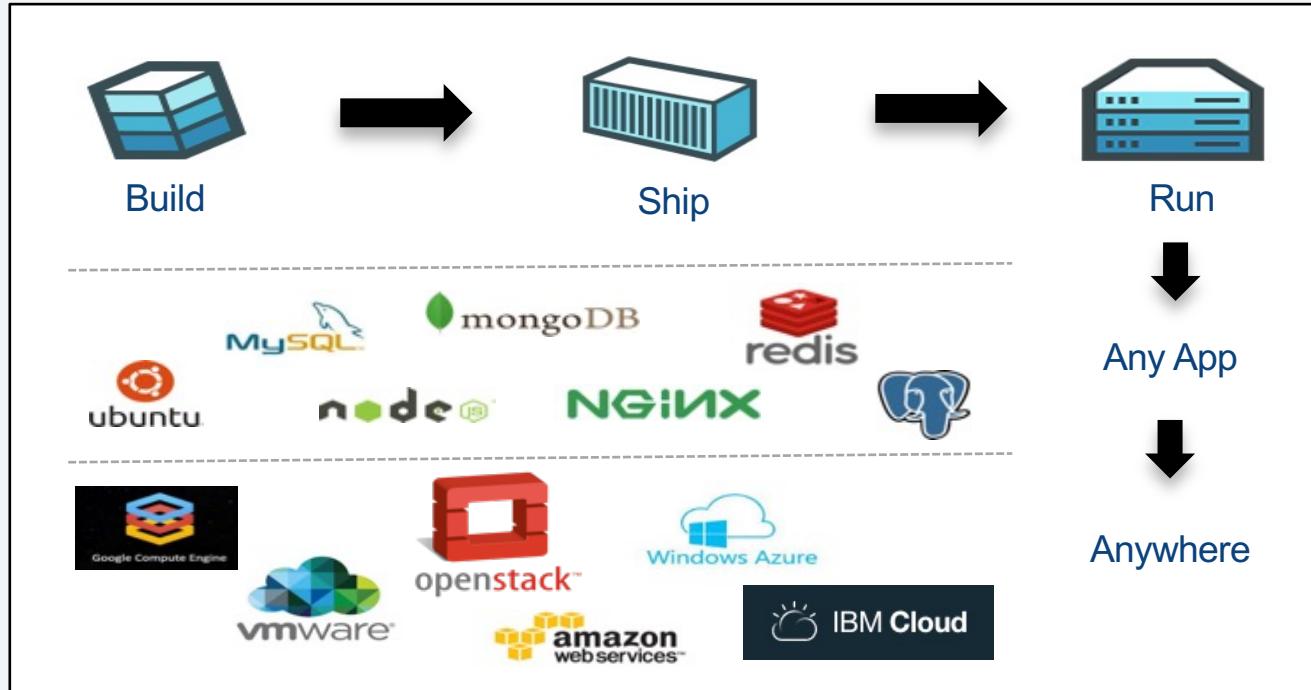
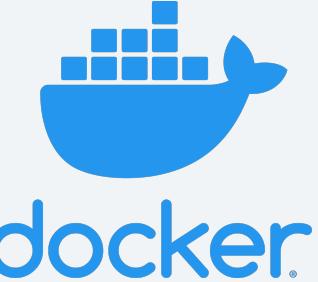


# What Are Containers and its Benefits?



# What Are Containers and its Benefits?

**Docker** is an open platform for building distributed applications for developers and system administrators/ operations engineers



# What Are Containers?

## Docker Engine

- Manages containers on a host
- Accepts requests from clients
  - REST API
- Maps container ports to host ports
  - E.g. 80 → 8080

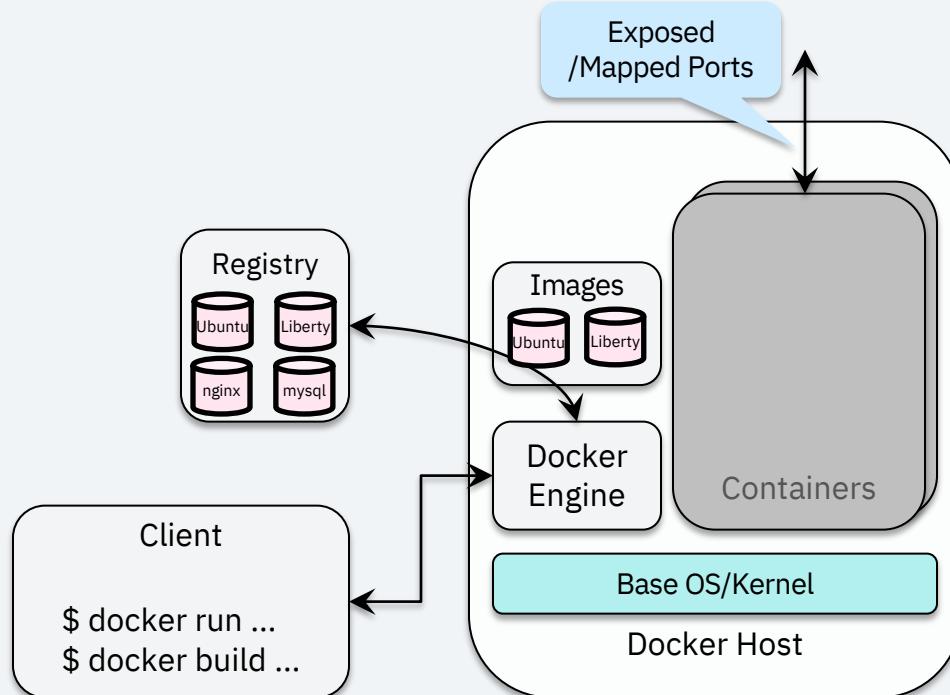
## Images

## Docker Client

- Drives engine
- Drives "builder" of Images

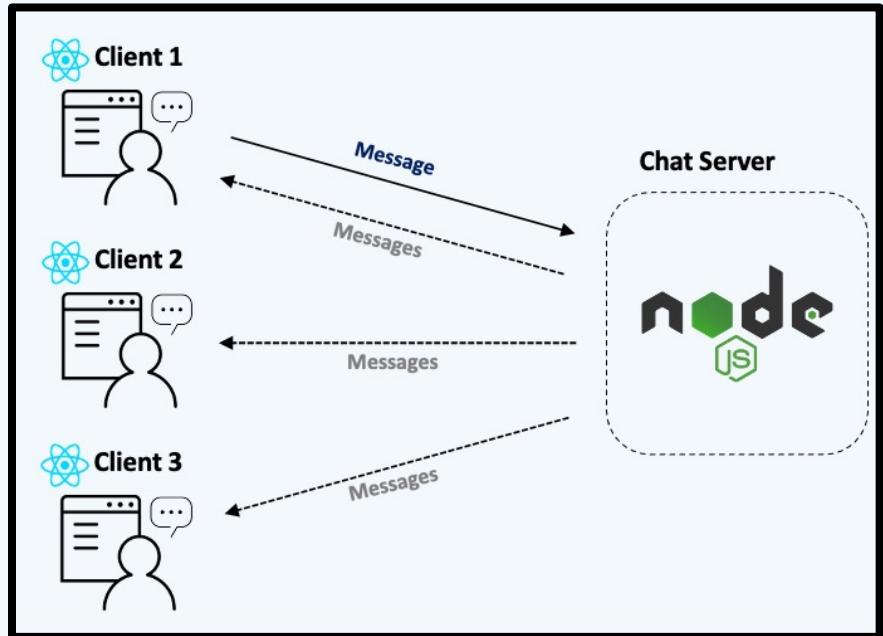
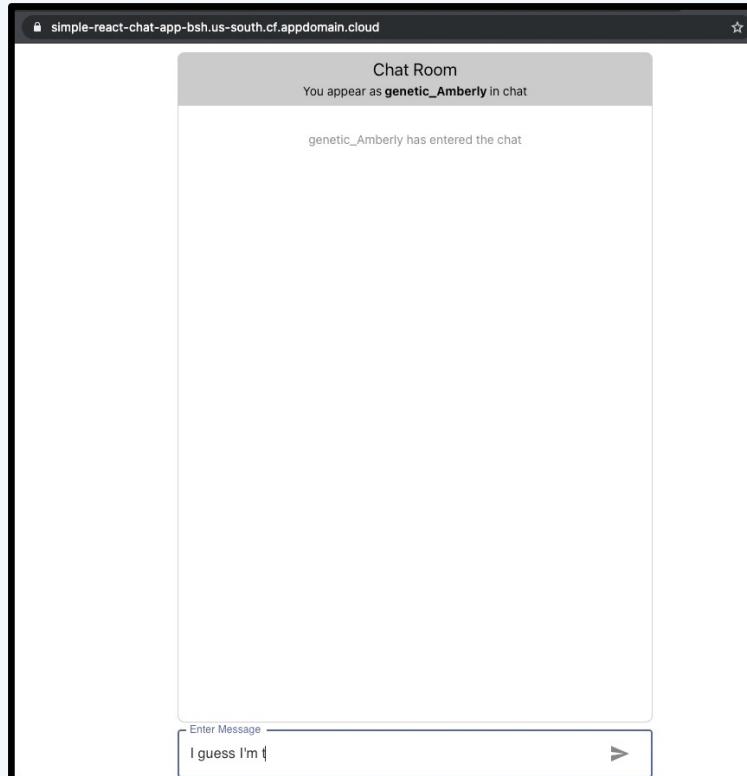
## Docker Registry

- Image DB



# Simple Chat App Overview

# Simple Chat App Overview



# Hands-on with Containers

# Continued Learning...

## Next Webinar in RHOS 1000 Series:

### **Red Hat OpenShift 1003: Containers and How to Use Them (Coming Soon!)**

## Additional Learning Resources

**Simple Guide to Deploying a Node Server to Red Hat OpenShift** (<https://ibm.biz/deploying-node-to-red-hat-openshift-bradstondev>)

**IBM Open Labs – Red Hat OpenShift** (<https://ibm.biz/open-labs-red-ha-openshift-bradstondev>)

**What are Containers: How Video Games Have Inspired Mt Containerization Journey** (<https://ibm.biz/what-are-containers-devto-bradstondev>)

**Red Hat OpenShift 101: Learn about Enterprise Kubernetes** (<http://ibm.biz/red-hat-101-crowdcast-03022021>)

**Red Hat OpenShift 101 continued: Hybrid Cloud with Kubernetes, Logging and Databases** (<http://ibm.biz/red-hat-101-pt2-crowdcast-03192021>)

**Level Up your Skills: Get Your “Build on Kubernetes” Badge with David Nugent** ([@drnugent](https://www.crowdcast.io/e/level-up-your-skills-get-2))  
(<https://www.crowdcast.io/e/level-up-your-skills-get-2>)

# Thank you for attending.

Bradston Henry

Senior Developer, Developer Advocate

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