**SAI VENNAM** - DEVELOPER ADVOCATE | IBM CLOUD

# STRATEGIES TO "KUBERNETIFY" LEGACY APPLICATIONS

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“...every dollar invested in digital business innovation will require enterprises to spend at least **three times** that to continuously modernize their legacy apps...”

Gartner 2019

Report: *State of Container-based Application Development*



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# Modernization with **Kubernetes**

IBM

# EVOLVE OR FALL BEHIND

Escape Vendor Lock-in

Reach Customers Everywhere

Unlock Unlimited Resources

Leverage New Integrations

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# Recipe for Modernization

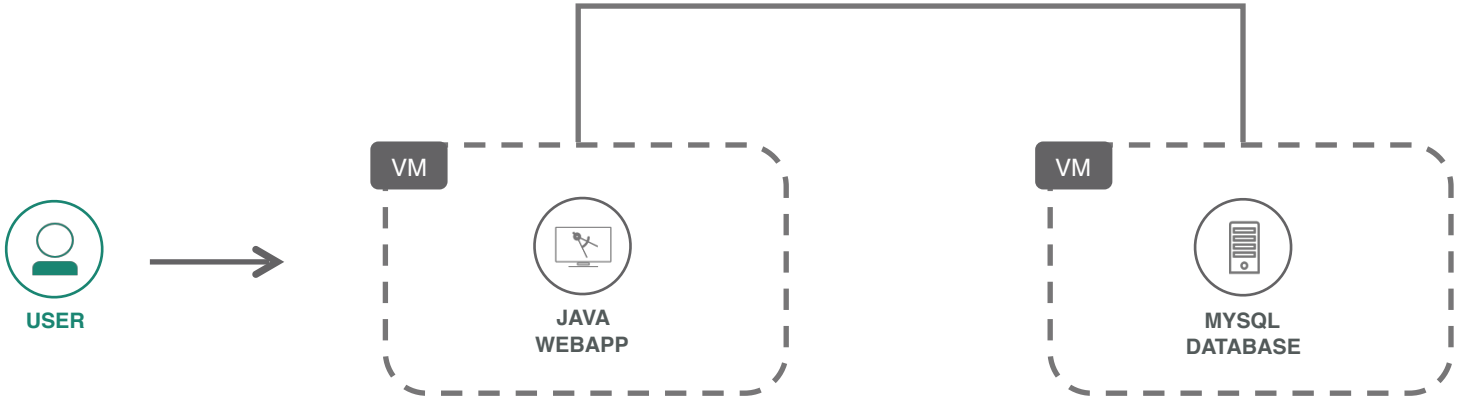
## Ingredients

- Lift and Shift
- Innovate
- Deconstruct and Refactor

# **Demo:**
# Modernize a Java app

IBM

# Old Architecture



## Lift and Shift

**Pro:** Speed with GTM

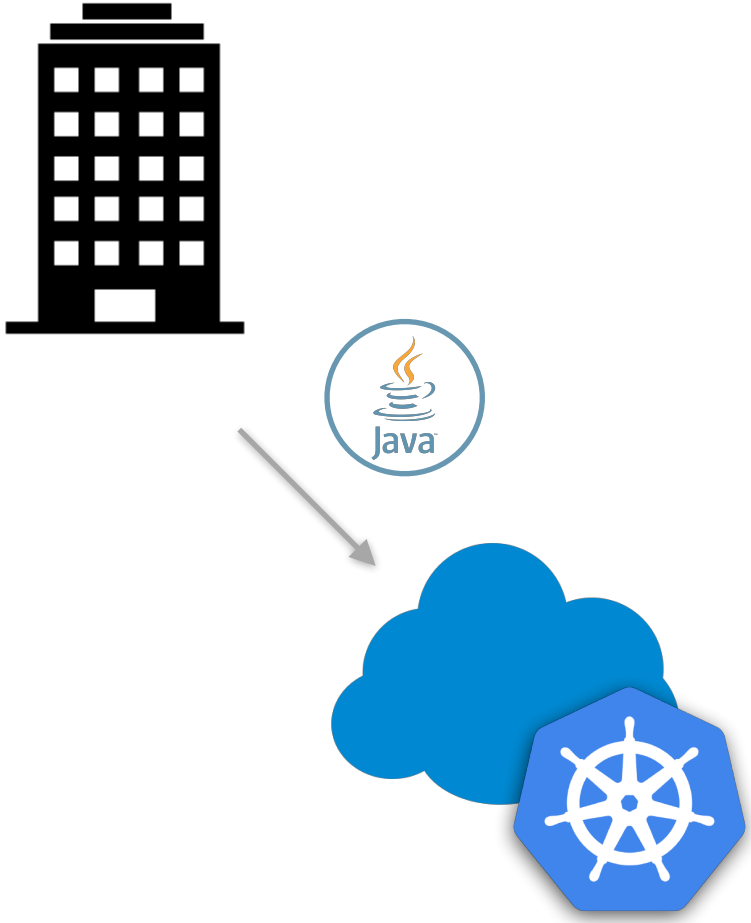
**Con:** Technical Debt

**Strategy:**

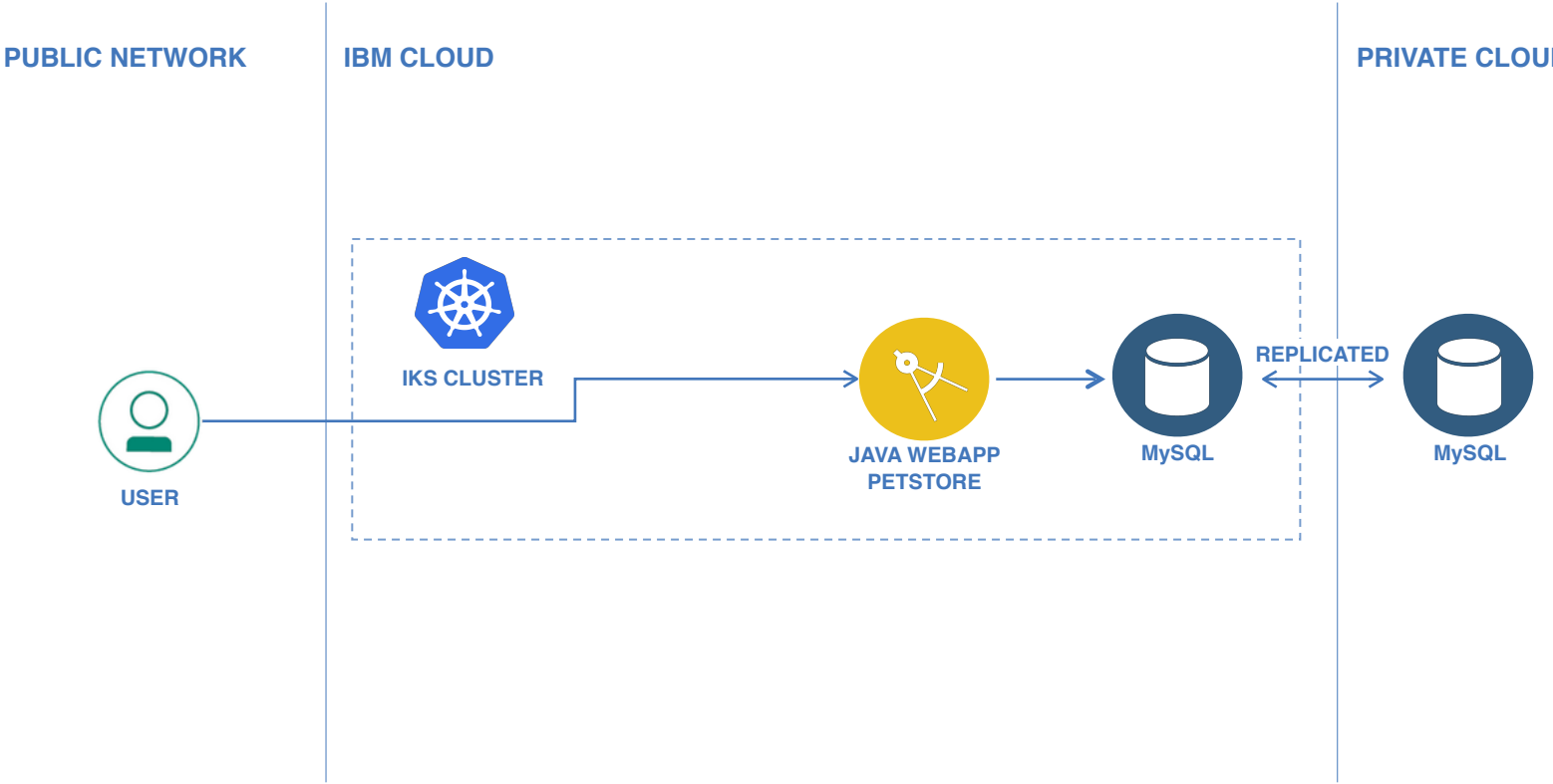
- Containerize and Kubernetify
- Extract Config
- Create Persistence for Stateful Apps

# Lift and Shift

# DEMO



# After Lift and Shift



**Innovate and Improve**

**Pro:** New end-user experiences

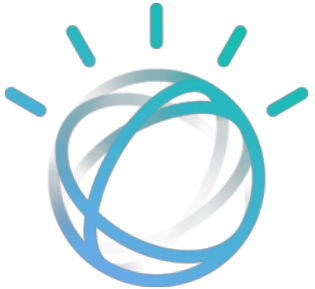
**Con:** Legacy architecture restrictions

**Strategy:**

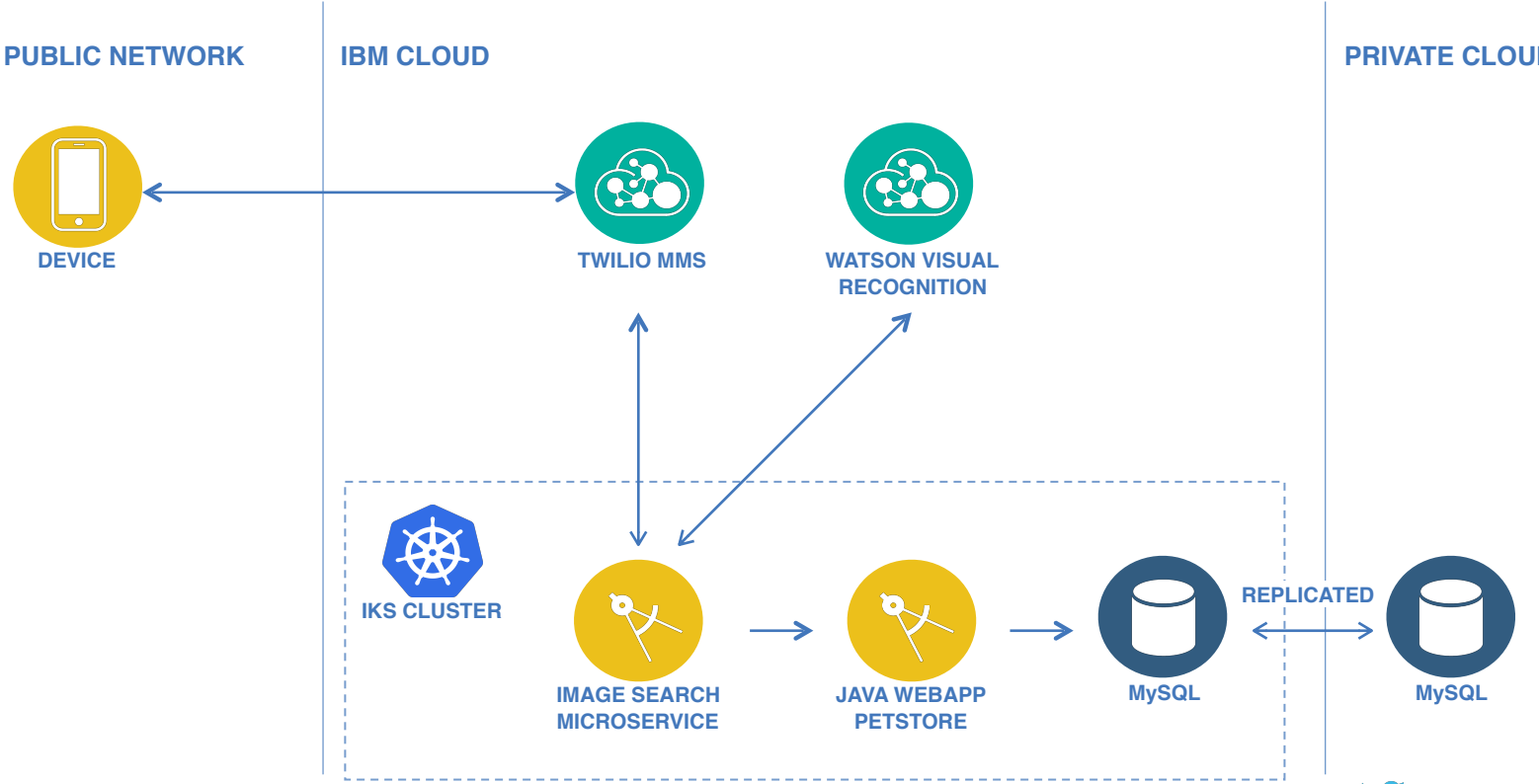
- Create new cloud-native apps
- Build off existing workloads and apps
- Identify bottle-necks

# Innovate

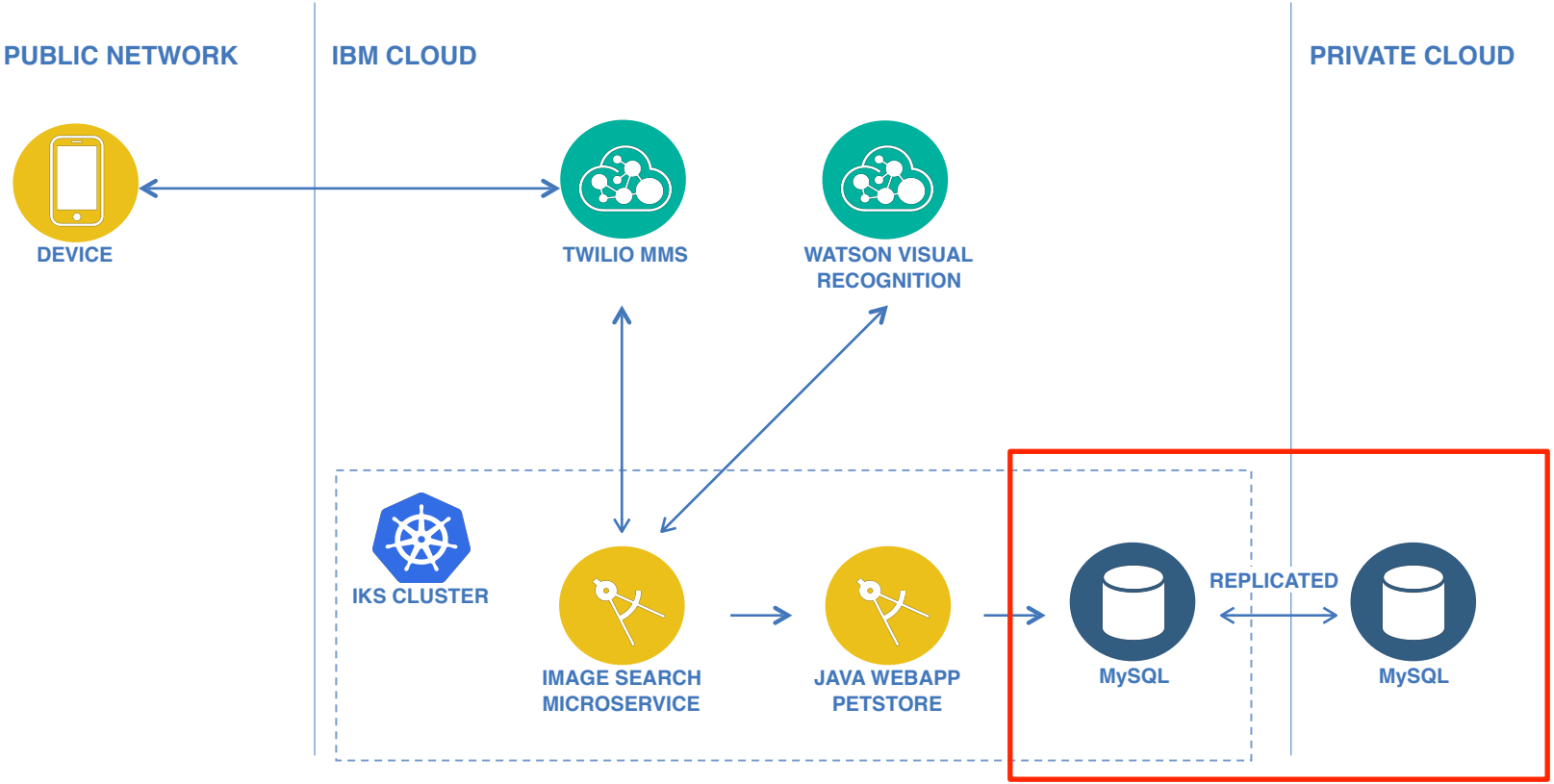
# DEMO



# New Architecture



# New Architecture



## Deconstruct and Refactor

**Pro:** Performant modern apps

**Con:** Time-consuming and expensive

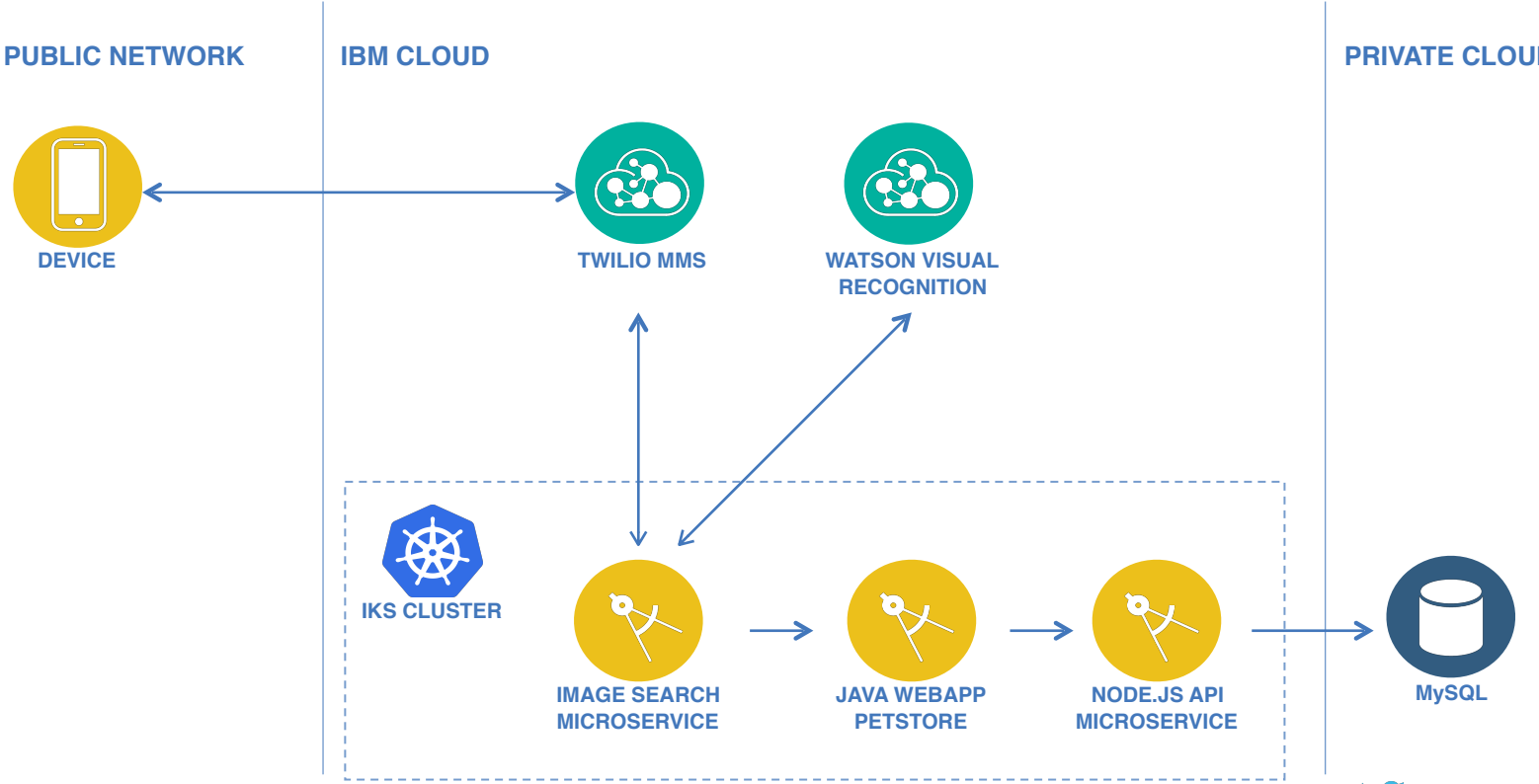
**Strategy:**

- Identify service to deconstruct
- Create GLUE code (APIs) to modernize legacy apps
- Refactor and eliminate legacy apps

# Deconstruct

# DEMO

# New-New Architecture



1. Lift and Shift
2. Innovate
3. Deconstruct

# Thank you

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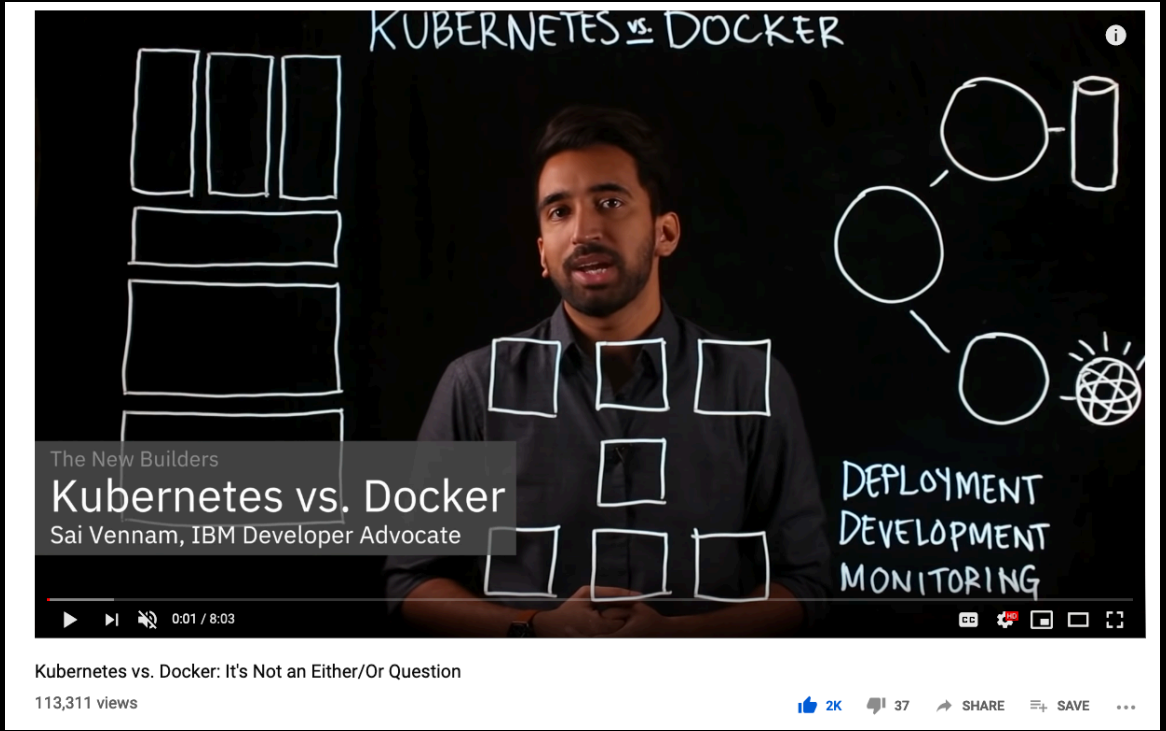

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