

# Kubernetes Basics

ConfigMaps & Secrets

# Agenda

1. What are ConfigMaps?
2. ConfigMap Components
3. What are Secrets?
4. Secrets Components



# What are ConfigMaps?

# What are ConfigMaps?

- An API Object to store non-confidential configuration in key-value pairs
- Pods can consume ConfigMaps as
  - Environment variables
  - Configuration Files in a Volume
  - Command Line Arguments

```
apiVersion: v1
kind: ConfigMap
metadata:
  name: game-demo
data:
  player_initial_lives: "3"
  ui_properties_file_name: "user-interface.properties"

  game.properties: |
    enemy.types=aliens,monsters
    player.maximum-lives=5
  user-interface.properties: |
    color.good=purple
    color.bad=yellow
    allow.textmode=true
```

# ConfigMap Components

# ConfigMap Components

These are the common fields that are needed for a ConfigMap:

- **apiVersion** – will be “apps/v1”
- **kind** – will be “ConfigMap”
- **metadata** – generally a “name” is assigned
- **data/binaryData** – optional fields
  - Accept key-value pairs

These are common data types for a ConfigMap:

- Simple Values:
  - lives.start: 3
- File Like Keys:
  - gear.start: |  
shield=wood  
sword=steel

# What are Secrets?

# What are Secrets?

- An object to store sensitive data
- Similar to ConfigMap but specifically intended to hold confidential data
- Using secrets:
  - Can be mounted as data volumes
  - Exposed as environment variables

```
apiVersion: v1
kind: Secret
metadata:
  name: mySecret
type: Opaque
stringData:
  password: mypassword
```



# Secret Components

# Secret Components

These are the common fields that are needed for a Secret:

- **apiVersion** – will be “apps/v1”
- **kind** – will be “Secret”
- **metadata** – generally a “name” is assigned
- **data/binaryData** – optional fields
  - Accept key-value pairs

These are the different types of Secrets:

- Opaque
- ServiceAccount token
- dockercfg
- dockerconfigjson
- basic-auth
- ssh-auth
- tls
- bootstrap token data



# Thank you

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