



# TODAY'S AGENDA

**1** Problems with Environment Variables

**2** What is ConfigMap?

**3** ConfigMap Creation

**4** Practice Questions



# Problems with Environment Variables



## pod.yaml

```
apiVersion: v1
kind: Pod
metadata:
  name: env-var
  labels:
    purpose: demonstrate-env-var
spec:
  containers:
  - name: env-var-container
    image: wordpress
    env:
      - name: WORDPRESS_VERSION
        value: "5.2.2"
      - name: WORDPRESS_USER
        value: "ubuntu"
```

```
apiVersion: v1
kind: Pod
metadata:
  name: env-var
  labels:
    purpose: demonstrate-env-var
spec:
  containers:
  - name: env-var-container
    image: wordpress
    env:
      - name: WORDPRESS_VERSION
        value: "5.2.2"
      - name: WORDPRESS_USER
        value: "ubuntu"
```

```
apiVersion: v1
kind: Pod
metadata:
  name: env-var
  labels:
    purpose: demonstrate-env-var
spec:
  containers:
  - name: env-var-container
    image: wordpress
    env:
      - name: WORDPRESS_VERSION
        value: "5.2.2"
      - name: WORDPRESS_USER
        value: "ubuntu"
```

```
apiVersion: v1
kind: Pod
metadata:
  name: env-var
  labels:
    purpose: demonstrate-env-var
spec:
  containers:
  - name: env-var-container
    image: wordpress
    env:
      - name: WORDPRESS_VERSION
        value: "5.2.2"
      - name: WORDPRESS_USER
        value: "ubuntu"
```

```
apiVersion: v1
kind: Pod
metadata:
  name: env-var
  labels:
    purpose: demonstrate-env-var
spec:
  containers:
  - name: env-var-container
    image: wordpress
    env:
      - name: WORDPRESS_VERSION
        value: "5.2.2"
      - name: WORDPRESS_USER
        value: "ubuntu"
```



# ConfigMaps



# A ConfigMap is an API object used to store non-confidential data in key-value pairs.

```
apiVersion: v1
kind: Pod
metadata:
  name: env-var
  labels:
    purpose: demonstrate-env-var
spec:
  containers:
  - name: env-var-container
    image: wordpress
```

## ConfigMap

**VERSION: "5.2.2"**  
**USER: "ubuntu"**  
**COLOR: "red"**

## ConfigMap

**VERSION: "5.2.2"**  
**USER: "ubuntu"**  
**COLOR: "red"**

```
apiVersion: v1
kind: Pod
metadata:
  name: env-var
  labels:
    purpose: demonstrate-env-var
spec:
  containers:
  - name: env-var-container
    image: wordpress
```

## ConfigMap

```
apiVersion: v1
kind: Pod
metadata:
  name: env-var
  labels:
    purpose: demonstrate-env-var
spec:
  containers:
  - name: env-var-container
    image: wordpress
```

## ConfigMap





**Scope of the configmap is only to the namespace.**

**Namespace A**

**ConfigMap**

**Pod**

**Pod**

**Pod**

**Namespace B**

**ConfigMap**

**Pod**

**Pod**

**Pod**



# ConfigMap Creation

01

```
kubectl create configmap <name>  
--from-literal=<key>=<value>
```

02

```
kubectl create configmap <name>  
--from-literal=<key>=<value>  
--from-literal=<key>=<value>
```

03

```
kubectl create configmap  
<name> --from-file=<file-name>
```

```
apiVersion: v1  
kind: ConfigMap  
metadata:  
  name: my-configmap  
data:  
  wordpress_version: "5.2.2"  
  wordpress_user: "ubuntu"
```



# Configmap in Pods





## my-configmap

```
wordpress_version="5.2.2"  
wordpress_user="ubuntu"
```

```
apiVersion: v1  
kind: Pod  
metadata:  
  name: configmap-demo  
spec:  
  containers:  
    - name: demo-container  
      image: wordpress  
      envFrom:  
        - configMapRef:  
            name: my-configmap
```

```
apiVersion: v1  
kind: Pod  
metadata:  
  name: configmap-demo  
spec:  
  containers:  
    - name: demo-container  
      image: wordpress  
      env:  
        - name: VERSION  
          valueFrom:  
            configMapKeyRef:  
              name: my-configmap  
              key: wordpress_version
```

```
apiVersion: v1  
kind: Pod  
metadata:  
  name: configmap-demo  
spec:  
  containers:  
    - name: demo-container  
      image: wordpress  
      volumeMounts:  
        - name: config  
          mountPath: /etc/config  
  volumes:  
    - name: config  
      configMap:  
        name: configmap-
```

