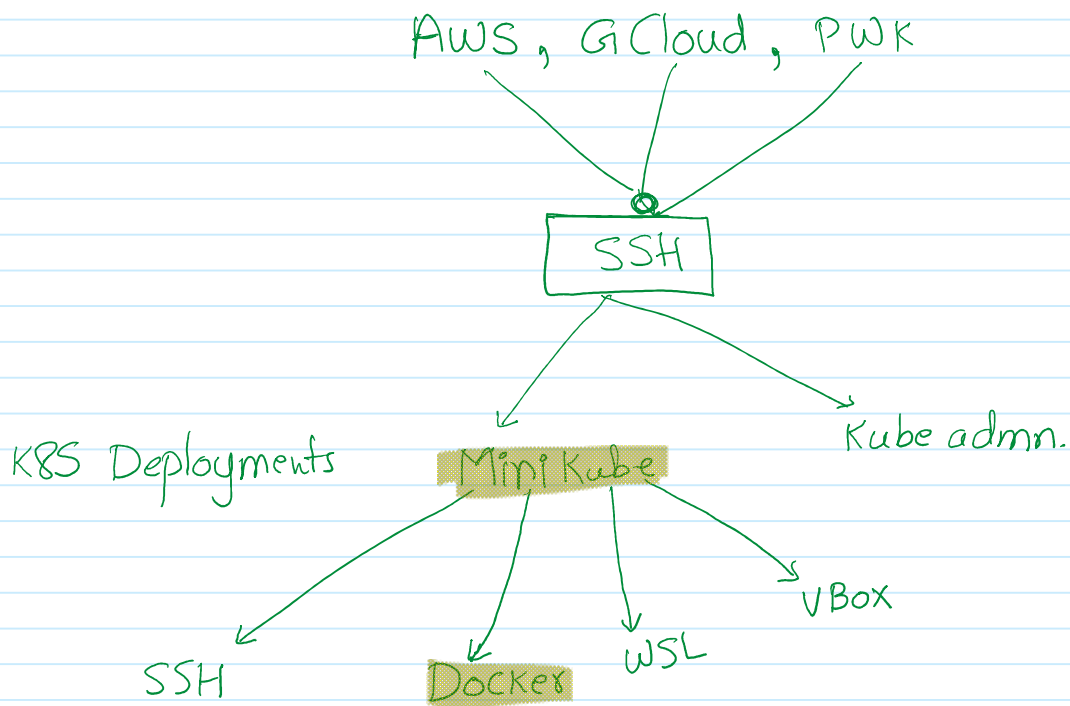


60.22Jun.K8S Deployments

Thursday, June 22, 2023 7:07 PM

- ✓ A. Jenkins Integrations with:
 - a. Github
 - b. Java
 - c. Maven
 - d. Docker
 - e. Ansible
- B. **Minikube** (AWS/GCloud Shell/PWK)
- C. K8S CRUD App Deployments



- ① SSH → Linux
- ② Docker → Install
- ③ Minikube

```
usermod -aG docker $USER
usermod -aG root $USER
chmod 664 /var/run/docker.sock
```

```
$ docker info # NO WARNING/ERROR
```

Install Minikube

```
$ curl -LO https://storage.googleapis.com/minikube/releases/latest/minikube-linux-amd64
```

```
$ sudo install minikube-linux-amd64 /usr/local/bin/minikube
```

```
$ minikube version
```

```
$ minikube status
```

```
$ minikube profile list
```

```
$ minikube start --driver=docker
```

```
$ minikube config set driver docker
```

```
$ apt install kubectl -y
```

```
$ kubectl version
```

```
$ minikube status
```

```
$ minikube status
```

```
minikube
```

```
type: Control Plane
```

```
host: Running
```

```
kubelet: Running
```

```
apiserver: Running
```

```
kubeconfig: Configured
```

Deployment Tool(Minikube, KubeAdmn):	Prepare Kubernetes Cluster
Kubectl(Adhoc, YAML):	Manage Kubernetes Cluster Resources

Create Application and Deploy on K8S

```
$ kubectl
```

```
$ cat > welcome.yaml
```

```
apiVersion: apps/v1
```

```
kind: Deployment
```

```
metadata:
```

```
  labels:
```

```
    app: example1
```

```
    name: example1
```

```
spec:
```

```
  replicas: 1
```

```
  selector:
```

```
    matchLabels:
```

```
      app: example1
```

```
  template:
```

```
    metadata:
```

```
labels:
  app: example1
spec:
  containers:
  - image: nginx:latest
    name: nginx
```

Create Pod(Nginx Container) using YAML
\$ kubectl apply -f welcome.yaml

Check Pods
\$ kubectl get pods

example1-6f7fff9469-5rhqh

\$ kubectl log example1-6f7fff9469-5rhqh


Create K8S Service

```
apiVersion: v1
kind: Service
metadata:
  name: example1
  labels:
    app: example1
spec:
  type: NodePort
  selector:
    app: example1
  ports:
  - protocol: TCP
    targetPort: 80
    port: 80
    nodePort: 30080
```

\$ kubectl get services

\$ curl <http://IP>

\$ minikube service example1

- 
- YAML
 - Deployment + Service + Vol
 - Controller's
 - object