[CKA] #2. Pod - 1

[CKA] #2. Pod (1)

CKA 가 URL

Pod ?

Kubernetes

	, Pod		Container
Pod Network	가	/pause	
Pod	3	가	

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Pod Network

, /pause 가

.

Pod Create

yaml dry run \$ kubectl run hello --image=nginx --dry-run=client -o yaml apiVersion: v1 kind: Pod metadata: creationTimestamp: null labels: run: hello name: hello spec: containers: - image: nginx name: hello resources: {} dnsPolicy: ClusterFirst restartPolicy: Always status: {}

#

kubectl run hello2 --image=nginx --dry-run=client -o yaml | kubectl apply -f kubectl get pods -o wide 가 # nodeName 가 pod Taint 가 yaml nodeName \$ kubectl run hi --image=nginx --dry-run=client -o yaml > hi.yaml apiVersion: v1 kind: Pod metadata: creationTimestamp: null labels: run: hi name: hi spec: containers: - image: nginx name: hi resources: {} dnsPolicy: ClusterFirst restartPolicy: Always nodeName: user-controller ## Node status: {} YAML # Pod \$ kubectl create -f hi.yaml \$ kubectl get pods -o wide NAME READY STATUS RESTARTS AGE IΡ NOMINATED NODE NODE READINESS GATES hello-776c774f98-894tt 1/118h Running 0 user-worker 192.168.153.193 <none> <none> hi 1/1Running 3m10s 0 192.168.136.5 user-controller <none> <none>

Pod status

```
$ kubectl describe pod hi
# Pod . -- kubectl arg --
$ kubectl exec -it hi -- /bin/bash
root@hi:/#
```

Pod

#	re	eplicas		. deployment				
<pre>\$ kubectl deployment \$ kubectl deployment</pre>	create de apps/web	oloyment created	webim	age=nginx	repl:	icas=3		
web-76b561	fd968-c2p 3.217 u	ser-worke	1/1 er	Running <none></none>	0	<none></none>	11s	
web-76b561 192.168.130	fd968-chi 5.6 us	°4w ser-cont∣	1/1 roller	Running <none></none>	Θ	<none></none>	11s	
web-76b561 192.168.153	fd968-mmc 3.218 us	lfn ser-worke	1/1 er	Running <none></none>	Θ	<none></none>	11s	

Pod log

Pod info
kubectl describe pod hi

Pod log
kubectl logs hi

journal Log(kubelet)
sudo journalctl -u kubelet

Log . hi POD Container . /pause 가 Pod . nignx 가

\$ sudo docker ps -a | grep -i hi

d507d8b298c3 "/dockernginx entrypoint.…" 26 hours aqo Up 26 hours k8s hi hi default 6a1464a1-0fea-4ff8-a5c6-426afe281173 0 k8s.gcr.io/pause:3.6 "/pause" d8fb1a992247 26 hours 26 hours aqo Up k8s POD hi default 6a1464a1-0fea-4ff8-a5c6-426afe281173 0 # nginx Service Container info \$ sudo docker inspect d507d8b298c3 \$ sudo docker logs d507d8b298c3 # Pod Network info \$ sudo docker inspect d8fb1a992247 \$ sudo docker logs d8fb1a992247 # Container 가 \$ sudo docker exec -it d507d8b298c3 ls docker-entrypoint.d bin media proc sbin home tmp docker-entrypoint.sh boot lib mnt root srv usr dev etc lib64 opt run sys var \$ sudo docker exec -it d507d8b298c3 /bin/bash root@hi:/# 가 # Net nsenter ip \$ \$ sudo docker exec -it d507d8b298c3 ip addr OCI runtime exec failed: exec failed: container_linux.go:380: starting container process caused: exec: "ip": executable file not found in **\$PATH**: unknown PTD \$ sudo docker inspect --format '{{ .State.Pid }}' d507d8b298c3 1244489 PID (pod namespace가 nsenter 가) \$ sudo nsenter -t 1244489 -n ip addr 1: lo: <LOOPBACK, UP, LOWER UP> mtu 65536 qdisc noqueue state UNKNOWN group default glen 1000 link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00

inet 127.0.0.1/8 scope host lo valid_lft forever preferred_lft forever 2: tunl0@NONE: <NOARP> mtu 1480 qdisc noop state DOWN group default qlen 1000 link/ipip 0.0.0.0 brd 0.0.0.0 4: eth0@if12: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1480 qdisc noqueue state UP group default link/ether c6:3d:04:5d:80:82 brd ff:ff:ff:ff:ff:ff linknetnsid 0 inet 192.168.136.5/32 scope global eth0 valid_lft forever preferred_lft forever

Pod delete

Pod
\$ kubectl delete hi
Pod Delete. replicas
\$ kubectl delete deployment web
deployment.apps "web" deleted
\$ kubectl get pods -o wide | grep -i web
-

Pod : https://kubernetes.io/docs/concepts/workloads/pods/ Pod Networking : https://www.digitalocean.com/community/tutorials/how-to-inspec t-kubernetes-networking

가

```
Image OS : CentOS 7.6.1810 Minimal
#
 가
yum install -y epel-release
# Apache 2.4.52
                               RPMs
                (codeit)
c d
             /etc/yum.repos.d/
                                              &&
                                                            wget
https://repo.codeit.guru/codeit.el`rpm -q --qf "%{VERSION}"
$(rpm -q --whatprovides redhat-release)`.repo
#
     가
yum info httpd
Loaded plugins: fastestmirror
Loading mirror speeds from cached hostfile
 * base: mirror.kakao.com
 * epel: hk.mirrors.thegigabit.com
 * extras: mirror.kakao.com
 * remi-safe: mirror.bebout.net
 * updates: mirror.navercorp.com
Installed Packages
Name
            : httpd
Arch
            : x86 64
           : 2.4.52
Version
          : 1.codeit.el7
Release
Size
            : 4.3 M
Repo
           : installed
From repo : CodeIT
Summary : Apache HTTP Server
            : https://httpd.apache.org/
URL
License
           : ASL 2.0
Description : The Apache HTTP Server is a powerful, efficient,
and extensible
            : web server.
# Apache
yum --enablerepo=CodeIT install httpd mod ssl
```

```
# PHP 7.4
                   Remi Repository
                                                      install
yum
https://rpms.remirepo.net/enterprise/remi-release-7.rpm
#
      PHP
                           7.4
yum repolist all | grep -i php
yum --enablerepo=remi-php74 install php php-opcache php-gd
php-mysql php-xml
# MariaDB 10.3
cat << EOF | tee /etc/yum.repos.d/MariaDB.repo</pre>
[mariadb]
name = MariaDB
baseurl = http://yum.mariadb.org/10.3/centos7-amd64
gpgkey=https://yum.mariadb.org/RPM-GPG-KEY-MariaDB
gpgcheck=1
enabled=0
EOF
# MariaDB 10.3
yum -y install --enablerepo=mariadb MariaDB-server MariaDB-
client MariaDB-backup
# APM
[root@localhost ~]# php -v
PHP 7.4.28 (cli) (built: Feb 15 2022 13:23:10) ( NTS )
Copyright (c) The PHP Group
Zend Engine v3.4.0, Copyright (c) Zend Technologies
     with Zend OPcache v7.4.28, Copyright (c), by Zend
Technologies
[root@localhost ~]# mysql --version
mysql Ver 15.1 Distrib 10.3.34-MariaDB, for Linux (x86 64)
using readline 5.1
[root@localhost ~]# httpd -v
Server version: Apache/2.4.52 (codeit)
Server built: Dec 20 2021 11:29:54
```