

객체 생성

kubectl create deployment nginx --image=nginx

```
root@labs-910775232:/home/project/Kubernetes-basic# kubectl create deployment nginx --image=nginx
deployment.apps/nginx created
```

객체 목록 불러오기

```
kubectl get all
```

kubectl get pod

```
root@labs-910775232:/home/project/Kubernetes-basic# kubectl get all
```

NAME	READY	STATUS	RESTARTS	AGE
pod/cm-deployment-dc7f954b9-pf27h	1/1	Running	0	6h4m
pod/gitrepo-volume-pod	0/1	ContainerCreating	0	7h20m
pod/mypod	1/1	Running	0	7h11m
pod/nginx-6799fc88d8-mksc4	0/1	ContainerCreating	0	4s
pod/shared-volumes	2/2	Running	0	8h

```
root@labs-910775232:/home/project/Kubernetes-basic# kubectl get service
```

NAME	PORT(S)	TYPE	CLUSTER-IP	EXTERNAL-IP
service/cm-literal-svc	80:31986/TCP	LoadBalancer	10.100.169.233	a7adb04a3bcd646bab3036e4849b3a9e-389068426.ap-northeast-2.elb.amaz
service/kubernetes	443/TCP	ClusterIP	10.100.0.1	<none>

```
root@labs-910775232:/home/project/Kubernetes-basic# kubectl get deployment
```

NAME	READY	UP-TO-DATE	AVAILABLE	AGE
deployment.apps/cm-deployment	1/1	1	1	6h4m
deployment.apps/nginx	0/1	1	0	4s

```
root@labs-910775232:/home/project/Kubernetes-basic# kubectl get replicaset
```

NAME	DESIRED	CURRENT	READY	AGE
replicaset.apps/cm-deployment-dc7f954b9	1	1	1	6h4m
replicaset.apps/nginx-6799fc88d8	1	1	0	5s

```
root@labs-910775232:/home/project/Kubernetes-basic# kubectl get pod
```

NAME	READY	STATUS	RESTARTS	AGE
cm-deployment-dc7f954b9-pf27h	1/1	Running	0	6h4m
gitrepo-volume-pod	0/1	ContainerCreating	0	7h20m
mypod	1/1	Running	0	7h11m
nginx-6799fc88d8-mksc4	1/1	Running	0	17s
shared-volumes	2/2	Running	0	8h

객체 목록 불러오기

kubectl get deploy

```
root@labs-910775232:/home/project/Kubernetes-basic# kubectl get deploy
NAME          READY   UP-TO-DATE   AVAILABLE   AGE
cm-deployment  1/1     1             1           6h6m
nginx         1/1     1             1           2m2s
```

kubectl get deploy -o wide

```
root@labs-910775232:/home/project/Kubernetes-basic# kubectl get deploy -o wide
NAME          READY   UP-TO-DATE   AVAILABLE   AGE   CONTAINERS   IMAGES                                                                                               SELECTOR
cm-deployment  1/1     1             1           6h6m   cm           979050235289.dkr.ecr.ap-northeast-2.amazonaws.com/user003-cm-sandbox:v1  app=cm-literal
nginx         1/1     1             1           2m27s  nginx        nginx                                                                app=nginx
```

객체 상세 정보 확인하기

kubectl describe deploy/nginx

```
root@labs-910775232:/home/project/Kubernetes-basic# kubectl describe deploy/nginx
Name:          nginx
Namespace:     default
CreationTimestamp: Thu, 17 Mar 2022 14:12:36 +0000
Labels:        app=nginx
Annotations:   deployment.kubernetes.io/revision: 1
Selector:      app=nginx
Replicas:      1 desired | 1 updated | 1 total | 1 available | 0 unavailable
StrategyType:  RollingUpdate
MinReadySeconds: 0
RollingUpdateStrategy: 25% max unavailable, 25% max surge
Pod Template:
  Labels:  app=nginx
  Containers:
    nginx:
      Image:      nginx
      Port:       <none>
      Host Port:  <none>
      Environment: <none>
      Mounts:      <none>
      Volumes:      <none>
  Conditions:
```

Pod Status에 따른 Trouble Shooting

Status가 ImagePullBackOff/ ErrImagePull 일때,

kubectl describe pod/객체 이름

```
root@labs-910775232:/home/project/Kubernetes-basic# kubectl describe pod/nginx-6799fc88d8-mksc4
Name:          nginx-6799fc88d8-mksc4
Namespace:     default
Priority:       0
Node:          ip-192-168-45-115.ap-northeast-2.compute.internal/192.168.45.115
Start Time:    Thu, 17 Mar 2022 14:12:36 +0000
Labels:        app=nginx
               pod-template-hash=6799fc88d8
Annotations:   kubernetes.io/psp: eks.privileged
Status:        Running
IP:            192.168.62.176
IPs:
  IP:          192.168.62.176
Controlled By: ReplicaSet/nginx-6799fc88d8
Containers:
  nginx:
    Container ID:  docker://fa359be2a20d4ce6b8c02f49cf6ed62386b21a93cfd529f731f602a8893980bd
    Image:         nginx
    Image ID:      docker-pullable://nginx@sha256:1c13bc6de5dfca749c377974146ac05256791ca2fe1979fc8e8278bf0121d285
    Port:         <none>
    Host Port:    <none>
    State:        Running
      Started:    Thu, 17 Mar 2022 14:12:40 +0000
    Ready:        True
    Restart Count: 0
    Environment:  <none>
    Mounts:
      /var/run/secrets/kubernetes.io/serviceaccount from kube-api-access-vn5lk (ro)
Conditions:
  Type             Status
  Initialized       True
  Ready            True
  ContainersReady  True
  PodScheduled     True
Volumes:
  kube-api-access-vn5lk:
    Type:          Projected (a volume that contains injected data from multiple sources)
    TokenExpirationSeconds: 3607
    ConfigMapName:    kube-root-ca.crt
    ConfigMapOptional: <nil>
    DownwardAPI:      true
```

Status가 CrashLoopBackOff/Errors 일때,

kubectl logs pod/객체 이름

kubectl logs -f pod/객체 이름

```
root@labs-910775232:/home/project/Kubernetes-basic# kubectl logs pod/nginx-6799fc88d8-mksc4
/docker-entrypoint.sh: /docker-entrypoint.d/ is not empty, will attempt to perform configuration
/docker-entrypoint.sh: Looking for shell scripts in /docker-entrypoint.d/
/docker-entrypoint.sh: Launching /docker-entrypoint.d/10-listen-on-ipv6-by-default.sh
10-listen-on-ipv6-by-default.sh: info: Getting the checksum of /etc/nginx/conf.d/default.conf
10-listen-on-ipv6-by-default.sh: info: Enabled listen on IPv6 in /etc/nginx/conf.d/default.conf
/docker-entrypoint.sh: Launching /docker-entrypoint.d/20-envsubst-on-templates.sh
/docker-entrypoint.sh: Launching /docker-entrypoint.d/30-tune-worker-processes.sh
/docker-entrypoint.sh: Configuration complete; ready for start up
2022/03/17 14:12:40 [notice] 1#1: using the "epoll" event method
2022/03/17 14:12:40 [notice] 1#1: nginx/1.21.6
2022/03/17 14:12:40 [notice] 1#1: built by gcc 10.2.1 20210110 (Debian 10.2.1-6)
2022/03/17 14:12:40 [notice] 1#1: OS: Linux 5.4.181-99.354.amzn2.x86_64
2022/03/17 14:12:40 [notice] 1#1: getrlimit(RLIMIT_NOFILE): 1048576:1048576
2022/03/17 14:12:40 [notice] 1#1: start worker processes
2022/03/17 14:12:40 [notice] 1#1: start worker process 31
2022/03/17 14:12:40 [notice] 1#1: start worker process 32
```

kubectl logs deploy/객체 이름

kubectl logs -f deploy/객체 이름

```
root@labs-910775232:/home/project/Kubernetes-basic# kubectl logs -f deploy/nginx
/docker-entrypoint.sh: /docker-entrypoint.d/ is not empty, will attempt to perform configuration
/docker-entrypoint.sh: Looking for shell scripts in /docker-entrypoint.d/
/docker-entrypoint.sh: Launching /docker-entrypoint.d/10-listen-on-ipv6-by-default.sh
10-listen-on-ipv6-by-default.sh: info: Getting the checksum of /etc/nginx/conf.d/default.conf
10-listen-on-ipv6-by-default.sh: info: Enabled listen on IPv6 in /etc/nginx/conf.d/default.conf
/docker-entrypoint.sh: Launching /docker-entrypoint.d/20-envsubst-on-templates.sh
/docker-entrypoint.sh: Launching /docker-entrypoint.d/30-tune-worker-processes.sh
/docker-entrypoint.sh: Configuration complete; ready for start up
2022/03/17 14:12:40 [notice] 1#1: using the "epoll" event method
2022/03/17 14:12:40 [notice] 1#1: nginx/1.21.6
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2022/03/17 14:12:40 [notice] 1#1: getrlimit(RLIMIT_NOFILE): 1048576:1048576
2022/03/17 14:12:40 [notice] 1#1: start worker processes
2022/03/17 14:12:40 [notice] 1#1: start worker process 31
2022/03/17 14:12:40 [notice] 1#1: start worker process 32
```