TP -Réplications des pods

Création d'un réplicaset

On ouvre le fichier nginx-replicaset.yaml

```
ludo@kubernetes:/pod$ vim nginx-replicaset.yaml
apiVersion: apps/v1
kind: ReplicaSet
metadata:
  labels:
    app: web
  name: web
  namespace: ludo $ votre namespace
spec:
  replicas: 3
  selector:
    matchLabels:
      app: web
  template:
    metadata:
      labels:
        app: web
    spec:
      containers:
      - image: nginx
        name: nginx
```

On applique après modification

```
ludo@kubernetes:/pod$ kubectl apply -f nginx-replicaset.yaml
replicaset.apps/web created
```

On liste les ressources

```
ludo@kubernetes:/pod$ kubectl get replicasets.apps
NAME   DESIRED   CURRENT   READY   AGE
web    3         3         2       2s

ludo@kubernetes:/pod$ kubectl get all
NAME            READY   STATUS    RESTARTS   AGE
pod/web-67rk4   1/1     Running   0          9s
pod/web-qlldl   1/1     Running   0          10s
pod/web-x7cbs   1/1     Running   0          9s
```

```
NAME                  DESIRED   CURRENT   READY   AGE
replicaset.apps/web   3         3         3       10s
```

On crée les services

```
ludo@kubernetes:/pod$ vim Nodeport.yaml
apiVersion: v1
kind: Service
metadata:
  name: `replicat-svc`
spec:
  selector:
    app: web
  type: NodePort
  ports:
  - name: http
    port: 80
    targetPort: 80
    nodePort: 30036
    protocol: TCP
```

```
ludo@kubernetes:/pod$ kubectl apply -f Nodeport.yaml
service/replicas created
```

Mise à l'échelle des pods

```
ludo@kubernetes:/pod$ kubectl scale replicaset web --replicas 5
replicaset.apps/web scaled
```

Par le manifeste

```
ludo@kubernetes:/pod$ vim nginx-replicaset.yaml
apiVersion: apps/v1
kind: ReplicaSet
metadata:
  labels:
    app: web
  name: web
  namespace: forma-ludo
spec:
  replicas: 6
  selector:
    matchLabels:
      app: web
  template:
    metadata:
      labels:
        app: web
```

```
    spec:
      containers:
      - image: nginx
        name: nginx
```

On applique après modification

```
ludo@kubernetes:/pod$ kubectl apply -f nginx-replicaset.yaml
replicaset.apps/web configured
```

On liste les ressources

```
ludo@kubernetes:/pod$ kubectl get all
NAME            READY   STATUS              RESTARTS   AGE
pod/web-67rk4   1/1     Running             0          13m
pod/web-c6s42   1/1     Running             0          2s
pod/web-n8fs8   0/1     ContainerCreating   0          2s
pod/web-qlldl   1/1     Running             0          13m
pod/web-w7c7s   1/1     Running             0          2s
pod/web-x7cbs   1/1     Running             0          13m

NAME               TYPE       CLUSTER-IP      EXTERNAL-IP   PORT(S)        AGE
service/replicas   NodePort   10.104.17.212   <none>        80:30036/TCP
5m43s

NAME                  DESIRED   CURRENT   READY   AGE
replicaset.apps/web   6         6         5       13m
```

Les deamonset

On ouvre le manifeste, on fait ses modifications

```
ludo@kubernetes:/pod$ vim deamonSet/ app-deamonset.yaml
apiVersion: apps/v1
kind: DaemonSet
metadata:
  name: nginx-daemonset
  namespace: forma-ludo
spec:
  selector:
    matchLabels:
      demotype: nginx-daemonset-demo
  template:
    metadata:
      labels:
        demotype: nginx-daemonset-demo
    spec:
      containers:
      - image: nginx
        name: nginx
      nodeSelector:
        disk: ssd
```

On applique le manifeste

```
ludo@kubernetes:/pod$ cd deamonSet/
ludo@kubernetes:/pod$  kubectl apply -f app-deamonset.yaml
daemonset.apps/nginx-daemonset created
```

On labelise un nœud

```
ludo@kubernetes:/pod$ kubectl label nodes worker03 disk=ssd
node/worker03 labeled

ludo@kubernetes:/pod$  kubectl get all
NAME                         READY   STATUS    RESTARTS   AGE
pod/nginx-daemonset-2l8rr    1/1     Running   0          23s

NAME                              DESIRED   CURRENT   READY   UP-TO-DATE
AVAILABLE
daemonset.apps/nginx-daemonset    1         1         1       1           1
```

On dé labélise le nœud

```
ludo@kubernetes:/pod$ kubectl label nodes worker03 disk-
```

```
node/worker03 unlabeled


ludo@kubernetes:/pod$  kubectl get all
NAME                              DESIRED   CURRENT   READY   UP-TO-DATE
AVAILABLE
daemonset.apps/nginx-daemonset   0         0         0       0           0
```