https://kubernetes.io/docs/concepts/scheduling-eviction/taint-and-toleration/

ku taint node ip-172-20-104-194.ec2.internal munnabhai=mbbs:NoSchedule

ku taint node ip-172-20-42-52.ec2.internal shankardada=mbbs:NoSchedule

ku taint node ip-172-20-70-121.ec2.internal vasoolraja=mbbs:NoSchedule

ku taint node ip-172-20-104-194.ec2.internal munnabhai=mbbs:NoExecute --overwrite

ku taint node ip-172-20-42-52.ec2.internal shankardada=mbbs:NoExecute --overwrite

ku taint node ip-172-20-70-121.ec2.internal vasoolraja=mbbs:NoExecute --overwrite

ku taint node ip-172-20-104-194.ec2.internal munnabhai=mbbs:NoExecute-

ku taint node ip-172-20-42-52.ec2.internal shankardada=mbbs:NoExecute-

ku taint node ip-172-20-70-121.ec2.internal vasoolraja=mbbs:NoExecute-

ku label node ip-172-20-104-194.ec2.internal disktype-

ku label node ip-172-20-42-52.ec2.internal disktype-

ku run sanju --image=sreeharshav/rollingupdate:v3

ku run chiru --image=sreeharshav/rollingupdate:v3

ku run kamal --image=sreeharshav/rollingupdate:v3

ku taint node ip-172-20-55-14.ec2.internal node-role.kubernetes.io/master:NoSchedule-

ku taint node ip-172-20-55-14.ec2.internal node-role.kubernetes.io/master=:NoSchedule

ku taint node ip-172-20-104-194.ec2.internal env-

ku taint node ip-172-20-42-52.ec2.internal env-

ku taint node ip-172-20-55-14.ec2.internal env-

ku taint node ip-172-20-70-121.ec2.internal env-

###########USING-SIMPLE-NODE-SELECTORS#####################

ku label node ip-172-20-55-14.ec2.internal disktype=hdd

apiVersion: v1

kind: Pod

metadata:

name: nginx-hdd

labels:

env: test

spec:

containers:

- name: nginx

image: nginx

nodeSelector:

disktype: hdd

#################TAINTS-TOLERATIONS################################

apiVersion: apps/v1

kind: Deployment

metadata:

labels:

run: chiru

name: chiru

spec:

progressDeadlineSeconds: 600

replicas: 2

revisionHistoryLimit: 10

selector:

matchLabels:

run: chiru

strategy:

rollingUpdate:

maxSurge: 25%

maxUnavailable: 25%

type: RollingUpdate

template:

metadata:

creationTimestamp: null

labels:

run: chiru

spec:

containers:

- image: sreeharshav/rollingupdate:v3

imagePullPolicy: IfNotPresent

name: chiru

resources: {}

tolerations:

- key: "env"

operator: "Equal"

value: "dev"

effect: "NoSchedule"

dnsPolicy: ClusterFirst

restartPolicy: Always

tolerations:

- key: "key"

operator: "Equal"

value: "value"

effect: "NoSchedule"

or

tolerations:

- key: "diskType"

operator: "Exists"

effect: "NoExecute"

####################################NODE-EFFINITY##############################################

apiVersion: apps/v1

kind: Deployment

metadata:

labels:

run: chiru

name: chiru

spec:

progressDeadlineSeconds: 600

replicas: 2

revisionHistoryLimit: 10

selector:

matchLabels:

run: chiru

strategy:

rollingUpdate:

maxSurge: 25%

maxUnavailable: 25%

type: RollingUpdate

template:

metadata:

creationTimestamp: null

labels:

run: chiru

spec:

affinity:

nodeAffinity:

requiredDuringSchedulingIgnoredDuringExecution:

nodeSelectorTerms:

- matchExpressions:

- key: perf

operator: In

values:

- low

containers:

- image: sreeharshav/rollingupdate:v3

imagePullPolicy: IfNotPresent

name: chiru

resources: {}

tolerations:

- key: "env"

operator: "Equal"

value: "dev"

effect: "NoSchedule"

dnsPolicy: ClusterFirst

restartPolicy: Always

##############################POD-AFFINITY-ANTIAFFINITY#################################

apiVersion: apps/v1

kind: Deployment

metadata:

name: redis-cache

spec:

selector:

matchLabels:

app: store

replicas: 3

template:

metadata:

labels:

app: store

spec:

affinity:

podAntiAffinity:

requiredDuringSchedulingIgnoredDuringExecution:

- labelSelector:

matchExpressions:

- key: app

operator: In

values:

- store

topologyKey: "kubernetes.io/hostname"

containers:

- name: redis-server

image: sreeharshav/rollingupdate:v3

apiVersion: apps/v1

kind: Deployment

metadata:

name: redis-cache

spec:

selector:

matchLabels:

app: store

replicas: 3

template:

metadata:

labels:

app: store

spec:

affinity:

podAffinity:

requiredDuringSchedulingIgnoredDuringExecution:

- labelSelector:

matchExpressions:

- key: app

operator: In

values:

- store

topologyKey: "kubernetes.io/hostname"

containers:

- name: redis-server

image: sreeharshav/rollingupdate:v3

the operator is Exists (in which case no value should be specified), or

the operator is Equal and the values are equal.

##################TAINT-TOLERATONS-NODEAFINITY################

kubectl taint <node> env=prod:NoExecute

apiVersion: apps/v1

kind: Deployment

metadata:

name: prod-deployment

labels:

app: nginx

spec:

replicas: 4

selector:

matchLabels:

app: nginx

template:

metadata:

labels:

app: nginx

spec:

affinity:

nodeAffinity:

requiredDuringSchedulingIgnoredDuringExecution:

nodeSelectorTerms:

- matchExpressions:

- key: db

operator: In

values:

- mysql

containers:

- name: nginx

image: nginx:1.14.2

ports:

- containerPort: 80

tolerations:

- key: "env"

operator: "Equal"

value: "prod"

effect: "NoExecute"

============WITH-NO-NODESELECTOR=====================================

apiVersion: apps/v1

kind: Deployment

metadata:

name: test-deployment

labels:

app: nginx

spec:

replicas: 2

selector:

matchLabels:

app: nginx

template:

metadata:

labels:

app: nginx

spec:

affinity:

nodeAffinity:

requiredDuringSchedulingIgnoredDuringExecution:

nodeSelectorTerms:

- matchExpressions:

- key: db

operator: In

values:

- mysql

containers:

- name: nginx

image: nginx:1.14.2

ports:

- containerPort: 80

tolerations:

- key: "diskType"

operator: "Equal"

value: "hdd"

effect: "NoSchedule"

=================NODE-AFFINITY==================================

============WITH-NO-NODESELECTOR=====================================

apiVersion: apps/v1

kind: Deployment

metadata:

name: test-deployment

labels:

app: nginx

spec:

replicas: 3

selector:

matchLabels:

app: nginx

template:

metadata:

labels:

app: nginx

spec:

affinity:

nodeAffinity:

requiredDuringSchedulingIgnoredDuringExecution:

nodeSelectorTerms:

- matchExpressions:

- key: env

operator: In

values:

- dev

containers:

- name: nginx

image: nginx:1.14.2

ports:

- containerPort: 80

========================================================================

#Using NodeName to schedule the POD.

apiVersion: apps/v1

kind: Deployment

metadata:

labels:

run: deploy01

name: deploy01

spec:

replicas: 3

selector:

matchLabels:

run: deploy01

template:

metadata:

labels:

run: deploy01

spec:

containers:

- image: nginx

name: deploy01

nodeName: ip-172-20-72-92.ec2.internal

---

#Using NodeSelectors to schedule the POD

apiVersion: apps/v1

kind: Deployment

metadata:

labels:

run: nodeselector-deploy

name: nodeselector-deploy

spec:

replicas: 3

selector:

matchLabels:

run: nodeselector-deploy

template:

metadata:

labels:

run: nodeselector-deploy

spec:

containers:

- image: nginx

name: deploy01

nodeSelector:

env: testing

---

#Using NodeSelectors to schedule the POD

apiVersion: apps/v1

kind: Deployment

metadata:

labels:

run: nodeselector-prod

name: nodeselector-prod

spec:

replicas: 3

selector:

matchLabels:

run: nodeselector-prod

template:

metadata:

labels:

run: nodeselector-prod

spec:

containers:

- image: nginx

name: deploy01

nodeSelector:

env: prod

---

#Using NodeSelectors to schedule the POD

apiVersion: apps/v1

kind: Deployment

metadata:

labels:

run: taint-env-testing

name: taint-env-testing

spec:

replicas: 3

selector:

matchLabels:

run: taint-env-testing

template:

metadata:

labels:

run: taint-env-testing

spec:

containers:

- image: nginx

name: taint-testing

tolerations:

- key: "env"

operator: "Equal"

value: "testing"

effect: "NoSchedule"

---

#Using NodeSelectors to schedule the POD

apiVersion: apps/v1

kind: Deployment

metadata:

labels:

run: no-taint

name: no-taint

spec:

replicas: 4

selector:

matchLabels:

run: no-taint

template:

metadata:

labels:

run: no-taint

spec:

containers:

- image: nginx

name: no-taint-prod

tolerations:

- key: "env"

operator: "Equal"

value: "dev"

effect: "NoExecute"

---

#Using NodeSelectors to schedule the POD

apiVersion: apps/v1

kind: Deployment

metadata:

labels:

run: ebs-high

name: ebs-high

spec:

replicas: 4

selector:

matchLabels:

run: ebs-high

template:

metadata:

labels:

run: ebs-high

spec:

affinity:

nodeAffinity:

requiredDuringSchedulingIgnoredDuringExecution:

nodeSelectorTerms:

- matchExpressions:

- key: "EBS"

operator: In

values:

# - IO1

# - GP2

- SC1

containers:

- image: nginx

name: ebs-high-nginx

---

#Using PREFERED NODE AFFINITY

apiVersion: apps/v1

kind: Deployment

metadata:

labels:

run: ebs-low

name: ebs-low

spec:

replicas: 6

selector:

matchLabels:

run: ebs-low

template:

metadata:

labels:

run: ebs-low

spec:

affinity:

nodeAffinity:

preferredDuringSchedulingIgnoredDuringExecution:

- weight: 1

preference:

matchExpressions:

- key: "EBS"

operator: In

values:

- SC1

containers:

- image: nginx

name: ebs-low-nginx