节点亲和性

pod.spec.nodeAffinity

preferredDuringSchedulingIgnoredDuringExecution：软策略 requiredDuringSchedulingIgnoredDuringExecution：硬策略

requiredDuringSchedulingIgnoredDuringExecution

apiVersion: v1

kind: Pod

metadata:

name: affinity

labels:

app: node-affinity-pod

spec:

containers:

- name: with-node-affinity

image: hub.atguigu.com/library/myapp:v1

affinity:

nodeAffinity:

requiredDuringSchedulingIgnoredDuringExecution:

nodeSelectorTerms:

- matchExpressions:

- key: kubernetes.io/hostname

operator: NotIn

values:

- k8s-node02

preferredDuringSchedulingIgnoredDuringExecution

apiVersion: v1

kind: Pod

metadata:

name: affinity

labels:

app: node-affinity-pod

spec:

containers:

- name: with-node-affinity

image: hub.atguigu.com/library/myapp:v1

affinity:

nodeAffinity:

preferredDuringSchedulingIgnoredDuringExecution:

- weight: 1

preference:

matchExpressions:

- key: source

operator: In

values:

- qikqiak

合体

apiVersion: v1

kind: Pod

metadata:

name: affinity

labels:

app: node-affinity-pod

spec:

containers:

- name: with-node-affinity

image: hub.atguigu.com/library/myapp:v1

affinity:

nodeAffinity:

requiredDuringSchedulingIgnoredDuringExecution: nodeSelectorTerms:

- matchExpressions:

- key: kubernetes.io/hostname

operator: NotIn

values:

- k8s-node02

preferredDuringSchedulingIgnoredDuringExecution: - weight: 1

preference:

matchExpressions:

- key: source

operator: In

values:

- qikqiak

键值运算关系

In：label 的值在某个列表中

NotIn：label 的值不在某个列表中

Gt：label 的值大于某个值

Lt：label 的值小于某个值

Exists：某个 label 存在

DoesNotExist：某个 label 不存在

Pod 亲和性

pod.spec.affinity.podAffinity/podAntiAffinity

preferredDuringSchedulingIgnoredDuringExecution：软策略

requiredDuringSchedulingIgnoredDuringExecution：硬策略

apiVersion: v1

kind: Pod

metadata:

name: pod-3

labels:

app: pod-3

spec:

containers:

- name: pod-3

image: hub.atguigu.com/library/myapp:v1

affinity:

podAffinity:

requiredDuringSchedulingIgnoredDuringExecution:

- labelSelector:

matchExpressions:

- key: app

operator: In

values:

- pod-1

topologyKey: kubernetes.io/hostname

podAntiAffinity:

preferredDuringSchedulingIgnoredDuringExecution:

- weight: 1

podAffinityTerm:

labelSelector:

matchExpressions:

- key: app

operator: In

values:

- pod-2

topologyKey: kubernetes.io/hostname

亲和性/反亲和性调度策略比较如下：

| 调度策略 | 匹配  标签 | 操作符 | 拓扑域  支持 | 调度目标 |
| --- | --- | --- | --- | --- |
| nodeAffinity | 主机 | In, NotIn, Exists,  DoesNotExist, Gt, Lt | 否 | 指定主机 |
| podAffinity | POD | In, NotIn, Exists,  DoesNotExist | 是 | POD与指定POD同一拓 扑域 |
| podAnitAffinity | POD | In, NotIn, Exists,  DoesNotExist | 是 | POD与指定POD不在同 一拓扑域 |