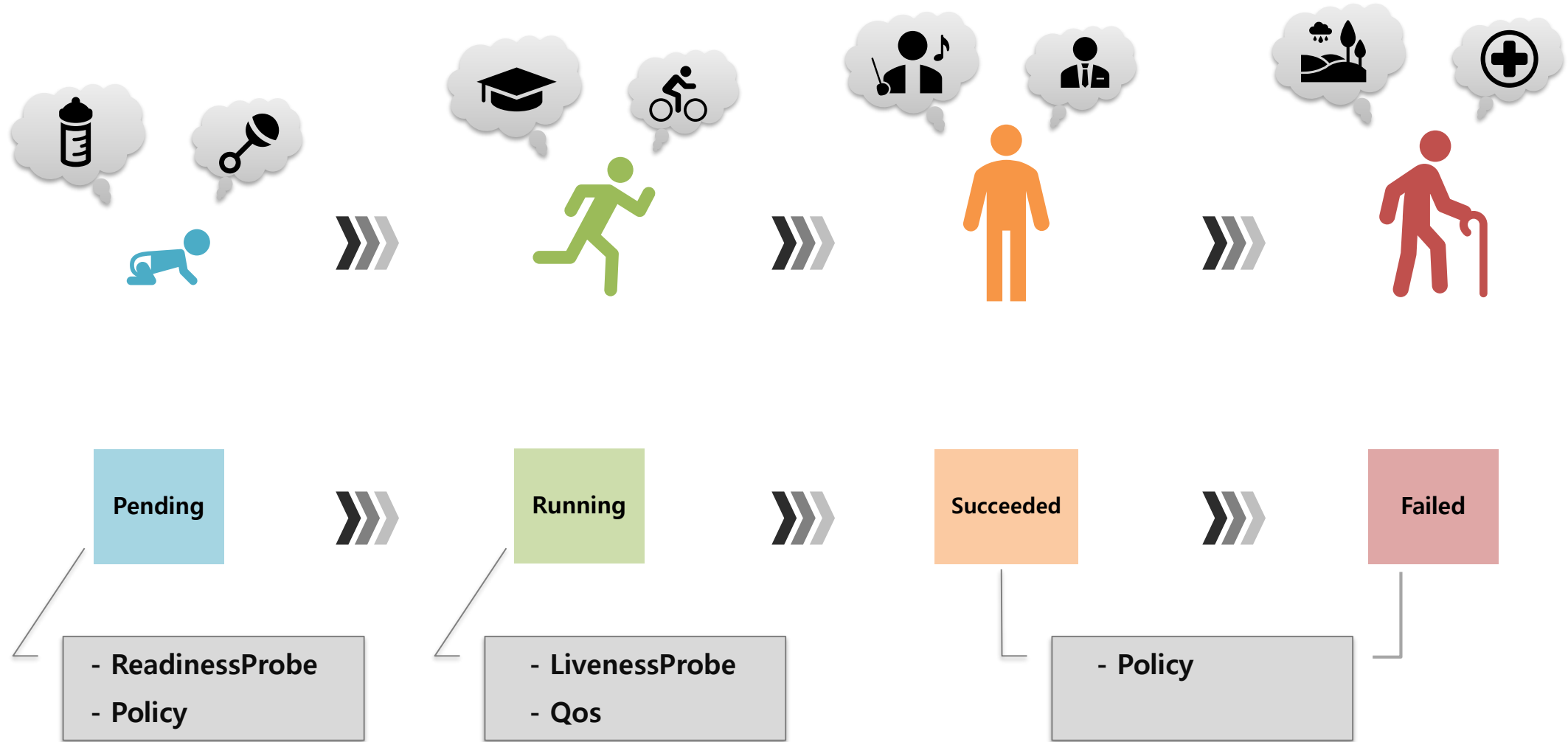


1. Pod - Lifecycle



1. Pod - Lifecycle

status:

phase: Pending

conditions:

- type: **Initialized**
status: 'True'
lastProbeTime: null
lastTransitionTime: '2019-09-26T22:07:56Z'
- type: **ContainersReady**
status: 'False'
lastProbeTime: null
lastTransitionTime: '2019-09-26T22:08:11Z'
reason: ContainersNotReady
- type: **PodScheduled**
status: 'True'
lastProbeTime: null
lastTransitionTime: '2019-09-26T22:07:56Z'
- type: **Ready**
status: 'False'
lastProbeTime: null
lastTransitionTime: '2019-09-26T22:08:11Z'
reason: ContainersNotReady

containerStatuses:

- name: container

state:

waiting:

reason: ContainerCreating

lastState: {}

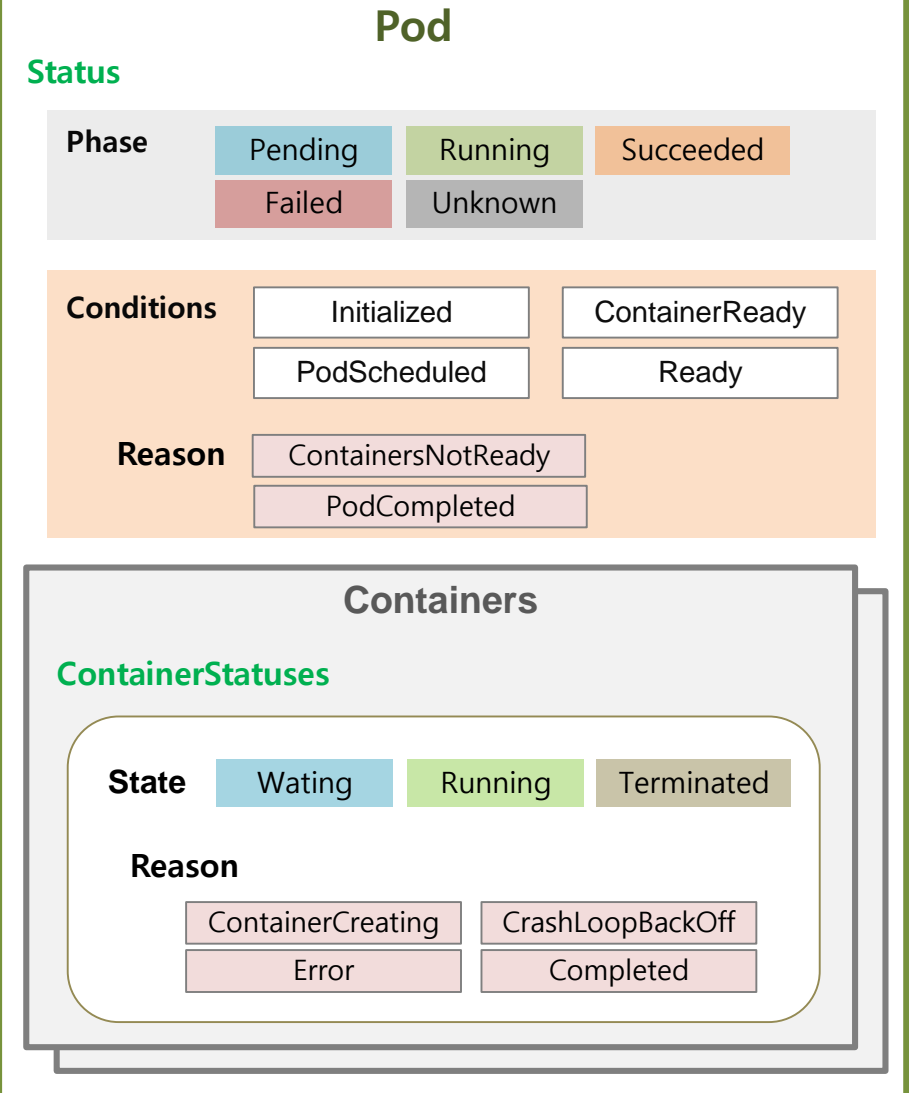
ready: false

restartCount: 0

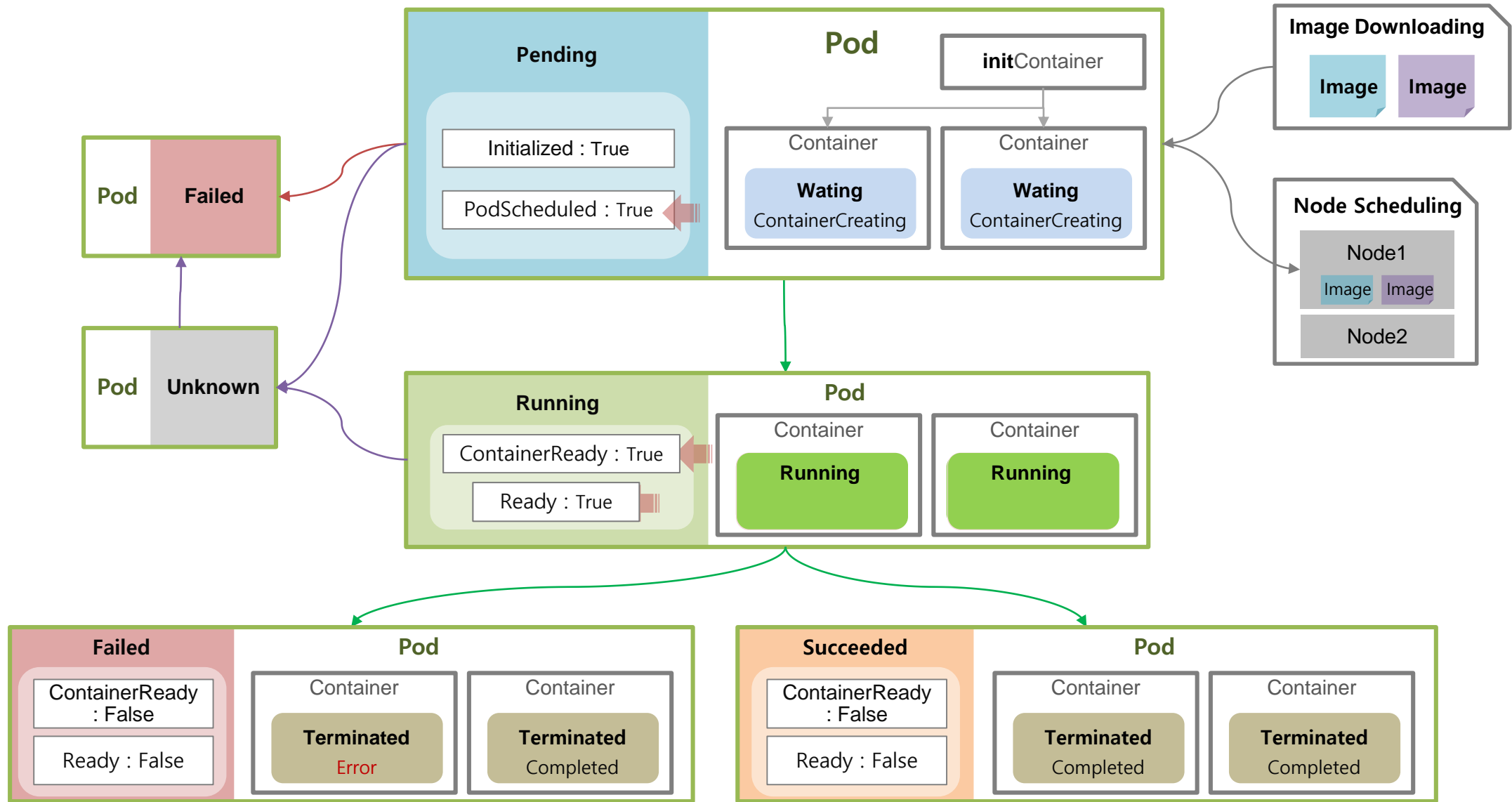
image: tmkube/init

imageID: "

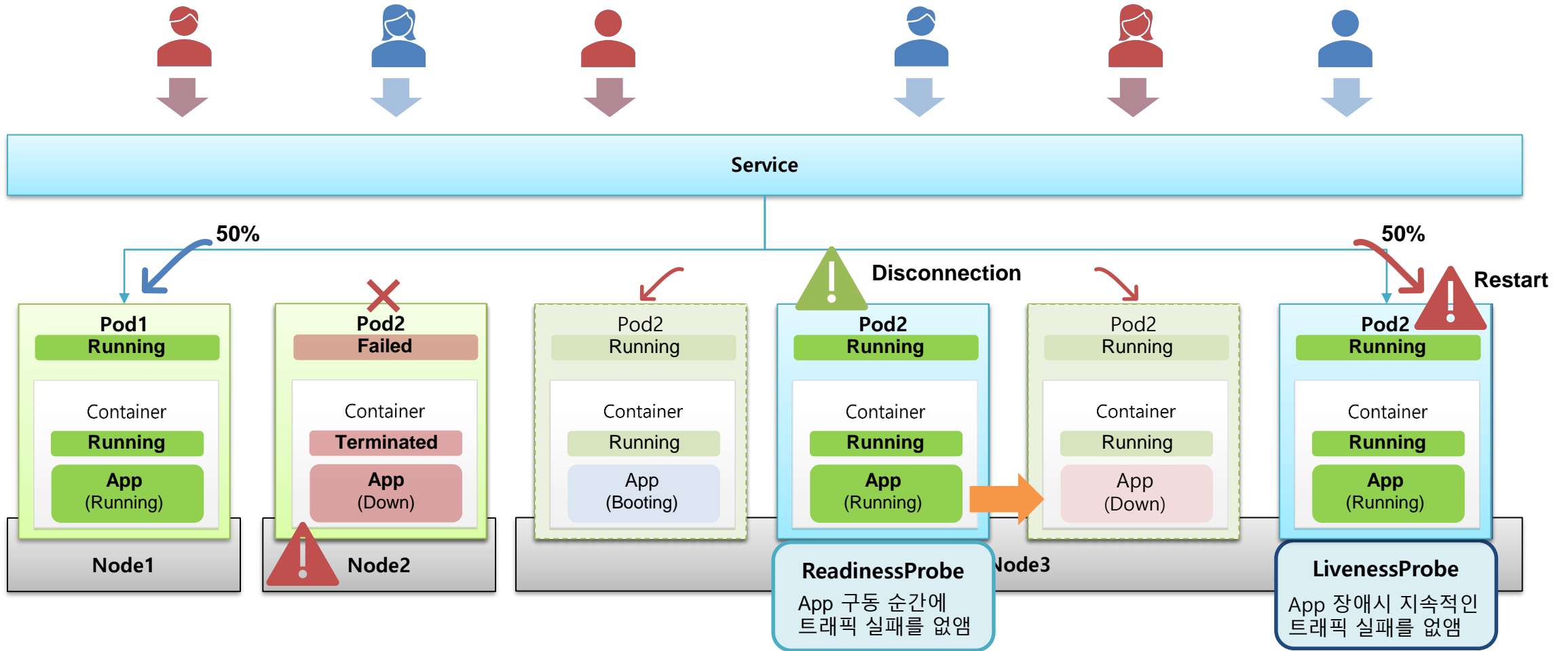
started: false



1. Pod - Lifecycle

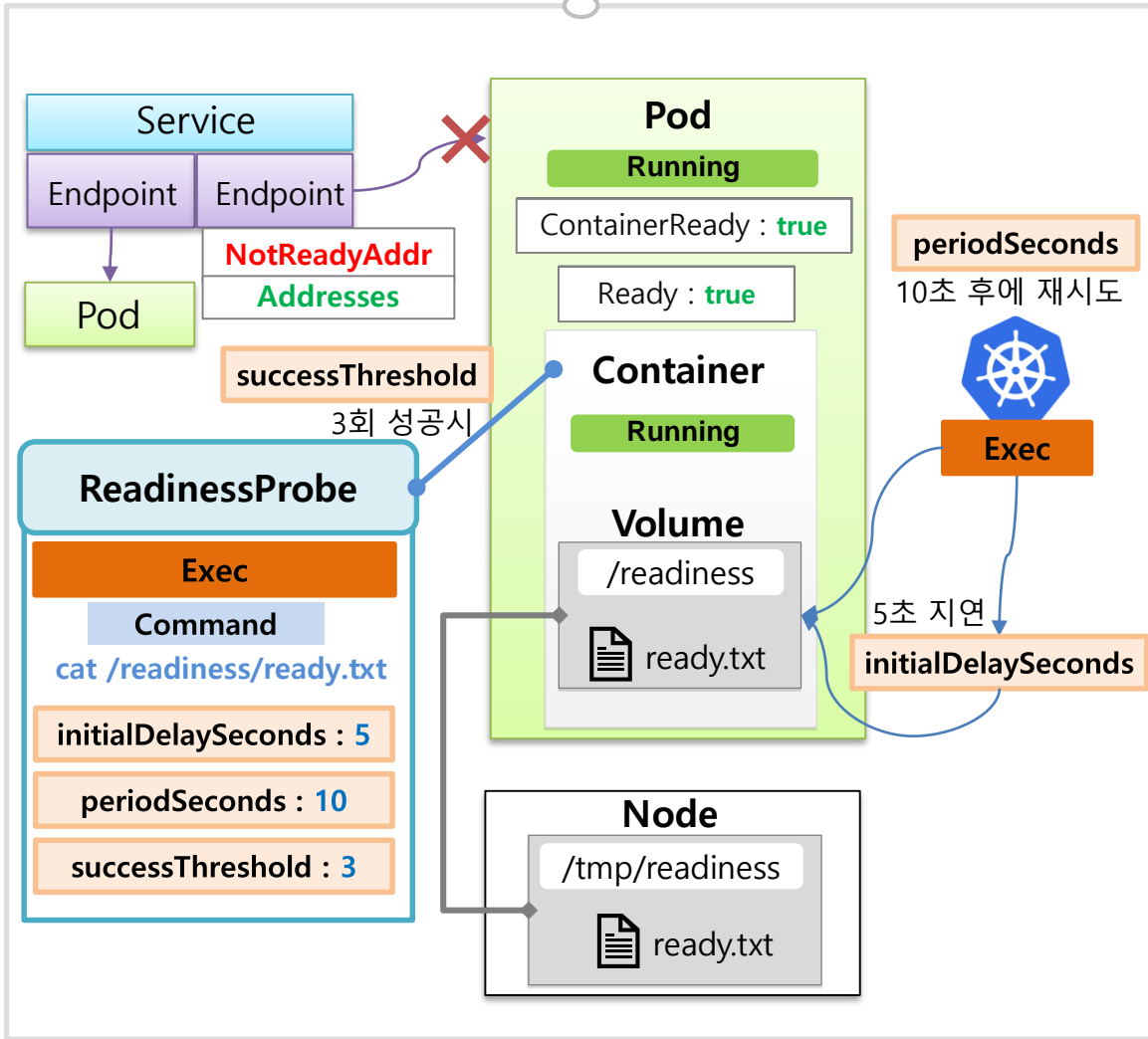


- Pod (ReadinessProbe, LivenessProbe)

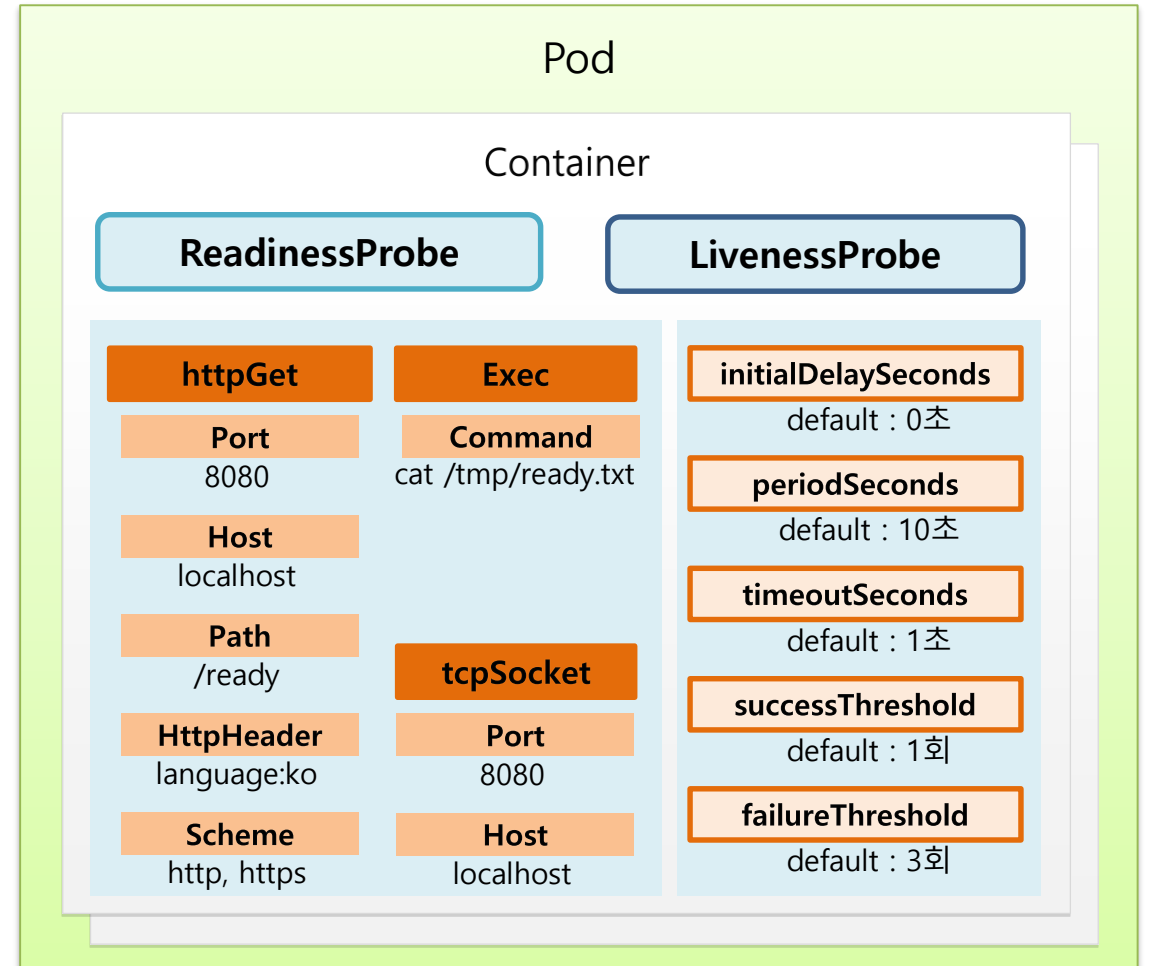


- Pod

ReadinessProbe

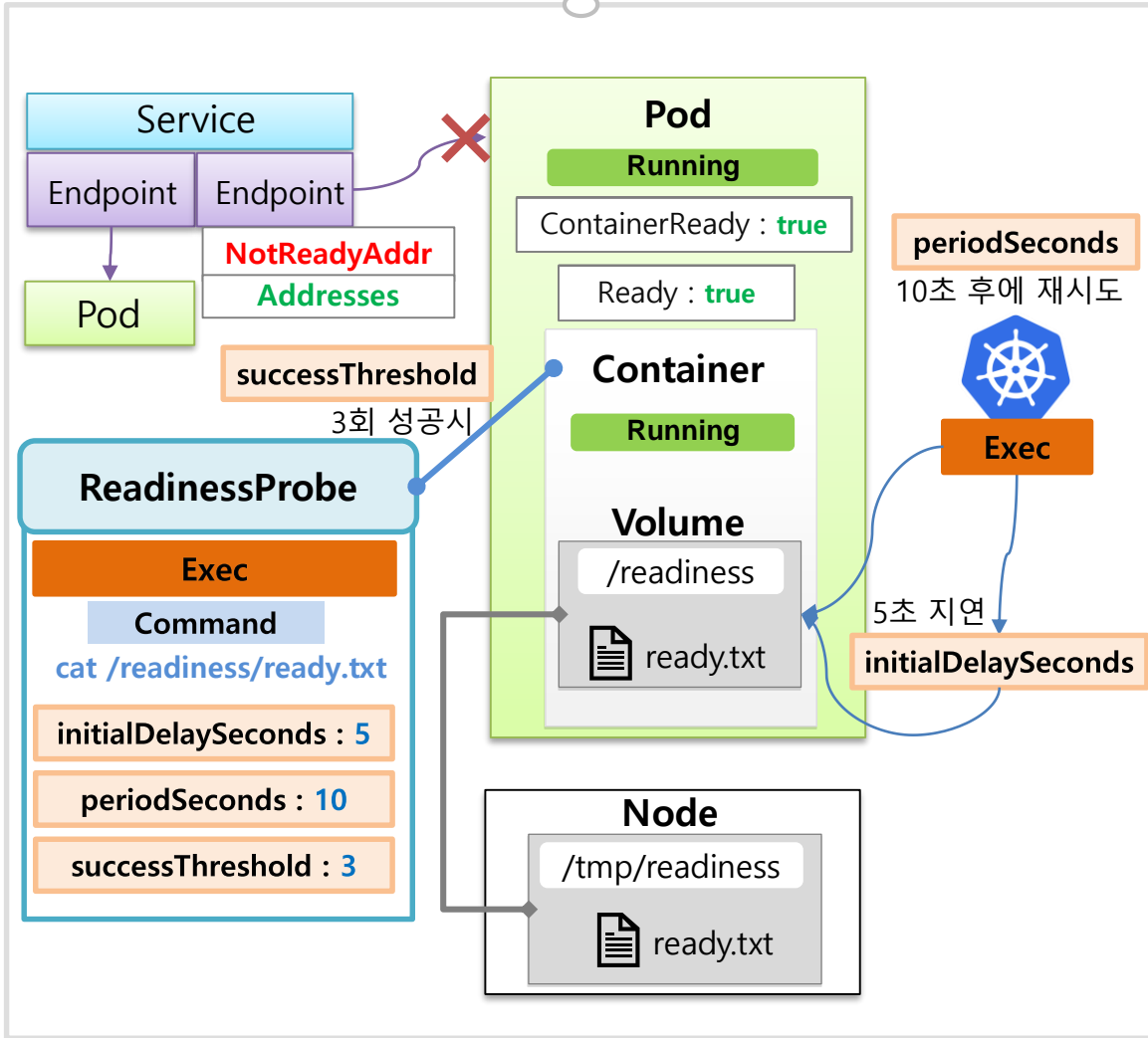


LivenessProbe

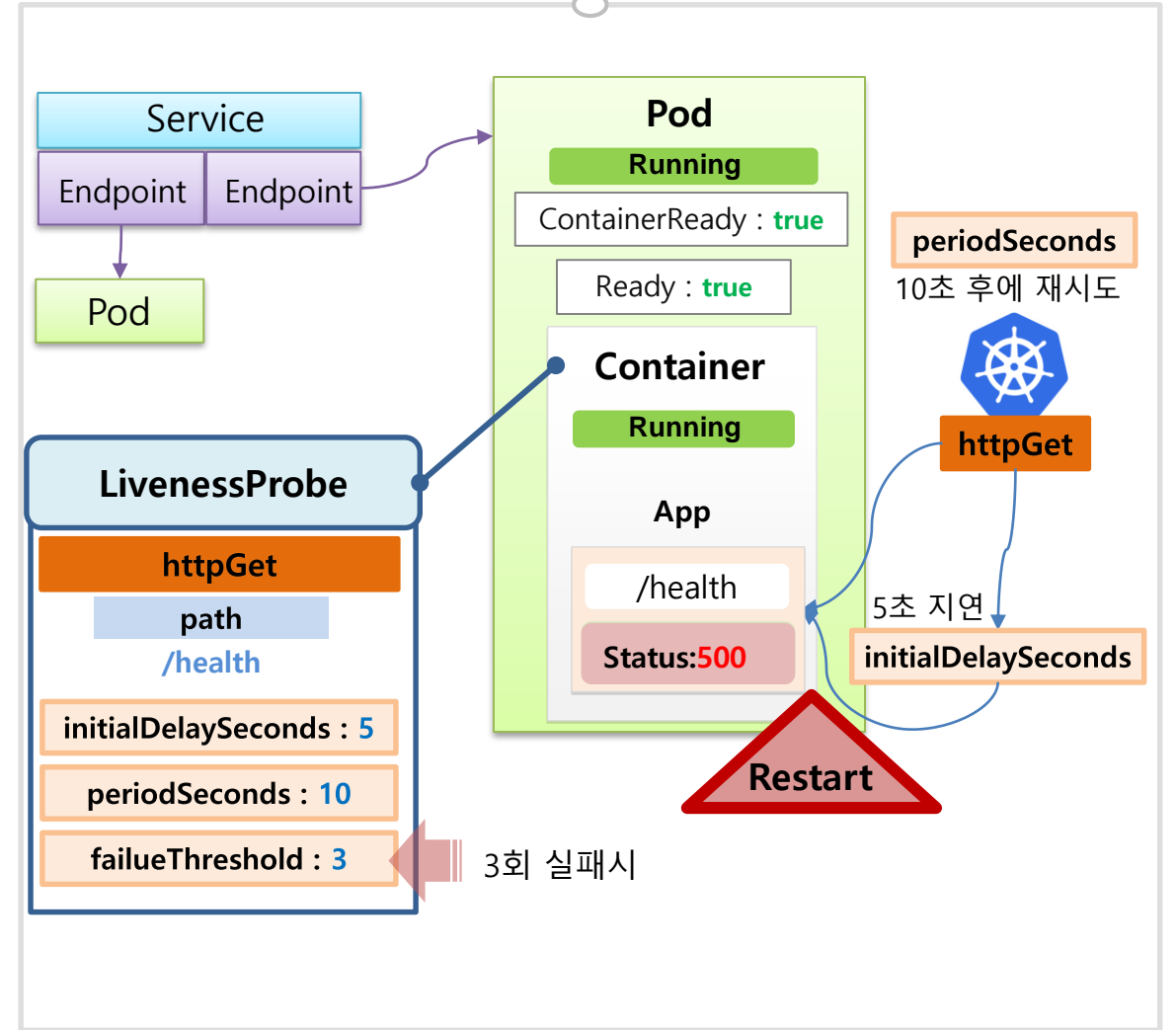


- Pod

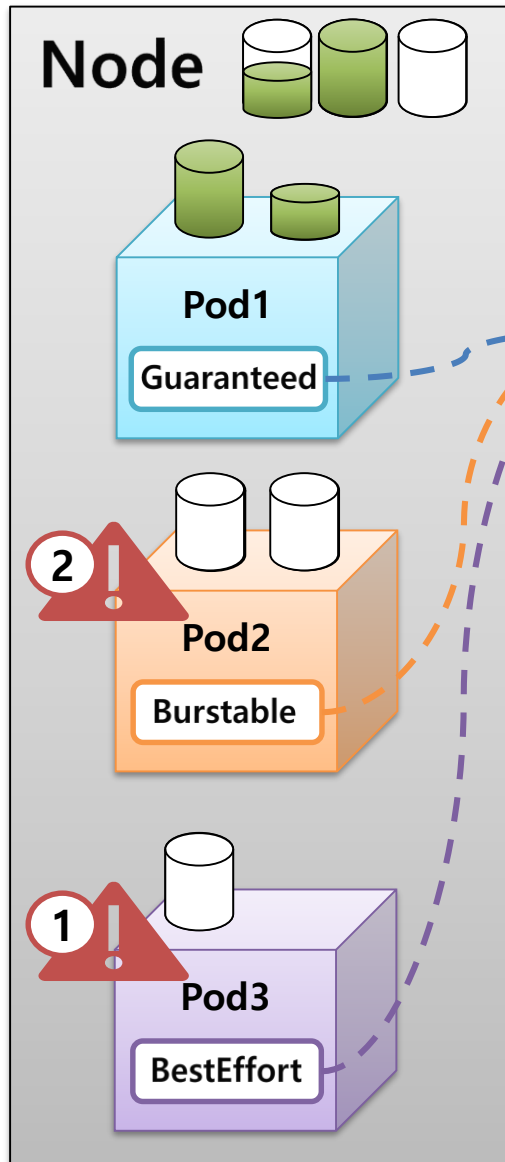
ReadinessProbe



LivenessProbe



- QoS classes (Guaranteed, Burstable, BestEffort)



QoS Classes

```

kind: Pod
spec:
  containers:
  - resources:
      requests:
        memory: 1G
        cpu: 2
      limits:
        memory: 2G
        cpu: 4
  
```

Guaranteed

Container1		Container2	
Request	Limit	Request	Limit
Mem: 1G	CPU: 2C	Mem: 2G	CPU: 4C
Mem: 1G	CPU: 2C	Mem: 2G	CPU: 4C

- 모든 Container에 Request와 Limit가 설정
- Request와 Limit에는 Memory와 CPU가 모두 설정
- 각 Container 내에 Memory와 CPU의 Request와 Limit의 값이 같음

Burstable

Pod1		Pod2		Pod3	
Request	Limit	Request	Limit	Request	Limit
Mem: 1G	CPU: 2C	Mem: 5G	CPU: 6C	Mem: 8G	CPU: 6C
Mem: 2G	CPU: 4C			Mem: 8G	CPU: 6C

BestEffort

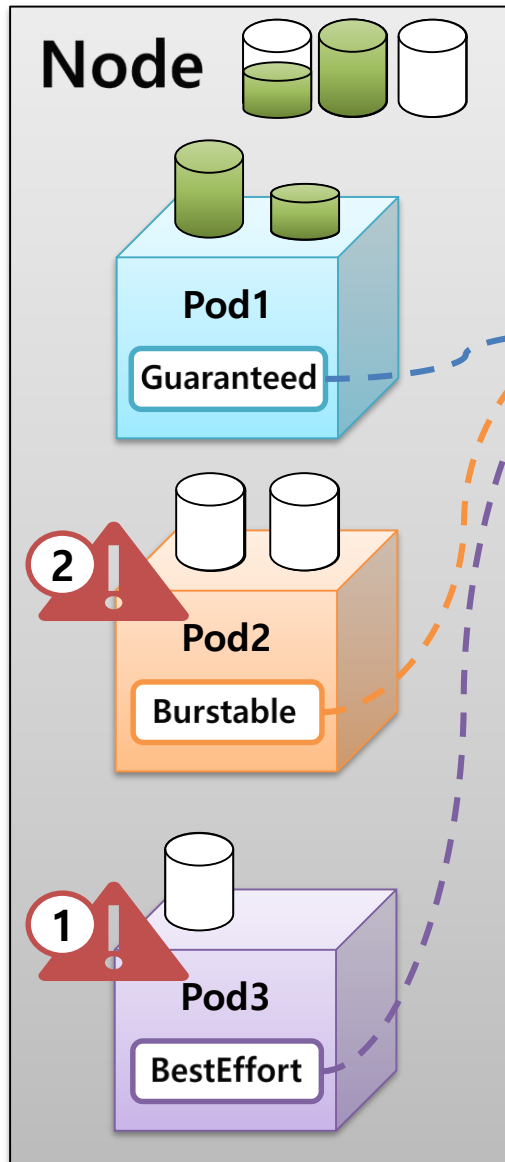
Pod

Container1

Container2

- 어떤 Container 내에도 Request와 Limit 미설정

- QoS classes (Guaranteed, Burstable, BestEffort)



QoS Classes

```

kind: Pod
spec:
  containers:
  - resources:
      requests:
        memory: 1G
        cpu: 2
      limits:
        memory: 2G
        cpu: 4
  
```

Guaranteed

Container1		Container2	
Request	Limit	Request	Limit
Mem: 1G	CPU: 2C	Mem: 2G	CPU: 4C
Mem: 1G	CPU: 2C	Mem: 2G	CPU: 4C

- 모든 Container에 Request와 Limit가 설정
- Request와 Limit에는 Memory와 CPU가 모두 설정
- 각 Container 내에 Memory와 CPU의 Request와 Limit의 값이 같음

Burstable

사용량이 높은 Pod가 먼저 제거됨

Pod	Container	Request	Limit
Pod1	Container	Mem: 5G	CPU: 6C
	Container	Mem: 8G	CPU: 6C
Pod2	Container1	Mem: 8G	CPU: 6C
	Container2	Mem: 8G	CPU: 6C
Pod3	Container1	Mem: 8G	CPU: 6C
	Container2	Mem: 8G	CPU: 6C

OOM Score

App Memory	Request Memory
4G	5G

Usage 75%

OOM Score

App Memory	Request Memory
4G	8G

Usage 50%

- 어떤 Container 내에도 Request와 Limit 미설정