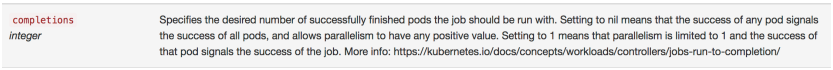
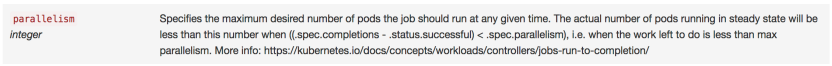
Job负责批量处理短暂的一次性任务 (short lived one-off tasks)，即仅执行一次的任务，它保证批处理任务的一个或多个Pod成功结束。

根据 `.spec.completions` 和 `.spec.Parallelism` 的设置，可以将 Job 划分为以下几种 pattern：

Job 类型	使用示例	行为	completions	Parallelism
一次性 Job	数据库迁移	创建一个 Pod 直至其成功结束	1	1
固定结束次数的 Job	处理工作队列的 Pod	依次创建一个 Pod 运行直至 completions 个成功结束	2+	1
固定结束次数的并行 Job	多个 Pod 同时处理工作队列	依次创建多个 Pod 运行直至 completions 个成功结束	2+	2+
并行 Job	多个 Pod 同时处理工作队列	创建一个或多个 Pod 直至有一个成功结束	1	2+



Job结束需要成功运行的Pod个数，默认为1



并行运行的Pod的个数，默认为1。

固定结束次数的并行Job

用于计算圆周率的如下任务:

```
apiVersion: batch/v1
kind: Job
metadata:
  name: pi
spec:
  completions: 10
  parallelism: 5
  template:
    spec:
      containers:
      - name: pi
        image: perl
        command: ["perl",  "-Mbignum=bpi", "-wle", "print bpi(2000)"]
      restartPolicy: Never
```

```
root@k8s-master:~/sunxi/job# kubectl apply -f job_completions.yaml
job.batch/pi created
root@k8s-master:~/sunxi/job# kubectl get job --watch
```

NAME COMPLETIONS DURATION AGE

job-wq-2 2/1 of 2 68s 3h59m

pi 0/10 6s 6s

pi 1/10 38s 38s

pi 2/10 45s 45s

pi 3/10 49s 49s

pi 4/10 57s 57s

pi 5/10 62s 62s

pi 6/10 81s 81s

pi 7/10 86s 86s

pi 8/10 92s 92s

pi 9/10 97s 97s

pi 10/10 2m16s 2m16s

```
root@k8s-master:~/sunxi/job# kubectl get pods
NAME                  READY   STATUS              RESTARTS   AGE
pi-2kp59              0/1     ContainerCreating   0          7s
pi-5jslq              0/1     ContainerCreating   0          7s
pi-fn9ft              0/1     ContainerCreating   0          7s
pi-ghb2p              1/1     Running             0          7s
pi-x286l              0/1     ContainerCreating   0          7s
redis-master          1/1     Running             0          4h56m
temp-6c96bb599-qs6w7  1/1     Running             0          4h53m
root@k8s-master:~/sunxi/job#
```

```
root@k8s-master:~/sunxi/job# kubectl get pods
NAME                  READY   STATUS      RESTARTS   AGE
pi-2kp59              0/1     Completed   0          107s
pi-4hs8b              0/1     Completed   0          88s
pi-5jslq              0/1     Completed   0          107s
pi-9pqrm              0/1     Completed   0          59s
pi-fn9ft              0/1     Completed   0          107s
pi-ghb2p              0/1     Completed   0          107s
pi-mq574              0/1     Completed   0          44s
pi-qlknq              0/1     Completed   0          97s
pi-s826n              0/1     Completed   0          84s
pi-x286l              0/1     Completed   0          107s
redis-master          1/1     Running     0          4h57m
temp-6c96bb599-qs6w7  1/1     Running     0          4h55m
root@k8s-master:~/sunxi/job#
```

固定结束次数的并行Job（所有任务顺序执行，只有前一个任务执行成功时，后一个任务才会开始执行）

```
apiVersion: batch/v1
kind: Job
metadata:
  name: pi
spec:
  completions: 10
  parallelism: 1
  template:
    spec:
      containers:
      - name: pi
        image: perl
```

```
        command: ["perl",  "-Mbignum=bpi", "-wle", "print bpi(2000)"]
      restartPolicy: Never
```

```
root@k8s-master:~/sunxi/job# kubectl apply -f job_completions_one.yaml
job.batch/pi created
root@k8s-master:~/sunxi/job# kubectl get job --watch
NAME      COMPLETIONS   DURATION   AGE
job-wq-2   2/1 of 2     68s        4h5m
pi        0/10         1s         1s
pi    1/10   11s   11s
pi    2/10   21s   21s
pi    3/10   32s   32s
pi    4/10   51s   51s
pi    5/10   69s   69s
pi    5/10   69s   69s
pi    5/10   69s   69s
pi    6/10   78s   78s
pi    7/10   91s   91s
pi    8/10   4m3s   4m3s
pi    9/10   4m14s   4m14s
pi    10/10   4m28s   4m28s
```

```
root@k8s-master:~/sunxi/job# kubectl get pods
NAME                   READY   STATUS              RESTARTS   AGE
pi-vh4tj               0/1     ContainerCreating   0          4s
redis-master           1/1     Running             0          4h59m
temp-6c96bb599-qs6w7   1/1     Running             0          4h56m
root@k8s-master:~/sunxi/job#
```

```
root@k8s-master:~/sunxi/job# kubectl get pods
NAME                   READY   STATUS              RESTARTS   AGE
pi-2dspm               0/1     Completed           0          69s
pi-8jshp               0/1     Completed           0          47s
pi-ct8q7               0/1     Completed           0          97s
pi-hgkmp               0/1     Completed           0          2m
pi-jq2qb               0/1     Completed           0          110s
pi-mnlsh               0/1     Completed           0          36s
pi-q8g75               0/1     ContainerCreating   0          10s
pi-vh4tj               0/1     Completed           0          2m17s
pi-w7486               0/1     Completed           0          21s
pi-zgpft               0/1     Completed           0          58s
redis-master           1/1     Running             0          5h1m
temp-6c96bb599-qs6w7   1/1     Running             0          4h58m
```