

```
minikube start
```

```
minikube status
```

A terminal window titled "igor@ubuntu-server: ~ - Терминал" with a menu bar containing "Файл", "Правка", "Вид", "Терминал", "Вкладки", and "Справка". The terminal shows the execution of "minikube start" and "minikube status". The "start" command output includes details about the Docker driver, control plane node, base image, and various Kubernetes components and addons. The "status" command output shows the current state of the minikube components.

```
igor@ubuntu-server:~$ minikube start
minikube v1.23.2 on Ubuntu 20.04 (vbox/amd64)
Using the docker driver based on existing profile
Starting control plane node minikube in cluster minikube
Pulling base image ...
Restarting existing docker container for "minikube" ...
Preparing Kubernetes v1.22.2 on Docker 20.10.8 ...
Verifying Kubernetes components...
  ■ Using image gcr.io/k8s-minikube/storage-provisioner:v5
  ■ Using image k8s.gcr.io/ingress-nginx/controller:v1.0.0-beta.3
  ■ Using image k8s.gcr.io/ingress-nginx/kube-webhook-certgen:v1.0
  ■ Using image k8s.gcr.io/ingress-nginx/kube-webhook-certgen:v1.0
Verifying ingress addon...
Enabled addons: storage-provisioner, default-storageclass, ingress
Done! kubectrl is now configured to use "minikube" cluster and "default" namespace by default
igor@ubuntu-server:~$ minikube status
minikube
type: Control Plane
host: Running
kubelet: Running
apiserver: Running
kubeconfig: Configured
igor@ubuntu-server:~$
```

```
vi daemonset1.yaml
```

```
igor@ubuntu-server: ~ - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка

---
apiVersion: apps/v1
kind: DaemonSet
metadata:
  labels:
    app: node-exporter
  name: node-exporter
spec:
  updateStrategy:
    rollingUpdate:
      maxUnavailable: 1
    type: RollingUpdate
  selector:
    matchLabels:
      app: node-exporter
  template:
    metadata:
      labels:
        app: node-exporter
    spec:
      containers:
      - args:
        - --web.listen-address=0.0.0.0:9101
        - --path.procfs=/host/proc
        - --path.sysfs=/host/sys
        - --collector.filesystem.ignored-mount-points=^/(dev|proc|sys|var/lib/docker/.+)($/|)
        - --collector.filesystem.ignored-fs-types=^(autofs|binfmt_misc|cgroup|configfs|debugfs|devpts|devtmpfs|fusectl|hugetlbfs|mqueue|overlay|proc|p
rocs|pstore|rpc_pipefs|securityfs|sysfs|tracefs)$
        image: quay.io/prometheus/node-exporter:v0.16.0
        imagePullPolicy: IfNotPresent
        name: node-exporter
        volumeMounts:
        - mountPath: /host/proc
          name: proc
        - mountPath: /host/sys
          name: sys
        - mountPath: /host/root
          name: root
          readOnly: true
      hostNetwork: true
      hostPID: true
      tolerations:
      - effect: NoSchedule
        operator: Exists
      nodeSelector:
        beta.kubernetes.io/os: linux
      volumes:
      - hostPath:
          path: /proc
          type: ""
          name: proc
      - hostPath:
          path: /sys
          type: ""
          name: sys
      - hostPath:
          path: /
          type: ""
          name: root
```

```
kubectl create -f daemonset1.yaml
```

```
Warning: spec.template.spec.nodeSelector[beta.kubernetes.io/os]: deprecated
since v1.14; use "kubernetes.io/os" instead
```

```
Error from server (AlreadyExists): error when creating "daemonset1.yaml":
daemonsets.apps "node-exporter" already exists
```

```
kubectl get daemonset
```

```
kubectl describe daemonset node-exporter
```

```
igor@ubuntu-server: ~ - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка
igor@ubuntu-server:~$ kubectl create -f daemonset1.yaml
Warning: spec.template.spec.nodeSelector[beta.kubernetes.io/os]: deprecated since v1.14; use "kubernetes.io/os" instead
Error from server (AlreadyExists): error when creating "daemonset1.yaml": daemonsets.apps "node-exporter" already exists
igor@ubuntu-server:~$ kubectl get daemonset
NAME          DESIRED  CURRENT  READY  UP-TO-DATE  AVAILABLE  NODE SELECTOR          AGE
node-exporter  1         1         1       1             1          beta.kubernetes.io/os=linux  134d
igor@ubuntu-server:~$ kubectl describe daemonset node-exporter
Name:          node-exporter
Selector:      app=node-exporter
Node-Selector: beta.kubernetes.io/os=linux
Labels:        app=node-exporter
Annotations:   deprecated.daemonset.template.generation: 1
Desired Number of Nodes Scheduled: 1
Current Number of Nodes Scheduled: 1
Number of Nodes Scheduled with Up-to-date Pods: 1
Number of Nodes Scheduled with Available Pods: 1
Number of Nodes Misscheduled: 0
Pods Status:  1 Running / 0 Waiting / 0 Succeeded / 0 Failed
Pod Template:
  Labels:  app=node-exporter
  Containers:
    node-exporter:
      Image:      quay.io/prometheus/node-exporter:v0.16.0
      Port:       <none>
      Host Port:  <none>
      Args:
        --web.listen-address=0.0.0.0:9101
        --path.procfs=/host/proc
        --path.sysfs=/host/sys
        --collector.filesystem.ignored-mount-points=^/(dev|proc|sys|var/lib/docker/.+)($/
        --collector.filesystem.ignored-fs-types=^(autofs|binfmt_misc|cgroup|configfs|debugfs|devpts|devtmpfs|fusectl|hugetlbfs|mqueue|overlay|proc|procfs|pstore|rpc_pipefs|securityfs|sysfs|tracefs)$
      Environment:  <none>
      Mounts:
        /host/proc from proc (rw)
        /host/root from root (ro)
        /host/sys from sys (rw)
  Volumes:
    proc:
      Type:      HostPath (bare host directory volume)
      Path:      /proc
      HostPathType:
    sys:
      Type:      HostPath (bare host directory volume)
      Path:      /sys
      HostPathType:
    root:
      Type:      HostPath (bare host directory volume)
      Path:      /
      HostPathType:
  Events:      <none>
igor@ubuntu-server:~$
```

vi statefulset.yaml

```

---
apiVersion: apps/v1
kind: StatefulSet
metadata:
  name: rabbitmq
spec:
  serviceName: rabbitmq
  replicas: 3
  selector:
    matchLabels:
      app: rabbitmq
  template:
    metadata:
      labels:
        app: rabbitmq
    spec:
      serviceAccount: rabbitmq
      terminationGracePeriodSeconds: 10
      containers:
        - name: rabbitmq-k8s
          image: rabbitmq:3.7-management
          env:
            - name: MY_POD_IP
              valueFrom:
                fieldRef:
                  fieldPath: status.podIP
            - name: RABBITMQ_USE_LONGNAME
              value: "true"
            - name: RABBITMQ_NODENAME
              value: "rabbit@$(MY_POD_IP)"
            - name: K8S_SERVICE_NAME
              value: "rabbitmq"
            - name: RABBITMQ_ERLANG_COOKIE
              value: "mycookie"
          ports:
            - name: amqp
              protocol: TCP
              containerPort: 5672
            - name: admin
              protocol: TCP
              containerPort: 15672
          livenessProbe:
            exec:
              command: ["rabbitmqctl", "status"]
            initialDelaySeconds: 60
            periodSeconds: 60
            timeoutSeconds: 15
          readinessProbe:
            exec:
              command: ["rabbitmqctl", "status"]
            initialDelaySeconds: 20
            periodSeconds: 60
            timeoutSeconds: 10
          imagePullPolicy: Always
          volumeMounts:
            - name: config-volume
              mountPath: /etc/rabbitmq
            - name: data
              mountPath: /var/lib/rabbitmq
      volumes:
        - name: config-volume
          configMap:
            name: rabbitmq-config
            items:
              - key: rabbitmq.conf
                path: rabbitmq.conf
              - key: enabled_plugins
                path: enabled_plugins
      affinity:
        podAntiAffinity:
          preferredDuringSchedulingIgnoredDuringExecution:
            - weight: 100
              podAffinityTerm:
                labelSelector:
                  matchExpressions:
                    - key: app
                      operator: In
                      values:
                        - rabbitmq
                topologyKey: kubernetes.io/hostname
      volumeClaimTemplates:
        - metadata:
            name: data
          spec:
            accessModes: ["ReadWriteOnce"]
            resources:
              requests:
                storage: 1Gi
            storageClassName: csi-ceph-hdd-dp1

```

```
kubectl apply -f statefulset.yaml
```

```
kubectl get pods
```

```
kubectl get pods
```

```
igor@ubuntu-server: ~ - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка
igor@ubuntu-server:~$ kubectl apply -f statefulset.yaml
statefulset.apps/rabbitmq created
igor@ubuntu-server:~$ kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
app-probe-f775c7b8f-866hw           1/1     Running   1 (46m ago)  19h
database-0                          0/1     Pending   0           130d
geekbrains-55df48c88d-klqx7         1/1     Running   10 (46m ago)  130d
geekbrains-55df48c88d-rz2qz         1/1     Running   10 (46m ago)  130d
gitlab-runner-7467648488-jmlsl      0/1     Running   160 (5m22s ago)  131d
my-deployment-76499ffb7-5cj6v       1/1     Running   2 (46m ago)  45h
my-deployment-76499ffb7-5jcmc       1/1     Running   2 (46m ago)  45h
my-replicaset-47chw                 1/1     Running   2 (46m ago)  45h
my-replicaset-rcb4c                 1/1     Running   2 (46m ago)  45h
my-replicaset-xqjt7                 1/1     Running   2 (46m ago)  45h
node-exporter-n5xqk                 1/1     Running   13 (46m ago)  134d
prometheus-0                        0/1     Pending   0           134d
web-7695dfdcdbd-ftsdcg              0/1     Pending   0           20h
web-7695dfdcdbd-mlnfd               0/1     Pending   0           20h
web2-5b669f8984-86wvp               1/1     Running   1 (46m ago)  19h
igor@ubuntu-server:~$ kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
app-probe-f775c7b8f-866hw           1/1     Running   1 (47m ago)  19h
database-0                          0/1     Pending   0           130d
geekbrains-55df48c88d-klqx7         1/1     Running   10 (47m ago)  130d
geekbrains-55df48c88d-rz2qz         1/1     Running   10 (47m ago)  130d
gitlab-runner-7467648488-jmlsl      0/1     Running   160 (6m13s ago)  131d
my-deployment-76499ffb7-5cj6v       1/1     Running   2 (47m ago)  45h
my-deployment-76499ffb7-5jcmc       1/1     Running   2 (47m ago)  45h
my-replicaset-47chw                 1/1     Running   2 (47m ago)  45h
my-replicaset-rcb4c                 1/1     Running   2 (47m ago)  45h
my-replicaset-xqjt7                 1/1     Running   2 (47m ago)  45h
node-exporter-n5xqk                 1/1     Running   13 (47m ago)  134d
prometheus-0                        0/1     Pending   0           134d
web-7695dfdcdbd-ftsdcg              0/1     Pending   0           20h
web-7695dfdcdbd-mlnfd               0/1     Pending   0           20h
web2-5b669f8984-86wvp               1/1     Running   1 (47m ago)  19h
igor@ubuntu-server:~$
```

```
kubectl get statefulset
```

```
kubectl describe statefulset rabbitmq
```

```
igor@ubuntu-server: ~ - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка
igor@ubuntu-server:~$ kubectl describe statefulset rabbitmq
Name: rabbitmq
Namespace: default
CreationTimestamp: Sun, 27 Mar 2022 16:47:19 +0000
Selector: app=rabbitmq
Labels: <none>
Annotations: <none>
Replicas: 3 desired | 0 total
Update Strategy: RollingUpdate
Partition: 0
Pods Status: 0 Running / 0 Waiting / 0 Succeeded / 0 Failed
Pod Template:
  Labels: app=rabbitmq
  Service Account: rabbitmq
  Containers:
    rabbitmq-k8s:
      Image: rabbitmq:3.7-management
      Ports: 5672/TCP, 15672/TCP
      Host Ports: 0/TCP, 0/TCP
      Liveness: exec [rabbitmqctl status] delay=60s timeout=15s period=60s #success=1 #failure=3
      Readiness: exec [rabbitmqctl status] delay=20s timeout=10s period=60s #success=1 #failure=3
      Environment:
        MY_POD_IP: (v1:status.podIP)
        RABBITMQ_USE_LONGNAME: true
        RABBITMQ_NODENAME: rabbit@$(MY_POD_IP)
        K8S_SERVICE_NAME: rabbitmq
        RABBITMQ_ERLANG_COOKIE: mycookie
      Mounts:
        /etc/rabbitmq from config-volume (rw)
        /var/lib/rabbitmq from data (rw)
  Volumes:
    config-volume:
      Type: ConfigMap (a volume populated by a ConfigMap)
      Name: rabbitmq-config
      Optional: false
  Volume Claims:
    Name: data
    StorageClass: csi-ceph-hdd-dp1
    Labels: <none>
    Annotations: <none>
    Capacity: 1Gi
    Access Modes: [ReadWriteOnce]
  Events:
    Type Reason Age From Message
    ----
    Normal SuccessfulCreate 4m27s statefulset-controller create Claim data-rabbitmq-0 Pod rabbitmq-0 in StatefulSet rabbitmq success
    Warning FailedCreate 103s (x16 over 4m27s) statefulset-controller create Pod rabbitmq-0 in StatefulSet rabbitmq failed error: pods "rabbitmq-0" is forbidden: error looking up service account default/rabbitmq: serviceaccount "rabbitmq" not found
igor@ubuntu-server:~$
```

vi job2.yaml

```
igor@ubuntu-server: ~ - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка
---
apiVersion: batch/v1
kind: Job
metadata:
  name: hello-job
spec:
  backoffLimit: 2
  activeDeadlineSeconds: 60
  template:
    spec:
      containers:
      - name: hello-job
        image: busybox
        args:
        - /bin/sh
        - -c
        - while true; do sleep 1; date; echo Hello from the Kubernetes cluster; done
      restartPolicy: Never
: wq
```

kubectl apply -f job2.yaml

kubectl get pods

```
igor@ubuntu-server: ~ - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка
igor@ubuntu-server:~$ kubectl apply -f job2.yaml
job.batch/hello-job created
igor@ubuntu-server:~$ kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
app-probe-f775c7b8f-866hw           1/1     Running   1 (116m ago)  20h
database-0                           0/1     Pending   0             130d
geekbrains-55df48c88d-klqx7         1/1     Running   10 (116m ago)  130d
geekbrains-55df48c88d-rz2qz         1/1     Running   10 (116m ago)  130d
gitlab-runner-7467648488-jmlsl      0/1     CrashLoopBackOff  168 (52s ago)  131d
hello-job--1-2nj6m                  1/1     Running   0             34s
my-deployment-76499ffb7-5cj6v       1/1     Running   2 (116m ago)  46h
my-deployment-76499ffb7-5jcmc       1/1     Running   2 (116m ago)  46h
my-replicaset-47chw                 1/1     Running   2 (116m ago)  46h
my-replicaset-rcb4c                 1/1     Running   2 (116m ago)  46h
my-replicaset-xqjt7                 1/1     Running   2 (116m ago)  46h
node-exporter-n5xqk                 1/1     Running   13 (116m ago)  134d
prometheus-0                        0/1     Pending   0             135d
web-7695dfdcdbd-ftsdc               0/1     Pending   0             21h
web-7695dfdcdbd-mlnfd               0/1     Pending   0             21h
web2-5b669f8984-86wvp              1/1     Running   1 (116m ago)  20h
igor@ubuntu-server:~$
```

kubectl get jobs

kubectl describe job hello-job

```
igor@ubuntu-server: ~ - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка
igor@ubuntu-server:~$ kubectl get jobs
NAME      COMPLETIONS   DURATION   AGE
hello-job 0/1           109s       109s
igor@ubuntu-server:~$ kubectl describe job hello-job
Name:                hello-job
Namespace:            default
Selector:              controller-uid=7d8ac3c8-80b2-4534-83f5-bcc468d9e67f
Labels:                controller-uid=7d8ac3c8-80b2-4534-83f5-bcc468d9e67f
                     job-name=hello-job
Annotations:           <none>
Parallelism:           1
Completions:           1
Completion Mode:       NonIndexed
Start Time:             Sun, 27 Mar 2022 17:57:03 +0000
Active Deadline Seconds: 60s
Pods Statuses:         0 Active / 0 Succeeded / 1 Failed
Pod Template:
  Labels:  controller-uid=7d8ac3c8-80b2-4534-83f5-bcc468d9e67f
           job-name=hello-job
  Containers:
    hello-job:
      Image:      busybox
      Port:       <none>
      Host Port:  <none>
      Args:
        /bin/sh
        -c
        while true; do sleep 1; date; echo Hello from the Kubernetes cluster; done
      Environment:  <none>
      Mounts:       <none>
      Volumes:      <none>
Events:
  Type     Reason          Age    From          Message
  ----     -
  Normal   SuccessfulCreate 118s   job-controller Created pod: hello-job--1-2nj6m
  Normal   SuccessfulDelete 58s    job-controller Deleted pod: hello-job--1-2nj6m
  Warning  DeadlineExceeded 58s    job-controller Job was active longer than specified deadline
igor@ubuntu-server:~$
```

kubectl get pods

kubectl get pods -all

```
igor@ubuntu-server: ~ - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка

igor@ubuntu-server:~$ kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
app-probe-f775c7b8f-866hw           1/1     Running   1 (119m ago)  20h
database-0                           0/1     Pending   0             130d
geekbrains-55df48c88d-klqx7         1/1     Running   10 (119m ago)  130d
geekbrains-55df48c88d-rz2qz         1/1     Running   10 (119m ago)  130d
gitlab-runner-7467648488-jmlsl      0/1     CrashLoopBackOff  168 (4m15s ago)  131d
my-deployment-76499ffb7-5cj6v       1/1     Running   2 (119m ago)  46h
my-deployment-76499ffb7-5jcmc       1/1     Running   2 (119m ago)  46h
my-replicaset-47chw                 1/1     Running   2 (119m ago)  46h
my-replicaset-rcb4c                 1/1     Running   2 (119m ago)  46h
my-replicaset-xqjt7                 1/1     Running   2 (119m ago)  46h
node-exporter-n5xqk                 1/1     Running   13 (119m ago)  134d
prometheus-0                        0/1     Pending   0             135d
web-7695dfdcdbd-ftsdg               0/1     Pending   0             21h
web-7695dfdcdbd-mlnfd               0/1     Pending   0             21h
web2-5b669f8984-86wvp              1/1     Running   1 (119m ago)  20h

igor@ubuntu-server:~$ kubectl get pods -all
error: unknown shorthand flag: 'a' in -all
See 'kubectl get --help' for usage.
igor@ubuntu-server:~$
```

kubectl get pods --all-namespaces

```
igor@ubuntu-server: ~ - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка

igor@ubuntu-server:~$ kubectl get pods --all-namespaces
NAMESPACE   NAME                                READY   STATUS    RESTARTS   AGE
default     app-probe-f775c7b8f-866hw           1/1     Running   1 (121m ago)  21h
default     database-0                           0/1     Pending   0             130d
default     geekbrains-55df48c88d-klqx7         1/1     Running   10 (121m ago)  130d
default     geekbrains-55df48c88d-rz2qz         1/1     Running   10 (121m ago)  130d
default     gitlab-runner-7467648488-jmlsl      1/1     Running   169 (5m42s ago)  131d
default     my-deployment-76499ffb7-5cj6v       1/1     Running   2 (121m ago)  46h
default     my-deployment-76499ffb7-5jcmc       1/1     Running   2 (121m ago)  46h
default     my-replicaset-47chw                 1/1     Running   2 (121m ago)  46h
default     my-replicaset-rcb4c                 1/1     Running   2 (121m ago)  46h
default     my-replicaset-xqjt7                 1/1     Running   2 (121m ago)  46h
default     node-exporter-n5xqk                 1/1     Running   13 (121m ago)  134d
default     prometheus-0                        0/1     Pending   0             135d
default     web-7695dfdcdbd-ftsdg               0/1     Pending   0             22h
default     web-7695dfdcdbd-mlnfd               0/1     Pending   0             22h
default     web2-5b669f8984-86wvp              1/1     Running   1 (121m ago)  20h
gitlab      gitlab-runner-7467648488-2mdf6      1/1     Running   89 (5m54s ago)  127d
ingress-nginx ingress-nginx-admission-create--1-5z22r 0/1     Completed 0             138d
ingress-nginx ingress-nginx-admission-patch--1-sgdmc 0/1     Completed 1             138d
ingress-nginx ingress-nginx-controller-69bdbc4d57-z67vb 1/1     Running   14 (121m ago)  138d
kube-system coredns-78fcd69978-7c8pw           1/1     Running   17 (121m ago)  146d
kube-system etcd-minikube                       1/1     Running   17 (121m ago)  146d
kube-system kube-apiserver-minikube       1/1     Running   17 (121m ago)  146d
kube-system kube-controller-manager-minikube 1/1     Running   17 (121m ago)  146d
kube-system kube-proxy-4zwp6           1/1     Running   17 (121m ago)  146d
kube-system kube-scheduler-minikube       1/1     Running   17 (121m ago)  146d
kube-system storage-provisioner        1/1     Running   30 (120m ago)  146d
prod        database-0                           0/1     Pending   0             127d
prod        geekbrains-55df48c88d-htjs5         1/1     Running   8 (121m ago)  127d
prod        geekbrains-55df48c88d-mv8wk         1/1     Running   8 (121m ago)  127d
redmine     pg-db-757b89cf9-p8dtq              0/1     Pending   0             138d
redmine     redmine-app-58fc94cf66-kl4nw        0/1     Error      451 (5m19s ago)  138d
stage       database-0                           0/1     Pending   0             127d
stage       geekbrains-55df48c88d-7qgzb         1/1     Running   8 (121m ago)  127d
stage       geekbrains-55df48c88d-gf5tm         1/1     Running   8 (121m ago)  127d

igor@ubuntu-server:~$
```

kubectl describe job hello-job


```
igor@ubuntu-server: ~ - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка
igor@ubuntu-server:~$ kubectl describe job hello-job
Name:                hello-job
Namespace:           default
Selector:             controller-uid=7d8ac3c8-80b2-4534-83f5-bcc468d9e67f
Labels:              controller-uid=7d8ac3c8-80b2-4534-83f5-bcc468d9e67f
                    job-name=hello-job
Annotations:         <none>
Parallelism:         1
Completions:         1
Completion Mode:     NonIndexed
Start Time:          Sun, 27 Mar 2022 17:57:03 +0000
Active Deadline Seconds: 60s
Pods Statuses:       0 Active / 0 Succeeded / 1 Failed
Pod Template:
  Labels:  controller-uid=7d8ac3c8-80b2-4534-83f5-bcc468d9e67f
          job-name=hello-job
Containers:
  hello-job:
    Image:          busybox
    Port:           <none>
    Host Port:      <none>
    Args:
      /bin/sh
      -c
      while true; do sleep 1; date; echo Hello from the Kubernetes cluster; done
    Environment:    <none>
    Mounts:          <none>
    Volumes:         <none>
Events:
  Type     Reason             Age   From             Message
  ----     -
  Normal   SuccessfulCreate   6m26s  job-controller   Created pod: hello-job--1-2nj6m
  Normal   SuccessfulDelete   5m26s  job-controller   Deleted pod: hello-job--1-2nj6m
  Warning  DeadlineExceeded   5m26s  job-controller   Job was active longer than specified deadline
igor@ubuntu-server:~$
```

```
vi cronjob.yaml
```

```
igor@ubuntu-server: ~ - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка
apiVersion: batch/v1beta1
kind: CronJob
metadata:
  name: hello-cron-job
spec:
  schedule: "*/1 * * * *"
  concurrencyPolicy: Allow
  jobTemplate:
    spec:
      backoffLimit: 2
      activeDeadlineSeconds: 100
      template:
        spec:
          containers:
            - name: hello-cron-job
              image: busybox
              args:
                - /bin/sh
                - -c
                - date; echo Hello from the Kubernetes cluster
          restartPolicy: Never
~
:wq
```

```
kubectl apply -f cronjob.yaml
```

```
Warning: batch/v1beta1 CronJob is deprecated in v1.21+, unavailable in v1.25+;
use batch/v1 CronJob
```

```
cronjob.batch/hello-cron-job created
```

```
kubectl get pods
```

```
igor@ubuntu-server: ~ - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка
igor@ubuntu-server:~$ kubectl apply -f cronjob.yaml
Warning: batch/v1beta1 CronJob is deprecated in v1.21+, unavailable in v1.25+; use batch/v1 CronJob
cronjob.batch/hello-cron-job created
igor@ubuntu-server:~$ kubectl get pods
NAME                                READY   STATUS              RESTARTS   AGE
app-probe-f775c7b8f-866hw           1/1     Running             1 (126m ago)  21h
database-0                          0/1     Pending             0           130d
geekbrains-55df48c88d-klqx7         1/1     Running             10 (126m ago)  130d
geekbrains-55df48c88d-rz2qz         1/1     Running             10 (126m ago)  130d
gitlab-runner-7467648488-jmlsl      0/1     CrashLoopBackOff    169 (3m27s ago)  131d
hello-cron-job-27473408--1-cdpjn     0/1     Completed           0           14s
my-deployment-76499ffb7-5cj6v        1/1     Running             2 (126m ago)  46h
my-deployment-76499ffb7-5jcmc        1/1     Running             2 (126m ago)  46h
my-replicaset-47chw                 1/1     Running             2 (126m ago)  46h
my-replicaset-rcb4c                 1/1     Running             2 (126m ago)  46h
my-replicaset-xqjt7                 1/1     Running             2 (126m ago)  46h
node-exporter-n5xqk                 1/1     Running             13 (126m ago)  134d
prometheus-0                        0/1     Pending             0           135d
web-7695dfdcdb-ftsdcg               0/1     Pending             0           22h
web-7695dfdcdb-mlnfd                0/1     Pending             0           22h
web2-5b669f8984-86wvp               1/1     Running             1 (126m ago)  20h
igor@ubuntu-server:~$
```

```
kubectl get cronjobs
```

```
kubectl describe job hello-cron-job
```

Файл Правка Вид Терминал Вкладки Справка

igor@ubuntu-server:~\$ kubectl get cronjobs

NAME	SCHEDULE	SUSPEND	ACTIVE	LAST SCHEDULE	AGE
hello-cron-job	*/* * * * *	False	0	47s	76s

igor@ubuntu-server:~\$ kubectl describe job hello-cron-job

Name: hello-cron-job-27473408
Namespace: default
Selector: controller-uid=3a4066a0-e1e1-4e5c-9aaf-a21543f22dba
Labels: controller-uid=3a4066a0-e1e1-4e5c-9aaf-a21543f22dba
job-name=hello-cron-job-27473408
Annotations: <none>
Controlled By: CronJob/hello-cron-job
Parallelism: 1
Completions: 1
Completion Mode: NonIndexed
Start Time: Sun, 27 Mar 2022 18:08:00 +0000
Completed At: Sun, 27 Mar 2022 18:08:03 +0000
Duration: 3s
Active Deadline Seconds: 100s
Pods Statuses: 0 Active / 1 Succeeded / 0 Failed
Pod Template:
Labels: controller-uid=3a4066a0-e1e1-4e5c-9aaf-a21543f22dba
job-name=hello-cron-job-27473408

Containers:
hello-cron-job:
Image: busybox
Port: <none>
Host Port: <none>
Args:
/bin/sh
-c
date; echo Hello from the Kubernetes cluster
Environment: <none>
Mounts: <none>
Volumes: <none>

Events:

Type	Reason	Age	From	Message
Normal	SuccessfulCreate	69s	job-controller	Created pod: hello-cron-job-27473408--1-cdpjn
Normal	Completed	66s	job-controller	Job completed

Name: hello-cron-job-27473409
Namespace: default
Selector: controller-uid=f5d098a0-93bc-4f65-ae00-d4f2807f5bd6
Labels: controller-uid=f5d098a0-93bc-4f65-ae00-d4f2807f5bd6
job-name=hello-cron-job-27473409
Annotations: <none>
Controlled By: CronJob/hello-cron-job
Parallelism: 1
Completions: 1
Completion Mode: NonIndexed
Start Time: Sun, 27 Mar 2022 18:09:00 +0000
Completed At: Sun, 27 Mar 2022 18:09:03 +0000
Duration: 3s
Active Deadline Seconds: 100s
Pods Statuses: 0 Active / 1 Succeeded / 0 Failed
Pod Template:

Labels: controller-uid=f5d098a0-93bc-4f65-ae00-d4f2807f5bd6
job-name=hello-cron-job-27473409

Containers:
hello-cron-job:
Image: busybox
Port: <none>
Host Port: <none>
Args:
/bin/sh
-c
date; echo Hello from the Kubernetes cluster
Environment: <none>
Mounts: <none>
Volumes: <none>

Events:

Type	Reason	Age	From	Message
Normal	SuccessfulCreate	9s	job-controller	Created pod: hello-cron-job-27473409--1-nz54t
Normal	Completed	6s	job-controller	Job completed

igor@ubuntu-server:~\$

kubectl get pods

```
igor@ubuntu-server: ~ - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка

igor@ubuntu-server:~$ kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
app-probe-f775c7b8f-866hw           1/1     Running   1 (129m ago)   21h
database-0                           0/1     Pending   0             130d
geekbrains-55df48c88d-klqx7         1/1     Running   10 (129m ago)  130d
geekbrains-55df48c88d-rz2qz         1/1     Running   10 (129m ago)  130d
gitlab-runner-7467648488-jmlsl      1/1     Running   170 (6m33s ago) 131d
hello-cron-job-27473409--1-nz54t    0/1     Completed 0             2m20s
hello-cron-job-27473410--1-pm2nw    0/1     Completed 0             80s
hello-cron-job-27473411--1-hmz8q    0/1     Completed 0             20s
my-deployment-76499ffb7-5cj6v       1/1     Running   2 (129m ago)   46h
my-deployment-76499ffb7-5jcmc       1/1     Running   2 (129m ago)   46h
my-replicaset-47chw                 1/1     Running   2 (129m ago)   46h
my-replicaset-rcb4c                 1/1     Running   2 (129m ago)   46h
my-replicaset-xqjt7                 1/1     Running   2 (129m ago)   46h
node-exporter-n5xqk                 1/1     Running   13 (129m ago)  134d
prometheus-0                         0/1     Pending   0             135d
web-7695dfdcdbd-ftsdcg              0/1     Pending   0             22h
web-7695dfdcdbd-mlnfd               0/1     Pending   0             22h
web2-5b669f8984-86wvp               1/1     Running   1 (129m ago)   20h
igor@ubuntu-server:~$
```

kubectl get jobs

kubectl get cronjobs

kubectl delete cronjob hello-cron-job

```
igor@ubuntu-server: ~ - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка

igor@ubuntu-server:~$ kubectl get jobs
NAME                                COMPLETIONS   DURATION   AGE
hello-cron-job-27473410             1/1           3s         2m11s
hello-cron-job-27473411             1/1           3s         71s
hello-cron-job-27473412             1/1           4s         11s
hello-job                            0/1           15m        15m
igor@ubuntu-server:~$ kubectl get cronjobs
NAME            SCHEDULE    SUSPEND   ACTIVE   LAST SCHEDULE   AGE
hello-cron-job  */1 * * * *  False    1        3s         5m32s
igor@ubuntu-server:~$ kubectl delete cronjob hello-cron-job
cronjob.batch "hello-cron-job" deleted
igor@ubuntu-server:~$
```

vi php-apache.yaml

```
igor@ubuntu-server: ~ - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка

apiVersion: apps/v1
kind: Deployment
metadata:
  name: php-apache-hps
spec:
  selector:
    matchLabels:
      run: php-apache-hps
  replicas: 1
  template:
    metadata:
      labels:
        run: php-apache-hps
    spec:
      containers:
        - name: php-apache-hps
          image: k8s.gcr.io/hpa-example
          ports:
            - containerPort: 80
          resources:
            limits:
              cpu: 500m
            requests:
              cpu: 200m
---
apiVersion: v1
kind: Service
metadata:
  name: php-apache-hps
  labels:
    run: php-apache-hps
spec:
  ports:
    - port: 80
  selector:
    run: php-apache-hps
~
:wq
```

kubectl apply -f php-apache.yaml

kubectl get pods

```
igor@ubuntu-server: ~ - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка

igor@ubuntu-server:~$ kubectl apply -f php-apache.yaml
deployment.apps/php-apache-hps created
service/php-apache-hps created
igor@ubuntu-server:~$ kubectl get pods
NAME                                READY   STATUS              RESTARTS   AGE
app-probe-f775c7b8f-866hw           1/1     Running             1 (136m ago)  21h
database-0                           0/1     Pending             0             130d
geekbrains-55df48c88d-klqx7         1/1     Running             10 (136m ago)  130d
geekbrains-55df48c88d-rz2qz         1/1     Running             10 (136m ago)  130d
gitlab-runner-7467648488-jmlsl      0/1     CrashLoopBackOff    170 (5m6s ago)  131d
my-deployment-76499ffb7-5cj6v       1/1     Running             2 (136m ago)  46h
my-deployment-76499ffb7-5jcmc       1/1     Running             2 (136m ago)  46h
my-replicaset-47chw                 1/1     Running             2 (136m ago)  47h
my-replicaset-rcb4c                 1/1     Running             2 (136m ago)  46h
my-replicaset-xqjt7                 1/1     Running             2 (136m ago)  47h
node-exporter-n5xqk                 1/1     Running             13 (136m ago)  134d
php-apache-hps-f7855487b-7225c      0/1     ContainerCreating   0             16s
prometheus-0                         0/1     Pending             0             135d
web-7695dfdcdbd-ftsdg               0/1     Pending             0             22h
web-7695dfdcdbd-mlnfd               0/1     Pending             0             22h
web2-5b669f8984-86wvp               1/1     Running             1 (136m ago)  20h
igor@ubuntu-server:~$
```

kubectl describe pod php-apache-hps-f7855487b-7225c


```
igor@ubuntu-server: ~ - Терминал
Файл Правка Вид Терминал Вкладки Справка
igor@ubuntu-server:~$ kubectl describe pod php-apache-hps-f7855487b-7225c
Name:         php-apache-hps-f7855487b-7225c
Namespace:    default
Priority:      0
Node:         minikube/192.168.49.2
Start Time:   Sun, 27 Mar 2022 18:17:53 +0000
Labels:       pod-template-hash=f7855487b
              run=php-apache-hps
Annotations:  <none>
Status:       Running
IP:           172.17.0.20
IPs:          IP: 172.17.0.20
Controlled By: ReplicaSet/php-apache-hps-f7855487b
Containers:
  php-apache-hps:
    Container ID:  docker://5284aa302220e9dff6226a14535862b14819c49dc5f26f0d7a17e23c3e1ed59
    Image:         k8s.gcr.io/hpa-example
    Image ID:      docker-pullable://k8s.gcr.io/hpa-example@sha256:581697a37f0e136db86d6b30392f0db40ce99c8248a7044c770012f4e8491544
    Port:         80/TCP
    Host Port:     0/TCP
    State:         Running
      Started:     Sun, 27 Mar 2022 18:18:19 +0000
    Ready:         True
    Restart Count: 0
    Limits:
      cpu: 500m
    Requests:
      cpu: 200m
    Environment:  <none>
    Mounts:
      /var/run/secrets/kubernetes.io/serviceaccount from kube-api-access-zd88j (ro)
Conditions:
  Type            Status
  Initialized      True
  Ready           True
  ContainersReady  True
  PodScheduled     True
Volumes:
  kube-api-access-zd88j:
    Type:              Projected (a volume that contains injected data from multiple sources)
    TokenExpirationSeconds: 3607
    ConfigMapName:       kube-root-ca.crt
    ConfigMapOptional:   <nil>
    DownwardAPI:         true
  QoS Class:           Burstable
  Node-Selectors:      <none>
  Tolerations:         node.kubernetes.io/not-ready:NoExecute op=Exists for 300s
                      node.kubernetes.io/unreachable:NoExecute op=Exists for 300s
Events:
  Type     Reason      Age   From          Message
  ----     -
  Normal   Scheduled   3m49s default-scheduler Successfully assigned default/php-apache-hps-f7855487b-7225c to minikube
  Normal   Pulling     3m48s kubelet       Pulling image "k8s.gcr.io/hpa-example"
  Normal   Pulled      3m24s kubelet       Successfully pulled image "k8s.gcr.io/hpa-example" in 24.765985451s
  Normal   Created     3m23s kubelet       Created container php-apache-hps
  Normal   Started     3m23s kubelet       Started container php-apache-hps
igor@ubuntu-server:~$
```

kubectl get pods

kubectl delete pod app-probe-f775c7b8f-866hw

kubectl delete pod node-exporter-n5xqk

kubectl delete pod geekbrains-55df48c88d-klqx7

kubectl delete pod geekbrains-55df48c88d-rz2qz

kubectl delete pod gitlab-runner-7467648488-jmlsl

kubectl delete pod prometheus-0

kubectl get pods

```
igor@ubuntu-server: ~ - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка

igor@ubuntu-server:~$ kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
app-probe-f775c7b8f-866hw           1/1     Running   1 (141m ago)  21h
database-0                          0/1     Pending   0           130d
geekbrains-55df48c88d-klqx7         1/1     Running   10 (141m ago)  130d
geekbrains-55df48c88d-rz2qz         1/1     Running   10 (141m ago)  130d
gitlab-runner-7467648488-jmlsl      0/1     CrashLoopBackOff  171 (44s ago)  131d
my-deployment-76499ffb7-5cj6v       1/1     Running   2 (141m ago)  46h
my-deployment-76499ffb7-5jcmc       1/1     Running   2 (141m ago)  46h
my-replicaset-47chw                 1/1     Running   2 (141m ago)  47h
my-replicaset-rcb4c                 1/1     Running   2 (141m ago)  47h
my-replicaset-xqjt7                 1/1     Running   2 (141m ago)  47h
node-exporter-n5xqk                 1/1     Running   13 (141m ago)  134d
php-apache-hps-f7855487b-7225c      1/1     Running   0           4m39s
prometheus-0                        0/1     Pending   0           135d
web-7695dfdcdbd-ftsdc               0/1     Pending   0           22h
web-7695dfdcdbd-mlnfd               0/1     Pending   0           22h
web2-5b669f8984-86wvp               1/1     Running   1 (141m ago)  20h

igor@ubuntu-server:~$ kubectl delete pod app-probe-f775c7b8f-866hw

Command 'kubbectl' not found, did you mean:

  command 'kubectl' from snap kubectl (1.23.5)

See 'snap info <snapname>' for additional versions.

igor@ubuntu-server:~$ kubectl delete pod app-probe-f775c7b8f-866hw

Command 'kubbectl' not found, did you mean:

  command 'kubectl' from snap kubectl (1.23.5)

See 'snap info <snapname>' for additional versions.

igor@ubuntu-server:~$ kubectl delete pod node-exporter-n5xqk

Command 'kubbectl' not found, did you mean:

  command 'kubectl' from snap kubectl (1.23.5)

See 'snap info <snapname>' for additional versions.

igor@ubuntu-server:~$ kubectl delete pod app-probe-f775c7b8f-866hw
pod "app-probe-f775c7b8f-866hw" deleted
igor@ubuntu-server:~$ kubectl delete pod node-exporter-n5xqk
pod "node-exporter-n5xqk" deleted
igor@ubuntu-server:~$ kubectl delete pod geekbrains-55df48c88d-klqx7
pod "geekbrains-55df48c88d-klqx7" deleted
igor@ubuntu-server:~$ kubectl delete pod geekbrains-55df48c88d-rz2qz
pod "geekbrains-55df48c88d-rz2qz" deleted
igor@ubuntu-server:~$ kubectl delete pod gitlab-runner-7467648488-jmlsl
pod "gitlab-runner-7467648488-jmlsl" deleted
igor@ubuntu-server:~$
```

kubectl delete pod database-0

kubectl delete pod my-deployment-76499ffb7-5cj6v

kubectl delete pod my-deployment-76499ffb7-5jcmc

kubectl delete pod my-replicaset-47chw

kubectl delete pod my-replicaset-rcb4c

kubectl delete pod my-replicaset-xqjt7

kubectl get pods

```
igor@ubuntu-server: ~ - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка
igor@ubuntu-server:~$ kubectl delete pod database-0
pod "database-0" deleted
igor@ubuntu-server:~$ kubectl delete pod my-deployment-76499ffb7-5cj6v
pod "my-deployment-76499ffb7-5cj6v" deleted
igor@ubuntu-server:~$ kubectl delete pod my-deployment-76499ffb7-5jcmc
pod "my-deployment-76499ffb7-5jcmc" deleted
igor@ubuntu-server:~$ kubectl delete pod my-replicaset-47chw
pod "my-replicaset-47chw" deleted
igor@ubuntu-server:~$ kubectl delete pod my-replicaset-rcb4c
pod "my-replicaset-rcb4c" deleted
igor@ubuntu-server:~$ kubectl delete pod my-replicaset-xqjt7
pod "my-replicaset-xqjt7" deleted
igor@ubuntu-server:~$ kubectl get pods
NAME                                READY   STATUS              RESTARTS   AGE
app-probe-f775c7b8f-knb2m           1/1     Running             0           8m3s
database-0                          0/1     Pending             0           2m21s
geekbrains-55df48c88d-lfbpm         1/1     Running             0           6m34s
geekbrains-55df48c88d-xsbr4         1/1     Running             0           6m57s
gitlab-runner-7467648488-hhsw6      0/1     CrashLoopBackOff    1 (13s ago) 6m12s
my-deployment-76499ffb7-g2s2v       1/1     Running             0           82s
my-deployment-76499ffb7-vfjt2       1/1     Running             0           65s
my-replicaset-7wljl                 1/1     Running             0           49s
my-replicaset-qc62v                 1/1     Running             0           15s
my-replicaset-r8b67                 1/1     Running             0           31s
node-exporter-kpcch                 1/1     Running             0           7m50s
php-apache-hps-f7855487b-7225c      1/1     Running             0           16m
prometheus-0                        0/1     Pending             0           3m36s
web-7695dfdcdbd-ftsdcg              0/1     Pending             0           22h
web-7695dfdcdbd-mlnfd               0/1     Pending             0           22h
web2-5b669f8984-86wvp               1/1     Running             1 (153m ago) 20h
igor@ubuntu-server:~$
```

`kubectl get replicaset`

`kubectl delete replicaset web-7695dfdcdbd`

`kubectl delete replicaset web2-5b669f8984`

`kubectl delete replicaset geekbrains-55df48c88d`

`kubectl delete replicaset gitlab-runner-7467648488`

`kubectl delete replicaset my-deployment-76499ffb7`

`kubectl delete replicaset my-replicaset`

`kubectl delete replicaset php-apache-hps-f7855487b`

`kubectl get replicaset`

```
igor@ubuntu-server: ~ - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка

igor@ubuntu-server:~$ kubectl get replicaset
NAME                                DESIRED  CURRENT  READY  AGE
app-probe-f775c7b8f                 1        1        1      21h
geekbrains-55df48c88d               2        2        2     130d
gitlab-runner-7467648488            1        1        0     131d
my-deployment-76499ffb7             2        2        2      47h
my-replicaset                       3        3        3      47h
php-apache-hps-f7855487b            1        1        1      19m
web-7695dfdcdb                     2        2        0      22h
web2-5b669f8984                    1        1        1      21h
igor@ubuntu-server:~$ kubectl delete web-7695dfdcdb
error: the server doesn't have a resource type "web-7695dfdcdb"
igor@ubuntu-server:~$ kubectl delete replicaset web-7695dfdcdb
replicaset.apps "web-7695dfdcdb" deleted
igor@ubuntu-server:~$ kubectl delete replicaset web2-5b669f8984
replicaset.apps "web2-5b669f8984" deleted
igor@ubuntu-server:~$ kubectl delete replicaset geekbrains-55df48c88d
replicaset.apps "geekbrains-55df48c88d" deleted
igor@ubuntu-server:~$ kubectl delete replicaset gitlab-runner-7467648488
replicaset.apps "gitlab-runner-7467648488" deleted
igor@ubuntu-server:~$ kubectl delete replicaset my-deployment-76499ffb7
replicaset.apps "my-deployment-76499ffb7" deleted
igor@ubuntu-server:~$ kubectl delete replicaset my-replicaset
replicaset.apps "my-replicaset" deleted
igor@ubuntu-server:~$ kubectl delete replicaset php-apache-hps-f7855487b
replicaset.apps "php-apache-hps-f7855487b" deleted
igor@ubuntu-server:~$ php-apache-hps-f7855487b
php-apache-hps-f7855487b: command not found
igor@ubuntu-server:~$ kubectl get replicaset
NAME                                DESIRED  CURRENT  READY  AGE
app-probe-f775c7b8f                 1        1        1      21h
geekbrains-55df48c88d               2        2        2     105s
gitlab-runner-7467648488            1        1        1      91s
my-deployment-76499ffb7             2        2        2      59s
php-apache-hps-f7855487b            1        1        1      26s
web-7695dfdcdb                     2        2        0       3m1s
web2-5b669f8984                    1        1        1     2m39s
igor@ubuntu-server:~$ ^C
igor@ubuntu-server:~$
```

[kubectl get deployments](#)

[kubectl delete deployment web2](#)

[kubectl delete deployment web](#)

[kubectl delete deployment php-apache-hps](#)

[kubectl delete deployment my-deployment](#)

[kubectl delete deployment gitlab-runner](#)

[kubectl delete deployment geekbrains](#)

[kubectl delete deployment app-probe](#)

[kubectl get deployments](#)

```
igor@ubuntu-server: ~ - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка

igor@ubuntu-server:~$ kubectl get deployments
NAME          READY   UP-TO-DATE   AVAILABLE   AGE
app-probe     1/1     1            1           21h
geekbrains    2/2     2            2           130d
gitlab-runner 0/1     1            0           131d
my-deployment 2/2     2            2           47h
php-apache-hps 1/1     1            1           32m
web           0/2     2            0           22h
web2          1/1     1            1           21h
igor@ubuntu-server:~$ kubectl delete deployment web2
deployment.apps "web2" deleted
igor@ubuntu-server:~$ kubectl delete deployment web
deployment.apps "web" deleted
igor@ubuntu-server:~$ kubectl delete deployment php-apache-hps
deployment.apps "php-apache-hps" deleted
igor@ubuntu-server:~$ kubectl delete deployment my-deployment
deployment.apps "my-deployment" deleted
igor@ubuntu-server:~$ kubectl delete deployment gitlab-runner
deployment.apps "gitlab-runner" deleted
igor@ubuntu-server:~$ kubectl delete deployment geekbrains
deployment.apps "geekbrains" deleted
igor@ubuntu-server:~$ kubectl delete deployment app-probe
deployment.apps "app-probe" deleted
igor@ubuntu-server:~$ kubectl get deployments
No resources found in default namespace.
igor@ubuntu-server:~$
```

[kubectl get replicaset](#)

[kubectl get pods](#)

```
igor@ubuntu-server: ~ - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка

igor@ubuntu-server:~$ kubectl get replicaset
No resources found in default namespace.
igor@ubuntu-server:~$ kubectl pods
error: unknown command "pods" for "kubectl"

Did you mean this?
logs
igor@ubuntu-server:~$ kubectl get pods
NAME          READY   STATUS    RESTARTS   AGE
database-0    0/1     Pending   0           25m
node-exporter-kpcch 1/1     Running   0           31m
prometheus-0  0/1     Pending   0           27m
igor@ubuntu-server:~$
```

[kubectl get daemonset](#)

[kubectl delete daemonset node-exporter](#)

```
igor@ubuntu-server: ~ - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка

igor@ubuntu-server:~$ kubectl get daemonset
NAME          DESIRED   CURRENT   READY   UP-TO-DATE   AVAILABLE   NODE SELECTOR   AGE
node-exporter 1          1         1       1            1           beta.kubernetes.io/os=linux 135d
igor@ubuntu-server:~$ kubectl delete ^C
igor@ubuntu-server:~$ kubectl delete daemonset node-exporter
daemonset.apps "node-exporter" deleted
igor@ubuntu-server:~$
```

[kubectl get pods](#)

[kubectl top pod](#)


```
kubectl autoscale deployment php-apache-hps --cpu-percent=50 --min=1 --max=5
```

```
Error from server (NotFound): deployments.apps "php-apache-hps" not found
```

```
igor@ubuntu-server: ~ - Терминал
Файл  Правка  Вид  Терминал  Вкладки  Справка
igor@ubuntu-server:~$ kubectl get pods
NAME          READY   STATUS    RESTARTS   AGE
database-0    0/1     Pending   0           29m
prometheus-0  0/1     Pending   0           30m
igor@ubuntu-server:~$ kubectl top pod
error: Metrics API not available
igor@ubuntu-server:~$ kubectl autoscale deployment php-apache-hps --cpu-persent=50 --min=1 --max=5
error: unknown flag: --cpu-persent
See 'kubectl autoscale --help' for usage.
igor@ubuntu-server:~$ kubectl autoscale deployment php-apache-hps --cpu-percent=50 --min=1 --max=5
Error from server (NotFound): deployments.apps "php-apache-hps" not found
igor@ubuntu-server:~$
```

```
kubectl get hpa
```

```
kubectl get pods
```