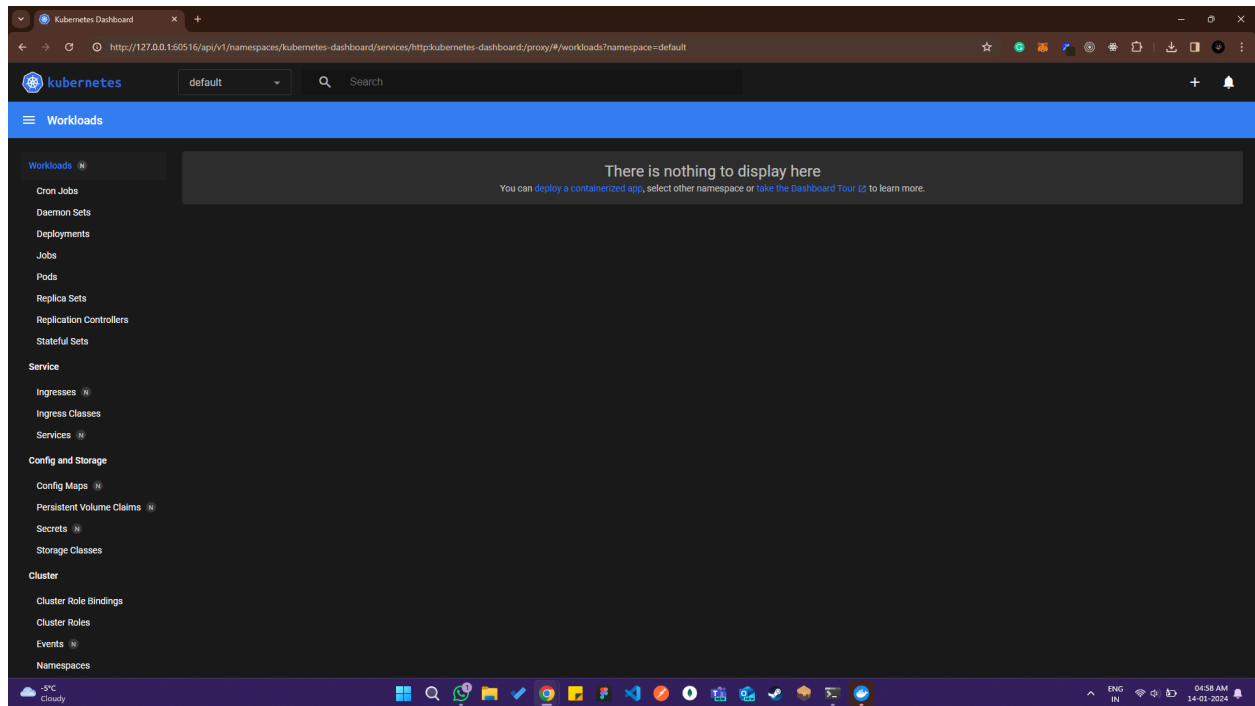
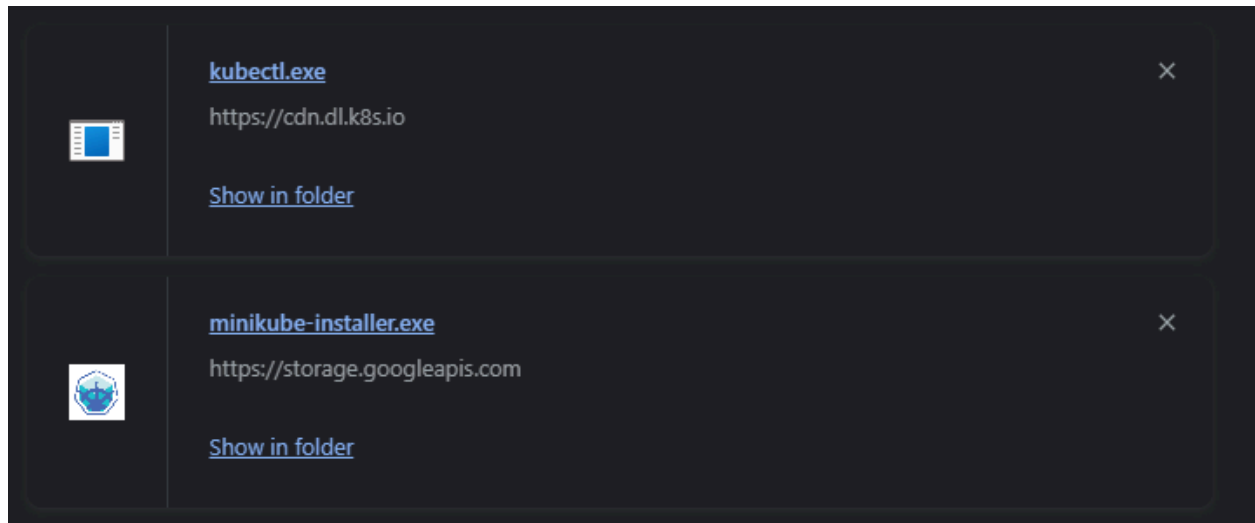


Kubernetes Installation



```
Command Prompt - minikube
Microsoft Windows [Version 10.0.22621.3007]
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C:\Users\ADMIN>minikube start
W0114 04:42:58.076169 12868 main.go:291] Unable to resolve the current Docker CLI context "default": context "default": context not found: open C:\Users\ADMIN\.docker\contexts\meta\37a8ee1ce19687d132fe29051dca629d164e2c4958ba141d5f4133a33f0688f\meta.json: The system cannot find the path specified.
* minikube v1.32.0 on Microsoft Windows 11 Pro 10.0.22621.3007 Build 22621.3007
* Automatically selected the docker driver
* Using Docker Desktop driver with root privileges
* Starting control plane node minikube in cluster minikube
* Pulling base image ...
* Downloading Kubernetes v1.28.3 preload ...
  > preloaded-images-k8s-v18-v1... 403.35 MiB / 403.35 MiB 100.00% 3.94 Mi
  > gcr.io/k8s-minikube/kicbase... 453.98 MiB / 453.98 MiB 100.00% 3.75 Mi
* Creating docker container (CPUs=2, Memory=4096MB) ...
* Executing "docker ps -a --format {{.Names}}" took an unusually long time: 3.2971659s
* Restarting the docker service may improve performance.
* Preparing Kubernetes v1.28.3 on Docker 24.0.7 ...
  * Generating certificates and keys ...
  * Booting up control plane ...
  * Configuring RBAC rules ...
* Configuring bridge CNI (Container Networking Interface) ...
* Verifying Kubernetes components...
  * Using image gcr.io/k8s-minikube/storage-provisioner:v5
* Enabled addons: storage-provisioner, default-storageclass
* Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default

C:\Users\ADMIN>kubectl version
Client Version: v1.28.2
Kustomize Version: v5.0.4-0.20230601165947-6ce0bf390ce3
Server Version: v1.28.3

C:\Users\ADMIN>kubectl cluster-info
Kubernetes control plane is running at https://127.0.0.1:60203
CoreDNS is running at https://127.0.0.1:60203/api/v1/namespaces/kube-system/services/kube-dns:dns/proxy

To further debug and diagnose cluster problems, use 'kubectl cluster-info dump'.

C:\Users\ADMIN>kubectl get pro -a
error: unknown shorthand flag: 'a' in -a
See 'kubectl get --help' for usage.

C:\Users\ADMIN>kubectl get pro -A
error: the server doesn't have a resource type "pro"

C:\Users\ADMIN>kubectl get po -AA
NAMESPACE   NAME                                     READY   STATUS    RESTARTS   AGE
kube-system   coredns-5dd5756b68-w2r4d             1/1     Running   0           4m13s
kube-system   etcd-minikube                        1/1     Running   0           4m27s
kube-system   kube-apiserver-minikube              1/1     Running   0           4m28s
kube-system   kube-controller-manager-minikube     1/1     Running   0           4m29s
```

```
Command Prompt - minikube
* Using image gcr.io/k8s-minikube/storage-provisioner:v5
* Enabled addons: storage-provisioner, default-storageclass
* Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default

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C:\Users\ADMIN>kubectl get po -AA
NAMESPACE   NAME                                     READY   STATUS    RESTARTS   AGE
kube-system   coredns-5dd5756b68-w2r4d             1/1     Running   0           4m13s
kube-system   etcd-minikube                        1/1     Running   0           4m27s
kube-system   kube-apiserver-minikube              1/1     Running   0           4m28s
kube-system   kube-controller-manager-minikube     1/1     Running   0           4m29s
kube-system   kube-proxy-df222                     1/1     Running   0           4m13s
kube-system   kube-scheduler-minikube              1/1     Running   0           4m28s
kube-system   storage-provisioner                  1/1     Running   0           4m18s

C:\Users\ADMIN>minikube dashboard
W0114 04:51:49.122890 11572 main.go:291] Unable to resolve the current Docker CLI context "default": context "default": context not found: open C:\Users\ADMIN\.docker\contexts\meta\37a8ee1ce19687d132fe29051dca629d164e2c4958ba141d5f4133a33f0688f\meta.json: The system cannot find the path specified.
* Enabling dashboard ...
  * Using image docker.io/kubernetes/dashboard:v2.7.0
  * Using image docker.io/kubernetes/metrics-scrapers:v1.8.8
* Some dashboard features require the metrics-server addon. To enable all features please run:

  minikube addons enable metrics-server

* Verifying dashboard health ...
* Launching proxy ...
* Verifying proxy health ...
* Opening http://127.0.0.1:60516/api/v1/namespaces/kubernetes-dashboard/services/http:kubernetes-dashboard:/proxy/ in your default browser...
```

```
Command Prompt - minikube x Command Prompt - minikube x +
C:\Users\ADMIN>kubectl config use-context minikube
Switched to context "minikube".

C:\Users\ADMIN>kubectl get nodes
NAME STATUS ROLES AGE VERSION
minikube Ready control-plane 16m v1.28.3

C:\Users\ADMIN>kubectl get pods --all-namespaces
NAMESPACE NAME READY STATUS RESTARTS AGE
kube-system coredns-5dd5756b68-w2r4d 1/1 Running 0 16m
kube-system etcd-minikube 1/1 Running 0 16m
kube-system kube-apiserver-minikube 1/1 Running 0 16m
kube-system kube-controller-manager-minikube 1/1 Running 0 16m
kube-system kube-proxy-6f222 1/1 Running 0 16m
kube-system kube-scheduler-minikube 1/1 Running 0 16m
kube-system storage-provisioner 1/1 Running 0 16m
kubernetes-dashboard dashboard-metrics-scraper-7fd5cb4ddc-fvbn7 1/1 Running 0 12m
kubernetes-dashboard kubernetes-dashboard-869dd445c-wx9hg 1/1 Running 0 12m

C:\Users\ADMIN>kubectl create deployment hello-minikube --image=kichase/echo-server:1.0
deployment.apps/hello-minikube created

C:\Users\ADMIN>kubectl expose deployment hello-minikube --type=NodePort --port=8080
Error from server (NotFound): deployments.apps "hello-minikube" not found

C:\Users\ADMIN>kubectl expose deployment hello-minikube --type=NodePort --port=8080
Error from server (NotFound): deployments.apps "hello-minikube" not found

C:\Users\ADMIN>kubectl expose deployment hello-minikube --type=NodePort --port=8080
service/hello-minikube exposed

C:\Users\ADMIN>kubectl get services hello-minikube
NAME TYPE CLUSTER-IP EXTERNAL-IP PORT(S) AGE
hello-minikube NodePort 10.110.114.173 <none> 8080:32450/TCP 18s

C:\Users\ADMIN>minikube service hello-minikube
W0114 05:08:03.746583 2304 min.go:291] Unable to resolve the current Docker CLI context "default": context "default": context not found: open C:\Users\ADMIN\.docker\contexts\meta\37a8ee1ce19687d132fe29851dca629d164e2c958ba141d5f4133a33f0688f\meta.json: The system cannot find the path specified.

| NAMESPACE | NAME | TARGET PORT | URL |
|-----|-----|-----|-----|
| default | hello-minikube | 8080 | http://192.168.49.2:32450 |

* Starting tunnel for service hello-minikube.
| NAMESPACE | NAME | TARGET PORT | URL |
|-----|-----|-----|-----|
| default | hello-minikube | 8080 | http://127.0.0.1:61717 |

# Opening service default/hello-minikube in default browser...
# Because you are using a Docker driver on windows, the terminal needs to be open to run it.
```

```
127.0.0.1:61717 x +
http://127.0.0.1:61717
Request served by hello-minikube-7f54cff908-xxf44
HTTP/1.1 200 OK
Host: 127.0.0.1:61717
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.7
Accept-Encoding: gzip, deflate, br
Accept-Language: en-US,en;q=0.5,en;q=0.8
Connection: keep-alive
Sec-CH-UA: "Not A Brand";v="8", "Chromium";v="120", "Google Chrome";v="120"
Sec-CH-UA-Mobile: ?0
Sec-CH-UA-Platform: "Windows"
Sec-Fetch-Dest: document
Sec-Fetch-Mode: navigate
Sec-Fetch-Site: none
Sec-Fetch-User: ?1
Upgrade-Insecure-Requests: 1
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/120.0.0.0 Safari/537.36
```

Kubernetes dashboard showing Workload Status. The dashboard includes a sidebar with navigation links: Workloads, Cron Jobs, Daemon Sets, Deployments, Jobs, Pods, Replica Sets, Replication Controllers, Stateful Sets, Service, Ingresses, Ingress Classes, Services, Config and Storage, Config Maps, Persistent Volume Claims, Secrets, Storage Classes, Cluster, Cluster Role Bindings, Cluster Roles, Events, and Namespaces.

Workload Status

Running 1 Deployments, Running 1 Pods, Running 1 Replica Sets

Deployments

Name	Images	Labels	Pods	Created
hello-minikube	kiobase/echo-server:1.0	app: hello-minikube	1 / 1	4 minutes ago

Pods

Name	Images	Labels	Node	Status	Restarts	CPU Usage (cores)	Memory Usage (bytes)	Created
hello-minikube-7f54cff968-xxfk4	kiobase/echo-server:1.0	app: hello-minikube pod-template-hash: 7f54cff968	minikube	Running	0	-	-	4 minutes ago

Replica Sets

Browser window showing a request served by hello-minikube-7f54cff968-xxfk4. The URL is http://localhost:7080. The request is an HTTP/1.1 GET /.

Host: localhost:7080
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.7
Accept-Encoding: gzip, deflate, br
Accept-Language: en-GB,en-US;q=0.9,en;q=0.8
Connection: keep-alive
Sec-CH-UA: "Not A Brand";v="8", "Chromium";v="120", "Google Chrome";v="120"
Sec-CH-UA-Mobile: ?0
Sec-CH-UA-Platform: "Windows"
Sec-Fetch-Dest: document
Sec-Fetch-Mode: navigate
Sec-Fetch-Sites: none
Sec-Fetch-User: ?1
Upgrade-Insecure-Requests: 1
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/120.0.0.0 Safari/537.36

```
Microsoft Windows [Version 10.0.22621.3007]
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C:\Users\ADMIN>kubectl port-forward service/hello-minikube 7080:8080
Forwarding from 127.0.0.1:7080 -> 8080
Forwarding from [::1]:7080 -> 8080
Handling connection for 7080
Handling connection for 7080
```

```
Microsoft Windows [Version 10.0.22621.3007]
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C:\Users\ADMIN>kubectl get po -A
NAMESPACE          NAME                                READY   STATUS    RESTARTS   AGE
default            hello-minikube-7f54cff968-xxfk4    1/1     Running   0           7m42s
kube-system        coredns-5dd5756b68-w2r4d           1/1     Running   0           25m
kube-system        etcd-minikube                       1/1     Running   0           25m
kube-system        kube-apiserver-minikube             1/1     Running   0           25m
kube-system        kube-controller-manager-minikube    1/1     Running   0           25m
kube-system        kube-proxy-6fz2z                   1/1     Running   0           25m
kube-system        kube-scheduler-minikube             1/1     Running   0           25m
kube-system        storage-provisioner                 1/1     Running   0           25m
kubernetes-dashboard dashboard-metrics-scraper-7fd5cb4ddc-fvbn7 1/1     Running   0           20m
kubernetes-dashboard kubernetes-dashboard-8694d445c-wx9hg    1/1     Running   0           20m

C:\Users\ADMIN>
```

```
C:\Users\ADMIN>minikube stop
W0114 05:13:33.726320 19040 main.go:291] Unable to resolve the current Docker CLI context "default":
context "default": context not found: open C:\Users\ADMIN\.docker\contexts\meta\37a8eec1ce19687d132fe
29051dca629d164e2c4958ba141d5f4133a33f0688f\meta.json: The system cannot find the path specified.
✖ Stopping node "minikube" ...
● Powering off "minikube" via SSH ...
● 1 node stopped.

C:\Users\ADMIN>kubectl get po -A
E0114 05:14:03.399208 12428 memcache.go:265] couldn't get current server API group list: the server
could not find the requested resource
E0114 05:14:03.412972 12428 memcache.go:265] couldn't get current server API group list: the server
could not find the requested resource
E0114 05:14:03.421196 12428 memcache.go:265] couldn't get current server API group list: the server
could not find the requested resource
E0114 05:14:03.430858 12428 memcache.go:265] couldn't get current server API group list: the server
could not find the requested resource
E0114 05:14:03.443204 12428 memcache.go:265] couldn't get current server API group list: the server
could not find the requested resource
Error from server (NotFound): the server could not find the requested resource

C:\Users\ADMIN>
```