```
ubuntu@ip-172-31-86-195:~$ sudo apt-get update
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble InRelease
Hit:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates InRelease
Hit:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports InRelease
Hit:4 http://security.ubuntu.com/ubuntu noble-security InRelease
Hit:5 https://prod-cdn.packages.k8s.io/repositories/isv:/kubernetes:/addons:/cri-o:/prerelease:/main/deb  InRelease
Hit:6 https://prod-cdn.packages.k8s.io/repositories/isv:/kubernetes:/core:/stable:/v1.29/deb  InRelease
Reading package lists... Done
ubuntu@ip-172-31-86-195:~$ sudo apt-get install -y apt-transport-https ca-certificates curl
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
apt-transport-https is already the newest version (2.7.14build2).
ca-certificates is already the newest version (20240203).
curl is already the newest version (8.5.0-2ubuntu10.4).
curl set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 139 not upgraded.
```

```
ubuntu@ip-172-31-86-195:~$ sudo curl -fsSLo /usr/share/keyrings/kubernetes-archive-keyring.gpg https://packages.cloud.google.com/apt/
doc/apt-key.gpg
```

```
ubuntu@ip-172-31-86-195:~$ sudo curl -fsSLo /usr/share/keyrings/kubernetes-archive-keyring.gpg https://packages.cloud.google.com/apt/
doc/apt-key.gpg
ubuntu@ip-172-31-86-195:~$  echo "deb [signed-by=/usr/share/keyrings/kubernetes-archive-keyring.gpg] https://apt.kubernetes.io/ kuber
netes-focal main" | sudo tee /etc/apt/sources.list.d/kubernetes.list
deb [signed-by=/usr/share/keyrings/kubernetes-archive-keyring.gpg] https://apt.kubernetes.io/ kubernetes-focal main
ubuntu@ip-172-31-86-195:~$  sudo apt-get update
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble InRelease
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Hit:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports InRelease
Hit:4 https://prod-cdn.packages.k8s.io/repositories/isv:/kubernetes:/addons:/cri-o:/prerelease:/main/deb  InRelease
Hit:6 http://security.ubuntu.com/ubuntu noble-security InRelease
Ign:5 https://packages.cloud.google.com/apt kubernetes-focal InRelease
Err:7 https://packages.cloud.google.com/apt kubernetes-focal Release
  404  Not Found [IP: 172.253.62.139 443]
Reading package lists... Done
E: The repository 'https://apt.kubernetes.io kubernetes-focal Release' does not have a Release file.
N: Updating from such a repository can't be done securely, and is therefore disabled by default.
N: See apt-secure(8) manpage for repository creation and user configuration details.
ubuntu@ip-172-31-86-195:~$ sudo apt-get install -y kubectl
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
kubectl is already the newest version (1.29.0-1.1).
0 upgraded, 0 newly installed, 0 to remove and 136 not upgraded.
ubuntu@ip-172-31-86-195:~$
```

```
ubuntu@ip-172-31-86-195:~$ kubectl version --client
Client Version: v1.29.0
Kustomize Version: v5.0.4-0.20230601165947-6ce0bf390ce3
ubuntu@ip-172-31-86-195:~$ kubectl get nodes
NAME               STATUS   ROLES           AGE   VERSION
ip-172-31-86-195   Ready    control-plane   29m   v1.29.0
ip-172-31-90-68    Ready    <none>          17m   v1.29.0
ubuntu@ip-172-31-86-195:~$ nano nginx-deployment.yaml
```

```
ubuntu@ip-172-31-86-195:~$ nano nginx-deployment.yaml
ubuntu@ip-172-31-86-195:~$ nano nginx-deployment.yaml
ubuntu@ip-172-31-86-195:~$ nano nginx-service.yaml
ubuntu@ip-172-31-86-195:~$
```

```
apiVersion: apps/v1
  kind: Deployment
  metadata:
    name: nginx-deployment
  spec:
    replicas: 3
    selector:
      matchLabels:
        app: nginx
    template:
      metadata:
        labels:
          app: nginx
      spec:
        containers:
        - name: nginx
          image: nginx:1.14.2
          ports:
          - containerPort: 80
```
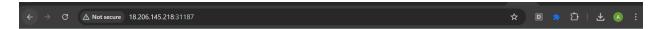
```
apiVersion: v1
  kind: Service
  metadata:
    name: nginx-service
  spec:
    selector:
      app: nginx
    ports:
      - protocol: TCP
        port: 80
        targetPort: 80
```

```
Last login: Tue Sep 24 05:23:30 2024 from 1.38.216.156
ubuntu@ip-172-31-86-195:~$ nano nginx-deployment.yaml
ubuntu@ip-172-31-86-195:~$ kubectl apply -f nginx-deployment.yaml


ubuntu@ip-172-31-86-195:~$ kubectl apply -f nginx-service.yaml
service/nginx-service created
ubuntu@ip-172-31-86-195:~$
```

```
ubuntu@ip-172-31-86-195:~$ kubectl get deployments
NAME               READY    UP-TO-DATE    AVAILABLE    AGE
nginx-deployment   3/3      3             3            3m34s
ubuntu@ip-172-31-86-195:~$ kubectl get pods
NAME                               READY    STATUS     RESTARTS    AGE
nginx-deployment-86dcfdf4c6-9j7cb  1/1      Running    0           3m53s
nginx-deployment-86dcfdf4c6-fg8zb  1/1      Running    0           3m53s
nginx-deployment-86dcfdf4c6-p8m74  1/1      Running    0           3m53s
ubuntu@ip-172-31-86-195:~$ kubectl get services
NAME            TYPE           CLUSTER-IP      EXTERNAL-IP    PORT(S)         AGE
kubernetes      ClusterIP      10.96.0.1       <none>         443/TCP         58m
nginx-service   LoadBalancer   10.101.174.44   <pending>      80:31187/TCP    67s
ubuntu@ip-172-31-86-195:~$
```

Welcome to nginx!

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.

Thank you for using nginx.