```
Last login: Thu Mar 21 19:23:16 on ttys002
xiaogangdong@Xiaogangs-MacBook-Air Ansible % cd ..
xiaogangdong@Xiaogangs-MacBook-Air exam-app % ls
Ansible              Question1.docx           node_modules         package.json
Kubernetes           index.js                 package-lock.json    ~$estion1.docx
xiaogangdong@Xiaogangs-MacBook-Air exam-app % cd Kubernetes
xiaogangdong@Xiaogangs-MacBook-Air Kubernetes % ls
dockerfile       index.html
xiaogangdong@Xiaogangs-MacBook-Air Kubernetes % docker build -t myWebApp:latest
ERROR: "docker buildx build" requires exactly 1 argument.
See 'docker buildx build --help'.

Usage:  docker buildx build [OPTIONS] PATH | URL | -

Start a build
xiaogangdong@Xiaogangs-MacBook-Air Kubernetes % docker build -t myWebApp:latest .
[+] Building 0.0s (0/0)                                                                                        docker:desktop-linux
ERROR: invalid tag "myWebApp:latest": repository name must be lowercase
xiaogangdong@Xiaogangs-MacBook-Air Kubernetes % docker build -t myapp2:latest .
[+] Building 3.7s (8/8) FINISHED                                                                               docker:desktop-linux
 => [internal] load .dockerignore                                                                                           0.0s
 => => transferring context: 2B                                                                                             0.0s
 => [internal] load build definition from dockerfile                                                                       0.0s
 => => transferring dockerfile: 104B                                                                                        0.0s
 => [internal] load metadata for docker.io/library/nginx:alpine                                                             1.0s
 => [auth] library/nginx:pull token for registry-1.docker.io                                                               0.0s
 => [internal] load build context                                                                                          0.0s
 => => transferring context: 193B                                                                                          0.0s
 => [1/2] FROM docker.io/library/nginx:alpine@sha256:31bad00311cb5eeb8a6648beadcf67277a175da89989f14727420a80e2e76742      2.4s
 => => resolve docker.io/library/nginx:alpine@sha256:31bad00311cb5eeb8a6648beadcf67277a175da89989f14727420a80e2e76742      0.0s
 => => sha256:31bad00311cb5eeb8a6648beadcf67277a175da89989f14727420a80e2e76742 8.71kB / 8.71kB                             0.0s
 => => sha256:fe6e879bfe52091d423aa46efab8899ee4da7fdc7ed7baa558dcabf3823eb0d7 2.50kB / 2.50kB                             0.0s
 => => sha256:ca1cec2a66105dab5a0805ee93daa3e8364995775ef62ecbe5a51f8d67ca42d6 955B / 955B                                 0.3s
 => => sha256:b8c82647e8a2586145e422943ae4c69c9b1600db636e1269efd256360eb396b0 11.74kB / 11.74kB                           0.0s
 => => sha256:c6b39de5b33961661dc939b997cc1d30cda01e38005a6c6625fd9c7e748bab44 3.33MB / 3.33MB                             0.8s
 => => sha256:9df5a3b6417765cda3856e636d5717cbb83122394fbca2d47df66ef56a13369d 1.93MB / 1.93MB                             0.5s
 => => sha256:0a63e3c5cf2d88917f5dd2a61c6aa4cb0b85647dd2b34bf2b0c7d1846afbc985 628B / 628B                                 0.1s
 => => sha256:133627c34b135c9f4e48bf26dcd43331cfe231998ede3198451b63ff14a8c8f4 392B / 392B                                 0.4s
 => => sha256:9d8b20818dadbd127f05942e4efa947d2cd6ad9d0aa6dc986631e1590d424700 1.21kB / 1.21kB                             0.5s
 => => sha256:7aca3d9c63932c556258e44ff969de813d52913cce24d0226c325793058dea1a 1.40kB / 1.40kB                             0.5s
 => => sha256:53f05b3b4ad45c26d136d4b0a66342177d48801876f407e7bfce54422ebdcf31 12.31MB / 12.31MB                           1.9s
 => => extracting sha256:c6b39de5b33961661dc939b997cc1d30cda01e38005a6c6625fd9c7e748bab44                                   0.1s
 => => extracting sha256:9df5a3b6417765cda3856e636d5717cbb83122394fbca2d47df66ef56a13369d                                   0.2s
 => => extracting sha256:0a63e3c5cf2d88917f5dd2a61c6aa4cb0b85647dd2b34bf2b0c7d1846afbc985                                   0.0s
 => => extracting sha256:ca1cec2a66105dab5a0805ee93daa3e8364995775ef62ecbe5a51f8d67ca42d6                                   0.0s
 => => extracting sha256:133627c34b135c9f4e48bf26dcd43331cfe231998ede3198451b63ff14a8c8f4                                   0.0s
 => => extracting sha256:9d8b20818dadbd127f05942e4efa947d2cd6ad9d0aa6dc986631e1590d424700                                   0.0s
 => => extracting sha256:7aca3d9c63932c556258e44ff969de813d52913cce24d0226c325793058dea1a                                   0.0s
 => => extracting sha256:53f05b3b4ad45c26d136d4b0a66342177d48801876f407e7bfce54422ebdcf31                                   0.3s
```

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 => [2/2] COPY index.html /usr/share/nginx/html/index.html                                                                  0.2s
 => exporting to image                                                                                                      0.0s
 => => exporting layers                                                                                                     0.0s
 => => writing image sha256:2752826d33648956d8cc62c0d1e33891d470f9c8a696b854c1cb04a045157262                                0.0s
 => => naming to docker.io/library/myapp2:latest                                                                            0.0s

View build details: docker-desktop://dashboard/build/desktop-linux/desktop-linux/zna7havzd6cz4ar942e7lzfv2

What's Next?
  View a summary of image vulnerabilities and recommendations → docker scout quickview
xiaogangdong@Xiaogangs-MacBook-Air Kubernetes % kubectl apply -f deploy.yml
error: error validating "deploy.yml": error validating data: failed to download openapi: Get "http://localhost:8080/openapi/v2?timeout=32s": read tcp [::1]:56409->[::1]:8080: read:
connection reset by peer - error from a previous attempt: read tcp [::1]:56408->[::1]:8080: read: connection reset by peer; if you choose to ignore these errors, turn validation off
 with --validate=false
xiaogangdong@Xiaogangs-MacBook-Air Kubernetes % minikube start
😄  minikube v1.32.0 on Darwin 14.2.1 (arm64)
✨  Using the docker driver based on existing profile
👍  Starting control plane node minikube in cluster minikube
🚜  Pulling base image ...
🔥  docker "minikube" container is missing, will recreate.
🔥  Creating docker container (CPUs=2, Memory=1919MB) ...
🐳  Preparing Kubernetes v1.28.3 on Docker 24.0.7 ...
🔗  Configuring bridge CNI (Container Networking Interface) ...
    ▪ Using image gcr.io/k8s-minikube/storage-provisioner:v5
🔎  Verifying Kubernetes components...
🌟  Enabled addons: storage-provisioner, default-storageclass
🏄  Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default
xiaogangdong@Xiaogangs-MacBook-Air Kubernetes % kubectl apply -f deploy.yml
deployment.apps/myapp2 created
xiaogangdong@Xiaogangs-MacBook-Air Kubernetes % kubectl apply -f service.yaml

error: the path "service.yaml" does not exist
xiaogangdong@Xiaogangs-MacBook-Air Kubernetes % kubectl apply -f service.yml
service/my-app2-service created
xiaogangdong@Xiaogangs-MacBook-Air Kubernetes % kubectl get svc
NAME                                    TYPE           CLUSTER-IP       EXTERNAL-IP    PORT(S)          AGE
grafana                                 ClusterIP      10.109.148.114   <none>         80/TCP           52d
grafana-ext                             NodePort       10.97.232.30     <none>         80:30437/TCP     52d
kubernetes                              ClusterIP      10.96.0.1        <none>         443/TCP          62d
mongodb-service                         ClusterIP      10.110.83.89     <none>         27017/TCP        62d
my-app2-service                         LoadBalancer   10.100.217.57    <pending>      80:30605/TCP     21s
note-server-service                     ClusterIP      10.110.101.56    <none>         5000/TCP         62d
note-service                            LoadBalancer   10.110.13.20     <pending>      3000:30444/TCP   62d
prometheus-alertmanager                 ClusterIP      10.101.26.89     <none>         9093/TCP         52d
prometheus-alertmanager-headless        ClusterIP      None             <none>         9093/TCP         52d
prometheus-kube-state-metrics           ClusterIP      10.98.168.75     <none>         8080/TCP         52d
prometheus-prometheus-node-exporter     ClusterIP      10.101.193.199   <none>         9100/TCP         52d
prometheus-prometheus-pushgateway       ClusterIP      10.101.111.212   <none>         9091/TCP         52d
prometheus-server                       ClusterIP      10.102.138.220   <none>         80/TCP           52d
```

```
prometheus-server-ext                    NodePort      10.104.11.167   <none>      80:30289/TCP      52d
[xiaogangdong@Xiaogangs-MacBook-Air Kubernetes % kubectl scale deployment my-app2 --replicas=3

error: no objects passed to scale
[xiaogangdong@Xiaogangs-MacBook-Air Kubernetes % kubectl scale deployment my-app2-service --replicas=3

error: no objects passed to scale
[xiaogangdong@Xiaogangs-MacBook-Air Kubernetes % kubectl scale my-app2-service --replicas=3

error: the server doesn't have a resource type "my-app2-service"
[xiaogangdong@Xiaogangs-MacBook-Air Kubernetes % kubectl scale deployment myapp2 --replicas=3

deployment.apps/myapp2 scaled
[xiaogangdong@Xiaogangs-MacBook-Air Kubernetes % kubectl create secret generic my-secret --from-literal=SECRET_KEY='myExam'

error: failed to create secret Post "https://127.0.0.1:56428/api/v1/namespaces/default/secrets?fieldManager=kubectl-create&fieldValidation=Strict": net/http: TLS handshake timeout
xiaogangdong@Xiaogangs-MacBook-Air Kubernetes % kubectl create secret generic my-secret --from-literal=SECRET_KEY='myExam'

error: failed to create secret Post "https://127.0.0.1:56428/api/v1/namespaces/default/secrets?fieldManager=kubectl-create&fieldValidation=Strict": net/http: TLS handshake timeout
[xiaogangdong@Xiaogangs-MacBook-Air Kubernetes % minikube status
 ⚠  Executing "docker container inspect minikube --format={{.State.Status}}" took an unusually long time: 3.910763917s
 💡  Restarting the docker service may improve performance.
^C
[xiaogangdong@Xiaogangs-MacBook-Air Kubernetes % minikube stop
 ✋  Stopping node "minikube"  ...
 ⚠  Executing "docker container inspect minikube --format={{.State.Status}}" took an unusually long time: 5.326628917s
 💡  Restarting the docker service may improve performance.
 🛑  Powering off "minikube" via SSH ...
 🛑  1 node stopped.
[xiaogangdong@Xiaogangs-MacBook-Air Kubernetes % minikube start
 😄  minikube v1.32.0 on Darwin 14.2.1 (arm64)
 ✨  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 v1.28.3 on Docker 24.0.7 ...
 🔗  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
[xiaogangdong@Xiaogangs-MacBook-Air Kubernetes % kubectl get svc
NAME                       TYPE          CLUSTER-IP       EXTERNAL-IP   PORT(S)        AGE
grafana                    ClusterIP     10.109.148.114   <none>        80/TCP         52d
grafana-ext                NodePort      10.97.232.30     <none>        80:30437/TCP   52d
kubernetes                 ClusterIP     10.96.0.1        <none>        443/TCP        62d
mongodb-service            ClusterIP     10.110.83.89     <none>        27017/TCP      62d
```

```
prometheus-server-ext                    NodePort      10.104.11.167   <none>      80:30289/TCP      52d
xiaogangdong@Xiaogangs-MacBook-Air Kubernetes % kubectl create secret generic my-secret --from-literal=SECRET_KEY='myExam'

secret/my-secret created
xiaogangdong@Xiaogangs-MacBook-Air Kubernetes %
```