

Task-3 using minikube

```
root@HP:~# mkdir my-docker-app
root@HP:~# cd my-docker-app
root@HP:~/my-docker-app# touch Dockerfile
root@HP:~/my-docker-app# nano Dockerfile
root@HP:~/my-docker-app# npm init -y
Wrote to \wsl.localhost\Ubuntu\root\my-docker-app\package.json:

{
  "name": "my-docker-app",
  "version": "1.0.0",
  "description": "",
  "main": "index.js",
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1"
  },
  "keywords": [],
  "author": "",
  "license": "ISC"
}

root@HP:~/my-docker-app# docker push reshma09/devops:latest
The push refers to repository [docker.io/reshma09/devops]
6bedce8757d9: Layer already exists
03d9365bc5dc: Layer already exists
d26dc06ef910: Layer already exists
aa82c57cd9fe: Layer already exists
d98dcc720ae0: Layer already exists
ad2f08e39a9d: Layer already exists
135f786ad046: Layer already exists
1287fbecd4cc: Layer already exists
errors:
denied: requested access to the resource is denied
unauthorized: authentication required

root@HP:~/my-docker-app# docker pull reshma09/devops:latest
latest: Pulling from reshma09/devops
Digest: sha256:5aff233117660639dce04909b3c7fdeeb262552fe2da96dad35cc5c68d780200
Status: Image is up to date for reshma09/devops:latest
docker.io/reshma09/devops:latest
root@HP:~/my-docker-app# docker build -t reshma09/devops:latest .

Digest: sha256:5aff233117660639dce04909b3c7fdeeb262552fe2da96dad35cc5c68d780200
Status: Image is up to date for reshma09/devops:latest
docker.io/reshma09/devops:latest
root@HP:~/my-docker-app# docker build -t reshma09/devops:latest .
[+] Building 307.6s (10/10) FINISHED
=> [internal] load build definition from Dockerfile
=> => transferring Dockerfile: 343B
=> [internal] load metadata for docker.io/library/node:18
=> [internal] load .dockerignore
=> => transferring context: 2B
=> [1/5] FROM docker.io/library/node:18@sha256:7f6bcd8e88a1f81bfb29f5948de5c5507624788ddb58cadb94ddd439426b7c4
=> => resolve docker.io/library/node:18@sha256:7f6bcd8e88a1f81bfb29f5948de5c5507624788ddb58cadb94ddd439426b7c4
=> => sha256:1bd3bb636992b315a863ad3e61e1426364e899bbd1b2b981af42fad5b16b5acb 2.49kB / 2.49kB
=> => sha256:255774e0927b72d2327719e78dbad5ad8c9cf446d855e45be7fc149418470bae 64.40MB / 64.40MB
=> => sha256:7f6bcd8e88a1f81bfb29f5948de5c5507624788ddb58cadb94ddd439426b7c4 6.41kB / 6.41kB
=> => sha256:5878ad25ae5ef92c2011f40f5083c8e0bc6e47847caa5046f3a1226fcd23e8d2 6.39kB / 6.39kB
=> => sha256:7cd785773db44487428a679ce5439222c585475eed5b99f1010eb2cda51729ab 48.47MB / 48.47MB
=> => sha256:091eb8240475f42de217265c501e8186f0a3e7490ef7f51458c30db91fb3cac 24.01MB / 24.01MB
=> => sha256:355e14e5cc47669fba714a7da2888b1d99427c785494847ac773f5cc88109451 211.35MB / 211.35MB
=> => sha256:aee83dd4a3888b9692101fa080efed44d66ce002484e9eb143e9dc39ae0032fd 3.32kB / 3.32kB
=> => extracting sha256:7cd785773db44487428a679ce5439222c585475eed5b99f1010eb2cda51729ab 2.0s
=> => sha256:372d60850963cb5d14b80e362cb46d27fd0818037618f78836315f6c825b7e62 45.70MB / 45.70MB
=> => extracting sha256:091eb8240475f42de217265c501e8186f0a3e7490ef7f51458c30db91fb3cac 0.9s
=> => sha256:ec629d786f9c89212f1f9e27134c8259027d81af7da01e8e9756f69b3fcfacbb 1.25MB / 1.25MB
=> => extracting sha256:255774e0927b72d2327719e78dbad5ad8c9cf446d855e45be7fc149418470bae 4.0s
=> => sha256:a0e901ed6714dabdf15671b68b8b3e4ff4e15c8c5f50ec679b3d8cd80f73d142 447B / 447B
=> => extracting sha256:353e14e5cc47669fba714a7da2888b1d99427c785494847ac773f5cc88109451 6.5s
=> => extracting sha256:aee83dd4a3888b9692101fa080efed44d66ce002484e9eb143e9dc39ae0032fd 0.0s
=> => extracting sha256:372d60850963cb5d14b80e362cb46d27fd0818037618f78836315f6c825b7e62 2.1s
=> => extracting sha256:ec629d786f9c89212f1f9e27134c8259027d81af7da01e8e9756f69b3fcfacbb 0.0s
=> => extracting sha256:a0e901ed6714dabdf15671b68b8b3e4ff4e15c8c5f50ec679b3d8cd80f73d142 0.0s
=> [internal] load build context
=> => transferring context: 613B
=> [2/5] WORKDIR /app
=> [3/5] COPY package.json ./
=> [4/5] RUN npm install
=> [5/5] COPY . .
=> => exporting to image
=> => exporting layers
=> => writing image sha256:c2acd6406662312fd3b18abc099cda44bb92f5c37ebb46a687862c6938302182
=> => naming to docker.io/reshma09/devops:latest
```

```
root@HP: ~  
=> [4/5] RUN npm install 2.0s  
=> [5/5] COPY . . 0.1s  
=> exporting to image 0.2s  
=> exporting layers 0.1s  
=> writing image sha256:c2acd6406b62312fd3b18abc099cda44bb92f5c37ebb46a607862c6930302102 0.8s  
=> naming to docker.io/reshma09/devops:latest 0.0s  
root@HP:~/my-docker-app#  
root@HP:~/my-docker-app# docker ps  
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES  
19f6508a727c aa07a8aed0f1 "/docker-entrypoint..." 42 minutes ago Up 42 minutes 0.0.0.0:3001->80/tcp, [::]:3001->80/tcp jenkins-docker-container  
root@HP:~/my-docker-app# cd ..  
root@HP:~# minikube start  
minikube v1.35.0 on Ubuntu 24.04 (amd64)  
* Using the docker driver based on existing profile  
* The "docker" driver should not be used with root privileges. If you wish to continue as root, use --force.  
* If you are running minikube within a VM, consider using --driver=none:  
https://minikube.sigs.k8s.io/docs/reference/drivers/none/  
* Tip: To remove this root owned cluster, run: sudo minikube delete  
X Exiting due to DRV_AS_ROOT: The "docker" driver should not be used with root privileges.  
root@HP:~# minikube start --force  
minikube v1.35.0 on Ubuntu 24.04 (amd64)  
minikube skips various validations when --force is supplied; this may lead to unexpected behavior  
* Using the docker driver based on existing profile  
* The "docker" driver should not be used with root privileges. If you wish to continue as root, use --force.  
* If you are running minikube within a VM, consider using --driver=none:  
https://minikube.sigs.k8s.io/docs/reference/drivers/none/  
* Tip: To remove this root owned cluster, run: sudo minikube delete  
Starting "minikube" primary control-plane node in "minikube" cluster  
Pulling base image v0.0.46 ...  
Restarting existing docker container for "minikube" ...  
Preparing Kubernetes v1.32.0 on Docker 27.4.1 ...  
Verifying Kubernetes components...  
* Using image gcr.io/k8s-minikube/storage-provisioner:v5  
* Using image docker.io/kubernetes/dashboard:v2.7.0  
* Using image docker.io/kubernetes/metrics-scraper:v1.0.8  
Some dashboard features require the metrics-server addon. To enable all features please run:  
minikube addons enable metrics-server  
minikube addons enable metrics-server  
Enabled addons: storage-provisioner, dashboard, default-storageclass  
Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default  
root@HP:~# sudo nano nginx-deployment.yaml  
root@HP:~# sudo nano service.yaml  
root@HP:~# kubectl apply -f nginx-deployment.yaml  
deployment.apps/my-app created  
root@HP:~# kubectl apply -f service.yaml  
service/my-app created  
root@HP:~# kubectl get pods  
NAME READY STATUS RESTARTS AGE  
my-app-7d8b8f5d54-h5szn 1/1 Running 0 3m40s  
my-nginx-768f959b59-ds2nh 1/1 Running 3 (132m ago) 28h  
root@HP:~# kubectl get svc my-app  
NAME TYPE CLUSTER-IP EXTERNAL-IP PORT(S) AGE  
my-app NodePort 10.108.248.77 <none> 80:30391/TCP 3m48s  
root@HP:~# minikube service my-app --url  
http://127.0.0.1:35097  
! Because you are using a Docker driver on linux, the terminal needs to be open to run it.  
^X^Croot@HP:~# ^C  
root@HP:~# minikube service my-app --url  
http://127.0.0.1:42485  
! Because you are using a Docker driver on linux, the terminal needs to be open to run it.  
^Croot@HP:~# curlhttp://127.0.0.1:42485  
curl: (7) Failed to connect to 127.0.0.1 port 42485 after 0 ms: Couldn't connect to server  
root@HP:~# kubectl get pods  
NAME READY STATUS RESTARTS AGE  
my-app-7d8b8f5d54-h5szn 1/1 Running 0 18m  
my-nginx-768f959b59-ds2nh 1/1 Running 3 (148m ago) 28h  
root@HP:~# minikube service my-nginx --url  
http://127.0.0.1:36497  
! Because you are using a Docker driver on linux, the terminal needs to be open to run it.  
^Croot@HP:~# curlhttp://127.0.0.1:36497  
curl: (7) Failed to connect to 127.0.0.1 port 36497 after 0 ms: Couldn't connect to server  
root@HP:~# minikube service my-nginx --url  
http://127.0.0.1:39953  
! Because you are using a Docker driver on linux, the terminal needs to be open to run it.  
^Croot@HP:~# sudo minikube service my-nginx --url  
Error: unknown command "service" for "minikube"  
Did you mean this?  
service
```

```
root@HP: ~  
http://127.0.0.1:42485  
! Because you are using a Docker driver on linux, the terminal needs to be open to run it.  
*Croot@HP:~# curlhttp://127.0.0.1:42485  
curl: (7) Failed to connect to 127.0.0.1 port 42485 after 0 ms: Couldn't connect to server  
root@HP:~# kubectl get pods  
NAME                READY   STATUS    RESTARTS   AGE  
my-app-7d8b8f5d54-h5szn    1/1     Running   0           18m  
my-nginx-768f959b59-dsznh  1/1     Running   3 (148m ago)  28h  
root@HP:~# minikube service my-nginx --url  
http://127.0.0.1:36497  
! Because you are using a Docker driver on linux, the terminal needs to be open to run it.  
*Croot@HP:~# curlhttp://127.0.0.1:36497  
curl: (7) Failed to connect to 127.0.0.1 port 36497 after 0 ms: Couldn't connect to server  
root@HP:~# minikube service my-nginx --url  
http://127.0.0.1:39953  
! Because you are using a Docker driver on linux, the terminal needs to be open to run it.  
*Croot@HP:~# sudo minikube service my-nginx --url  
Error: unknown command "service" for "minikube"  
  
Did you mean this?  
service  
  
Run 'minikube --help' for usage.  
root@HP:~# minikube service my-nginx --url  
http://127.0.0.1:35109  
! Because you are using a Docker driver on linux, the terminal needs to be open to run it.  
*Croot@HP:~# minikube service my-nginx --url  
http://127.0.0.1:35439  
! Because you are using a Docker driver on linux, the terminal needs to be open to run it.  
root@HP:~# kubectl port-forward svc/my-nginx 30001:80  
Forwarding from 127.0.0.1:30001 -> 80  
Forwarding from [::]:30001 -> 80  
Handling connection for 30001  
  
root@HP:~# curl http://127.0.0.1:30001  
<!DOCTYPE html>  
<html>  
<head>  
<title>Welcome to nginx!</title>  
<style>  
html { color-scheme: light dark; }  
body { width: 35em; margin: 0 auto;  
font-family: Tahoma, Verdana, Arial, sans-serif; }  
</style>  
</head>  
<body>  
<h1>Welcome to nginx!</h1>  
<p>If you see this page, the nginx web server is successfully installed and  
working. Further configuration is required.</p>  
  
<p>For online documentation and support please refer to  
<a href="http://nginx.org/">nginx.org</a>.<br/>  
Commercial support is available at  
<a href="http://nginx.com/">nginx.com</a>.</p>  
  
<p><em>Thank you for using nginx.</em></p>  
</body>  
</html>  
root@HP:~#
```