

```
docker build -t travel-memory-app .
```

DEPLOY EVERYTHING

```
kubectl apply -f k8s/
```

Check:

```
kubectl get pods  
kubectl get svc  
kubectl get pvc  
kubectl get ingress
```

```
--> Running in 95b49198d99d  
--> Removed intermediate container 95b49198d99d  
--> b620e504b23b  
Successfully built b620e504b23b  
Successfully tagged travel-memory-app:latest  
ubuntu@ip-172-31-15-140:~/Container-Orchestration-Practice-Tasks/travel-memory-app$ kubectl apply -f k8s/  
configmap/travel-config created  
deployment.apps/travel-app created  
service/travel-app-service created  
service/travel-ingress created  
ingress.networking.k8s.io/travel-ingress created  
deployment.apps/mongo created  
persistentvolumeclaim/mongo-pvc created  
service/mongo created  
ubuntu@ip-172-31-15-140:~/Container-Orchestration-Practice-Tasks/travel-memory-app$ kubectl get pods  
kubectl get svc  
kubectl get pvc  
kubectl get ingress  
NAME          READY   STATUS    RESTARTS   AGE  
microservice-1-d94466577-cnrhc  1/1     Running   1 (3h18m ago)  4h9m  
microservice-2-f859c57bf-gp95r  1/1     Running   1 (3h18m ago)  4h9m  
microservice-3-64465dc89c-69lx8  1/1     Running   1 (3h18m ago)  4h9m  
mongo-796f87b8fc-xwnd8       1/1     Running   0          26s  
travel-app-6d65c4ccb4-hmtn4   0/1     ImagePullBackOff 0          26s  
travel-app-6d65c4ccb4-mfnf6   0/1     ImagePullBackOff 0          26s  
NAME          TYPE        CLUSTER-IP      EXTERNAL-IP    PORT(S)         AGE  
kubernetes   ClusterIP   10.96.0.1     <none>        443/TCP        20h  
microservice-1 ClusterIP   10.103.237.229 <none>        80/TCP         4h9m  
microservice-2 ClusterIP   10.106.103.92  <none>        80/TCP         4h9m  
microservice-3 ClusterIP   10.99.253.152 <none>        80/TCP         4h9m  
mongo         ClusterIP   10.107.30.69  <none>        27017/TCP      26s  
travel-app-service ClusterIP  10.106.31.26 <none>        80/TCP         26s  
NAME          STATUS    VOLUME           CAPACITY   ACCESS MODES  STORAGECLASS  VOLUMEATTRIBUTESCLASS  AGE  
mongo-pvc     Bound    pvc-82adb282-55a2-441c-b083-cfacelc0e3bb  1Gi        RWO          standard      <unset>          26s  
NAME          CLASS    HOSTS  
microservices-ingress  nginx   servicel.local.com,service2.local.com,service3.local.com  192.168.49.2  80  4h9m
```

```

ubuntu@ip-172-31-15-140:~/Container-Orchestration-Practice-Tasks/travel-memory-app$ kubectl get svc
NAME          TYPE      CLUSTER-IP    EXTERNAL-IP   PORT(S)     AGE
kubernetes    ClusterIP  10.96.0.1    <none>        443/TCP    20h
microservice-1 ClusterIP  10.103.237.229 <none>        80/TCP     4h11m
microservice-2 ClusterIP  10.106.103.92  <none>        80/TCP     4h11m
microservice-3 ClusterIP  10.99.253.152 <none>        80/TCP     4h11m
mongo          ClusterIP  10.107.30.69  <none>        27017/TCP  2m37s
travel-app-service ClusterIP  10.106.31.26 <none>        80/TCP     2m37s
ubuntu@ip-172-31-15-140:~/Container-Orchestration-Practice-Tasks/travel-memory-app$ kubectl get pvc
NAME           STATUS  VOLUME          CAPACITY  ACCESS MODES  STORAGECLASS  VOLUMEATTRIBUTESCLASS  AGE
mongo-pvc      Bound   pvc-82adb282-55a2-441c-b083-cface1c0e3bb  1Gi       RWO          standard      <unset>                2m46s
ubuntu@ip-172-31-15-140:~/Container-Orchestration-Practice-Tasks/travel-memory-app$ kubectl get pods
NAME             READY  STATUS    RESTARTS  AGE
microservice-1-d94466577-cnrhc  1/1   Running   1 (3h21m ago)  4h11m
microservice-2-f859c57bf-gp95r  1/1   Running   1 (3h21m ago)  4h11m
microservice-3-64465dc89c-69lx8 1/1   Running   1 (3h21m ago)  4h11m
mongo-796f87b8fc-xwind8       1/1   Running   0          3m4s
travel-app-6d65c4ccb4-hmtn4   0/1   ImagePullBackOff  0          3m4s
travel-app-6d65c4ccb4-mfnf6   0/1   ImagePullBackOff  0          3m4s
ubuntu@ip-172-31-15-140:~/Container-Orchestration-Practice-Tasks/travel-memory-app$ kubectl get ingress
NAME          CLASS  HOSTS          ADDRESS      PORTS  AGE
microservices-ingress  nginx  service1.local.com,service2.local.com,service3.local.com  192.168.49.2  80    4h11m
travel-ingress    nginx  memories.local.com                           192.168.49.2  80    3m6s
ubuntu@ip-172-31-15-140:~/Container-Orchestration-Practice-Tasks/travel-memory-app$

```

Add to /etc/hosts

```
# Get Minikube IP
```

```
MINIKUBE_IP=$(minikube ip)
```

```
# Add to /etc/hosts
```

```
echo "$MINIKUBE_IP memories.local.com" | sudo tee -a /etc/hosts
```

```
# Verify
```

```
cat /etc/hosts | grep memories.local.com
```

```

ubuntu@ip-172-31-15-140:~/Container-Orchestration-Practice-Tasks/travel-memory-app/k8s$ MINIKUBE_IP=$(minikube ip)
ubuntu@ip-172-31-15-140:~/Container-Orchestration-Practice-Tasks/travel-memory-app/k8s$ echo "$MINIKUBE_IP memories.local.com" | sudo tee -a /etc/hosts
sts
192.168.49.2 memories.local.com
ubuntu@ip-172-31-15-140:~/Container-Orchestration-Practice-Tasks/travel-memory-app/k8s$ cat /etc/hosts | grep memories.local.com
192.168.49.2 memories.local.com
ubuntu@ip-172-31-15-140:~/Container-Orchestration-Practice-Tasks/travel-memory-app/k8s$ curl -X POST http://memories.local.com/memories \
-H "Content-Type: application/json" \
-d '{
  "location": "Paris",
  "date": "2024-01-05",
  "description": "Eiffel Tower visit",
  "imageUrl": "https://example.com/img1.jpg"
}'
<html>
<head><title>503 Service Temporarily Unavailable</title></head>
<body>
<center><h1>503 Service Temporarily Unavailable</h1></center>
<br><center>nginx</center>
</body>
</html>
ubuntu@ip-172-31-15-140:~/Container-Orchestration-Practice-Tasks/travel-memory-app/k8s$
```

TEST API

CREATE

```
curl -X POST http://memories.local.com/memories \
```

```
-H "Content-Type: application/json" \
```

```
-d '{  
  "location": "Paris",  
  "date": "2024-01-05",  
  "description": "Eiffel Tower visit",  
  "imageUrl": "https://example.com/img1.jpg"  
}'
```

GET

```
curl http://memories.local.com/memories
```

```
ubuntu@ip-172-31-15-140:~/Container-Orchestration-Practice-Tasks/travel-memory-app/k8s$ curl -X POST http://memories.local.com/memories \  
-H "Content-Type: application/json" \  
-d '{  
  "location": "Paris",  
  "date": "2024-01-05",  
  "description": "Eiffel Tower visit",  
  "imageUrl": "https://example.com/img1.jpg"  
}'  
<html>  
<head><title>503 Service Temporarily Unavailable</title></head>  
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<html>  
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</html>  
ubuntu@ip-172-31-15-140:~/Container-Orchestration-Practice-Tasks/travel-memory-app/k8s$
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