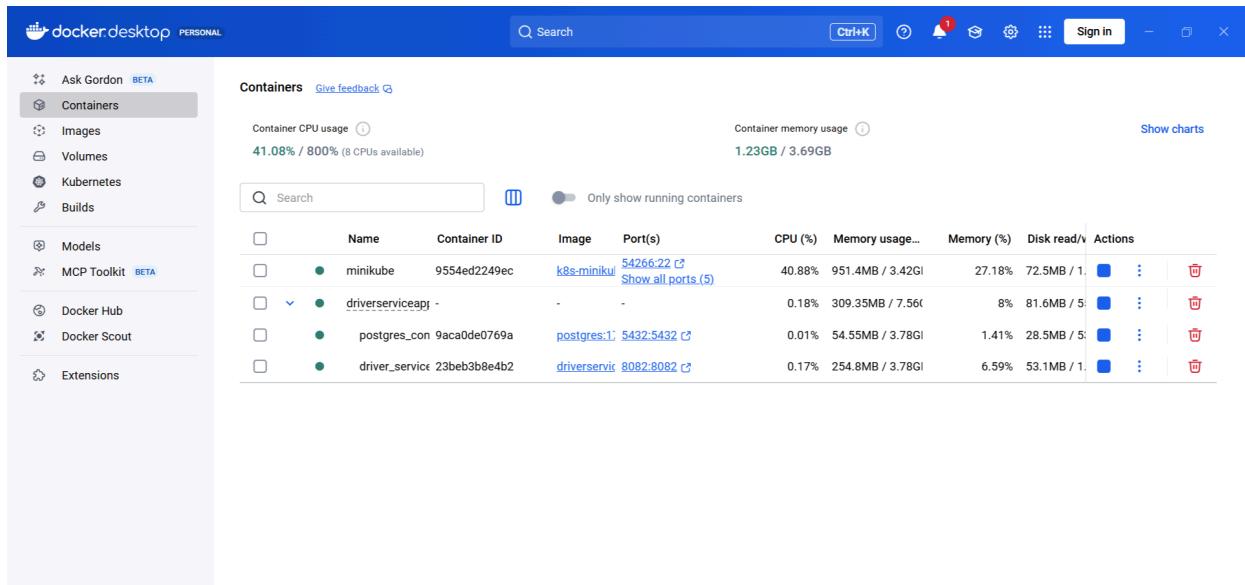


Kubernetes Deployment Verification Screenshots

1. Docker Desktop View



2. Docker Images

The screenshot shows a Windows PowerShell window. The user has run a multi-step Docker build command, which is shown in blue text. The command involves copying files from the local machine to the Docker image and then exporting it. The output shows the creation of a new image named 'driver-service'.

```
=> [4/5] COPY src/main/resources/application-docker.properties /app/config/application-docker.properties
=> [5/5] COPY src/main/resources/*.sql /app/config/
=> exporting to image
=> => exporting layers
=> => writing image sha256:5a6ca0d166905c7deb1a9ab028ceb7017df4b382b20cc83dc3c2ed9cbfa34841
=> => naming to docker.io/library/driver-service:latest
PS C:\Users\lenovo\git\Scalable_Service\DriverServiceApplication> docker images
REPOSITORY          TAG      IMAGE ID   CREATED        SIZE
driver-service      latest   5a6ca0d16690  17 seconds ago  436MB
registry.k8s.io/kube-apiserver  v1.34.0  90550c43ad2b  2 months ago   88MB
registry.k8s.io/kube-scheduler  v1.34.0  46169d968e92  2 months ago   52.8MB
registry.k8s.io/kube-proxy     v1.34.0  df0860106674  2 months ago   71.9MB
registry.k8s.io/kube-controller-manager v1.34.0  a0af72f2ec6d  2 months ago   74.9MB
registry.k8s.io/etcfd         3.6.4-0   5f1f5298c888  3 months ago   195MB
registry.k8s.io/pause         3.10.1   cd073f4c5f6a  4 months ago   736kB
registry.k8s.io/coredns       v1.12.1   52546a367cc9  7 months ago   75MB
gcr.io/k8s-minikube/storage-provisioner v5      6e38f40d628d  4 years ago   31.5MB
PS C:\Users\lenovo\git\Scalable_Service\DriverServiceApplication> kubectl apply -f k8s/
configmap/driver-config created
deployment.apps/driver-service created
service/driver-service created
configmap/postgres-config created
deployment.apps/postgres created
persistentvolumeclaim/postgres-pvc created
secret/postgres-secret created
PS C:\Users\lenovo\git\Scalable_Service\DriverServiceApplication> kubectl get pods
NAME                  READY   STATUS    RESTARTS   AGE
driver-service-5d6bc9c85d-2z78z  0/1     Running   0          15s
postgres-764bd8f847-nh8rp     0/1     ContainerCreating   0          15s
PS C:\Users\lenovo\git\Scalable_Service\DriverServiceApplication>
```

3.Kubectl get pods

```
PS C:\Users\lenovo\git\Scalable_Service\DriverServiceApplication> kubectl apply -f postgres-service.yaml
error: the path "postgres-service.yaml" does not exist
PS C:\Users\lenovo\git\Scalable_Service\DriverServiceApplication> kubectl delete -f k8s/
configmap "driver-config" deleted from default namespace
deployment.apps "driver-service" deleted from default namespace
service "driver-service" deleted from default namespace
configmap "postgres-config" deleted from default namespace
deployment.apps "postgres" deleted from default namespace
persistentvolumeclaim "postgres-pvc" deleted from default namespace
secret "postgres-secret" deleted from default namespace
Error from server (NotFound): error when deleting "k8s\\postgres-service.yaml": services "postgres" not found
PS C:\Users\lenovo\git\Scalable_Service\DriverServiceApplication> kubectl apply -f k8s/
configmap/driver-config created
deployment.apps/driver-service created
service/driver-service created
configmap/postgres-config created
deployment.apps/postgres created
persistentvolumeclaim/postgres-pvc created
secret/postgres-secret created
service/postgres created
S C:\Users\lenovo\git\Scalable_Service\DriverServiceApplication> kubectl get pods -w
NAME          READY   STATUS    RESTARTS   AGE
river-service-6c6f6b5469-pvh6p  0/1     Running   0          14s
postgres-764bd8f847-956dm   1/1     Running   0          14s
river-service-6c6f6b5469-pvh6p  0/1     Running   1 (1s ago)  84s
river-service-6c6f6b5469-pvh6p  0/1     Running   2 (1s ago)  2m18s
river-service-6c6f6b5469-pvh6p  0/1     Running   3 (1s ago)  3m13s
river-service-6c6f6b5469-pvh6p  1/1     Running   3 (32s ago) 3m44s
```

4.Kubectl get svc

```
Windows PowerShell
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Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\lenovo> kubectl get svc
NAME      TYPE      CLUSTER-IP      EXTERNAL-IP      PORT(S)      AGE
driver-service   NodePort    10.104.80.42    <none>        8082:30082/TCP  101m
kubernetes   ClusterIP  10.96.0.1       <none>        443/TCP      145m
postgres     ClusterIP  10.100.70.181    <none>        5432/TCP      101m
PS C:\Users\lenovo> |
```

5. Kubectl get logs

```
kube-system storage-provisioner 1/1 Running 1 (148m ago) 149m
PS C:\Users\lenovo> kubectl get pods -n default
NAME          READY   STATUS    RESTARTS   AGE
driver-service-6c6fb5469-pvh6p  1/1     Running   3 (103m ago)  106m
postgres-764bd8f847-956dm     1/1     Running   0          106m
PS C:\Users\lenovo> kubectl logs driver-service-6c6fb5469-pvh6p
Defaulted container "driver-service" out of: driver-service, wait-for-postgres (init)

::: Spring Boot :::           (v3.5.7)

2025-11-02T05:39:41.772Z INFO 1 --- [DriverServiceApplication] [main] c.d.DriverServiceApplication : Starting DriverServiceApplication
on v6.0.1-SNAPSHOT using Java 17.0.2 with PID 1 (/app/app.jar started by root in /app)
2025-11-02T05:39:41.776Z INFO 1 --- [DriverServiceApplication] [main] c.d.DriverServiceApplication : The following 1 profile is active: "docker"
2025-11-02T05:39:48.277Z INFO 1 --- [DriverServiceApplication] [main] .s.d.r.c.RepositoryConfigurationDelegate : Bootstrapping Spring Data JDBC repositories in DEFAULT mode
2025-11-02T05:39:48.380Z INFO 1 --- [DriverServiceApplication] [main] .s.d.r.c.RepositoryConfigurationDelegate : Finished Spring Data repository scanning in 93 ms. Found 0 JDBC repository interfaces.
2025-11-02T05:39:50.573Z INFO 1 --- [DriverServiceApplication] [main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat initialized with port 8082 (http)
2025-11-02T05:39:50.584Z INFO 1 --- [DriverServiceApplication] [main] o.apache.catalina.core.StandardService : Starting service [Tomcat]
2025-11-02T05:39:50.584Z INFO 1 --- [DriverServiceApplication] [main] o.apache.catalina.core.StandardEngine : Starting Servlet engine: [Apache Tomcat/10.1.48]
2025-11-02T05:39:51.170Z INFO 1 --- [DriverServiceApplication] [main] o.a.c.c.C.[Tomcat].[localhost].[/] : Initializing Spring embedded WebApplicationContext
2025-11-02T05:39:51.172Z INFO 1 --- [DriverServiceApplication] [main] w.s.c.ServletWebServerApplicationContext : Root WebApplicationContext: initialized in 9184 ms
2025-11-02T05:39:53.185Z INFO 1 --- [DriverServiceApplication] [main] com.zaxxer.hikari.HikariDataSource : HikariPool-1 - Starting...
2025-11-02T05:39:54.185Z INFO 1 --- [DriverServiceApplication] [main] com.zaxxer.hikari.pool.HikariPool : HikariPool-1 - Added connection
2025-11-02T05:39:54.488Z INFO 1 --- [DriverServiceApplication] [main] com.zaxxer.hikari.HikariDataSource : HikariPool-1 - Start completed.
2025-11-02T05:39:57.775Z INFO 1 --- [DriverServiceApplication] [main] o.s.b.a.e.EndpointLinksResolver : Exposing 3 endpoints beneath base path '/actuator'
2025-11-02T05:39:59.182Z INFO 1 --- [DriverServiceApplication] [main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat started on port 8082 (ht
```

6. Curl Or Postman Test

```
lenovo@DESKTOP-300B1VB MINGW64 ~
$ curl http://127.0.0.1:8082/actuator/health
{"status":"UP","groups":["liviness","readiness"]}
lenovo@DESKTOP-300B1VB MINGW64 ~
$ curl http://127.0.0.1:8082/api/drivers
[{"driverId":1,"name":"Driver1","phone":"+9743818976","vehicleType":"Bike","vehiclePlate":"KA68DX4733","active":false}, {"driverId":2,"name":"Driver2","phone":"+9857811574","vehicleType":"Hatchback","vehiclePlate":"KA31T8815","active":true}, {"driverId":3,"name":"Driver3","phone":"+9801800000","vehicleType":"SUV","vehiclePlate":"KA87RS3223","active":false}, {"driverId":4,"name":"Driver4","phone":"+9859000000","vehicleType":"Sedan","vehiclePlate":"KA10T8810","active":true}, {"driverId":5,"name":"Driver5","phone":"+9910152240","vehicleType":"Auto","vehiclePlate":"KA87RS3223","active":false}, {"driverId":6,"name":"Driver6","phone":"+933760835","vehicleType":"SUV","vehiclePlate":"KA55H2215","active":true}, {"driverId":7,"name":"Driver7","phone":"+933760835","vehicleType":"Sedan","vehiclePlate":"KA55H2215","active":true}, {"driverId":8,"name":"Driver8","phone":"+9395405264","vehicleType":"Sedan","vehiclePlate":"KA95E4447","active":false}, {"driverId":9,"name":"Driver9","phone":"+9395405264","vehicleType":"Sedan","vehiclePlate":"KA95E4447","active":true}, {"driverId":10,"name":"Driver10","phone":"+9395405264","vehicleType":"Bike","vehiclePlate":"KA55H2215","active":true}, {"driverId":11,"name":"Driver11","phone":"+9388667223","vehicleType":"Auto","vehiclePlate":"KA52L13513","active":false}, {"driverId":12,"name":"Driver12","phone":"+9388667223","vehicleType":"Hatchback","vehiclePlate":"KA16W6251","active":true}, {"driverId":13,"name":"Driver13","phone":"+921028366","vehicleType":"SUV","vehiclePlate":"KA28W6876","active":true}, {"driverId":14,"name":"Driver14","phone":"+9444693497","vehicleType":"SUV","vehiclePlate":"KA15F5832","active":true}, {"driverId":15,"name":"Driver15","phone":"+953119305","vehicleType":"Sedan","vehiclePlate":"KA73H05400","active":true}, {"driverId":16,"name":"Driver16","phone":"+953119305","vehicleType":"Bike","vehiclePlate":"KA53112541","active":false}, {"driverId":17,"name":"Driver17","phone":"+953119305","vehicleType":"Hatchback","vehiclePlate":"KA83NE8482","active":true}, {"driverId":18,"name":"Driver18","phone":"+9281376149","vehicleType":"Bike","vehiclePlate":"KA592V6023","active":true}, {"driverId":19,"name":"Driver19","phone":"+970887122","vehicleType":"SUV","vehiclePlate":"KA125S2990","active":true}, {"driverId":20,"name":"Driver20","phone":"+970887122","vehicleType":"SUV","vehiclePlate":"KA125S2990","active":true}, {"driverId":21,"name":"Driver21","phone":"+9423345916","vehicleType":"Bike","vehiclePlate":"KA24ZE2339","active":false}, {"driverId":22,"name":"Driver22","phone":"+9423345916","vehicleType":"Bike","vehiclePlate":"KA24ZE2339","active":true}, {"driverId":23,"name":"Driver23","phone":"+933738747","vehicleType":"SUV","vehiclePlate":"KA125S2990","active":true}, {"driverId":24,"name":"Driver24","phone":"+9423345916","vehicleType":"Bike","vehiclePlate":"KA24ZE2339","active":true}, {"driverId":25,"name":"Driver25","phone":"+9651536128","vehicleType":"Auto","vehiclePlate":"KA49BC9792","active":false}, {"driverId":26,"name":"Driver26","phone":"+9735792009","vehicleType":"SUV","vehiclePlate":"KA2XV56822","active":true}, {"driverId":27,"name":"Driver27","phone":"+9735792009","vehicleType":"Bike","vehiclePlate":"KA2XV56822","active":true}, {"driverId":28,"name":"Driver28","phone":"+9304780799","vehicleType":"Sedan","vehiclePlate":"KA73MB4136","active":true}, {"driverId":29,"name":"Driver29","phone":"+9674140403","vehicleType":"SUV","vehiclePlate":"KA125S2990","active":true}, {"driverId":30,"name":"Driver30","phone":"+9142576211","vehicleType":"Auto","vehiclePlate":"KA20XK5909","active":true}, {"driverId":31,"name":"Driver31","phone":"+927751155","vehicleType":"SUV","vehiclePlate":"KA85NJ8525","active":true}, {"driverId":32,"name":"Driver32","phone":"+9149156209","vehicleType":"SUV","vehiclePlate":"KA85NJ8525","active":true}, {"driverId":33,"name":"Driver33","phone":"+9881501029","vehicleType":"SUV","vehiclePlate":"KA69VG6268","active":false}, {"driverId":34,"name":"Driver34","phone":"+9605242544","vehicleType":"Hatchback","vehiclePlate":"KA73JH8200","active":true}, {"driverId":35,"name":"Driver35","phone":"+9645252
```

```
← → ⌂ 127.0.0.1:6547/v1/drivers
Pretty-print □

[{"driverId": "1", "name": "Driver1", "phone": "9743818976", "vehicleType": "Bike", "vehiclePlate": "KA98DX4733", "active": false}, {"driverId": "2", "name": "Driver2", "phone": "9857811574", "vehicleType": "Hatchback", "vehiclePlate": "KA13T8615", "active": true}, {"driverId": "3", "name": "Driver3", "phone": "9807180007", "vehicleType": "SUV", "vehiclePlate": "KA95QQ7883", "active": false}, {"driverId": "4", "name": "Driver4", "phone": "9101752240", "vehicleType": "Auto", "vehiclePlate": "KA87853232", "active": false}, {"driverId": "5", "name": "Driver5", "phone": "9331760835", "vehicleType": "SUV", "vehiclePlate": "KA65SH4215", "active": true}, {"driverId": "6", "name": "Driver6", "phone": "9806242484", "vehicleType": "Hatchback", "vehiclePlate": "KA0606223", "active": true}, {"driverId": "7", "name": "Driver7", "phone": "9805934444", "vehicleType": "SUV", "vehiclePlate": "KA0505934444", "active": false}, {"driverId": "8", "name": "Driver8", "phone": "9593863051", "vehicleType": 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