

Start minikube

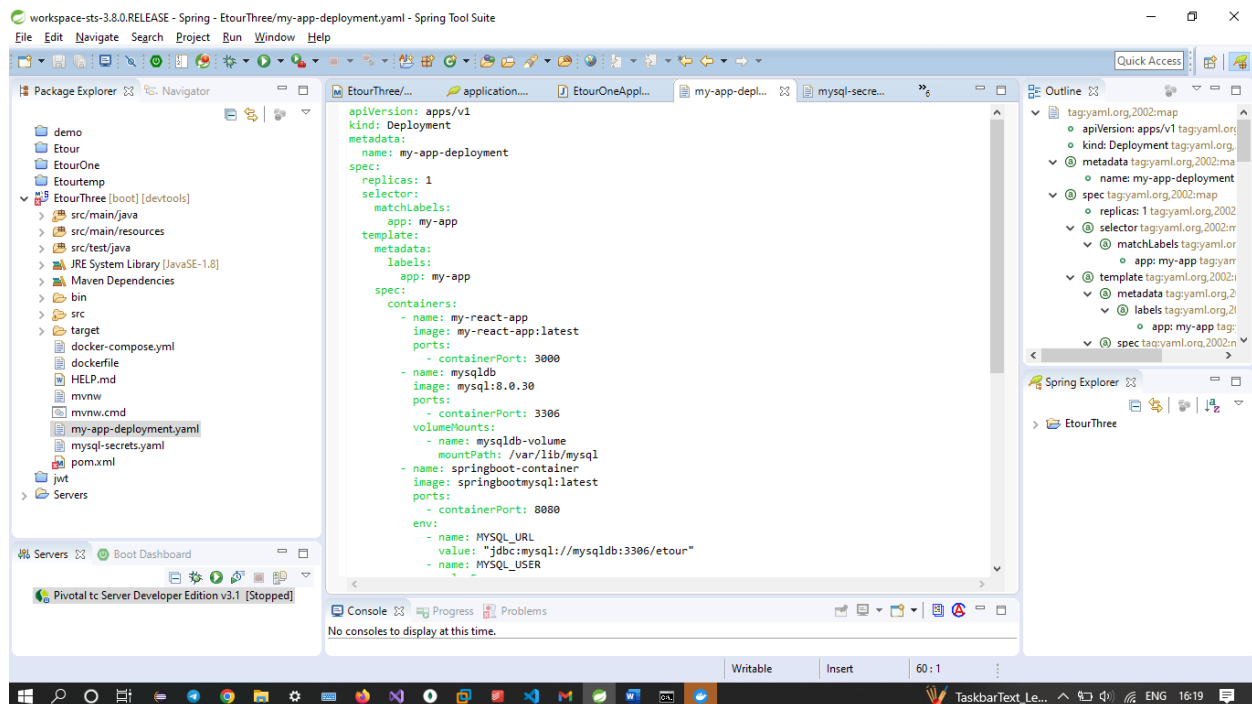
```
Command Prompt

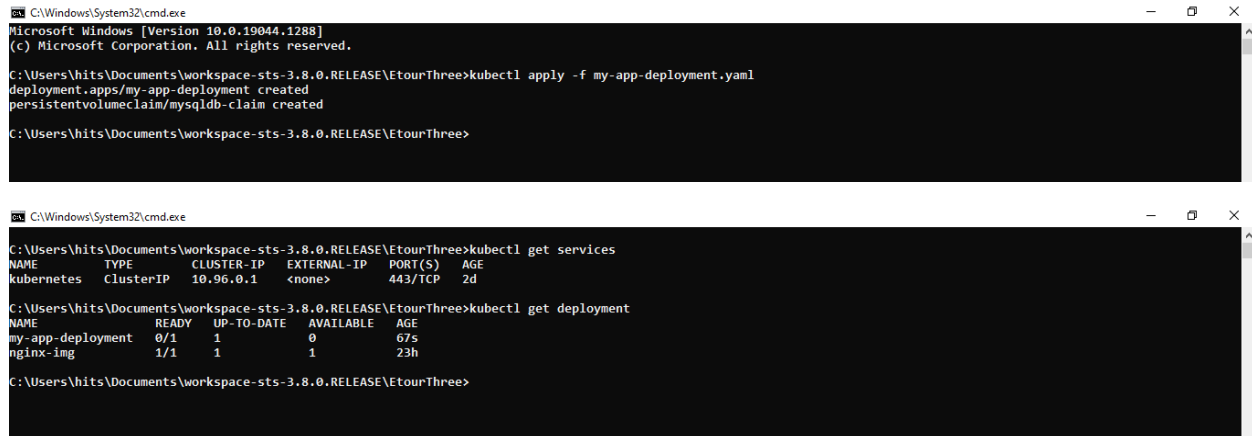
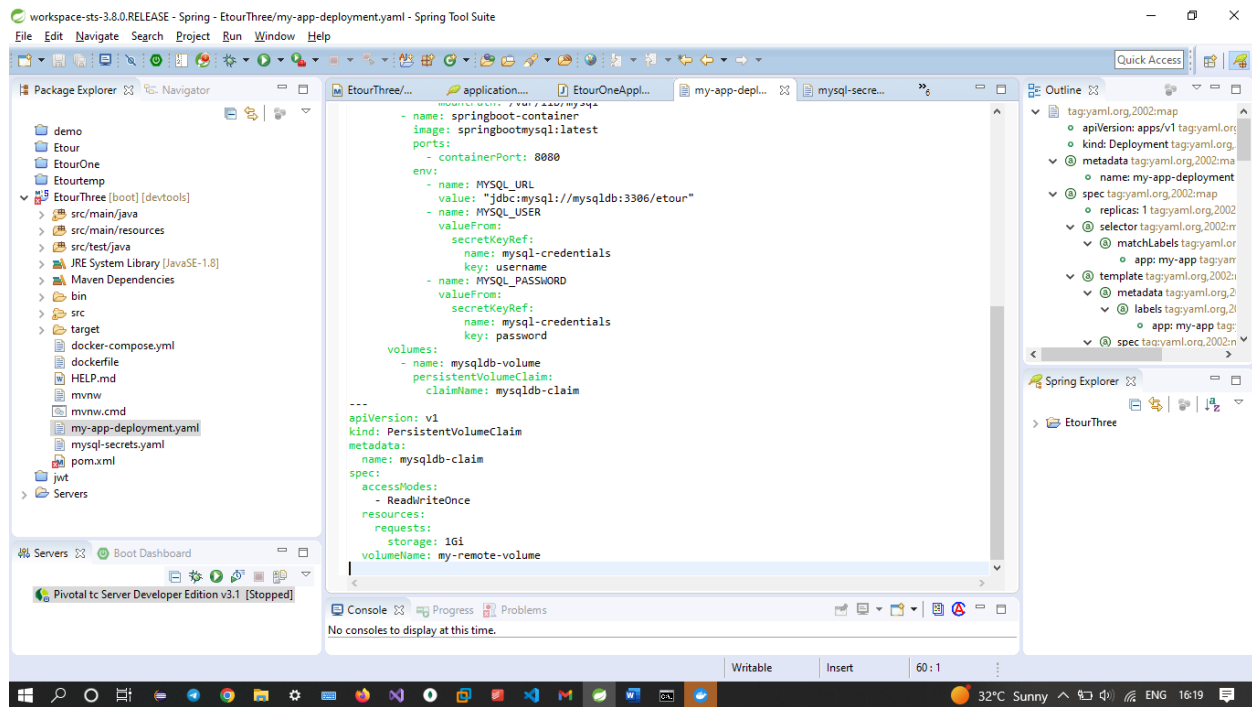
C:\Users\hits>minikube start
* minikube v1.30.1 on Microsoft Windows 10 Enterprise N 10.0.19044.1288 Build 19044.1288
* Using the docker driver based on existing profile
* Starting control plane node minikube in cluster minikube
* Pulling base image ...
* Restarting existing docker container for "minikube" ...
* Preparing Kubernetes v1.26.3 on Docker 23.0.2 ...
* 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

C:\Users\hits>kubectl get node
NAME        STATUS    ROLES    AGE   VERSION
minikube    Ready     control-plane  22h   v1.26.3

C:\Users\hits>
```

Create yaml file





```
C:\Windows\System32\cmd.exe

C:\Users\hits\Documents\workspace-sts-3.8.0.RELEASE\EtourThree>kubectl describe deployment my-app-deployment
Name: my-app-deployment
Namespace: default
CreationTimestamp: Fri, 28 Apr 2023 16:22:31 +0530
Labels: <none>
Annotations: deployment.kubernetes.io/revision: 1
Selector: app=my-app
Replicas: 1 desired | 1 updated | 1 total | 0 available | 1 unavailable
StrategyType: RollingUpdate
MinReadySeconds: 0
RollingUpdateStrategy: 25% max unavailable, 25% max surge
Pod Template:
  Labels: app=my-app
  Containers:
    my-react-app:
      Image: my-react-app:latest
      Port: 3000/TCP
      Host Port: 0/TCP
      Environment: <none>
      Mounts: <none>
    mysql:
      Image: mysql:8.0.30
      Port: 3306/TCP
      Host Port: 0/TCP
      Environment: <none>
      Mounts:
        /var/lib/mysql from mysql-volume (rw)
    springboot-container:
      Image: springbootmysql:latest
      Port: 8080/TCP
      Host Port: 0/TCP
      Environment:
        MYSQL_URL: jdbc:mysql://mysql:3306/etour
        MYSQL_USER: <set to the key 'username' in secret 'mysql-credentials'> Optional: false
        MYSQL_PASSWORD: <set to the key 'password' in secret 'mysql-credentials'> Optional: false
      Mounts: <none>
  Volumes:
    mysql-volume:
      Type: PersistentVolumeClaim (a reference to a PersistentVolumeClaim in the same namespace)
      ClaimName: mysql-volume-claim
      ReadOnly: false
Conditions:
  Type          Status Reason
  ----          -
  Available      False  MinimumReplicasUnavailable
  Progressing    True   ReplicaSetUpdated
  OldReplicaSets: <none>
  NewReplicaSet:  my-app-deployment-84d88c8d6f (1/1 replicas created)
Events:
  Type Reason Age From Message
  ---
  Normal ScalingReplicaSet 2m52s deployment-controller Scaled up replica set my-app-deployment-84d88c8d6f to 1
```

```
Select C:\Windows\System32\cmd.exe

  ReadOnly: false
Conditions:
  Type          Status Reason
  ----          -
  Available      False  MinimumReplicasUnavailable
  Progressing    True   ReplicaSetUpdated
  OldReplicaSets: <none>
  NewReplicaSet:  my-app-deployment-84d88c8d6f (1/1 replicas created)
Events:
  Type Reason Age From Message
  ---
  Normal ScalingReplicaSet 2m52s deployment-controller Scaled up replica set my-app-deployment-84d88c8d6f to 1

C:\Users\hits\Documents\workspace-sts-3.8.0.RELEASE\EtourThree>
```

```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19044.1288]
(c) Microsoft Corporation. All rights reserved.

C:\Users\hitsu\Documents\workspace-sts-3.8.0.RELEASE\EtourThree>kubectl apply -f my-app-deployment.yaml
deployment.apps/my-app-deployment created
persistentvolumeclaim/mysqldb-claim created

C:\Users\hitsu\Documents\workspace-sts-3.8.0.RELEASE\EtourThree>kubectl get services
NAME      TYPE      CLUSTER-IP    EXTERNAL-IP    PORT(S)    AGE
kubernetes  ClusterIP  10.96.0.1      <none>         443/TCP    2d

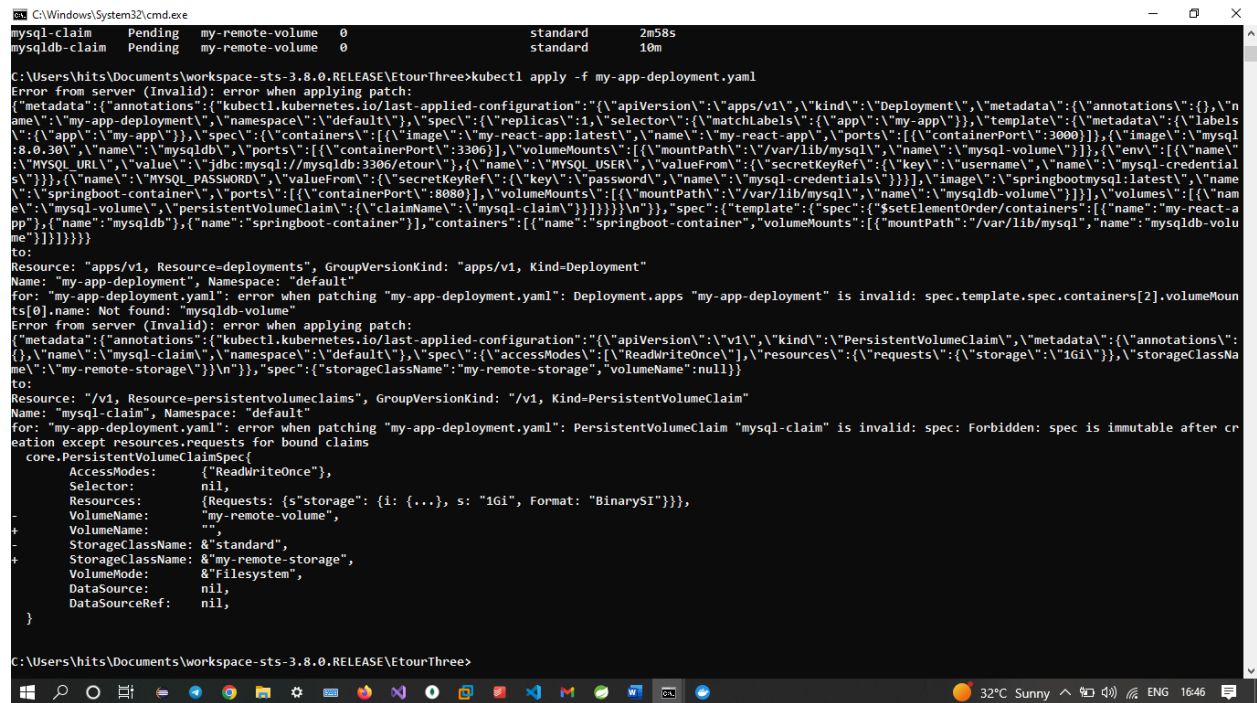
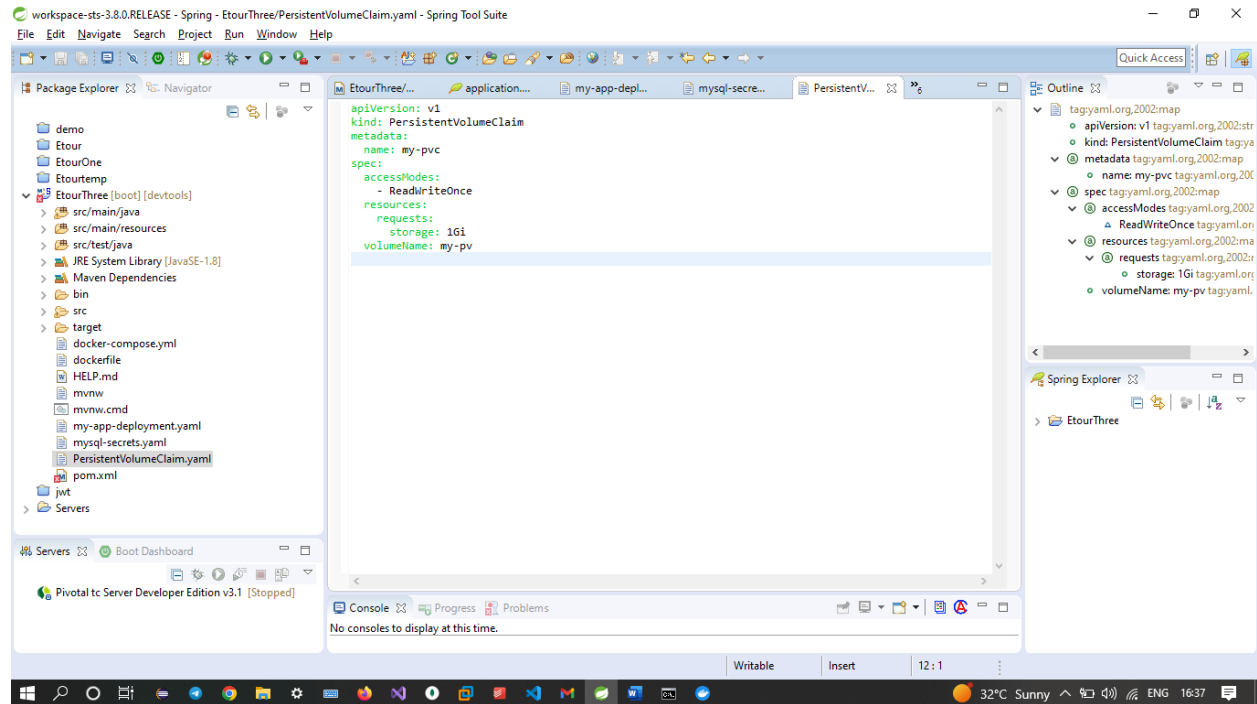
C:\Users\hitsu\Documents\workspace-sts-3.8.0.RELEASE\EtourThree>kubectl get deployment
NAME          READY   UP-TO-DATE   AVAILABLE   AGE
my-app-deployment  0/1     1             0           67s
nginx-ing     1/1     1             1           23h

C:\Users\hitsu\Documents\workspace-sts-3.8.0.RELEASE\EtourThree>kubectl describe deployment my-app-deployment
Name:          my-app-deployment
Namespace:     default
CreationTimestamp: Fri, 28 Apr 2023 16:22:31 +0530
Labels:        <none>
Annotations:   deployment.kubernetes.io/revision: 1
Selector:      app=my-app
Replicas:      1 desired | 1 updated | 1 total | 0 available | 1 unavailable
StrategyType:  RollingUpdate
MinReadySeconds: 0
RollingUpdateStrategy: 25% max unavailable, 25% max surge
Pod Template:
  Labels:  app=my-app
  Containers:
    my-react-app:
      Image:      my-react-app:latest
      Ports:      3000/TCP
      Host Port:  0/TCP
      Environment: <none>
      Mounts:      <none>
    mysqldb:
      Image:      mysql:8.0.30
      Ports:      3306/TCP
      Host Port:  0/TCP
      Environment: <none>
      Mounts:      /var/lib/mysql from mysqldb-volume (rw)
  springboot-container:
    Image:      springbootmysql:latest
    Ports:      8080/TCP
    Host Port:  0/TCP
    Environment:
      MYSQL_URL:      jdbc:mysql://mysqldb:3306/etour
      MYSQL_USER:      <set to the key 'username' in secret 'mysql-credentials'> Optional: false
      MYSQL_PASSWORD: <set to the key 'password' in secret 'mysql-credentials'> Optional: false
    Mounts:          /var/run/secrets/kubernetes.io/serviceaccount from kube-api-access-km9cr (ro)
```

```
Port:          3306/TCP
Host Port:     0/TCP
Environment:   <none>
Mounts:        /var/lib/mysql from mysqldb-volume (rw)
               /var/run/secrets/kubernetes.io/serviceaccount from kube-api-access-km9cr (ro)
springboot-container:
  Image:      springbootmysql:latest
  Ports:      8080/TCP
  Host Port:  0/TCP
  Environment:
    MYSQL_URL:      jdbc:mysql://mysqldb:3306/etour
    MYSQL_USER:      <set to the key 'username' in secret 'mysql-credentials'> Optional: false
    MYSQL_PASSWORD: <set to the key 'password' in secret 'mysql-credentials'> Optional: false
  Mounts:          /var/run/secrets/kubernetes.io/serviceaccount from kube-api-access-km9cr (ro)
Conditions:
  Type          Status
  PodScheduled   False
Volumes:
  mysqldb-volume:
    Type:      PersistentVolumeClaim (a reference to a PersistentVolumeClaim in the same namespace)
    ClaimName: mysqldb-claim
    ReadOnly:  false
  kube-api-access-km9cr:
    Type:      Projected (a volume that contains injected data from multiple sources)
    TokenExpirationSeconds: 3607
    ConfigMapName: kube-root-ca.crt
    ConfigMapOptional: <nil>
    DownwardAPI: true
QoS Class:      BestEffort
Node-Selectors: <none>
Tolerations:    node.kubernetes.io/not-ready:NoExecute op=Exists for 300s
                 node.kubernetes.io/unreachable:NoExecute op=Exists for 300s
Events:
  Type    Reason          Age    From          Message
  ----    -
Warning  FailedScheduling  4m44s  default-scheduler  0/1 nodes are available: pod has unbound immediate PersistentVolumeClaims. preemption: 0/1 nodes are available: 1 No preemption victims found for incoming pod..

C:\Users\hitsu\Documents\workspace-sts-3.8.0.RELEASE\EtourThree>
```

Had some issues related to SQL database volume. Changed yaml file and again deployed. Still same error. Added PersistentVolumeClaim .



In order to secure Username and password of MySQL stored this info in base64 format. And added this encoded Username, password in mysql-secure.yaml file referred that file in deployment yaml file.

