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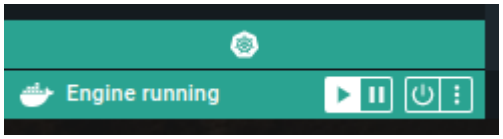
# Lab Exercise 8– Creating Service in Kubernetes

Below is a lab exercise that will help you understand and practice creating a service in Kubernetes:

### Task 1: Start Kubernetes in Docker-Desktop

- Start Kubernetes service in Docker-Desktop




### Task 2: Creating a Service

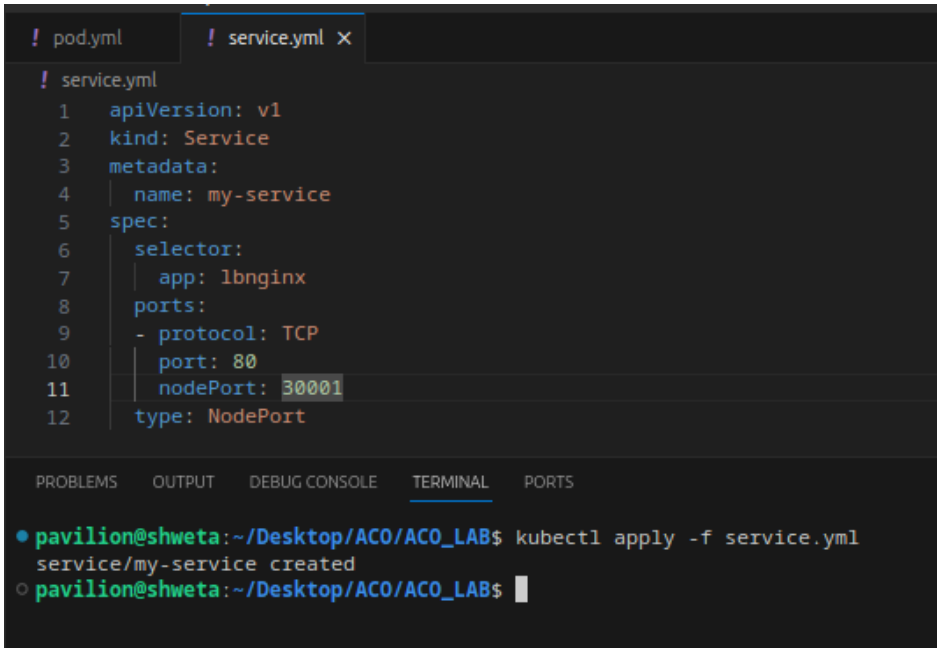
Create a service to expose the deployed application within the Kubernetes cluster. You can use the following sample YAML manifest as a reference:

```
apiVersion: v1
kind: Service
metadata:
  name: my-service
spec:
  selector:
    app: lbnginx
```

```
ports:
- protocol: TCP
  port: 80
  nodePort: 30001
type: NodePort
```

- Apply the service using the following command:

```
kubectl apply -f service.yaml
```




- Verify that the service is created by running the following command:

```
kubectl get services
```

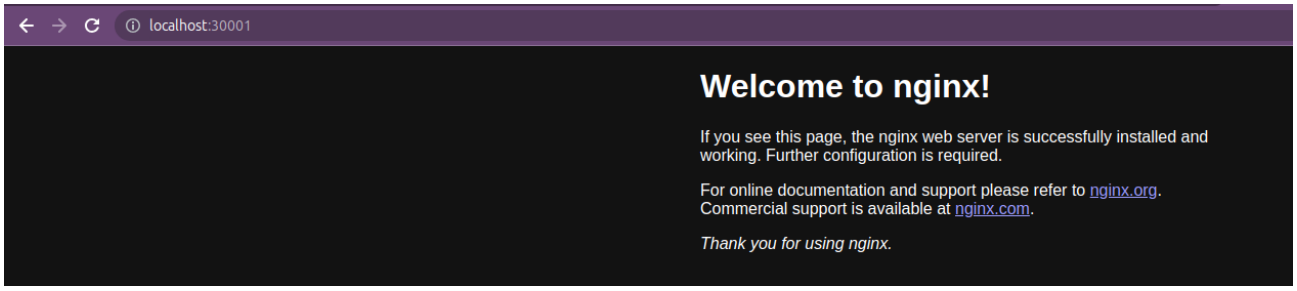
```
pavilion@shweta:~/Desktop/ACO/ACO_LAB$ kubectl get all
NAME                 READY   STATUS    RESTARTS   AGE
pod/my-nginx-pod     1/1     Running   0          84s

NAME                 TYPE        CLUSTER-IP       EXTERNAL-IP   PORT(S)        AGE
service/kubernetes   ClusterIP   10.96.0.1        <none>        443/TCP        2d16h
service/my-service   NodePort    10.107.144.167   <none>        80:30001/TCP   123m
pavilion@shweta:~/Desktop/ACO/ACO_LAB$ kubectl get services
NAME         TYPE        CLUSTER-IP       EXTERNAL-IP   PORT(S)        AGE
kubernetes   ClusterIP   10.96.0.1        <none>        443/TCP        2d16h
my-service   NodePort    10.107.144.167   <none>        80:30001/TCP   124m
pavilion@shweta:~/Desktop/ACO/ACO_LAB$
```

### Task 4: Accessing the Service

- Access the service using port forwarding. Run the following command:

Access the Nginx server running in the service by opening a web browser and navigating to

```
http://localhost: 30001
```

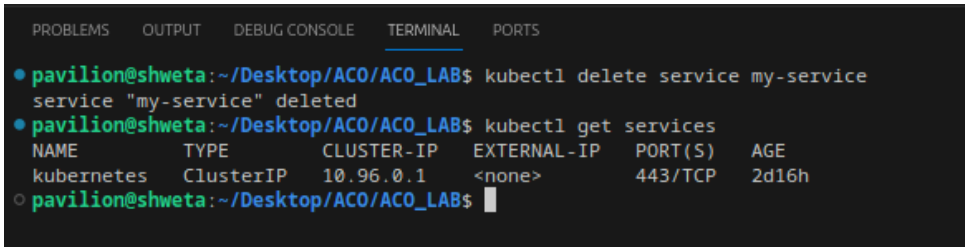



### Task 5: Deleting the Service

Delete the service using the following command:

```
kubectl delete service my-service
```

Verify that the service has been deleted by running the kubectl get services command.




### Task 6: Cleanup

Delete any remaining deployments, services, and resources created during the exercise using the appropriate kubectl delete commands.

### Task 7: Documentation and Best Practices

Document your findings and the best practices for creating and managing services in Kubernetes.

Through this exercise, you'll gain a better understanding of how to create and manage services to expose applications within a Kubernetes cluster. Adjust the exercise based on your specific use case and requirements.