

# LAB 5

## A. create resources:

### 1. NameSpace:

```
salmamyoussef@salmamyoussef-Satellite-C55-B:~/Documents/ITI-devops/Kubernetes/la
bs_solutions$ kubectl create namespace lab3
namespace/lab3 created
salmamyoussef@salmamyoussef-Satellite-C55-B:~/Documents/ITI-devops/Kubernetes/la
bs_solutions$ kubectl get namespaces
NAME                STATUS    AGE
default             Active   7d12h
kube-node-lease     Active   7d12h
kube-public         Active   7d12h
kube-system         Active   7d12h
lab3                Active   12s
salmamyoussef@salmamyoussef-Satellite-C55-B:~/Documents/ITI-devops/Kubernetes/la
bs_solutions$
```

### 2. Deployment

```
lab5.md 9+,U ! nginx-deployment.yaml 1,U X
! nginx-deployment.yaml > {} metadata > namespace
io.k8s.api.apps.v1.Deployment (v1@deployment.json)
1  apiVersion: apps/v1
2  kind: Deployment
3  metadata:
4    name: nginx-deployment
5    namespace: lab3
6    labels:
7      app: nginx
8  spec:
9    replicas: 3
10   selector:
11     matchLabels:
12       app: nginx
13   template:
14     metadata:
15       labels:
16         app: nginx
17     spec:
18       containers:
19         - name: nginx
20           image: nginx:1.14.2
21           ports:
22             - containerPort: 80

salmamyoussef@salmamyoussef-Satellite-C55-B:~/Documents/ITI-devops/Kubernetes/lab1$ kubectl apply
-f nginx-deployment.yaml
deployment.apps/nginx-deployment created
salmamyoussef@salmamyoussef-Satellite-C55-B:~/Documents/ITI-devops/Kubernetes/lab1$ kubectl get de
ployments --namespace=lab3
NAME                READY    UP-TO-DATE    AVAILABLE    AGE
nginx-deployment    3/3      3             3            4s
```

### 3. Expose the deployment:

```
salmamyoussef@salmamyoussef-Satellite-C55-B:~/Documents/ITI-devops/Kubernetes/lab1$ kubectl expose deployment nginx-de
ployment --type NodePort --port 80 --target-port=80 --name=my-service2 --namespace=lab3
service/my-service2 exposed
salmamyoussef@salmamyoussef-Satellite-C55-B:~/Documents/ITI-devops/Kubernetes/lab1$ kubectl describe svc my-service2 -
--namespace=lab3
Name:                my-service2
Namespace:           lab3
Labels:              app=nginx
Annotations:         <none>
Selector:            app=nginx
Type:                NodePort
IP Family Policy:    SingleStack
IP Families:         IPv4
IP:                  10.99.163.29
IPs:                 10.99.163.29
Port:                <unset> 80/TCP
TargetPort:          80/TCP
NodePort:            <unset> 32610/TCP
Endpoints:           172.17.0.20:80,172.17.0.21:80,172.17.0.22:80
Session Affinity:    None
External Traffic Policy: Cluster
Events:              <none>
```

## **B. Cronjob:**