Lab #2. First pod



- sudo kubectl run nginx --image=nginx:latest --port=80
- sudo kubectl get pods

```
loki@ubuntumaster:~$ sudo kubectl get pods
NAME READY STATUS RESTARTS AGE
nginx 1/1 Running 0 36s
```

- sudo kubectl port-forward nginx --address 0.0.0.0 8888:80
- Access "master_ip:8888"



Welcome to nginx!

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to nginx.org. Commercial support is available at nginx.com.

Thank you for using nginx.



Lab #2. First pod



- sudo kubectl describe pods nginx
- sudo kubectl exec nginx -- date
- sudo kubectl exec --tty --stdin nginx -- /bin/bash
- sudo kubectl delete pods nginx



Lab #3. First manifest



sudo vi first_manifest.yaml

```
apiVersion: v1
kind: Pod
metadata:
name: web-srv
labels:
app: web_server
owner: ozz
description: web_server
spec:
containers:
- name: nginx
image: nginx:latest
ports:
- containerPort: 80
- containerPort: 443
```

sudo kubectl apply -f first_manifest.yaml



Lab #4. First deployment



sudo vi first_deployment.yaml

```
apiVersion: apps/v1
kind: Deployment
                                                                                   apiVersion: autoscaling/v2beta2
metadata:
                                                                                   kind: HorizontalPodAutoscaler
name: web-deploy
                                                                                   metadata:
 labels:
                                                                                    name: web-deploy-autoscaling
 app: web server
                                                                                   spec:
  owner: ozz
                                                                                    scaleTargetRef:
 description: web_server
                                                                                     apiVersion: apps/v1
spec:
                                                                                     kind: Deployment
 replicas: 5
                                                                                     name: myweb-autoscaling
 selector:
                                                                                    minReplicas: 5
  matchLabels:
                                                                                    maxReplicas: 10
   project: myweb
                                                                                    metrics:
 template:
                                                                                    - type: Resource
  metadata:
                                                                                     resource:
   labels:
                                                                                      name: cpu
    project: myweb
                                                                                      target:
    owner: ozz
                                                                                       type: Utilization
    description: web_server
                                                                                       averageUtilization: 75
  spec:
                                                                                    - type: Resource
   containers:
                                                                                     resource:
    - name: myweb-httpd
                                                                                      name: memory
     image: httpd:latest
                                                                                      target:
     ports:
                                                                                       type: Utilization
      - containerPort: 80
                                                                                       averageUtilization: 80
      - containerPort: 443
```



Lab #4. First deployment



sudo kubectl apply -f first_deployment.yaml

loki@ubuntumaster:~\$ sudo kubectl get pods				
NAME	READY	STATUS	RESTARTS	AGE
web-deploy-b475c947b-4dcfk	1/1	Running	0	42s
web-deploy-b475c947b-5vt59	1/1	Running	0	43s
web-deploy-b475c947b-96br9	1/1	Running	0	43s
web-deploy-b475c947b-nkr8k	1/1	Running	0	42s
web-deploy-b475c947b- <u>s</u> 5gtb	1/1	Running	0	43s

- sudo kubectl get deployment
- sudo kubectl delete deploy web-deploy

