

Kubernetes

Day3

Lab2

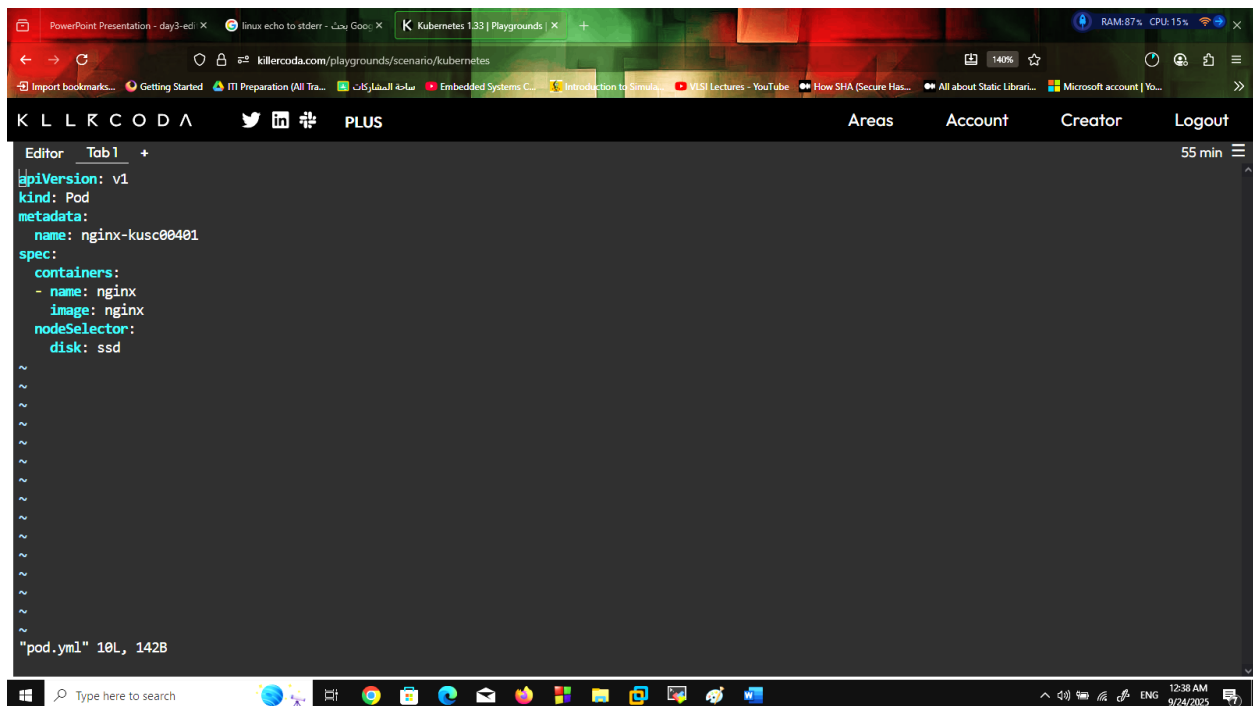
Schedule a pod on a specific node

Required:

-Schedule a pod as follows:

- ☞ Name: nginx-kusc00401
- ☞ Image: nginx
- ☞ Node selector: disk=ssd

Solution:

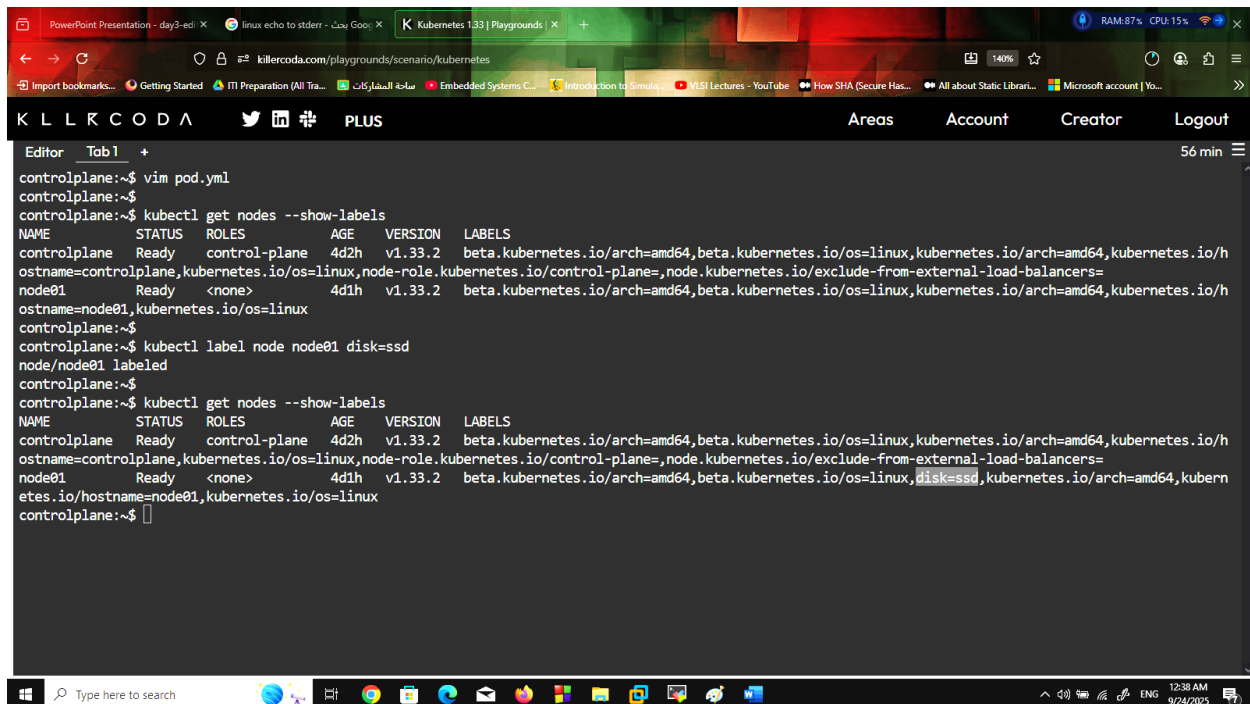


The screenshot shows a web browser window with a code editor. The editor displays a YAML manifest for a Kubernetes pod. The manifest is as follows:

```
apiVersion: v1
kind: Pod
metadata:
  name: nginx-kusc00401
spec:
  containers:
  - name: nginx
    image: nginx
  nodeSelector:
    disk: ssd
```

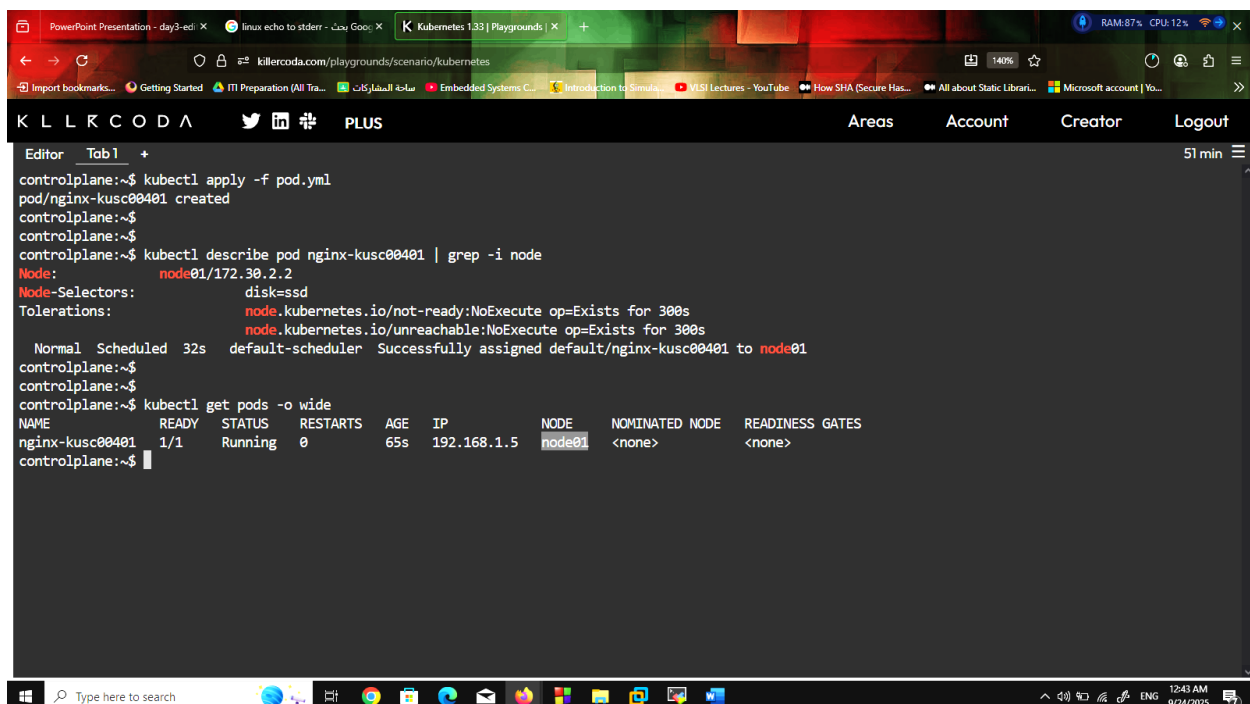
The editor interface includes a top bar with navigation links (K, L, K, C, O, D, A), a search bar, and a status bar at the bottom showing the file name "pod.yml" and its size (10L, 142B). The browser's address bar shows the URL "killercoda.com/playgrounds/scenario/kubernetes".

Figure 1: Create the yaml file for the pod



```
controlplane:~$ vim pod.yaml
controlplane:~$
controlplane:~$ kubectl get nodes --show-labels
NAME          STATUS    ROLES    AGE   VERSION   LABELS
controlplane  Ready    control-plane  4d2h  v1.33.2   beta.kubernetes.io/arch=amd64,beta.kubernetes.io/os=linux,kubernetes.io/arch=amd64,kubernetes.io/h
ostname=controlplane,kubernetes.io/os=linux,node-role.kubernetes.io/control-plane=,node.kubernetes.io/exclude-from-external-load-balancers=
node01        Ready    <none>      4d1h  v1.33.2   beta.kubernetes.io/arch=amd64,beta.kubernetes.io/os=linux,kubernetes.io/arch=amd64,kubernetes.io/h
ostname=node01,kubernetes.io/os=linux
controlplane:~$
controlplane:~$ kubectl label node node01 disk=ssd
node/node01 labeled
controlplane:~$
controlplane:~$ kubectl get nodes --show-labels
NAME          STATUS    ROLES    AGE   VERSION   LABELS
controlplane  Ready    control-plane  4d2h  v1.33.2   beta.kubernetes.io/arch=amd64,beta.kubernetes.io/os=linux,kubernetes.io/arch=amd64,kubernetes.io/h
ostname=controlplane,kubernetes.io/os=linux,node-role.kubernetes.io/control-plane=,node.kubernetes.io/exclude-from-external-load-balancers=
node01        Ready    <none>      4d1h  v1.33.2   beta.kubernetes.io/arch=amd64,beta.kubernetes.io/os=linux,disk=ssd,kubernetes.io/arch=amd64,kubern
etes.io/hostname=node01,kubernetes.io/os=linux
controlplane:~$
```

Figure 2: Adding the label to the desired node (Assuming node01)



```
controlplane:~$ kubectl apply -f pod.yaml
pod/nginx-kusc00401 created
controlplane:~$
controlplane:~$ kubectl describe pod nginx-kusc00401 | grep -i node
Node:                node01/172.30.2.2
Node-Selectors:      disk=ssd
Tolerations:         node.kubernetes.io/not-ready:NoExecute op=Exists for 300s
                     node.kubernetes.io/unreachable:NoExecute op=Exists for 300s
Normal Scheduled 32s default-scheduler Successfully assigned default/nginx-kusc00401 to node01
controlplane:~$
controlplane:~$ kubectl get pods -o wide
NAME          READY  STATUS   RESTARTS  AGE   IP        NODE    NOMINATED NODE  READINESS GATES
nginx-kusc00401 1/1    Running  0          65s   192.168.1.5 node01    <none>          <none>
controlplane:~$
```

Figure 3: Run the pod and check the node it's running on