

project 4: Node elasticity

We will deploy bloaty

```
root@galal-sre-02:~/nd087-c3-deployment-roulette-project# kubectl
deployment.apps/bloaty-mcbloatface created
```

List pods

```
root@galal-sre-02:~/nd087-c3-deployment-roulette-project# k get
NAME                                READY   STATUS    RESTARTS
bloaty-mcbloatface-6c5b5fc984-2qw6z 1/1     Running   0
bloaty-mcbloatface-6c5b5fc984-44jb4 1/1     Running   0
bloaty-mcbloatface-6c5b5fc984-46ssk 1/1     Running   0
bloaty-mcbloatface-6c5b5fc984-4v27v 0/1     Pending   0
bloaty-mcbloatface-6c5b5fc984-9mcbs 0/1     Pending   0
bloaty-mcbloatface-6c5b5fc984-cjmxp 1/1     Running   0
bloaty-mcbloatface-6c5b5fc984-gxxm7 1/1     Running   0
bloaty-mcbloatface-6c5b5fc984-k9xjk 1/1     Running   0
bloaty-mcbloatface-6c5b5fc984-lbc7l 1/1     Running   0
bloaty-mcbloatface-6c5b5fc984-n9x76 1/1     Running   0
bloaty-mcbloatface-6c5b5fc984-pfqk8 1/1     Running   0
bloaty-mcbloatface-6c5b5fc984-pwz72 1/1     Running   0
bloaty-mcbloatface-6c5b5fc984-rn5wd 0/1     Pending   0
bloaty-mcbloatface-6c5b5fc984-rwwb4 1/1     Running   0
bloaty-mcbloatface-6c5b5fc984-sm9v8 1/1     Running   0
bloaty-mcbloatface-6c5b5fc984-vfp9f 1/1     Running   0
bloaty-mcbloatface-6c5b5fc984-vpg2p 0/1     Pending   0
canary-v2-8dc775cd6-sc46l            1/1     Running   0
canary-v2-8dc775cd6-wfmw7            1/1     Running   0
```

canary-v2-8dc775cd6-z4rrw	1/1	Running	0
green-568777db7-5npqt	1/1	Running	0
green-568777db7-1cr4l	1/1	Running	0
green-568777db7-rzd2w	1/1	Running	0
hello-world-7b67f6885d-wttg5	1/1	Running	0

To know why some of them stucked in pending state

```

root@galal-sre-02:~/nd087-c3-deployment-roulette-project# k describe pod bloaty-mcbloatface-6c5b5fc984-4v27v
Name:          bloaty-mcbloatface-6c5b5fc984-4v27v
Namespace:     udacity
Priority:       0
Node:          <none>
Labels:        app=bloaty-mcbloatface
               pod-template-hash=6c5b5fc984
Annotations:   <none>
Status:        Pending
IP:            <none>
IPs:           <none>
Controlled By: ReplicaSet/bloaty-mcbloatface-6c5b5fc984
Containers:
  nginx:
    Image:      nginx
    Port:       80/TCP
    Host Port:  0/TCP
    Requests:
      cpu:      250m
      memory:   200Mi
    Readiness:  http-get http://:80/ delay=0s timeout=1s period=10s
    Environment: <none>
    Mounts:
      /var/run/secrets/kubernetes.io/serviceaccount from kube-api-access-7t9wv
Conditions:
  Type             Status
  PodScheduled     False
  Volumes:

```

```

kube-api-access-6mxns:
  Type:                      Projected (a volume that contains :
  TokenExpirationSeconds:    3607
  ConfigMapName:             kube-root-ca.crt
  ConfigMapOptional:         <nil>
  DownwardAPI:               true
QoS Class:                   Burstable
Node-Selectors:               <none>
Tolerations:                 node.kubernetes.io/not-ready:NoExec
                             node.kubernetes.io/unreachable:NoExe
Events:
  Type      Reason             Age      From                  Message
  ----      -
Warning    FailedScheduling   2m55s    default-scheduler     0/2 nodes:

```

Reason: Insufficient requested CPU resources from currently deployed nodes, and there aren't other nodes to schedule pods to them.

```

root@galal-sre-02:~/nd087-c3-deployment-roulette-project# k get
NAME                                READY    UP-TO-DATE    AVAILABLE
deployment.apps/bloaty-mcbloatface  13/17    17             13
deployment.apps/canary-v1           0/0      0              0
deployment.apps/canary-v2           3/3      3              3
deployment.apps/green               3/3      3              3
deployment.apps/hello-world         1/1      1              1

NAME                                DESIRED    CURRENT
replicaset.apps/bloaty-mcbloatface-6c5b5fc984  17         17
replicaset.apps/canary-v1-546bfbf766          0          0
replicaset.apps/canary-v2-8dc775cd6           3          3
replicaset.apps/green-568777db7              3          3
replicaset.apps/hello-world-7b67f6885d        1          1

```

Getting pods for all namespaces

```
root@galal-sre-02:~/nd087-c3-deployment-roulette-project# kubectl get pods --all-namespaces
```

NAMESPACE	NAME	READY	STATUS
kube-system	aws-node-bdwmq	1/1	Running
kube-system	aws-node-lp95z	1/1	Running
kube-system	coredns-6dff7847bf-j2dk5	1/1	Running
kube-system	coredns-6dff7847bf-ntwk8	1/1	Running
kube-system	kube-proxy-49vhn	1/1	Running
kube-system	kube-proxy-kgmdb	1/1	Running
udacity	bloaty-mcbloatface-6c5b5fc984-2qw6z	1/1	Running
udacity	bloaty-mcbloatface-6c5b5fc984-44jb4	1/1	Running
udacity	bloaty-mcbloatface-6c5b5fc984-46ssk	1/1	Running
udacity	bloaty-mcbloatface-6c5b5fc984-4v27v	0/1	Pending
udacity	bloaty-mcbloatface-6c5b5fc984-9mcbs	0/1	Pending
udacity	bloaty-mcbloatface-6c5b5fc984-cjmxp	1/1	Running
udacity	bloaty-mcbloatface-6c5b5fc984-gxxm7	1/1	Running
udacity	bloaty-mcbloatface-6c5b5fc984-k9xjk	1/1	Running
udacity	bloaty-mcbloatface-6c5b5fc984-lbc7l	1/1	Running
udacity	bloaty-mcbloatface-6c5b5fc984-n9x76	1/1	Running
udacity	bloaty-mcbloatface-6c5b5fc984-pfqk8	1/1	Running
udacity	bloaty-mcbloatface-6c5b5fc984-pwz72	1/1	Running
udacity	bloaty-mcbloatface-6c5b5fc984-rn5wd	0/1	Pending
udacity	bloaty-mcbloatface-6c5b5fc984-rwwb4	1/1	Running
udacity	bloaty-mcbloatface-6c5b5fc984-sm9v8	1/1	Running
udacity	bloaty-mcbloatface-6c5b5fc984-vfp9f	1/1	Running
udacity	bloaty-mcbloatface-6c5b5fc984-vpg2p	0/1	Pending
udacity	canary-v2-8dc775cd6-sc46l	1/1	Running
udacity	canary-v2-8dc775cd6-wfmw7	1/1	Running
udacity	canary-v2-8dc775cd6-z4rrw	1/1	Running
udacity	green-568777db7-5npqt	1/1	Running
udacity	green-568777db7-lcr4l	1/1	Running
udacity	green-568777db7-rzd2w	1/1	Running
udacity	hello-world-7b67f6885d-wttg5	1/1	Running