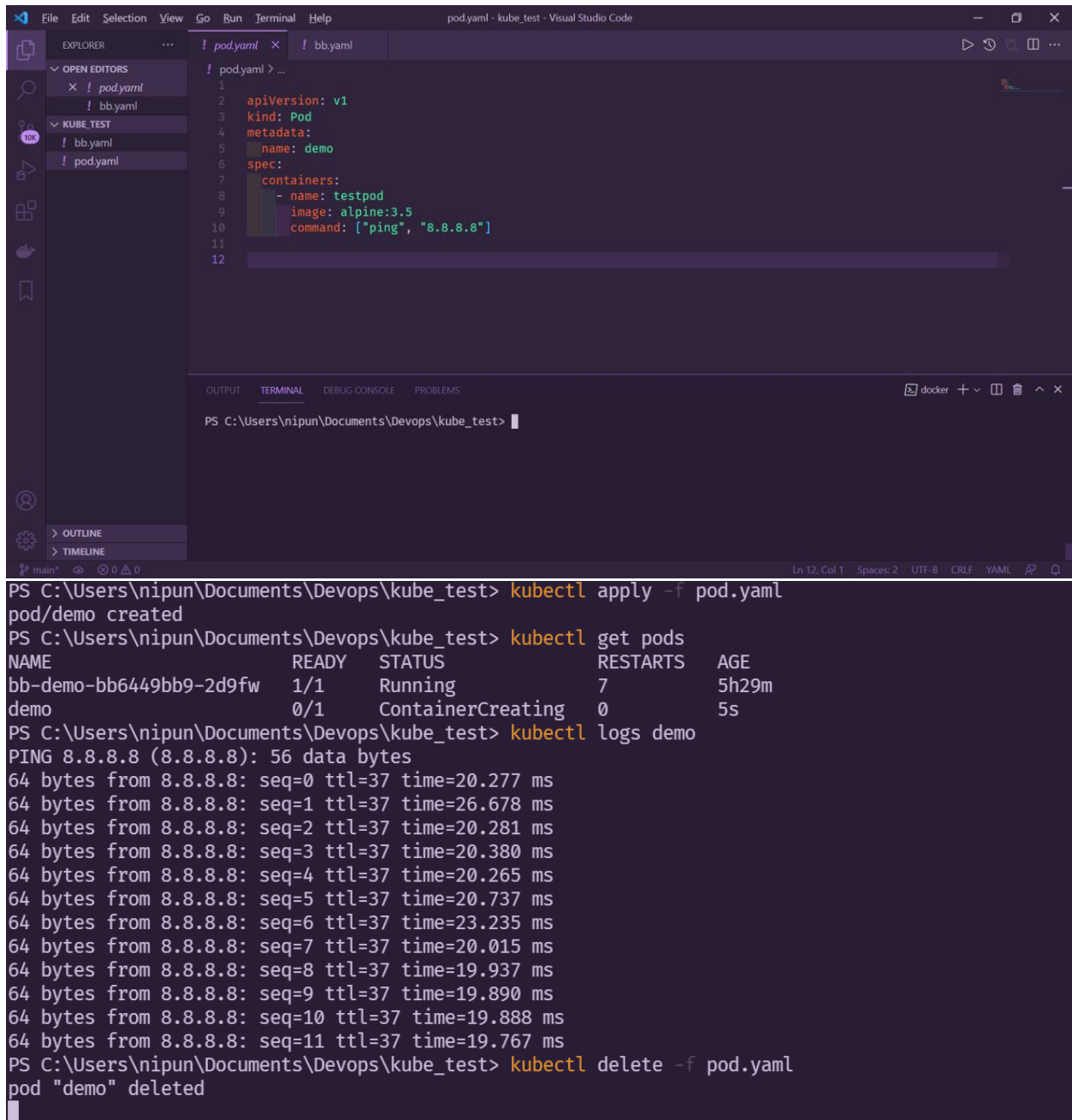


Pod.yaml file



The screenshot shows the Visual Studio Code editor with a file named `pod.yaml` open. The file contains a Kubernetes Pod definition. The Explorer sidebar on the left shows the file structure, including `pod.yaml` and `bb.yaml` under the `KUBE_TEST` folder. The terminal at the bottom shows the execution of `kubectl` commands to apply the pod, check its status, view logs, and delete it.

```
! pod.yaml > ...
1
2  apiVersion: v1
3  kind: Pod
4  metadata:
5    name: demo
6  spec:
7    containers:
8      - name: testpod
9        image: alpine:3.5
10         command: ["ping", "8.8.8.8"]
11
12
```

```
PS C:\Users\nipun\Documents\Devops\kube_test> kubectl apply -f pod.yaml
pod/demo created
PS C:\Users\nipun\Documents\Devops\kube_test> kubectl get pods
NAME                                READY  STATUS             RESTARTS  AGE
bb-demo-bb6449bb9-2d9fw             1/1    Running            7          5h29m
demo                                0/1    ContainerCreating  0          5s
PS C:\Users\nipun\Documents\Devops\kube_test> kubectl logs demo
PING 8.8.8.8 (8.8.8.8): 56 data bytes
64 bytes from 8.8.8.8: seq=0 ttl=37 time=20.277 ms
64 bytes from 8.8.8.8: seq=1 ttl=37 time=26.678 ms
64 bytes from 8.8.8.8: seq=2 ttl=37 time=20.281 ms
64 bytes from 8.8.8.8: seq=3 ttl=37 time=20.380 ms
64 bytes from 8.8.8.8: seq=4 ttl=37 time=20.265 ms
64 bytes from 8.8.8.8: seq=5 ttl=37 time=20.737 ms
64 bytes from 8.8.8.8: seq=6 ttl=37 time=23.235 ms
64 bytes from 8.8.8.8: seq=7 ttl=37 time=20.015 ms
64 bytes from 8.8.8.8: seq=8 ttl=37 time=19.937 ms
64 bytes from 8.8.8.8: seq=9 ttl=37 time=19.890 ms
64 bytes from 8.8.8.8: seq=10 ttl=37 time=19.888 ms
64 bytes from 8.8.8.8: seq=11 ttl=37 time=19.767 ms
PS C:\Users\nipun\Documents\Devops\kube_test> kubectl delete -f pod.yaml
pod "demo" deleted
```

```
File Edit Selection View Go Run Terminal Help pod.yaml - kube_test - Visual Studio Code

EXPLORER
  OPEN EDITORS
    ! pod.yaml
    ! bb.yaml
  KUBE TEST
    ! bb.yaml
    ! pod.yaml

! pod.yaml > {} metadata

OUTPUT TERMINAL DEBUG CONSOLE PROBLEMS
PS C:\Users\nipun\Documents\Devops\kube_test> kubectl get pods
PS C:\Users\nipun\Documents\Devops\kube_test> docker swarm init
Error response from daemon: This node is already part of a swarm. Use "docker swarm leave" to leave this swarm and join another one.
PS C:\Users\nipun\Documents\Devops\kube_test> docker swarm leave --force
Node left the swarm.
Swarm initialized: current node (if4p5f38dhdt2a5k4w158heu) is now a manager.

3:2377

To add a manager to this swarm, run 'docker swarm join-token manager' and follow the instructions.

otdr2z4at10fsscjh3e7x6302
overall progress: 0 out of 1 tasks
Operation continuing in background.
Use 'docker service ps otdr2z4at10fsscjh3e7x6302' to check progress.
PS C:\Users\nipun\Documents\Devops\kube_test> docker service ps demo
ID NAME IMAGE NODE DESIRED STATE CURRENT STATE ERROR
yyyx3h00i4b5 demo.1 alpine:3.5 docker-desktop Running Starting less than a second ago
nctpmx7n9sxq failed: OC_ demo.1 alpine:3.5 docker-desktop Shutdown Failed 5 seconds ago "starting container"
13utjneoi2qe failed: OC_ demo.1 alpine:3.5 docker-desktop Shutdown Failed 11 seconds ago "starting container"
is127xdwajb8 failed: OC_ demo.1 alpine:3.5 docker-desktop Shutdown Failed 17 seconds ago "starting container"
ytmb9k5fl116 failed: OC_ demo.1 alpine:3.5 docker-desktop Shutdown Failed 23 seconds ago "starting container"
```

```
File Edit Selection View Go Run Terminal Help pod.yaml - kube_test - Visual Studio Code

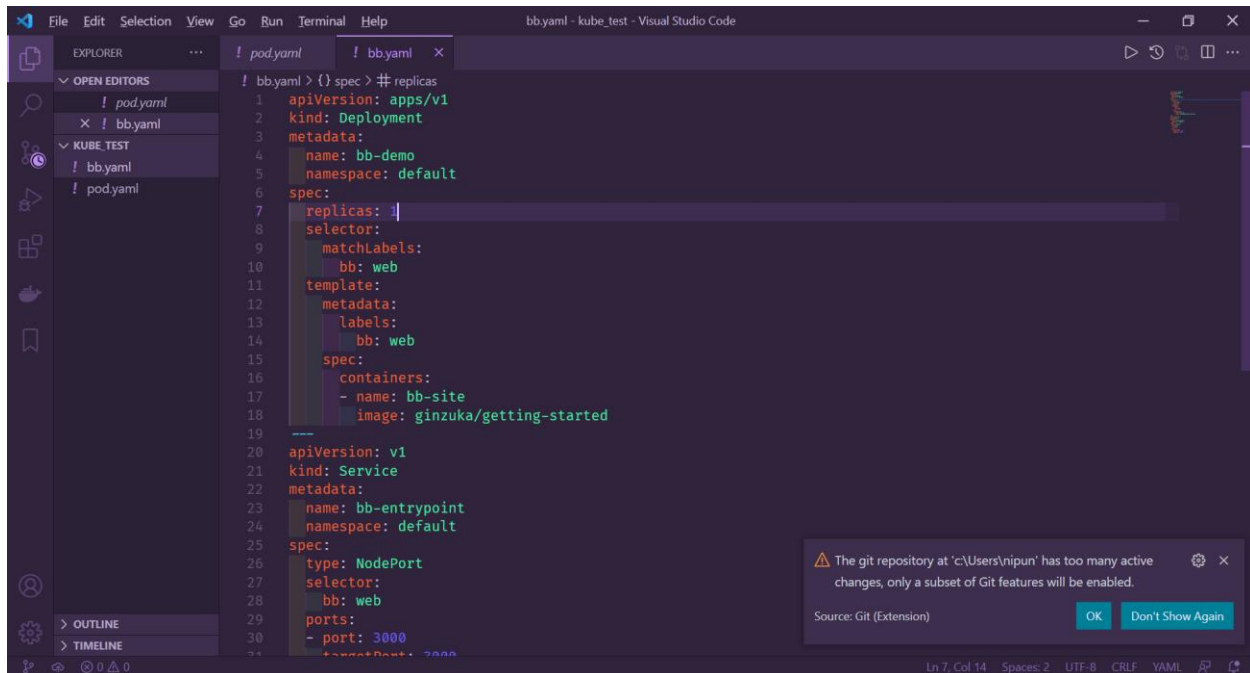
EXPLORER
  OPEN EDITORS
    ! pod.yaml
    ! bb.yaml
  KUBE TEST
    ! bb.yaml
    ! pod.yaml

! pod.yaml > {} metadata

OUTPUT TERMINAL DEBUG CONSOLE PROBLEMS
Use 'docker service ps otdr2z4at10fsscjh3e7x6302' to check progress.
PS C:\Users\nipun\Documents\Devops\kube_test> docker service ps demo
ID NAME IMAGE NODE DESIRED STATE CURRENT STATE ERROR
yyyx3h00i4b5 demo.1 alpine:3.5 docker-desktop Running Starting less than a second ago
nctpmx7n9sxq failed: OC_ demo.1 alpine:3.5 docker-desktop Shutdown Failed 5 seconds ago "starting container"
13utjneoi2qe failed: OC_ demo.1 alpine:3.5 docker-desktop Shutdown Failed 11 seconds ago "starting container"
is127xdwajb8 failed: OC_ demo.1 alpine:3.5 docker-desktop Shutdown Failed 17 seconds ago "starting container"
ytmb9k5fl116 failed: OC_ demo.1 alpine:3.5 docker-desktop Shutdown Failed 23 seconds ago "starting container"

PS C:\Users\nipun\Documents\Devops\kube_test> docker service create --name demo alpine:3.5 ping 8.8.8.8
Error response from daemon: rpc error: code = AlreadyExists desc = name conflicts with an existing object: service demo already exists
PS C:\Users\nipun\Documents\Devops\kube_test> docker service rm demo
demo
PS C:\Users\nipun\Documents\Devops\kube_test> docker service create --name demo alpine:3.5 ping 8.8.8.8
ymuwtc7lqb967lerzvaag6ssu
overall progress: 1 out of 1 tasks
1/1: running [=====]
verify: Service converged
PS C:\Users\nipun\Documents\Devops\kube_test> docker service ps demo
ID NAME IMAGE NODE DESIRED STATE CURRENT STATE ERROR PORTS
8rt2bszbl6n7 demo.1 alpine:3.5 docker-desktop Running Running 8 seconds ago ERROR PORTS
PS C:\Users\nipun\Documents\Devops\kube_test> docker service rm demo
demo
PS C:\Users\nipun\Documents\Devops\kube_test>
```

bb.yaml file



The screenshot shows the Visual Studio Code editor with the file `bb.yaml` open. The file contains two Kubernetes manifests: a Deployment and a Service. The Deployment is named `bb-demo` and the Service is named `bb-entrypoint`. Both are in the `default` namespace. The Deployment has 1 replica and uses the `ginzuka/getting-started` image. The Service is a `NodePort` type with port `3000`.

```
1 bb.yaml > {} spec > # replicas
2 apiVersion: apps/v1
3 kind: Deployment
4 metadata:
5   name: bb-demo
6   namespace: default
7 spec:
8   replicas: 1
9   selector:
10    matchLabels:
11      bb: web
12   template:
13     metadata:
14       labels:
15         bb: web
16     spec:
17       containers:
18         - name: bb-site
19           image: ginzuka/getting-started
20
21 apiVersion: v1
22 kind: Service
23 metadata:
24   name: bb-entrypoint
25   namespace: default
26 spec:
27   type: NodePort
28   selector:
29     bb: web
30   ports:
31     - port: 3000
32       targetPort: 3000
```

```
PS C:\Users\nipun\Documents\Devops\kube_test> kubectl apply -f bb.yaml
deployment.apps/bb-demo unchanged
service/bb-entrypoint unchanged
PS C:\Users\nipun\Documents\Devops\kube_test> kubectl get deployments
NAME      READY   UP-TO-DATE   AVAILABLE   AGE
bb-demo   1/1     1            1           22h
PS C:\Users\nipun\Documents\Devops\kube_test> kubectl get services
NAME            TYPE        CLUSTER-IP   EXTERNAL-IP   PORT(S)          AGE
bb-entrypoint   NodePort    10.103.199.96 <none>        3000:30001/TCP   22h
kubernetes      ClusterIP   10.96.0.1    <none>        443/TCP          42h
PS C:\Users\nipun\Documents\Devops\kube_test> kubectl delete -f bb.yaml
deployment.apps "bb-demo" deleted
service "bb-entrypoint" deleted
```

bb-entrypnt service running on port 30001

