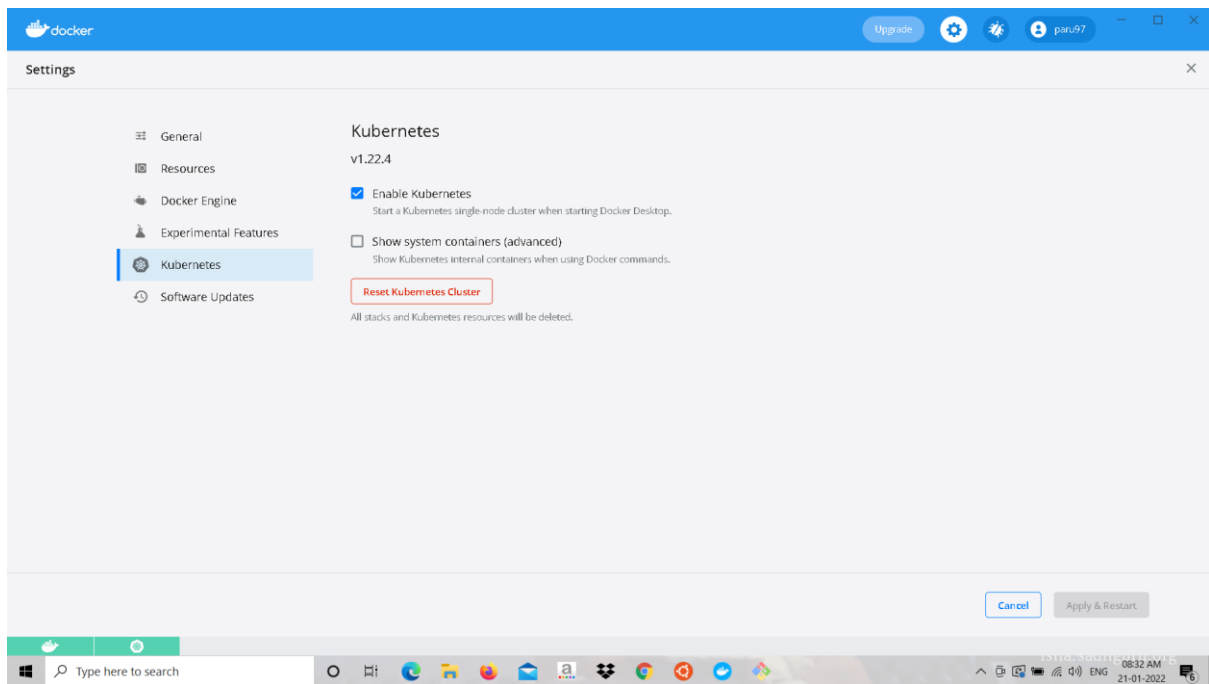
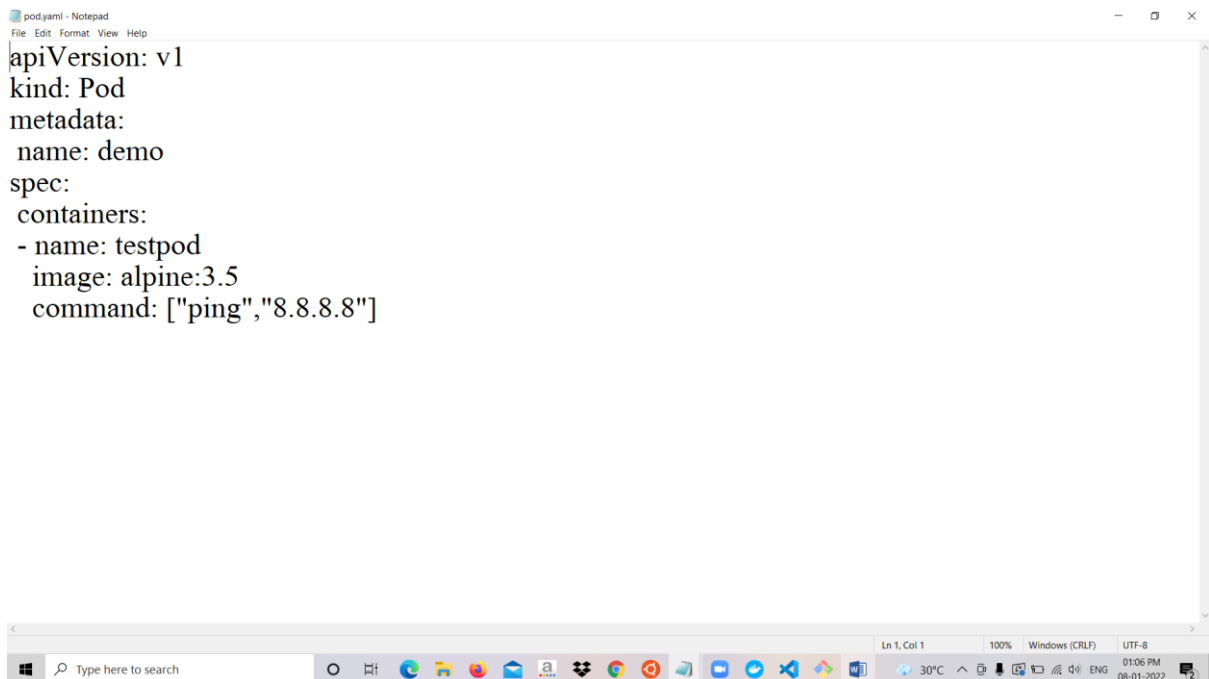


Enabling kubernetes



Creating a pod.yaml file



Navigating to pod.yaml in powershell

```
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\PARVATHI AJITH\Desktop> cd Desktop
PS C:\Users\PARVATHI AJITH\Desktop> kubectl apply -f pod.yaml.txt
pod/demo created
PS C:\Users\PARVATHI AJITH\Desktop> kubectl get pods
NAME                READY   STATUS    RESTARTS   AGE
bb-demo-59765dbb8-btr8p  1/1     Running   1 (4h31m ago)    22h
demo                1/1     Running   0           15s
PS C:\Users\PARVATHI AJITH\Desktop> 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=79.421 ms
64 bytes from 8.8.8.8: seq=1 ttl=37 time=29.306 ms
64 bytes from 8.8.8.8: seq=2 ttl=37 time=29.131 ms
64 bytes from 8.8.8.8: seq=3 ttl=37 time=27.300 ms
64 bytes from 8.8.8.8: seq=4 ttl=37 time=60.774 ms
64 bytes from 8.8.8.8: seq=5 ttl=37 time=1817.406 ms
64 bytes from 8.8.8.8: seq=6 ttl=37 time=553.468 ms
64 bytes from 8.8.8.8: seq=7 ttl=37 time=31.291 ms
64 bytes from 8.8.8.8: seq=8 ttl=37 time=30.335 ms
64 bytes from 8.8.8.8: seq=9 ttl=37 time=27.668 ms
64 bytes from 8.8.8.8: seq=10 ttl=37 time=29.176 ms
64 bytes from 8.8.8.8: seq=11 ttl=37 time=51.049 ms
64 bytes from 8.8.8.8: seq=12 ttl=37 time=28.653 ms
64 bytes from 8.8.8.8: seq=13 ttl=37 time=30.669 ms
64 bytes from 8.8.8.8: seq=14 ttl=37 time=28.940 ms
64 bytes from 8.8.8.8: seq=15 ttl=37 time=71.540 ms
64 bytes from 8.8.8.8: seq=16 ttl=37 time=28.370 ms
64 bytes from 8.8.8.8: seq=17 ttl=37 time=31.654 ms
64 bytes from 8.8.8.8: seq=18 ttl=37 time=36.488 ms
64 bytes from 8.8.8.8: seq=19 ttl=37 time=34.799 ms
64 bytes from 8.8.8.8: seq=20 ttl=37 time=28.507 ms
64 bytes from 8.8.8.8: seq=21 ttl=37 time=28.246 ms
64 bytes from 8.8.8.8: seq=22 ttl=37 time=27.547 ms
PS C:\Users\PARVATHI AJITH\Desktop> kubectl delete -f pod.yaml.txt
pod "demo" deleted
```

Enabling docker swarm

```
Windows PowerShell

pod "demo" deleted
PS C:\Users\PARVATHI AJITH\Desktop>
PS C:\Users\PARVATHI AJITH\Desktop> 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\PARVATHI AJITH\Desktop> docker swarm leave --force
Node left the swarm.
PS C:\Users\PARVATHI AJITH\Desktop> docker swarm init
Swarm initialized: current node (yeb2bfq23ux2zckf96pkapmyt) is now a manager.

To add a worker to this swarm, run the following command:

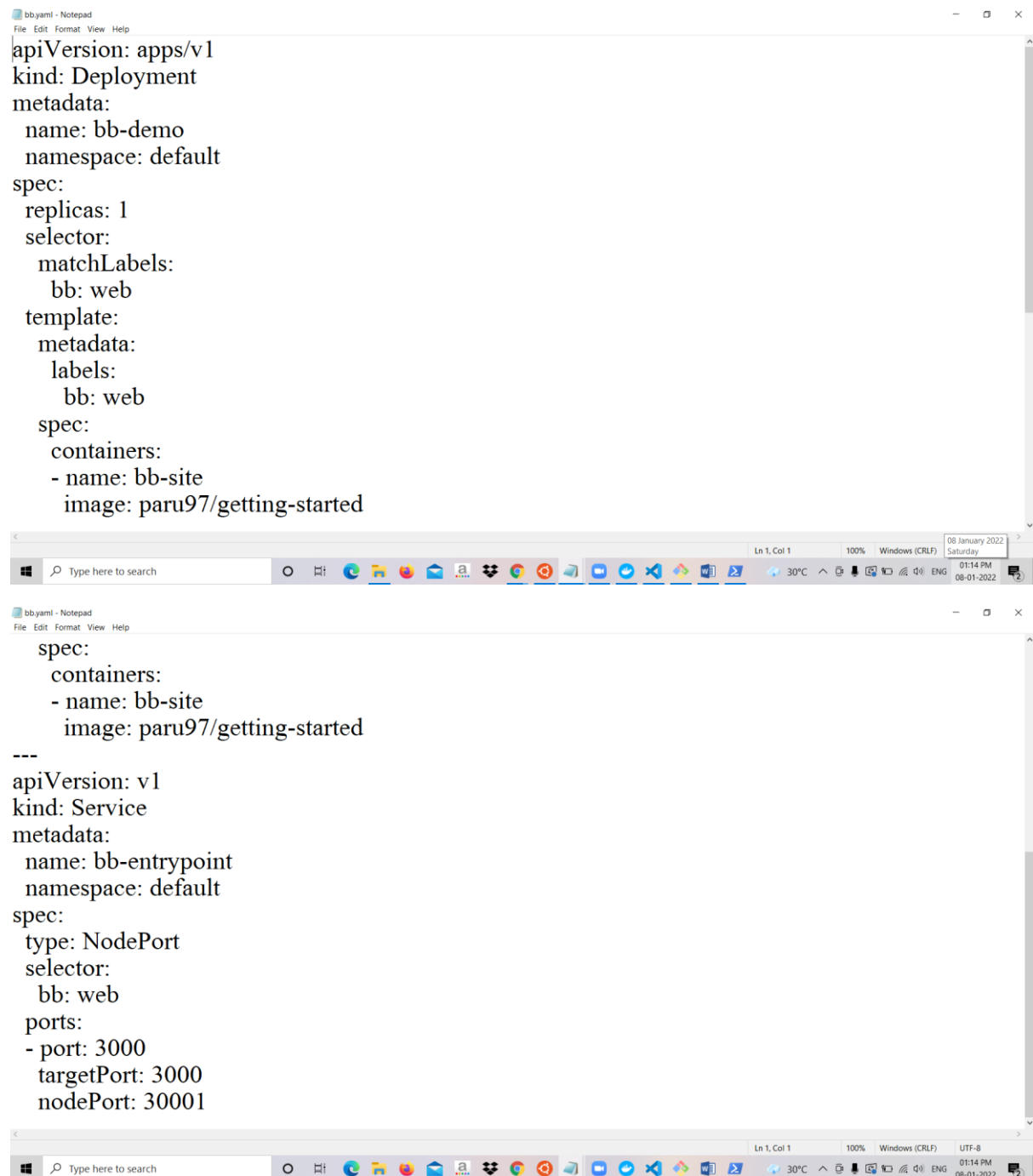
    docker swarm join --token SWMTKN-1-16m73dc4t3ljxybyb76p4riddlq7nplssxxv8b5xzf1dz994c-2p0ehvppfjs9tl29d1dn9kwyj 192.168.65.3:2377

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

PS C:\Users\PARVATHI AJITH\Desktop> docker service create --name demo alpine:3.5 ping 8.8.8.8
k94ijzp2hapfesoqumcyd7puq
overall progress: 1 out of 1 tasks
1/1: running [=====]
verify: Service converged
PS C:\Users\PARVATHI AJITH\Desktop> docker service ps demo
ID            NAME      IMAGE      NODE      DESIRED STATE   CURRENT STATE           ERROR           PORTS
476rt17ku1lz demo.1    alpine:3.5 docker-desktop Running          Running 20 seconds ago
PS C:\Users\PARVATHI AJITH\Desktop> docker service rm demo
demo
PS C:\Users\PARVATHI AJITH\Desktop>
```

Deploying to kubernetes

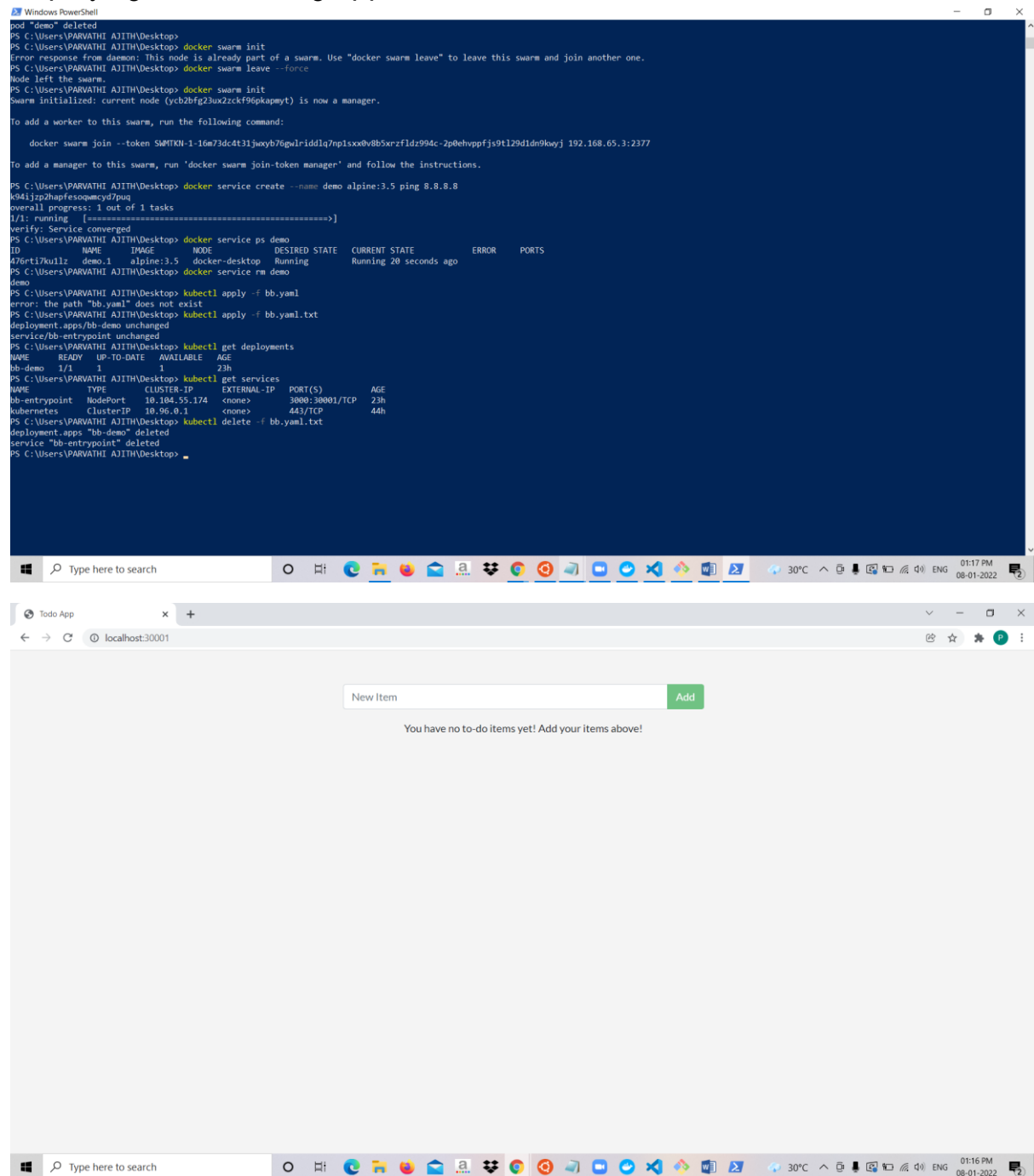
Creating a bb.yaml file



```
bb.yaml - Notepad
File Edit Format View Help
apiVersion: apps/v1
kind: Deployment
metadata:
  name: bb-demo
  namespace: default
spec:
  replicas: 1
  selector:
    matchLabels:
      bb: web
  template:
    metadata:
      labels:
        bb: web
    spec:
      containers:
      - name: bb-site
        image: paru97/getting-started

---
apiVersion: v1
kind: Service
metadata:
  name: bb-entriypoint
  namespace: default
spec:
  type: NodePort
  selector:
    bb: web
  ports:
  - port: 3000
    targetPort: 3000
    nodePort: 30001
```

Deploying and checking application



The image shows a Windows PowerShell terminal window and a web browser window. The terminal window displays the following commands and output:

```
pod "demo" deleted
PS C:\Users\PARVATHI_AJITH\Desktop> 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\PARVATHI_AJITH\Desktop> docker swarm leave --force
Node left the swarm.
PS C:\Users\PARVATHI_AJITH\Desktop> docker swarm init
Swarm initialized: current node (ycb2bfg23ux2zckf96pkapmyt) is now a manager.

To add a worker to this swarm, run the following command:

    docker swarm join --token SWMTKN-1-16m73dc4t3ljuyb76gwlriddlq7nplsxv8b5xzf1dz994c-2p0ehvppfjs9t129d1dn9kwj 192.168.65.3:2377

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

PS C:\Users\PARVATHI_AJITH\Desktop> docker service create --name demo alpine:3.5 ping 8.8.8.8
k94ijzp2hpfesomcyd7puq
overall progress: 1 out of 1 tasks
1/1: running [=====]
verify: Service converged
PS C:\Users\PARVATHI_AJITH\Desktop> docker service ps demo
ID            NAME          IMAGE          NODE          DESIRED STATE   CURRENT STATE           ERROR           PORTS
476rt17ku1lz demo-1         alpine:3.5     docker-desktop Running          Running 20 seconds ago
PS C:\Users\PARVATHI_AJITH\Desktop> docker service rm demo
demo
PS C:\Users\PARVATHI_AJITH\Desktop> kubectl apply -f bb.yaml
error: the path "bb.yaml" does not exist
PS C:\Users\PARVATHI_AJITH\Desktop> kubectl apply -f bb.yaml.txt
deployment.apps/bb-demo unchanged
service/bb-entrypoint unchanged
PS C:\Users\PARVATHI_AJITH\Desktop> kubectl get deployments
NAME    READY    UP-TO-DATE    AVAILABLE    AGE
bb-demo 1/1      1              1            23h
PS C:\Users\PARVATHI_AJITH\Desktop> kubectl get services
NAME          TYPE          CLUSTER-IP    EXTERNAL-IP    PORT(S)          AGE
bb-entrypoint NodePort      10.104.55.174 <none>         3000:30001/TCP   23h
kubernetes    ClusterIP     10.96.0.1     <none>         443/TCP          44h
PS C:\Users\PARVATHI_AJITH\Desktop> kubectl delete -f bb.yaml.txt
deployment.apps "bb-demo" deleted
service "bb-entrypoint" deleted
PS C:\Users\PARVATHI_AJITH\Desktop>
```

The web browser window shows a "Todo App" running on localhost:30001. The app has a "New Item" input field and an "Add" button. Below the input field, it says "You have no to-do items yet! Add your items above!".

After deteting it from PS

