deployment.yaml   service.yaml
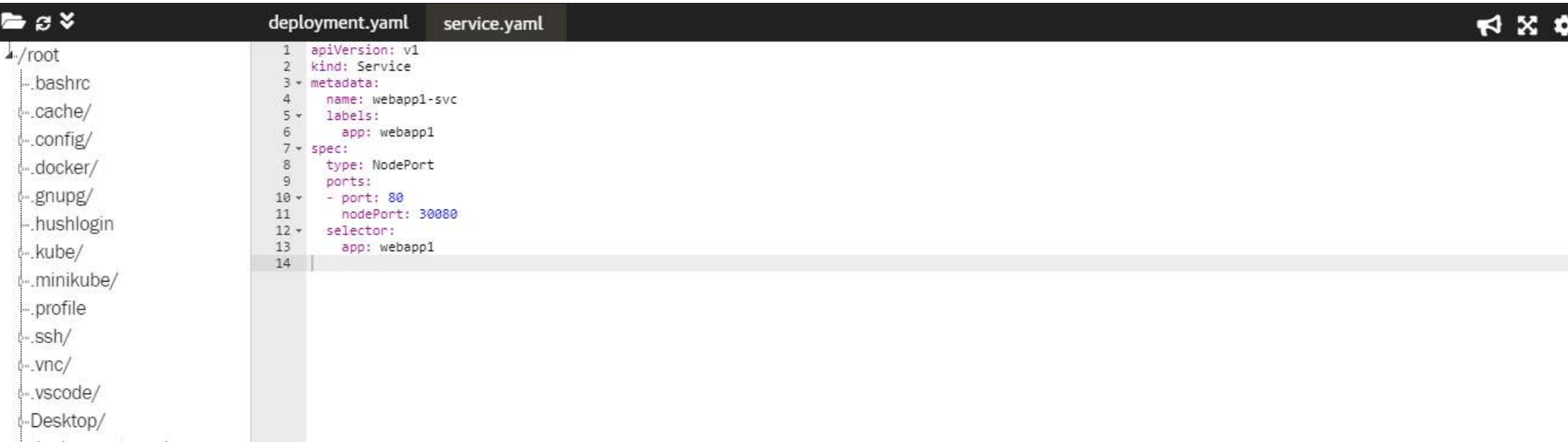
```yaml
1   apiVersion: apps/v1
2   kind: Deployment
3   metadata:
4     name: webapp1
5   spec:
6     replicas: 1
7     selector:
8       matchLabels:
9         app: webapp1
10    template:
11      metadata:
12        labels:
13          app: webapp1
14      spec:
15        containers:
16        - name: webapp1
17          image: katacoda/docker-http-server:latest
18          ports:
19          - containerPort: 80
20
```

/root
- .bashrc
- .cache/
- .config/
- .docker/
- .gnupg/
- .hushlogin
- .kube/
- .minikube/
- .profile
- .ssh/
- .vnc/
- .vscode/
- Desktop/
- deployment.yaml

Terminal   +

```
Your Interactive Bash Terminal. A safe place to learn and execute commands.

$ minikube start --wait=false
* minikube v1.8.1 on Ubuntu 18.04
* Using the none driver based on user configuration
* Running on localhost (CPUs=2, Memory=2460MB, Disk=145651MB) ...
* OS release is Ubuntu 18.04.4 LTS
kubectl create -f deployment.yaml
* Preparing Kubernetes v1.17.3 on Docker 19.03.6 ...
  - kubelet.resolv-conf=/run/systemd/resolve/resolv.conf
* Launching Kubernetes ...
kubectl get deployment
kubectl describe deployment webapp1
* Enabling addons: default-storageclass, storage-provisioner
* Configuring local host environment ...
* Done! kubectl is now configured to use "minikube"
$
$
$ kubectl create -f deployment.yaml
deployment.apps/webapp1 created
```

File tree (/root):

- /root
  - .bashrc
  - .cache/
  - .config/
  - .docker/
  - .gnupg/
  - .hushlogin
  - .kube/
  - .minikube/
  - .profile
  - .ssh/
  - .vnc/
  - .vscode/
  - Desktop/
  - deployment.yaml

service.yaml editor:

```yaml
apiVersion: v1
kind: Service
metadata:
  name: webapp1-svc
  labels:
    app: webapp1
spec:
  type: NodePort
  ports:
  - port: 80
    nodePort: 30080
  selector:
    app: webapp1
```

Terminal:

```
$
$ kubectl create -f deployment.yaml
deployment.apps/webapp1 created
$ kubectl get deployment
NAME       READY    UP-TO-DATE    AVAILABLE      AGE
webapp1    0/1      0             0              0s
$ kubectl describe deployment webapp1
Name:                   webapp1
Namespace:              default
CreationTimestamp:      Mon, 22 Mar 2021 15:02:40 +0000
Labels:                 <none>
Annotations:            <none>
Selector:               app=webapp1
Replicas:               1 desired | 0 updated | 0 total | 0 available | 0 unavailable
StrategyType:           RollingUpdate
MinReadySeconds:        0
RollingUpdateStrategy:  25% max unavailable, 25% max surge
Pod Template:
  Labels:  app=webapp1
  Containers:
```

deployment.yaml | **service.yaml**

```yaml
1  apiVersion: v1
2  kind: Service
3  metadata:
4    name: webapp1-svc
5    labels:
6      app: webapp1
7  spec:
8    type: NodePort
9    ports:
10   - port: 80
11     nodePort: 30080
12   selector:
13     app: webapp1
14
```

File tree:
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  - .vscode/
  - Desktop/
  - deployment.yaml

Terminal +

```
TargetPort:              80/TCP
NodePort:                <unset>  30080/TCP
Endpoints:               172.18.0.2:80
Session Affinity:        None
External Traffic Policy: Cluster
Events:                  <none>
$ curl host01:30080
<h1>This request was processed by host: webapp1-6b54fb89d9-hs4w4</h1>
$ kubectl apply -f deployment.yaml
Warning: kubectl apply should be used on resource created by either kubectl create --save-config or kubectl apply
deployment.apps/webapp1 configured
$ kubectl get deployment
NAME      READY   UP-TO-DATE   AVAILABLE   AGE
webapp1   1/1     1            1           81s
$ kubectl get pods
NAME                      READY   STATUS    RESTARTS   AGE
webapp1-6b54fb89d9-hs4w4  1/1     Running   0          79s
$ curl host01:30080
<h1>This request was processed by host: webapp1-6b54fb89d9-hs4w4</h1>
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```

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- .cache/
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5    labels:
6      app: webapp1
7  spec:
8    type: NodePort
9    ports:
10   - port: 80
11     nodePort: 30080
12   selector:
13     app: webapp1
14
```

Terminal ＋

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$ kubectl get deployment
NAME       READY    UP-TO-DATE    AVAILABLE    AGE
webapp1    0/1      0             0            0s
$ kubectl describe deployment webapp1
Name:                   webapp1
Namespace:              default
CreationTimestamp:      Mon, 22 Mar 2021 15:02:40 +0000
Labels:                 <none>
Annotations:            <none>
Selector:               app=webapp1
Replicas:               1 desired | 0 updated | 0 total | 0 available | 0 unavailable
StrategyType:           RollingUpdate
MinReadySeconds:        0
RollingUpdateStrategy:  25% max unavailable, 25% max surge
Pod Template:
  Labels:  app=webapp1
  Containers:
   webapp1:
    Image:          katacoda/docker-http-server:latest
    Port:           80/TCP
```

deployment.yaml | **service.yaml**

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Terminal

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