a.

```
sion    Servers    Tools    Games    Sessions    View    Split    MultiExec  Tunneling  Packages  Set

2. root@menna: ~                        ×        +

root@menna:~# kubectl create ns world
namespace/world created
root@menna:~#
```

```yaml
apiVersion: apps/v1
kind: Deployment
metadata:
  creationTimestamp: null
  labels:
    app: europe
  name: europe
  namespace: world
spec:
  replicas: 2
  selector:
    matchLabels:
      app: europe
  strategy: {}
  template:
    metadata:
      creationTimestamp: null
      labels:
        app: europe
    spec:
      containers:
      - image: husseingalal/europe:latest
        name: europe
        resources: {}
status: {}
```

```yaml
apiVersion: apps/v1
kind: Deployment
metadata:
  creationTimestamp: null
  labels:
    app: africa
  name: africa
  namespace: world
spec:
  replicas: 2
  selector:
    matchLabels:
      app: africa
  strategy: {}
  template:
    metadata:
      creationTimestamp: null
      labels:
        app: africa
    spec:
      containers:
      - image: husseingalal/africa:latest
        name: africa
        resources: {}
status: {}
```

```
root@menna:~# kubectl get pods -n world
NAME                       READY   STATUS    RESTARTS   AGE
europe-77bfdcc76c-psqgn    1/1     Running   0          6m15s
europe-77bfdcc76c-xsrdx    1/1     Running   0          6m15s
africa-896d94859-tvxjq     1/1     Running   0          113s
africa-896d94859-b87wn     1/1     Running   0          113s
root@menna:~#
```
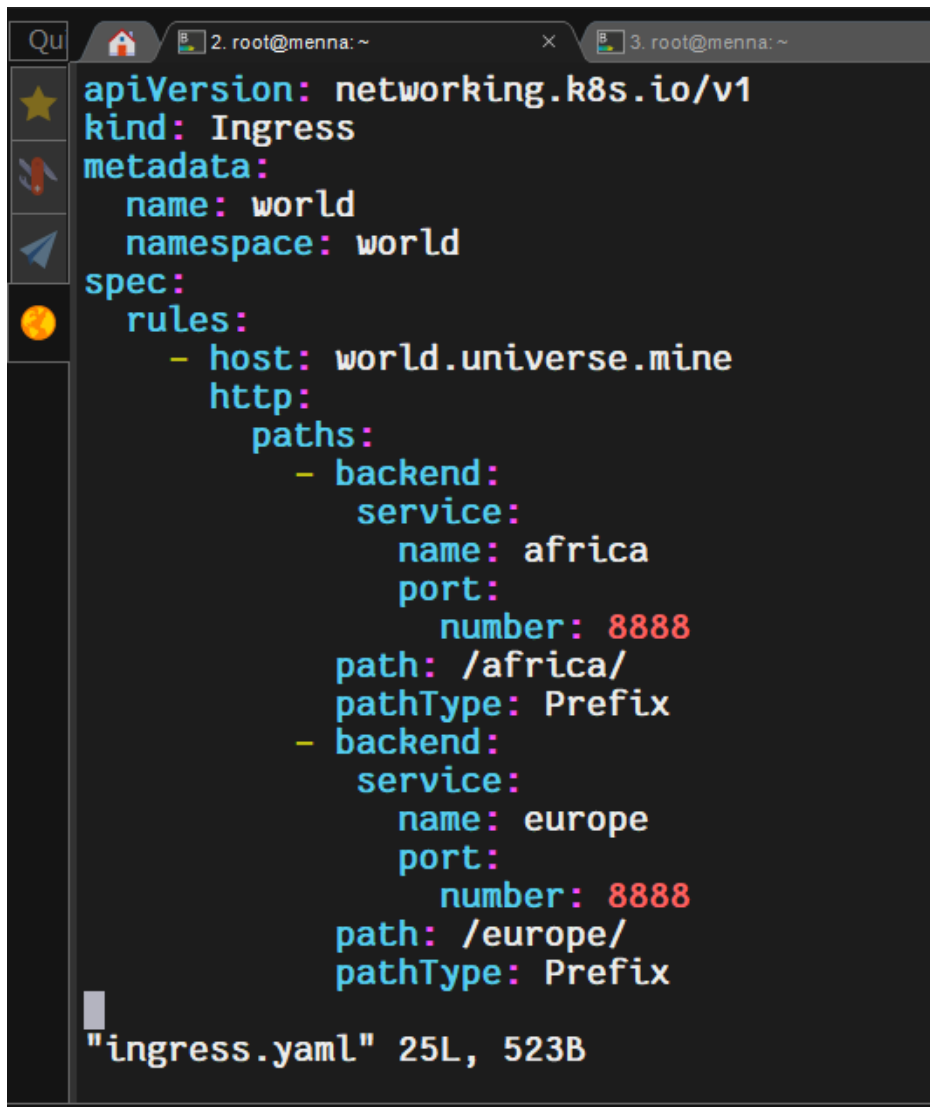
b.

```
root@menna:~# kubectl expose deployment/europe -n world --port 8888 --target-port 80
service/europe exposed
root@menna:~# kubectl expose deployment/africa -n world --port 8888 --target-port 80
service/africa exposed
```

```
root@menna:~# kubectl get services -n world
NAME      TYPE        CLUSTER-IP       EXTERNAL-IP    PORT(S)      AGE
europe    ClusterIP   10.43.151.225    <none>         8888/TCP     28s
africa    ClusterIP   10.43.173.244    <none>         8888/TCP     16s
root@menna:~#
```

c.

```yaml
apiVersion: networking.k8s.io/v1
kind: Ingress
metadata:
  name: world
  namespace: world
spec:
  rules:
    - host: world.universe.mine
      http:
        paths:
          - backend:
              service:
                name: africa
                port:
                  number: 8888
            path: /africa/
            pathType: Prefix
          - backend:
              service:
                name: europe
                port:
                  number: 8888
            path: /europe/
            pathType: Prefix
```

"ingress.yaml" 25L, 523B

```
root@menna:~# kubectl apply -f ingress.yaml
ingress.networking.k8s.io/world created
root@menna:~# vim /etc/hosts
root@menna:~# curl world.universe.mine
404 page not found
root@menna:~# curl http://world.universe.mine/europe/
<html>
<head><title>404 Not Found</title></head>
<body>
<center><h1>404 Not Found</h1></center>
<hr><center>nginx/1.23.4</center>
</body>
</html>
root@menna:~# curl http://world.universe.mine/africa/
<html>
<head><title>404 Not Found</title></head>
<body>
<center><h1>404 Not Found</h1></center>
<hr><center>nginx/1.23.4</center>
</body>
</html>
root@menna:~#
```