File   Edit   View   Search   Terminal   Help

```
[olegon@olegonsys node-app]$ minikube version
minikube version: v1.0.0
[olegon@olegonsys node-app]$ 
```
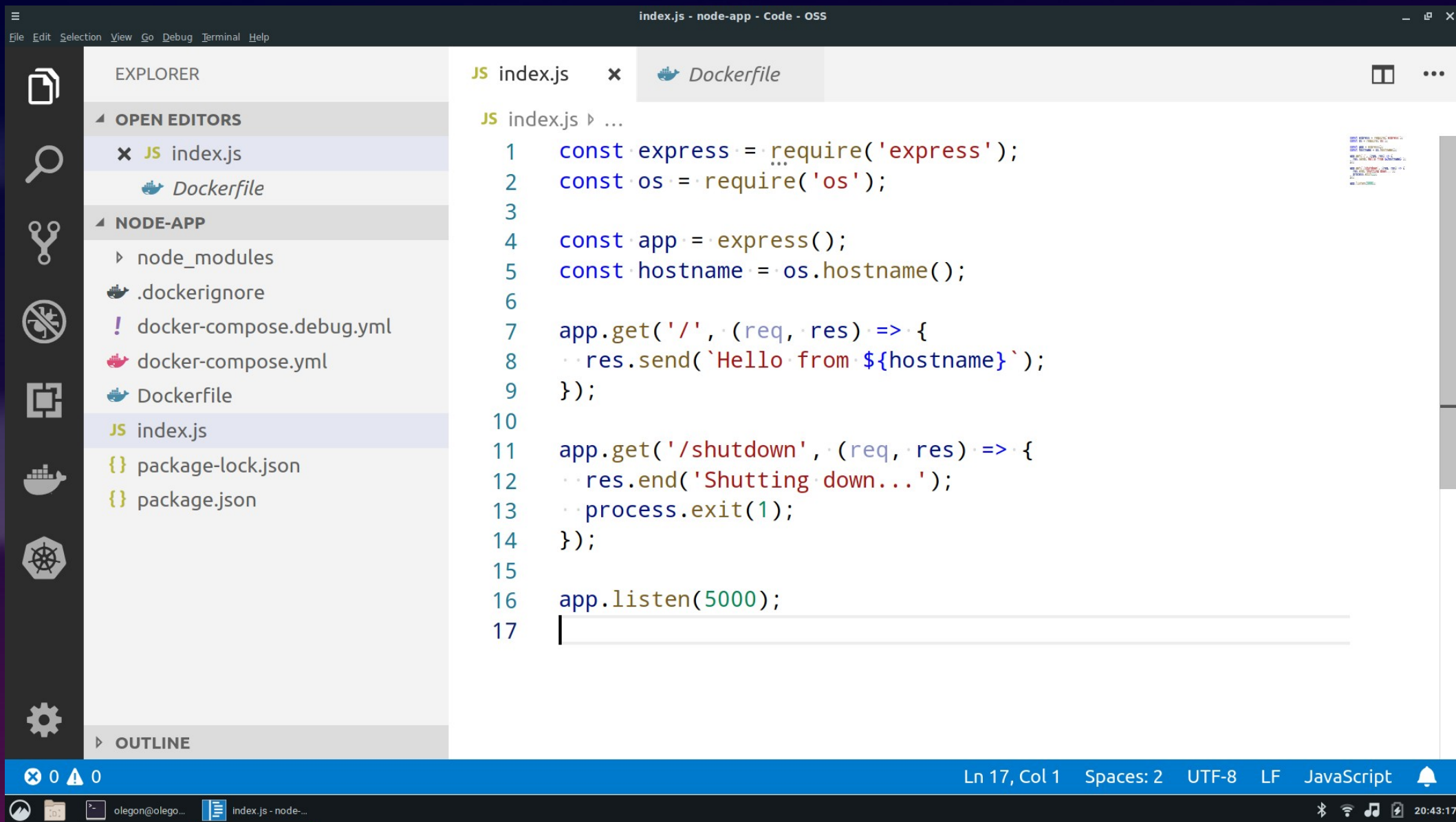
Friday April 19, 2019

olegon@olego...   20:34:15

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```
[olegon@olegonsys node-app]$ minikube start
😄   minikube v1.0.0 on linux (amd64)
🤹   Downloading Kubernetes v1.14.0 images in the background ...
💡   Tip: Use 'minikube start -p <name>' to create a new cluster, or 'minikube d
elete' to delete this one.
🔄   Restarting existing virtualbox VM for "minikube" ...
⌛   Waiting for SSH access ...
📶   "minikube" IP address is 192.168.99.105
🐳   Configuring Docker as the container runtime ...
🐳   Version of container runtime is 18.06.2-ce
⌛   Waiting for image downloads to complete ...
✨   Preparing Kubernetes environment ...
🚜   Pulling images required by Kubernetes v1.14.0 ...
🔄   Relaunching Kubernetes v1.14.0 using kubeadm ...
⌛   Waiting for pods: apiserver proxy etcd scheduler controller dns
📯   Updating kube-proxy configuration ...
🤔   Verifying component health ......
💗   kubectl is now configured to use "minikube"
🏃   Done! Thank you for using minikube!
[olegon@olegonsys node-app]$ 
```

```
[olegon@olegonsys node-app]$ minikube status
host: Running
kubelet: Running
apiserver: Running
kubectl: Correctly Configured: pointing to minikube-vm at 192.168.99.105
[olegon@olegonsys node-app]$
```

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```
[olegon@olegonsys node-app]$ kubectl cluster-info
Kubernetes master is running at https://192.168.99.105:8443
KubeDNS is running at https://192.168.99.105:8443/api/v1/namespaces/kube-system
/services/kube-dns:dns/proxy

To further debug and diagnose cluster problems, use 'kubectl cluster-info dump'
.
[olegon@olegonsys node-app]$ 
```

```javascript
const express = require('express');
const os = require('os');

const app = express();
const hostname = os.hostname();

app.get('/', (req, res) => {
  res.send(`Hello from ${hostname}`);
});

app.get('/shutdown', (req, res) => {
  res.end('Shutting down...');
  process.exit(1);
});

app.listen(5000);
```

```dockerfile
FROM node:lts-alpine

ENV NODE_ENV production

WORKDIR /usr/src/app

COPY ["package.json", "package-lock.json*", "npm-shrinkwrap.json*", "./"]

RUN npm install --production --silent && mv node_modules ../

COPY . .

EXPOSE 5000

CMD [ "npm", "start" ]
```

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```
[olegon@olegonsys node-app]$ docker build -t olegon/node-app:v1 .
Sending build context to Docker daemon  18.94kB
Step 1/8 : FROM node:lts-alpine
 ---> aa57b0242b33
Step 2/8 : ENV NODE_ENV production
 ---> Using cache
 ---> 5106012d5fc0
Step 3/8 : WORKDIR /usr/src/app
 ---> Using cache
 ---> 1a4e50b5e8ba
Step 4/8 : COPY ["package.json", "package-lock.json*", "npm-shrinkwrap.json*", "./"]
 ---> Using cache
 ---> e94a9f80344b
Step 5/8 : RUN npm install --production --silent && mv node_modules ../
 ---> Using cache
 ---> 65d14caad18a
Step 6/8 : COPY . .
 ---> Using cache
 ---> 7aa3b6a930c2
Step 7/8 : EXPOSE 5000
 ---> Using cache
 ---> f2ca40e31f0b
Step 8/8 : CMD [ "npm", "start" ]
 ---> Using cache
 ---> 1223c502ec8f
Successfully built 1223c502ec8f
Successfully tagged olegon/node-app:v1
[olegon@olegonsys node-app]$ 
```

olegon@olego...   index.js - node-...   20:42:29

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```
[olegon@olegonsys node-app]$ docker push olegon/node-app:v1
The push refers to repository [docker.io/olegon/node-app]
65f88c45eca2: Layer already exists
47974a76800d: Layer already exists
5e4d3dd13111: Layer already exists
ecf4869102c0: Layer already exists
bf6c01f5df74: Layer already exists
715eb660992c: Layer already exists
a464c54f93a9: Layer already exists
v1: digest: sha256:e9fef5a19e9ac792aa96e36bad12bf25910d3a6c898ff1b2ce7
d56853f2a97a3 size: 1784
[olegon@olegonsys node-app]$
```

olegon@olego...   index.js - node-...   Docker Hub - C...   20:46:25

File   Edit   View   Search   Terminal   Help

```
[olegon@olegonsys node-app]$ kubectl run node-app-rc --image=olegon/no
de-app:v1 --port=5000 --generator=run/v1
kubectl run --generator=run/v1 is DEPRECATED and will be removed in a
future version. Use kubectl run --generator=run-pod/v1 or kubectl crea
te instead.
replicationcontroller/node-app-rc created
[olegon@olegonsys node-app]$ 
```

olegon@olego...   index.js - node-...   Docker Hub - C...   20:48:10

File   Edit   View   Search   Terminal   Help

```
[olegon@olegonsys node-app]$ kubectl get rc
NAME            DESIRED     CURRENT     READY     AGE
node-app-rc     1           1           1         38s
[olegon@olegonsys node-app]$ 
```

File   Edit   View   Search   Terminal   Help

```
[olegon@olegonsys node-app]$ kubectl get pods
NAME                 READY   STATUS     RESTARTS    AGE
node-app-rc-9ljqz    1/1     Running    0           77s
[olegon@olegonsys node-app]$ █
```

Turn The Page - Live At The Masonic, San Francisco, CA - November 3rd, 2018

Metallica - Helping Hands...Live & Acoustic At The Masonic

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```
[olegon@olegonsys node-app]$ kubectl expose replicationcontroller node
-app-rc --type=LoadBalancer --name=node-app-rc-lb
service/node-app-rc-lb exposed
[olegon@olegonsys node-app]$ 
```

File   Edit   View   Search   Terminal   Help

```
[olegon@olegonsys node-app]$ kubectl get services
NAME                TYPE                CLUSTER-IP        EXTERNAL-IP      PORT(S)
            AGE
kubernetes          ClusterIP           10.96.0.1         <none>           443/TCP
            15d
node-app-rc-lb      LoadBalancer        10.102.157.170    <pending>        5000:32
006/TCP     23s
[olegon@olegonsys node-app]$ 
```

olegon@olego...   index.js - node-...   Docker Hub - C...   1   20:50:29

File   Edit   View   Search   Terminal   Help

```
[olegon@olegonsys node-app]$ minikube service node-app-rc-lb --url
http://192.168.99.105:32006
[olegon@olegonsys node-app]$
```

File   Edit   View   Search   Terminal   Help

```
[olegon@olegonsys node-app]$ curl http://192.168.99.105:32006 && echo
Hello from node-app-rc-9ljqz
[olegon@olegonsys node-app]$ 
```

File   Edit   View   Search   Terminal   Help

```
[olegon@olegonsys node-app]$ kubectl scale replicationcontroller node-
app-rc --replicas=10
replicationcontroller/node-app-rc scaled
[olegon@olegonsys node-app]$
```

File Edit View Search Terminal Help

```
[olegon@olegonsys node-app]$ kubectl get pods
NAME                 READY    STATUS             RESTARTS    AGE
node-app-rc-4mt7v    1/1      Running            0           5s
node-app-rc-6gcmg    1/1      Running            0           5s
node-app-rc-9ljqz    1/1      Running            0           5m53s
node-app-rc-drsc8    0/1      ContainerCreating  0           5s
node-app-rc-hv5x6    1/1      Running            0           5s
node-app-rc-j6h84    0/1      ContainerCreating  0           5s
node-app-rc-kbv4k    1/1      Running            0           5s
node-app-rc-kghmt    1/1      Running            0           5s
node-app-rc-mnfjb    1/1      Running            0           5s
node-app-rc-wp7zh    0/1      ContainerCreating  0           5s
[olegon@olegonsys node-app]$
```

olegon@olego...   index.js - node-...   Docker Hub - C...   1   20:54:00

File   Edit   View   Search   Terminal   Help

```
[olegon@olegonsys node-app]$ curl http://192.168.99.105:32006 && echo
Hello from node-app-rc-kbv4k
[olegon@olegonsys node-app]$ curl http://192.168.99.105:32006 && echo
Hello from node-app-rc-mnfjb
[olegon@olegonsys node-app]$ curl http://192.168.99.105:32006 && echo
Hello from node-app-rc-kghmt
[olegon@olegonsys node-app]$ curl http://192.168.99.105:32006 && echo
Hello from node-app-rc-drsc8
[olegon@olegonsys node-app]$ curl http://192.168.99.105:32006 && echo
Hello from node-app-rc-9ljqz
[olegon@olegonsys node-app]$ curl http://192.168.99.105:32006 && echo
Hello from node-app-rc-drsc8
[olegon@olegonsys node-app]$ curl http://192.168.99.105:32006 && echo
Hello from node-app-rc-9ljqz
[olegon@olegonsys node-app]$ curl http://192.168.99.105:32006 && echo
Hello from node-app-rc-drsc8
[olegon@olegonsys node-app]$
```

olegon@olego...   index.js - node-...   Docker Hub - C...   1   20:54:39

Voltar para os slides da apresentação!