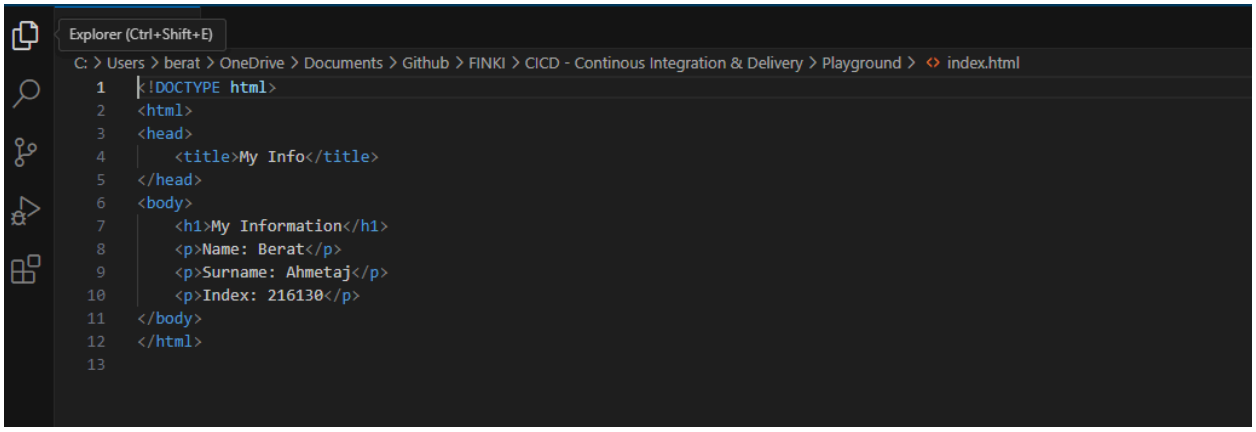
КИИИ Лаб 8

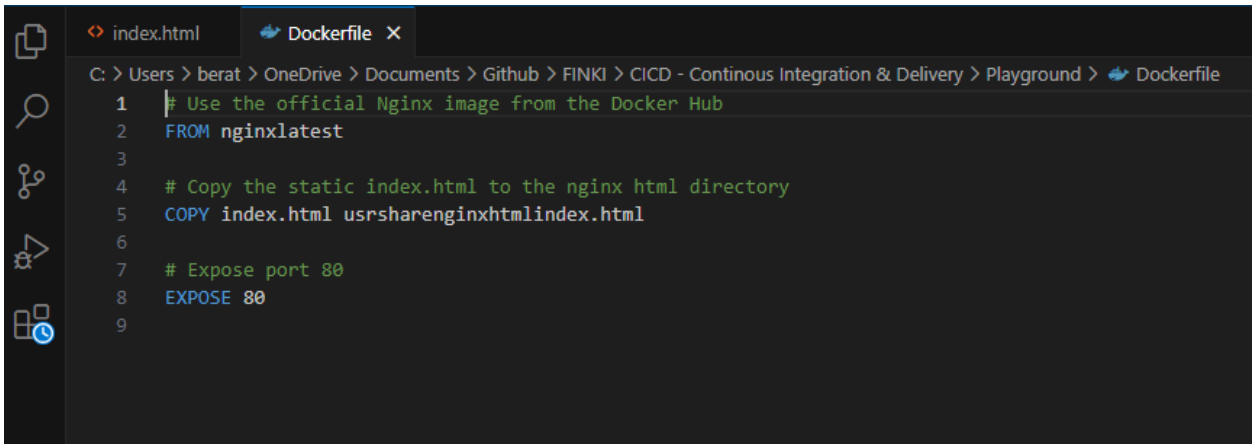
Class Assignment / Homework

- Create a static index.html with your info in it
  - name, surname, index
- Dockerize it with nginx
- Deploy it to dockerhub with tag 1.0
- Write a deployment manifest
  - 5 replicas, 2 max surge, 1 max unavailable
- Deploy it to your cluster
- Refactor index.html with current year in it - tag 2.0
- Make a rollout with 2.0 image tag
- Revert to 1.0 version

Step 1: Create a index.html with my info



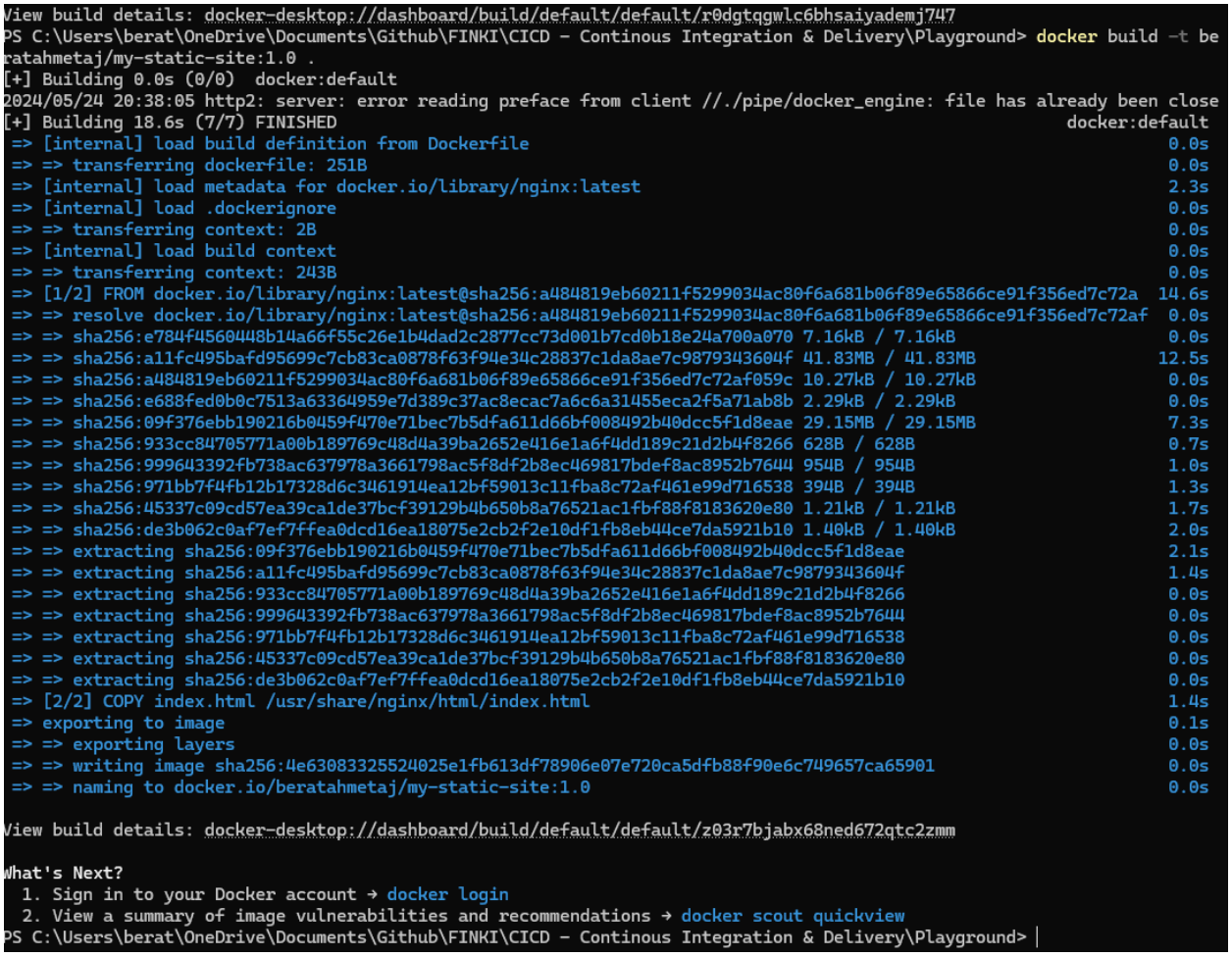
Step 2: Create dockerfile



Step 3: Build and deploy to docker hub the first build

Command:
`docker build -t beratahmetaj/my-static-site:1.0 .`

Result:



Then we push the build to DockerHub
Command:
`docker push beratahmetaj/my-static-site:1.0`

Step 4: Deployment Manifest

Deployment.yaml

C: > Users > berat > OneDrive > Documents > Github > FINKI > CICD - Continous Integration & Delivery > Playground > ! deployement.yaml

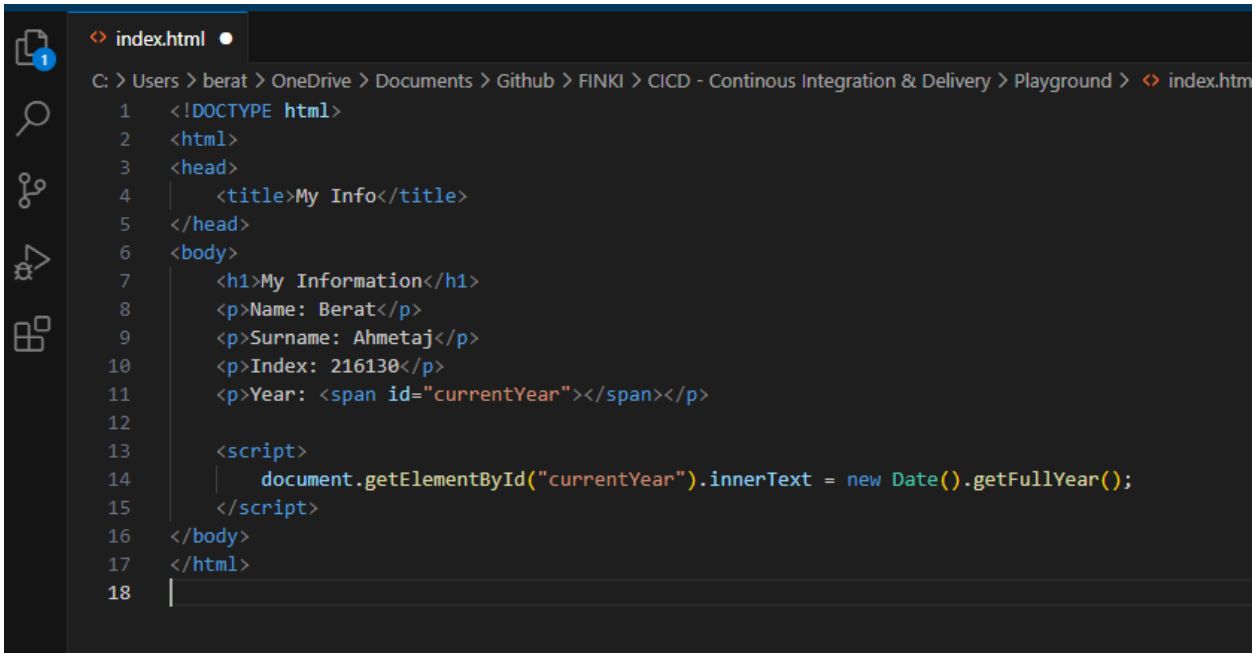
```yaml
apiVersion: apps/v1
kind: Deployment
metadata:
  name: my-static-site-deployment
spec:
  replicas: 5
  strategy:
    rollingUpdate:
      maxSurge: 2
      maxUnavailable: 1
  selector:
    matchLabels:
      app: my-static-site
  template:
    metadata:
      labels:
        app: my-static-site
    spec:
      containers:
      - name: my-static-site
        image: beratahmetaj/my-static-site:1.0
        ports:
        - containerPort: 80
```

Kubectl deployment.yaml

```
PS C:\Users\berat\OneDrive\Documents\Github\FINKI\CICD - Continous Integration & Delivery\Playground>k
ubectl apply -f deployment.yaml
deployment.apps/my-static-site-deployment created
PS C:\Users\berat\OneDrive\Documents\Github\FINKI\CICD - Continous Integration & Delivery\Playground>
```

Step 5: Refactor Index.html and deploy again

Index.html



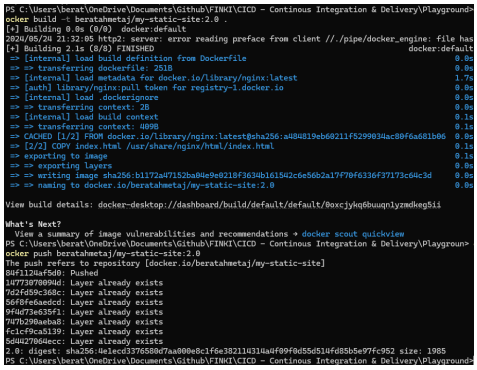
New docker build

```
docker build -t beratahmetaj/my-static-site:2.0 .
```

Than push to the DockerHub as v2.0

```
docker push beratahmetaj/my-static-site:2.0
```

Proof of these steps:



Deployment change to v2.0

```yaml
      app: my-static-site
  spec:
    containers:
    - name: my-static-site
      image: beratahmetaj/my-static-site:2.0   # VERZIJA 2.0 TAG
      ports:
      - containerPort: 80
```

Run kubectl with deployment.yaml now
kubectl apply -f deployment.yaml

FINAL STEP: REVERT BACK TO 1.0

To Revert we just change the deployment.yaml to 1.0 and run **kubectl apply -f deployment.yaml** again