**DAY-3  
 KUBERNETES**

**1)STEPS TO FOLLOW:**

* mkdir my-docker-app
* cd my-docker-app
* touch Dockerfile
* nano Dockerfile
* npm init -y
* docker pull nirajana23/devops:latest
* docker build -t nirajana23/devops:latest .
* docker ps
* cd ..
* minikube start
* sudo nano nginx-deployment.yaml
* sudo nano service.yaml
* kubectl apply -f nginx-deployment.yaml
* kubectl apply -f service.yaml
* kubectl get pods
* minikube service my-app –url
* kubectl port-forward svc/my-nginx 30001:80
* curl <http://127.0.0.1:30001>

**2)sudo nano nginx-deployment.yml**

# Use an official Node.js runtime as a base image FROM node:18

# Set the working directory

WORKDIR /app

# Copy package.json and install dependencies

COPY package.json ./

RUN npm install

# Copy the rest of the application

COPY . .

# Expose port 3000 and start the app

EXPOSE 3000

CMD ["npm", "start"]

**3)service.yml**apiVersion: v1

kind: Service

metadata:

name: my-app

  namespace: default

spec:

  type: NodePort # Ensures external access via a specific port

  selector:

  app: my-app

  ports:

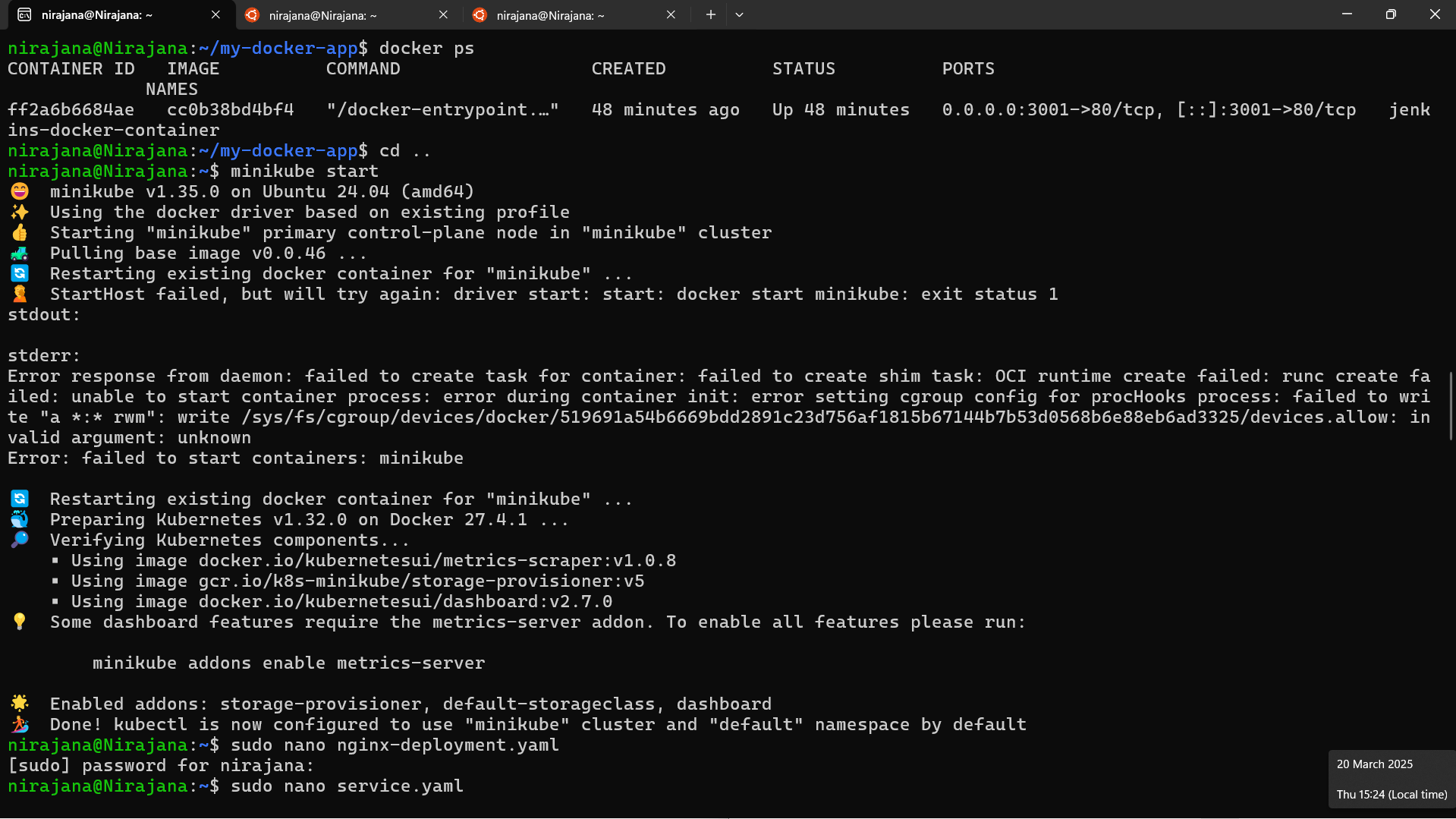
- protocol: TCP

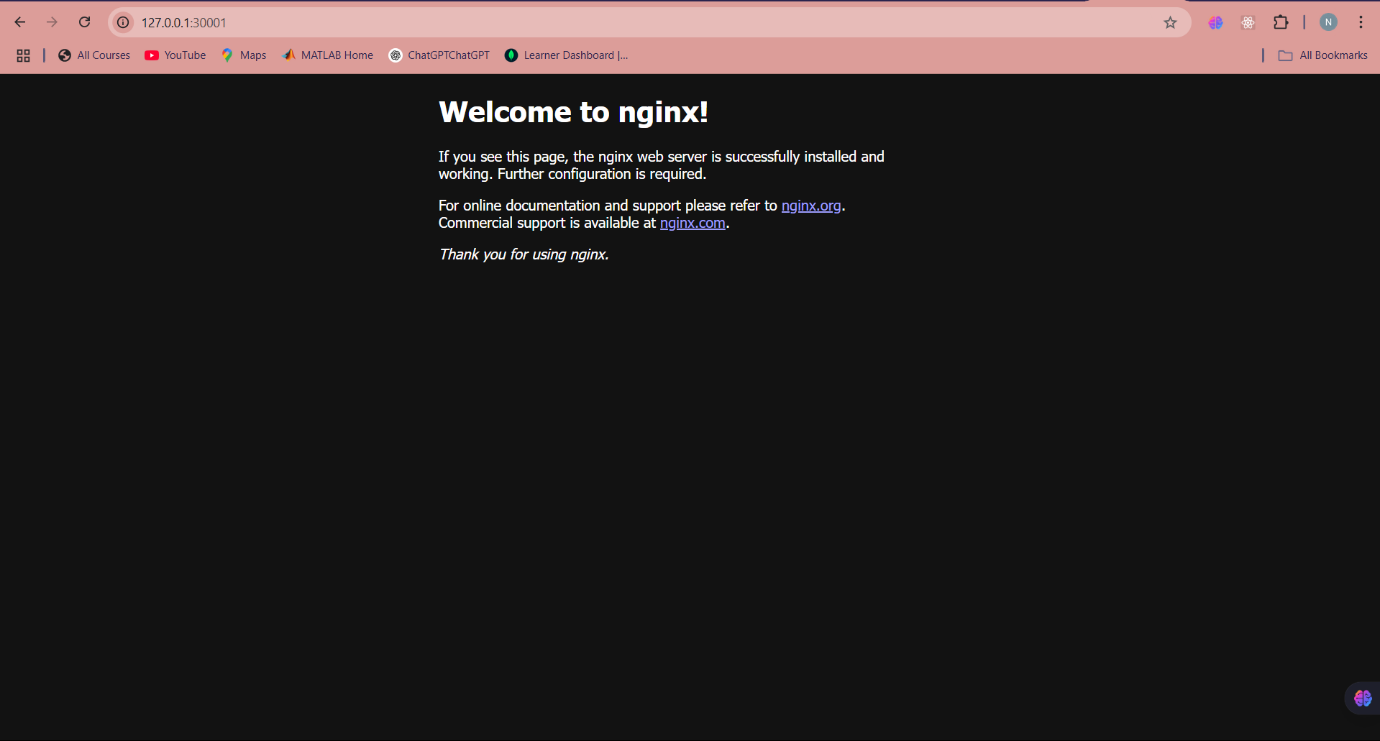
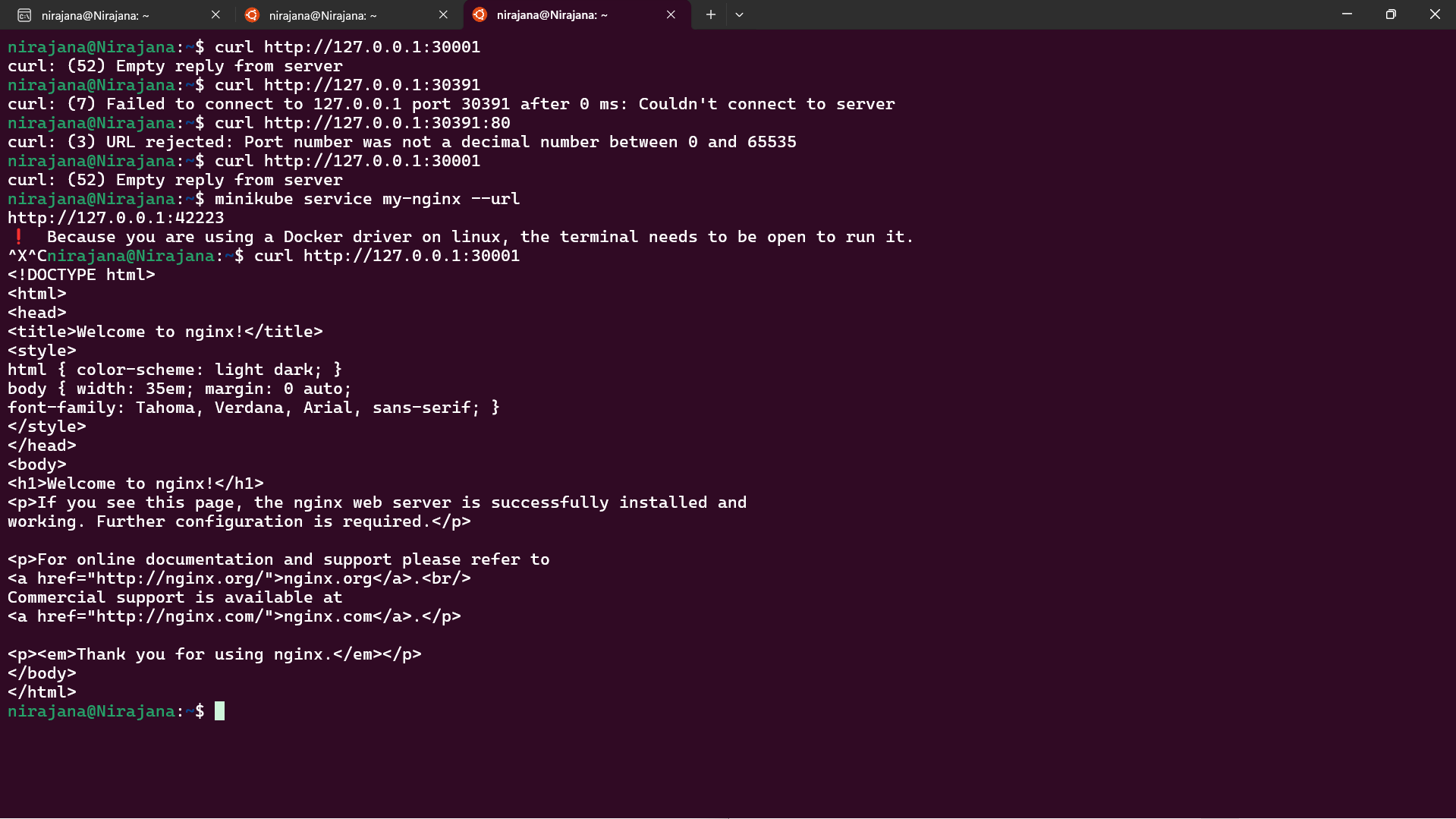
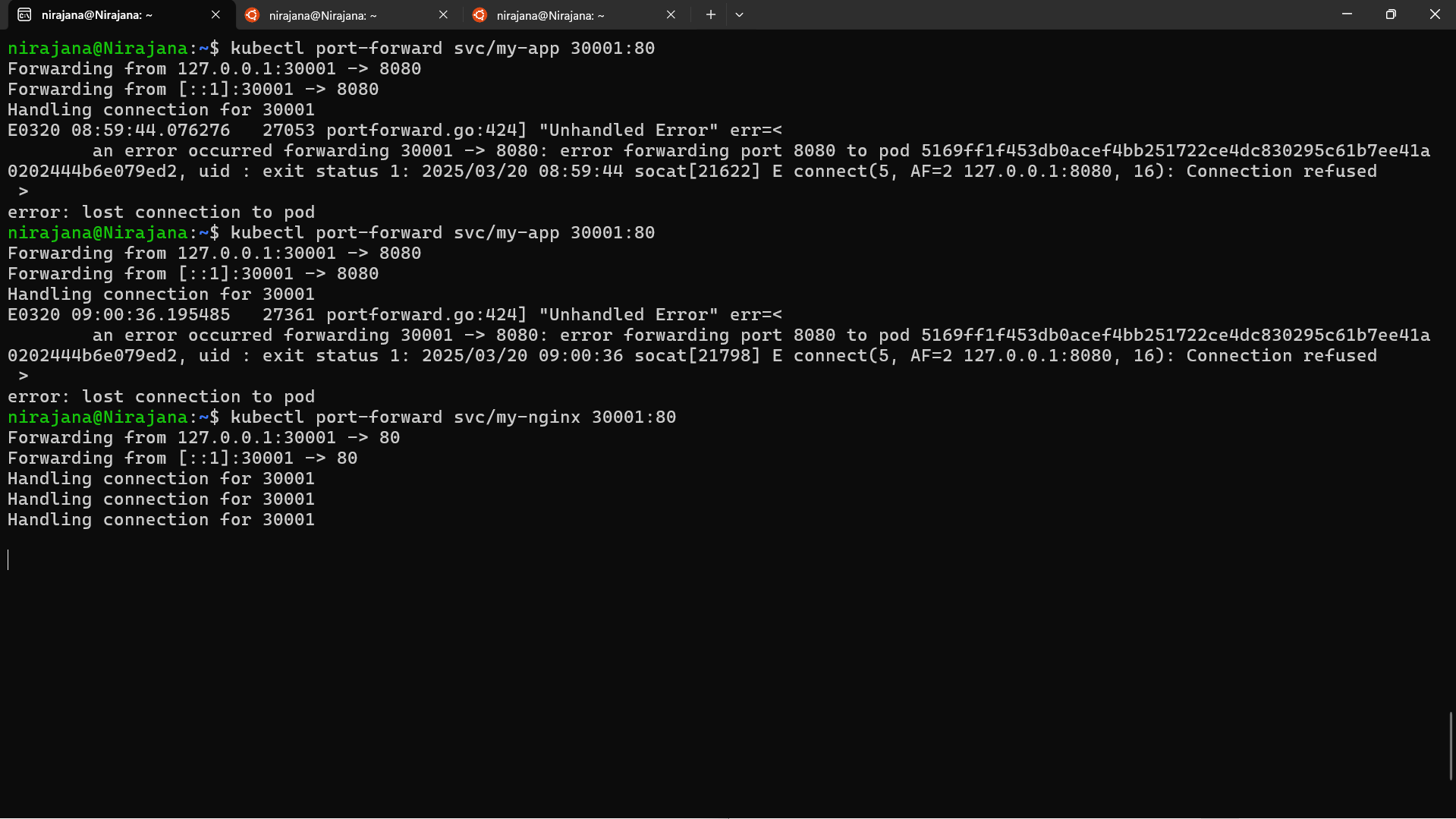
      port: 80 # Service port inside the cluster

      targetPort: 8080 # The container's port

      nodePort: 30391 # Externally accessible port

**4)OUTPUT:**

****

****