Prerequisite

A server is required with docker service installed.

The server is built using [https://github.com/vootbd/devops/tree/main/Prerequisites test.tf](https://github.com/vootbd/devops/tree/main/Prerequisites%20test.tf).

I am using a bash script from my repository [https://github.com/vootbd/devops/tree/main/Prerequisites install\_docker.sh](https://github.com/vootbd/devops/tree/main/Prerequisites%20install_docker.sh)

I used my repository to install the Kubernetes cluster following is the URL <https://github.com/vootbd/devops/tree/main/Task%202>

The same bastion host and key pair is used to create the docker server and Kubernetes cluster.

Steps

The app.js, package.json and the dockerfile is created in the docker server and kept is a folder named app.

Following commands are used to build and run the docker container from the app directory

docker build -t simple-app .

docker run –name simpleapp -p 3000:3000 simple-app

All the details are shown in the screen shot which is numbered sequentially.

Then docker access was taken from the docker server and the image was pushed to docker hub account

docker tag simple-app maxwellgomes/simple-app:latest

docker push maxwellgomes/simple-app:latest

Then the Kubernetes cluster was created using my terraform repo  
URL <https://github.com/vootbd/devops/tree/main/Task%202>

And the docker container is deployed using the deployment.yaml file along with a service seclecting those pods as a endpoint where the 3000 port of docker container is server in the 80 using loadbalancer.

kubectl apply -f deployment.yaml