*<u>Write a Dockerfile to containerize the sample
application.</u>*
*<u>Build and run a Docker image for the application.</u>*
*<u>Push the Docker image to Docker Hub or another
container registry.</u>*

*Step 1: Create a Dockerfile*

*The Docker file defines the instructions for packaging
your application into a container image.*

```
# Use a base image
FROM node:16

# Set working directory
WORKDIR /app

# Copy package files and install dependencies
COPY package*.json ./
RUN npm install

# Copy application source code
COPY . .

# Expose the port the app runs on
EXPOSE 3000

# Command to start the application
```

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

Step 2: Build the Docker Image

To create a Docker image:

- Open a terminal and navigate to the directory containing the Docker file.
- Run the following command to build the image.

```
docker build -t
<your_dockerhub_username>/<image_name>:<tag> .
```

Repalce <your_dockerhub_username> with your Docker Hub username .

Replace < image_name> with the name of the image .

Replace <tag> with a version tag (e.g., latest).

Step 2: Run the Docker Image

Run the containerized application using the built image.

```
docker run -p
80:80<your_dockerhub_username>/<image_name>:<tag>
```

Step 3: Push the Docker Images to Docker Hub

- *Log in to Docker Hub :*

*docker login*

*Enter your Docker Hub username and password*

- *Push the image :*

*docker push <your_dockerhub_username>/<image_name>:<tag>*