

# Deploy an Angular application in Docker Container Using Nginx

1. Create a new angular demo application (or) use any other Angular application

```
# [ ng new ] → to create new demo application ( ng - angular )
# [ npm i --force ] → install node modules forcibly
# [ ng build ] → to build a application and create a dist file
# [ ng serve ] → to localhost:4200
# [ npm start ] → for localhost:4200 using npm command
# [ npm run build ] → to build a application and create a dist file using npm cmd
# [ code . ] → run it in cmd prompt to open VS Code
```

2. Move the Build file to the Ubuntu server.

3. In the build file we need to create a Dockerfile and nginx.conf file.

4. Dockerfile :

```
FROM nginx:1.17.1-alpine
COPY nginx.conf /etc/nginx/nginx.conf
COPY /dist/my-app /usr/share/nginx/html
```

# in dockerfile nginx will using that we created nginx.conf not a default nginx.conf

# /dist/my-app → it is a file path of build dist file content

5. nginx.conf :

```
events {}
http {
    include /etc/nginx/mime.types;

    server {
        listen 80;
        server_name localhost;
        root /usr/share/nginx/html;
        index index.html;

        location / {
            try_files $uri $uri/ /index.html;
        }
    }
}
```

## 6. Install a Docker in server :

```
## sudo apt update
```

```
## sudo apt install apt-transport-https ca-certificates curl software-properties-common
```

```
## curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo gpg --dearmor -o /usr/share/keyrings/docker-archive-keyring.gpg
```

```
## echo "deb [arch=$(dpkg --print-architecture) signed-by=/usr/share/keyrings/docker-archive-keyring.gpg] https://download.docker.com/linux/ubuntu $(lsb_release -cs) stable" | sudo tee /etc/apt/sources.list.d/docker.list > /dev/null
```

```
## sudo apt update
```

```
## sudo apt install docker-ce
```

```
## sudo systemctl status docker
```

## 7. Executing the docker command without sudo :

```
# [ sudo groupadd docker ]
```

```
# [ sudo usermod -aG docker $USER ] (ubuntu) → add user to the group
```

```
# [ newgrp docker ] → command to activate the changes
```

## 8. Create docker Images

```
# [ cd /build file ] → go into the build file, where the dockerfile is
```

```
# [ sudo docker build -t image_name . ] → it will create a image
```

```
# [ sudo docker images ]
```

## 9. Create a docker container :

```
# [ sudo docker run --name container_name -d -p 8080:80 image_name ]
```

```
# [ docker ps -a ] → to view all containers
```

```
# [ docker stop container_ID ]
```

```
# [ docker start container_ID ]
```

