

Lab 8 - Creating a Docker Container on Jenkins Server Locally using Pipeline script

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Pre-requisites

1. Adding Github Credentials: [Lab 2 - Integrate Jenkins with Github](#)
 2. Adding Dockerhub Cerdentials: [Lab 3 - Integrate Jenkins with Dockerhub](#)
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Create a New Github Repository

In my case: <https://github.com/CloudWithRaghu/jenkins-docker-react-app.git>

Create a Dockerfile in the Github Repo

```
1 FROM ubuntu
2 RUN apt update
3 RUN apt install -y apache2
4 RUN apt install -y apache2-utils
5 RUN apt clean
6 RUN rm -rf /var/www/html/index.html
7 COPY . /var/www/html
8 EXPOSE 80
9 CMD ["apache2ctl", "-D", "FOREGROUND"]
```

Create an App.js file in Github Repo

```
1 // Heading has the content and the tag
2 // Root has the content in the DOM
3 // Heading is rendered in the root
4
5
6 const heading = React.createElement("h1", {
7
8   id : "heading",
```

```

9  }, "Azure DevOps")
10
11
12
13  const gparent = React.createElement("div", {id: "gparent"},
14    React.createElement("div", {id: "parent"},
15      [React.createElement("h1", {id: "child"}, "Azure Devops")]))
16
17
18  const root = ReactDOM.createRoot(document.getElementById("root"));
19
20  root.render(gparent);

```

Create an `index.html` in Github Repo

```

1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4  <style>
5  body{
6  color:red;
7  }
8  </style>
9    <meta charset="UTF-8">
10    <meta name="viewport" content="width=device-width, initial-scale=1.0">
11    <title>Document</title>
12    <link rel="stylesheet" href="./index.css" />
13  </head>
14  <body>
15    <div id = "root"></div>
16
17    <script crossorigin src="https://unpkg.com/react@18/umd/react.development.js"></script>
18  <script crossorigin src="https://unpkg.com/react-dom@18/umd/react-dom.development.js"></script>
19
20  <script src="./App.js" >
21
22
23  </script>
24  </body>
25  </html>

```

Create a Jenkins Pipeline and paste this code

Before creating Pipeline, execute this command to give Jenkins permission to access Docker:

```

1  sudo usermod -aG docker jenkins
2  sudo chmod 777 /var/run/docker.sock

```

```

1  node {
2    stage('Clone Github repository') {
3      git credentialsId: 'github-creds', url: 'https://github.com/CloudWithRaghu/jenkins-docker-react-app.git'
4    }
5
6    stage('Build image') {
7      dockerImage = docker.build("cloudwithraghu/react-app:latest")
8    }
9

```

```
10 stage('Push image') {
11     withDockerRegistry([ credentialsId: "dockerhub-creds", url: "" ]) {
12         dockerImage.push()
13     }
14 }
15
16 stage('Stop and Kill existing container with same name if any') {
17     sh "docker rm -f react-app"
18 }
19
20 stage('Run the container Locally on the Jenkins server') {
21     sh "docker run -itd --name react-app -p 80:80 cloudwithraghu/react-app:latest"
22
23 }
24 }
```

Access the Container from the Jenkins Server IP:

http://JenkinsIP

