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➤ Full Stack PRACTICE 9.1

- CODE

src/App.js :::

```
import React from 'react';

function App() {
  return (
    <div style={{ textAlign: "center", marginTop: "100px" }}>
      <h1>🚀 React Docker Multi-Stage Build</h1>
      <p>This React app is served using Nginx in a Docker container!</p>
    </div>
  );
}

export default App;
```

src/index.js:::

```
import React from 'react';
import ReactDOM from 'react-dom/client';
import App from './App';

const root = ReactDOM.createRoot(document.getElementById('root'));
```

```
root.render(  
  <React.StrictMode>  
    <App />  
  </React.StrictMode>  
);
```

Dockerfile:::

```
# -----  
# Stage 1: Build the React app  
# -----  
FROM node:18 AS build  
  
# Set working directory inside container  
WORKDIR /app  
  
# Copy package files and install dependencies  
COPY package*.json ./  
RUN npm install  
  
# Copy all project files and build the app  
COPY . .  
RUN npm run build  
  
# -----  
# Stage 2: Serve app with Nginx  
# -----  
FROM nginx:stable-alpine  
  
# Copy built React files from previous stage to Nginx html folder  
COPY --from=build /app/build /usr/share/nginx/html  
  
# Expose port 80  
EXPOSE 80  
  
# Start Nginx server  
CMD ["nginx", "-g", "daemon off;"]
```

.dockerignore:::

```
node_modules
```

```
build
Dockerfile
.dockerignore
.git
.gitignore
README.md
```

Commands:::

```
# 1. Build the Docker image
```

```
docker build -t react-docker-app .
```

```
# 2. Run the Docker container
```

```
docker run -d -p 80:80 react-docker-app
```

```
# 3. Verify container is running
```

```
docker ps
```

OUTPUT:

```
> docker build -t react-docker-app .

[+] Building 85.2s (15/15) FINISHED
=> [internal] load build definition from Dockerfile
=> [build 1/6] FROM docker.io/library/node:18
=> [build 2/6] WORKDIR /app
=> [build 3/6] COPY package*.json ./
=> [build 4/6] RUN npm install
=> [build 5/6] COPY . .
=> [build 6/6] RUN npm run build
=> [stage-1 1/3] FROM docker.io/library/nginx:stable-alpine
=> [stage-1 2/3] COPY --from=build /app/build /usr/share/nginx/html
=> [stage-1 3/3] EXPOSE 80
=> exporting to image
=> => writing image sha256:1a2b3c4d5e6f7g8h9i0
=> => naming to docker.io/library/react-docker-app
```

Successfully built react-docker-app

🚀 React Docker Multi-Stage Build

This React app is served using Nginx in a Docker container!