

ReactJS - Building & Deployment

Let us learn how to do production build and deployment of React application in this chapter.

Building

Once a React application development is done, application needs to be bundled and deployed to a production server. Let us learn the command available to build and deploy the application in this chapter.

A single command is enough to create a production build of the application.

```
npm run build
> expense-manager@0.1.0 build path\to\expense-manager
> react-scripts build
```

```
Creating an optimized production build...
Compiled with warnings.
```

```
File sizes after gzip:
```

```
41.69 KB   build\static\js\2.a164da11.chunk.js
 2.24 KB   build\static\js\main.de70a883.chunk.js
 1.4 KB    build\static\js\3.d8a9fc85.chunk.js
 1.17 KB   build\static\js\runtime-main.560bee6e.js
493 B     build\static\css\main.e75e7bbe.chunk.css
```

```
The project was built assuming it is hosted at /.
You can control this with the homepage field in your package.json.
```

```
The build folder is ready to be deployed.
You may serve it with a static server:
```

```
npm install -g serve
serve -s build
```

```
Find out more about deployment here:
```

```
https://cra.link/deployment
```

Once the application is build, the application is available under *build/static* folder.

By default, *profiling* option is disable and can be enabled through *-profile* command line option. *-profile* will include profiling information in the code. The profiling information can be used along with React DevTools to analyse the application.

```
npm run build -- --profile
```

Deployment

Once the application is build, it can be deployed to any web server. Let us learn how to deploy a React application in this chapter.

Local deployment

Local deployment can be done using *serve* package. Let us first install *serve* package using below command –

```
npm install -g server
```

To start the application using *serve*, use the below command –

```
cd /go/to/app/root/folder  
serve -s build
```

By default, *serve* serve the application using port 5000. The application can be viewed @ *http://localhost:5000*.

Production deployment

Production deployment can be easily done by copying the files under *build/static* folder to the production application's root directory. It will work in all web server including Apache, IIS, Nginx, etc.

Relative path

By default, the production build is created assuming that the application will be hosted in the root folder of a web application. If the application needs to be hosted in a subfolder, then use below configuration in the package.json and then build the application.

```
{ ... "homepage": "http://domainname.com/path/to/subfolder", ... }
```

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