

Let's go **step by step**, carefully, to deploy your React + Bootstrap app using **GitHub Pages**. I'll explain everything clearly so you can follow along without confusion.

Step 0: Prerequisites

1. Make sure you have **Node.js and npm** installed.
 2. You have a **GitHub account**.
 3. Your React app is ready on your local computer.
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Step 1: Push Your React App to GitHub

If your project isn't on GitHub yet:

1. Create a new repository on GitHub:
 - Go to [GitHub](#) → click **New repository**.
 - Give it a name, e.g., `my-react-site`.
 - Keep it public (or private if you prefer).
2. Initialize Git in your project folder and push:

```
cd your-project-folder
git init
git add .
git commit -m "Initial commit"
git branch -M main
git remote add origin https://github.com/<username>/<repo-name>.git
git push -u origin main
```

Replace `<username>` and `<repo-name>` with your GitHub username and repository name.

Step 2: Install `gh-pages`

`gh-pages` is a package that helps you deploy **static sites to GitHub Pages**.

```
npm install gh-pages --save-dev
```

Step 3: Update `package.json`

Open your `package.json` file and do **two things**:

1. Add homepage field at the top:

```
"homepage": "https://<username>.github.io/<repo-name>"
```

Replace `<username>` and `<repo-name>` with your GitHub username and the repository name.

2. Add deploy scripts under `"scripts"`:

```
"scripts": {  
  "start": "react-scripts start",  
  "build": "react-scripts build",  
  "test": "react-scripts test",  
  "eject": "react-scripts eject",  
  "predeploy": "npm run build",  
  "deploy": "gh-pages -d build"  
}
```

- `predeploy` builds your app.
 - `deploy` publishes the `build` folder to GitHub Pages.
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Step 4: Deploy Your App

Run this command in your project folder:

```
npm run deploy
```

- This will:
 1. Build your React app (`npm run build`).
 2. Push the contents of `build` to a special branch called `gh-pages`.
- After a few seconds, your site will be live at:

```
https://<username>.github.io/<repo-name>
```

Step 5: Optional Configurations

1. **Custom domain:** You can use your own domain by adding a `CNAME` file in `public/`.
2. **Routing issues:** If your React app uses React Router, add this to `package.json`:

```
"homepage": "https://<username>.github.io/<repo-name>"
```

and consider using `HashRouter` instead of `BrowserRouter`.

And that's it! Your React + Bootstrap site is now online for free.