Creating a Library of React Components using Create React App

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UPDATE: You can use the npm package `create-component-lib` to automate all the steps described in this blog post.

create-component-lib

Create React App is easily the best tool for creating and developing React applications. With a little bit of work, it can also be used to create React components that can be published to `npm` and used in other React applications. Here's what you need to do:

1. Create a new project using `create-react-app`:

```
create-react-app simple-component-library
```

2. Delete all the files inside `src/` , and create a new `index.js` file with some starter code:

```
import React from "react";
import ReactDOM from "react-dom";

ReactDOM.render(<div>Hello world</div>, document.getElementById("root"));
```

3. Create a new folder `src/lib` and place your React components inside it. `src/lib` will serve as the root folder of the module published to
code for an example component:

```
import React from "react";
import "./TextInput.css";

const TextInput = ({ type = "text", label, value, onChange }) => (
  <div className="simple-form-group">
    {label && <label className="simple-text-label">{label}</label>}
    <input
      type={type}
      className="simple-text-input"
      value={value}
      onChange={e => onChange && onChange(e.target.value)}
    />
  </div>
);

export default TextInput;
```

Styling can be done inline, or in separate CSS files:

```
.simple-form-group {
  margin-bottom: 1rem;
}
.simple-text-label {
  display: block;
  color: red;
  color: red;
}
.simple-text-input {
  display: inline-block;
  margin-bottom: 0.5rem;
  font-size: 16px;
  font-weight: 400;
  color: rgb(33, 37, 41);
}
```

Finally, the component can be exported from `src/lib` for ease of importing:

```
import TextInput from "./TextInput";
export { TextInput };
```

Optionally, you can also write tests for the components inside `src/lib`:

```
import React from "react";
import TextInput from "./TextInput";
import renderer from "react-test-renderer";

describe("TextInput", () => {
  it("renders properly", () => {
    const tree = renderer
      .create(<TextInput label="Email" placeholder="name@example.com" />)
      .toJSON();
    expect(tree).toMatchSnapshot();
  });
});
```

4. *(Optional)* Use the components in `src/index.js` to create examples for testing and debugging during development. Any code placed outs not be published to `npm`. Here is an example usage of `TextInput`:

```
import React from 'react';
import { render } from "react-dom";
import { TextInput } from "./lib";

const App = () => (
  <div style={{ width: 640, margin: "15px auto" }}>
    <h1>Hello React</h1>

    <TextInput label="Email Address" placeholder="name@example.com" />
    </div>
  );

  render(<App />, document.getElementById("root"));
```

Run `npm start` and navigate to `http://localhost:3000` to view the result.

It works (duh!)

Tip: Use `react-live` to create a live-editable documentation site!

5. Install `babel-cli` using the command `npm i babel-cli --save-dev` and create a file `.babelrc` in the root of the project with the following con

```
    "presets": [["react-app", { "absoluteRuntime": false }]]
  }
```

6. Replace the `build` script inside `package.json` with the following:

```
  "build": "rm -rf dist && NODE_ENV=production babel src/lib --out-dir dist --copy-files --ignore __tests__,spec.js,test.js,__snapshots__
```

The command `npm run build` will now transpile the code inside `src/lib` (ignoring tests and snapshots) into the folder `dist`.

7. Remove the line `"private": true` from `package.json`. Also remove `react-scripts`, react and react-dom from dependencies, and move ther `devDependencies`. Additionally, you can also add `react` and `react-dom` to `peerDependencies`.

8. To prepare for publishing, add the following lines to `package.json`:

```
"main": "dist/index.js",
  "module": "dist/index.js",
  "files": [ "dist", "README.md" ],
  "repository": {
    "type": "git",
    "url": "URL_OF_YOUR_REPOSITORY"
  }
```

9. Remove the default `README.md` file, and create a new one with some information about the library.

```
# simple-component-library
A library of React components created using `create-react-app`.## Installation
Run the following command:
`npm install simple-component-library`
```

10. Publish to `npm`!

```
npm run publish
```

And that’s it! Now you can install the library with the command `npm install simple-component-library` and use it in any project created using (
App. Here’s the full code for this article:

aakashns/simple-component-library

You can clone the repository and use it as a starting point to skip some of the steps. Hope it helps!

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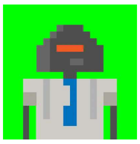

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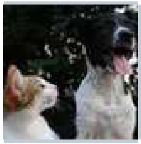

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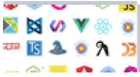

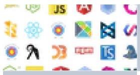

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