

Creating a simple React project named `demosite` with a home page, a header with a menu and logo, and a footer with social media links can be done in a few steps.

Below are the instructions and the necessary code for each component.

Steps to Create the React Project

1. Set Up the Project:

- Make sure you have Node.js and npm installed.
- Create a new React project using Create React App.

```
npx create-react-app demosite  
cd demosite
```

2. Create Components and Pages:

- Create components for `Header`, `Footer`, and pages for `Home`, `About`, `Faculty`, `Courses`, and `Contact`.

3. Add Routing:

- Use React Router to handle navigation between pages.

4. Add CSS:

- Create a CSS file to style the components.

Step-by-Step Implementation

1. Set Up the Project

Run the following commands to set up the project:

```
npx create-react-app demosite  
cd demosite  
npm install react-router-dom
```

2. Create the Components

src/components/Header.js

```
import React from 'react';  
import { Link } from 'react-router-dom';  
import './Header.css';
```

```
const Header = () => {  
  return (  
    <header>  
      <div className="logo">MyLogo</div>  
      <nav>  
        <ul>  
          <li><Link to="/">Home</Link></li>  
          <li><Link to="/about">About</Link></li>
```

The command `npm install react-router-dom` installs the `react-router-dom` package into your React project. This package is a collection of navigational components that enable routing in a React application, allowing you to create a single-page application (SPA) with dynamic and responsive navigation.

This line imports the React library, which is necessary for creating React components

This line imports the Link component from the `react-router-dom` library. The Link component is used to create navigational links in your application that allow users to navigate between different routes/pages without reloading the entire page. It's part of the React Router package, which is used for handling routing in React applications.

```

    <li><Link to="/faculty">Faculty</Link></li>
    <li><Link to="/courses">Courses</Link></li>
    <li><Link to="/contact">Contact</Link></li>
  </ul>
</nav>
</header>
);
}
export default Header;

```

src/components/Footer.js

```

import React from 'react';
import './Footer.css';

const Footer = () => {
  return (
    <footer>
      <div>
        <a href="https://facebook.com">Facebook</a>
        <a href="https://twitter.com">Twitter</a>
        <a href="https://instagram.com">Instagram</a>
      </div>
    </footer>
  );
}
export default Footer;

```

src/components/Header.css

```

header {
  display: flex;
  justify-content: space-between;
  align-items: center;
  background-color: #333;
  padding: 10px 20px;
}

.logo {
  color: white;
  font-size: 1.5em;
}

nav ul {
  display: flex;
  list-style: none;
}

nav ul li {
  margin: 0 10px;
}

```

```
}
```

```
nav ul li a {  
  color: white;  
  text-decoration: none;  
}
```

```
nav ul li a:hover {  
  text-decoration: underline;  
}
```

src/components/Footer.css

```
footer {  
  background-color: #333;  
  color: white;  
  text-align: center;  
  padding: 10px 0;  
  position: absolute;  
  bottom: 0;  
  width: 100%;  
}  
footer a {  
  color: white;  
  margin: 0 10px;  
  text-decoration: none;  
}  
footer a:hover {  
  text-decoration: underline;  
}
```

3. Create the Pages

src/pages/Home.js

```
import React from 'react';  
const Home = () => {  
  return <h1>Welcome to the Home Page</h1>;  
}  
export default Home;
```

src/pages/About.js

```
import React from 'react';  
const About = () => {  
  return <h1>About Us</h1>;  
}  
  
export default About;
```

src/pages/Faculty.js

```
import React from 'react';
```

This line imports the React library, which is necessary for creating React components. React is used to build user interfaces by creating reusable components.

```
const Faculty = () => {  
  return <h1>Our Faculty</h1>;  
}
```

const Faculty defines a functional component called Faculty. The component is defined using an arrow function () => {}. return <h1>Our Faculty</h1>; returns an HTML heading element

```
export default Faculty;
```

This line exports the Faculty component as the default export of the module. This allows other files to import and use the Faculty component in the application.

src/pages/Courses.js

```
import React from 'react';
```

```
const Courses = () => {  
  return <h1>Our Courses</h1>;  
}  
export default Courses;
```

src/pages/Contact.js

```
import React from 'react';
```

```
const Contact = () => {  
  return <h1>Contact Us</h1>;  
}  
export default Contact;
```

4. Set Up Routing in App.js

src/App.js

```
import React from 'react';  
import { BrowserRouter as Router, Route, Switch } from 'react-router-dom';  
import Header from './components/Header';  
import Footer from './components/Footer';  
import Home from './pages/Home';  
import About from './pages/About';  
import Faculty from './pages/Faculty';  
import Courses from './pages/Courses';  
import Contact from './pages/Contact';  
import './App.css';
```

```
const App = () => {  
  return (  
    <Router>  
      <div className="App">  
        <Header />  
        <div className="content">  
          <Switch>  
            <Route exact path="/" component={Home} />
```

```

    <Route path="/about" component={About} />
    <Route path="/faculty" component={Faculty} />
    <Route path="/courses" component={Courses} />
    <Route path="/contact" component={Contact} />
  </Switch>
</div>
<Footer />
</div>
</Router>
);
}

```

export default App;

5. Add Global CSS

src/App.css

```

css
body, html {
  margin: 0;
  padding: 0;
  font-family: Arial, sans-serif;
}

```

```

.App {
  display: flex;
  flex-direction: column;
  min-height: 100vh;
}

```

```

.content {
  flex: 1;
}

```

6. Run the Project

npm start

This will start the development server, and you can view your project at `http://localhost:3000`.

Your project structure should look like this:

```
demosite/  
├── node_modules/  
├── public/  
├── src/  
│   ├── components/  
│   │   ├── Footer.js  
│   │   ├── Footer.css  
│   │   ├── Header.js  
│   │   └── Header.css  
│   ├── pages/  
│   │   ├── About.js  
│   │   ├── Contact.js  
│   │   ├── Courses.js  
│   │   ├── Faculty.js  
│   │   └── Home.js  
│   ├── App.css  
│   ├── App.js  
│   └── index.js  
├── package.json  
└── README.md
```

