

building and deploying a React application for an online portfolio to showcase our projects and skills :-

Here's a full code and process; then we'll turn this into a GitHub repo + PDF/README.

1. Project setup and structure

1. Create app:-

```
npx create-react-app reactnileshportfolio  
cd reactnileshportfolio
```

2. Basic structure inside src/ (you can adjust names):-

```
Public/  
    nilesh_kumar_ahirwar.pdf  
src/  
    components/  
        Navbar.jsx  
        About.jsx  
        Projects.jsx  
        Skills.jsx  
        Resume.jsx  
        Contact.jsx  
        Layout.jsx
```

3. In src/index.js:-

```
import React from 'react';  
import ReactDOM from 'react-dom/client';  
import './index.css';  
import App from './App';  
import reportWebVitals from './reportWebVitals';  
  
const root = ReactDOM.createRoot(document.getElementById('root'));  
root.render(  
    <React.StrictMode>  
        <App />  
    </React.StrictMode>  
>);
```

```
// If you want to start measuring performance in your app, pass a function
// to log results (for example: reportWebVitals(console.log))
// or send to an analytics endpoint. Learn more: https://bit.ly/CRA-vitals
reportWebVitals();
```

4. In src/App.jsx (basic layout + sections):-

```
import React, { Suspense } from "react";
import Navbar from "./components/Navbar";
import Layout from "./components/Layout";
import About from "./components/About";
const Projects = React.lazy(() => import("./components/Projects"));
const Skills = React.lazy(() => import("./components/Skills"));
const Resume = React.lazy(() => import("./components/Resume"));
const Contact = React.lazy(() => import("./components/Contact"));

function App() {
  return (
    <Layout>
      <Navbar />
      <main>
        <About />
        <Suspense fallback={<div>Loading sections...</div>}>
          <Projects />
          <Skills />
          <Resume />
          <Contact />
        </Suspense>
      </main>
    </Layout>
  );
}

export default App;
```

2. Core sections (About, Projects, Skills, Resume, Contact)

Create these files in src/components/.

2.1 Layout (responsive container)

Layout.jsx:-

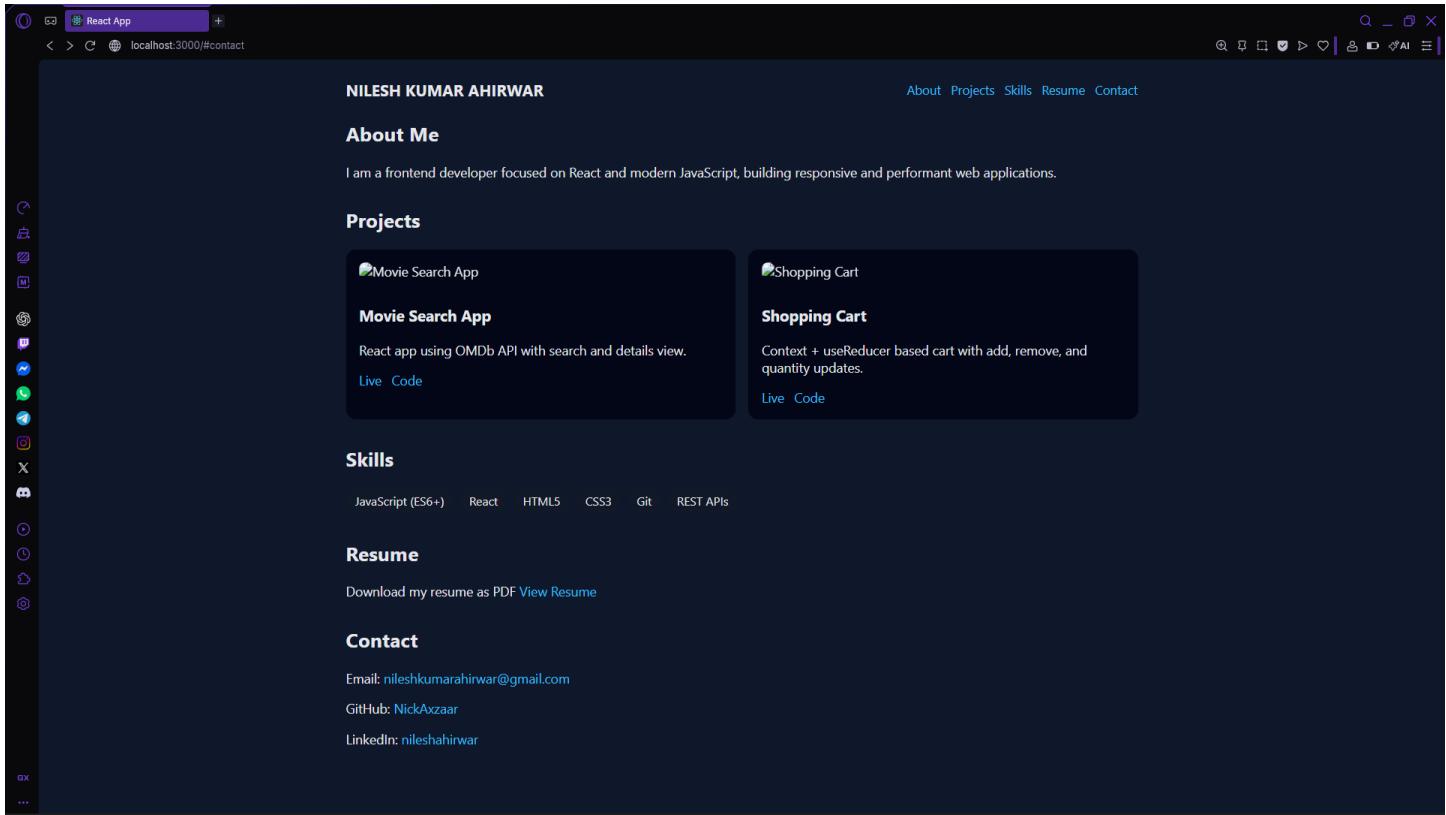
```
import React from "react";

function Layout({ children }) {
  return (
    <div
      style={{
        minHeight: "100vh",
        fontFamily: "system-ui, -apple-system, BlinkMacSystemFont, 'Segoe UI'",
        background: "#0f172a",
        color: "#e5e7eb",
      }}
    >
      <div style={{ maxWidth: "960px", margin: "0 auto", padding: "1.5rem" }}>
        {children}
      </div>
    </div>
  );
}

export default Layout;
```

Mobile Responsive Output ScreenShot

For Desktop, Laptop Landscape Size :-



For Tab or Pad Screen Size :-

The screenshot shows a React application interface. At the top, there's a header bar with a purple tab labeled "React App" and a URL "localhost:3000/#contact". Below the header, the developer's name "NILESH KUMAR AHIRWAR" is displayed in a large white font. To the right of the name is a navigation menu with links: "About", "Projects", "Skills", "Resume", and "Contact".

About Me

I am a frontend developer focused on React and modern JavaScript, building responsive and performant web applications.

Projects

Movie Search App
React app using OMDb API with search and details view.
[Live](#) [Code](#)

Shopping Cart
Context + useReducer based cart with add, remove, and quantity updates.
[Live](#) [Code](#)

Skills

JavaScript (ES6+) React HTML5 CSS3 Git REST APIs

Resume

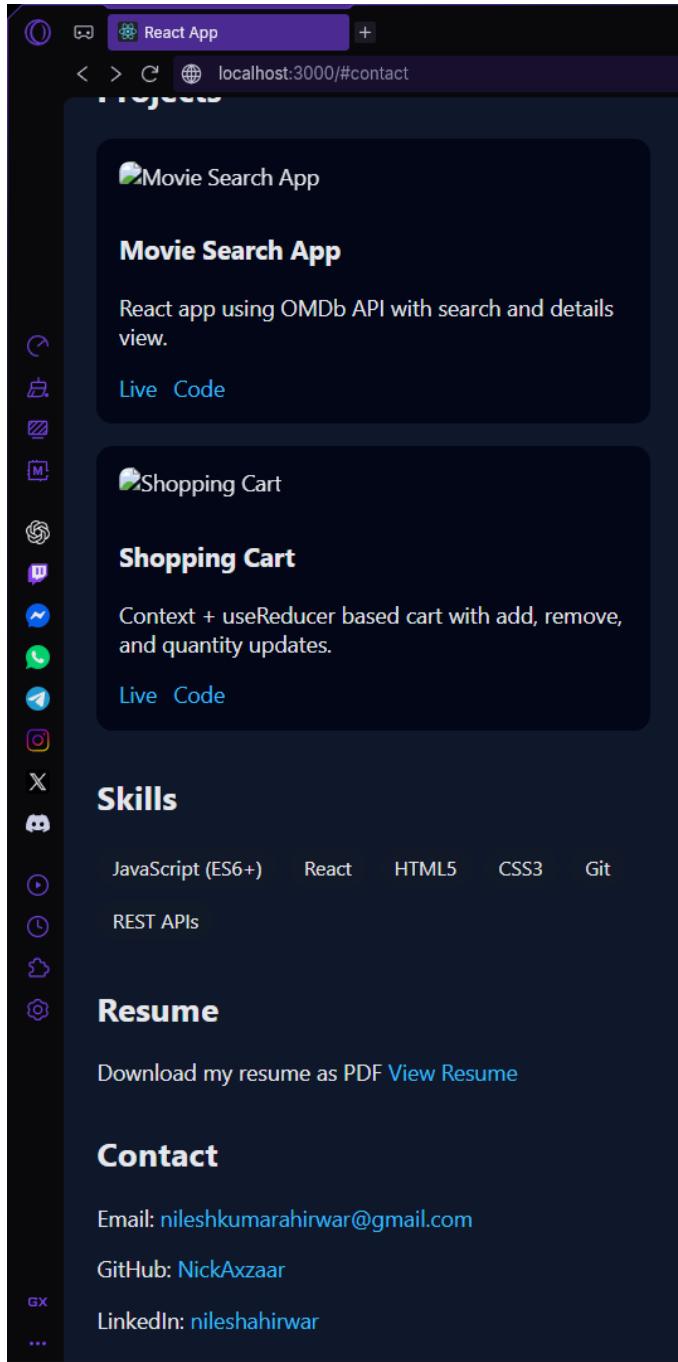
Download my resume as PDF [View Resume](#)

Contact

Email: nileshkumarahirwar@gmail.com
GitHub: [NickAxzaar](#)
LinkedIn: [nileshahirwar](#)

...
GX

For Mobile Phones Screen Size :-



2.2 Navbar with anchor links

Navbar.jsx:-

```
import React from "react";

function Navbar() {
  return (
    <header
      style={{
```

```

    display: "flex",
    justifyContent: "space-between",
    alignItems: "center",
    marginBottom: "1.5rem",
  }
>
<div style={{ fontWeight: 700, fontSize: "1.2rem" }}>NILESH KUMAR AHIRWAR</div>
<nav style={{ display: "flex", gap: "0.75rem", fontSize: "0.95rem" }}>
  <a href="#about">About</a>
  <a href="#projects">Projects</a>
  <a href="#skills">Skills</a>
  <a href="#resume">Resume</a>
  <a href="#contact">Contact</a>
</nav>
</header>
);
}

export default Navbar;

```

2.3 About section

About.jsx:-

```

import React from "react";

function About() {
  return (
    <section id="about" style={{ marginBottom: "2rem" }}>
      <h2>About Me</h2>
      <p>
        I am a frontend developer focused on React and modern JavaScript,
        building responsive and performant web applications.
      </p>
    </section>
  );
}

export default About;

```

2.4 Projects section (with lazy-loaded images)

Projects.jsx:-

```
import React from "react";

const projects = [
  {
    id: 1,
    title: "Movie Search App",
    description: "React app using OMDb API with search and details view.",
    image: "/images/movie-app.png", // put sample images in public/images
    link: "https://nickaxzaar.github.io/Movies-Searching-App/",
    repo: "https://github.com/NickAxzaar/Movies-Searching-App",
  },
  {
    id: 2,
    title: "Shopping Cart",
    description:
      "Context + useReducer based cart with add, remove, and quantity updates.",
    image: "/images/cart-app.png",
    link: "https://nickaxzaar.github.io/Shopping-Cart-with-Context-and-Reducers/",
    repo: "https://github.com/NickAxzaar/Shopping-Cart-with-Context-and-Reducers",
  },
];
;

function Projects() {
  return (
    <section id="projects" style={{ marginBottom: "2rem" }}>
      <h2>Projects</h2>
      <div
        style={{
          display: "grid",
          gap: "1rem",
          gridTemplateColumns: "repeat(auto-fit, minmax(260px, 1fr))",
        }}
      >
        {projects.map((project) => (
          <article
            key={project.id}
            style={{
              borderRadius: "0.75rem",
            }}
          >
            <img alt={project.title} src={project.image} />
            <div>
              <h3>{project.title}</h3>
              <p>{project.description}</p>
              <a href={project.link}>View</a>
              <a href={project.repo}>Code</a>
            </div>
          </article>
        ))
      
```

```
background: "#020617",
padding: "1rem",
}}
>
<img
src={project.image}
alt={project.title}
loading="lazy"
style={{
width: "100%",
borderRadius: "0.5rem",
marginBottom: "0.75rem",
}}
/>
<h3>{project.title}</h3>
<p>{project.description}</p>
<div style={{ marginTop: "0.5rem", display: "flex", gap: "0.75rem" }}>
{project.link && (
<a href={project.link} target="_blank" rel="noreferrer">
Live
</a>
)}
{project.repo && (
<a href={project.repo} target="_blank" rel="noreferrer">
Code
</a>
)}
</div>
</article>
))})
</div>
</section>
);
}

export default Projects;
```

2.5 Skills section

Skills.jsx:-

```
import React from "react";

const skills = ["JavaScript (ES6+)", "React", "HTML5", "CSS3", "Git", "REST APIs"];

function Skills() {
  return (
    <section id="skills" style={{ marginBottom: "2rem" }}>
      <h2>Skills</h2>
      <ul
        style={{
          display: "flex",
          flexWrap: "wrap",
          gap: "0.5rem",
          listStyle: "none",
          padding: 0,
        }}
      >
        {skills.map((skill) => (
          <li
            key={skill}
            style={{
              padding: "0.35rem 0.7rem",
              borderRadius: "999px",
              background: "#111827",
              fontSize: "0.9rem",
            }}
          >
            {skill}
          </li>
        ))}
      </ul>
    </section>
  );
}

export default Skills;
```

2.6 Resume section

Resume.jsx:-

```
import React from "react";

function Resume() {
  return (
    <section id="resume" style={{ marginBottom: "2rem" }}>
      <h2>Resume</h2>
      <p>
        Download my resume as PDF{" "}
        <a href="/nilesh_kumar_ahirwar.pdf" download="nilesh_kumar_ahirwar.pdf">
          View Resume
        </a>
      </p>
    </section>
  );
}

export default Resume;
```

2.7 Contact section

Contact.jsx:-

```
import React from "react";

function Contact() {
  return (
    <section id="contact" style={{ marginBottom: "2rem" }}>
      <h2>Contact</h2>
      <p>Email: <a href="mailto:nileshkumarahirwar991@gmail.com">nileshkumarahirwar@gmail.com</a></p>
      <p>GitHub: <a href="https://github.com/NickAxzaar/">NickAxzaar</a></p>
      <p>LinkedIn: <a href="https://linkedin.com/in/nileshahirwar">nileshahirwar</a></p>
    </section>
  );
}
```

```
}
```

```
export default Contact;
```

3. Responsive design basics

In src/index.css, add simple responsive styling:-

Index.css:-

```
body{  
margin: 0;  
font-family: -apple-system, BlinkMacSystemFont, 'Segoe UI', 'Roboto', 'Oxygen',  
'Ubuntu', 'Cantarell', 'Fira Sans', 'Droid Sans', 'Helvetica Neue',  
sans-serif;  
-webkit-font-smoothing: antialiased;  
-moz-osx-font-smoothing: grayscale;  
}  
  
code {  
font-family: source-code-pro, Menlo, Monaco, Consolas, 'Courier New',  
monospace;  
}  
  
a {  
color: #38bdf8;  
text-decoration: none;  
}  
  
a:hover {  
text-decoration: underline;  
}  
  
@media (max-width: 640px) {  
header nav {  
flex-wrap: wrap;  
justify-content: flex-end;  
}  
}
```

The grid with repeat(auto-fit, minmax(...)) in Projects already makes cards responsive.

4. Performance: lazy loading and minification

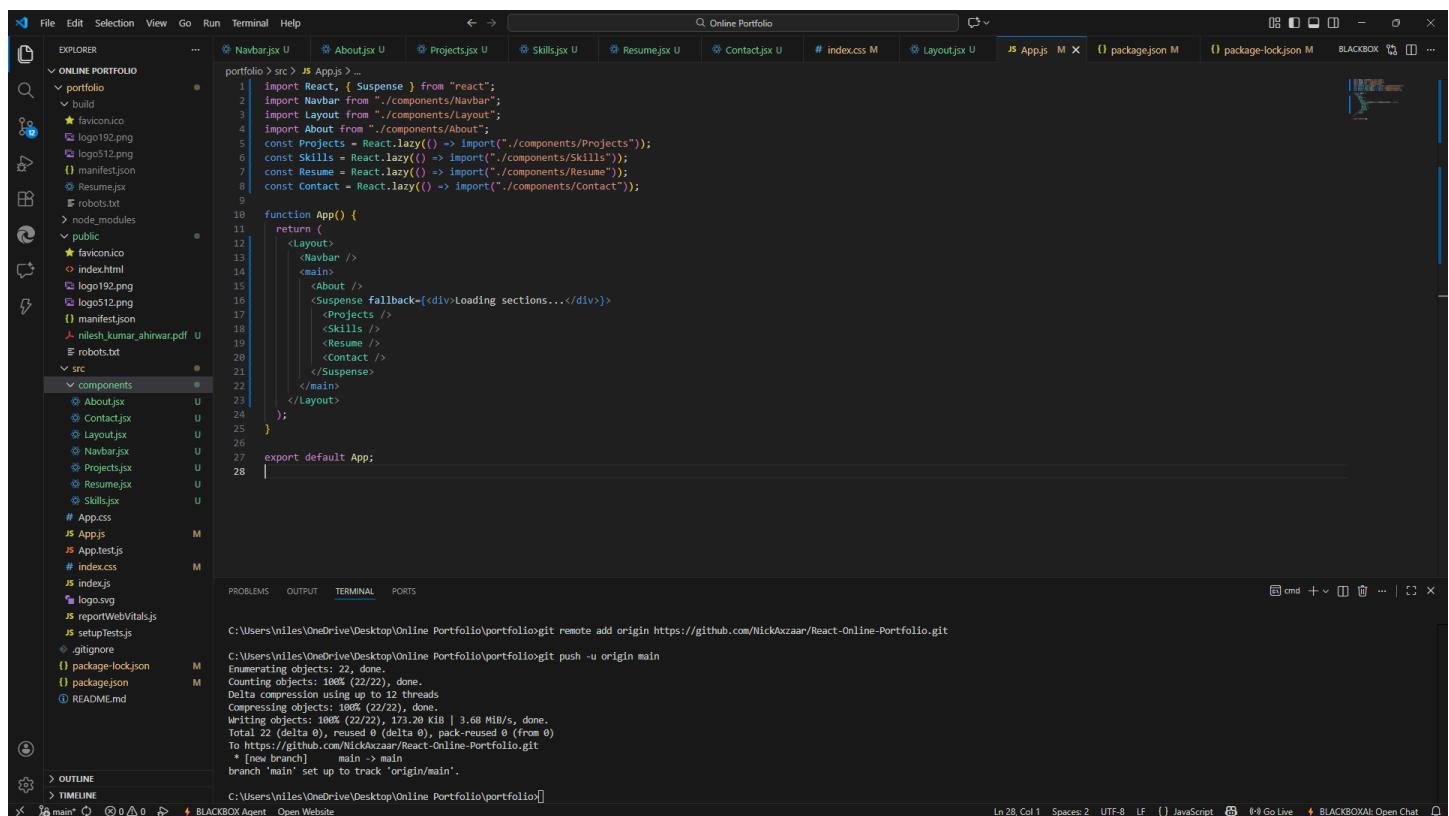
1. **Component lazy loading**:- Already using React.lazy + Suspense for Projects, Skills, Resume, Contact. These are code-split into separate JS chunks in production.
2. **Image lazy loading**:- Using loading="lazy" on project images so below-the-fold images load only when needed.
3. **Minified JS/CSS**:- Create React App's production build automatically:
 - Minifies JavaScript and CSS
 - Hashes filenames for caching
 - Tree-shakes unused code

5. Production build and local verification

1. Install dependencies and build:-

```
npm install  
npm run build
```

This creates a build/ folder with optimized assets:-



The screenshot shows the VS Code interface with the following details:

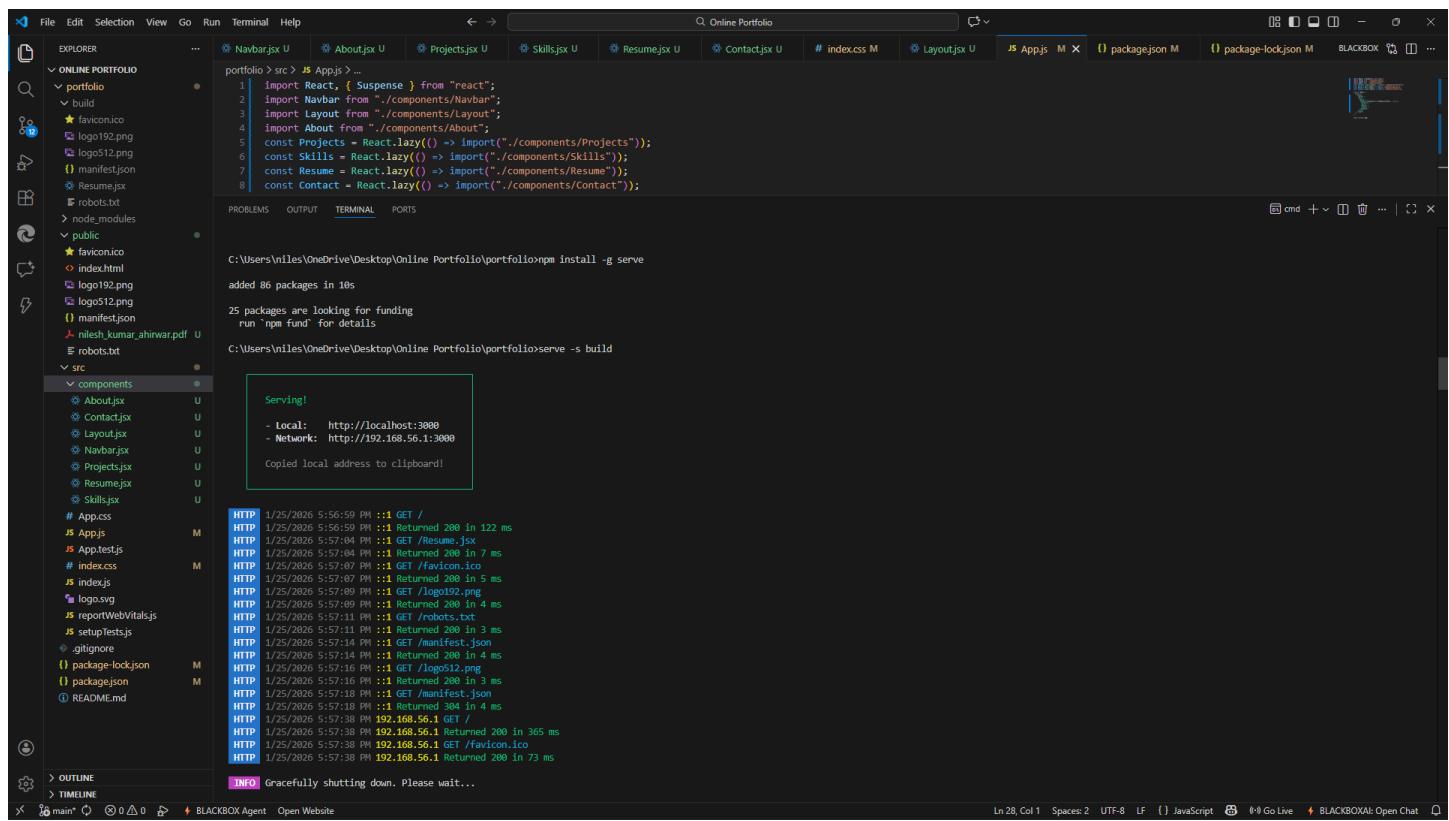
- File Explorer:** Shows the project structure under "ONLINE PORTFOLIO". It includes a "portfolio" folder containing "build", "favicon.ico", "index.html", "manifest.json", "robots.txt", and "src" folder. The "src" folder contains "components" (with files About.jsx, Contact.jsx, Layout.jsx, Navbar.jsx, Projects.jsx, Resume.jsx, Skills.jsx), "App.js", "App.test.js", "index.css", "index.js", "logo.svg", "reportWebVitals.js", "setupTests.js", ".gitignore", "package-lock.json", and "README.md".
- Code Editor:** Displays the content of "App.js". The code uses React.lazy and Suspense for dynamic loading of components like Projects, Skills, Resume, and Contact.
- Terminal:** Shows the command "git remote add origin https://github.com/NickAxzaar/React-Online-Portfolio.git" and the output of a git push operation, indicating objects were counted, compressed, and written to the repository.
- Status Bar:** Shows the current file is "main" and the status bar includes "Ln 28, Col 1", "Spaces: 2", "UTF-8", "LF", "JavaScript", "BLACKBOX Agent Open Website", and "BLACKBOX: Open Chat".

2. To test locally (one option):-

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

Then open the local URL (usually `http://localhost:3000` or `http://localhost:4173`) and check:

- All sections render
- Navigation links scroll correctly
- Images load lazily (check Network tab)
- No console errors



The screenshot shows a VS Code interface with the following details:

- EXPLORER:** Shows the project structure for "ONLINE PORTFOLIO". It includes a "build" folder containing "manifest.json", "Resume.json", and "robots.txt"; a "public" folder containing "favicon.ico", "index.html", "logo192.png", and "logo512.png"; and a "src" folder containing "components" (with "About.jsx", "Contact.jsx", "Layout.jsx", "Navbar.jsx", "Projects.jsx", "Resume.jsx", and "Skills.jsx"), "App.css", "App.jsx", "App.test.js", "index.css", "index.js", "logo.svg", "reportWebVitals.js", "setupTests.js", ".gitignore", "package-lock.json", "package.json", and "README.md".
- TERMINAL:** Displays the command output:

```
C:\Users\niles\OneDrive\Desktop\Online Portfolio\portfolio>npm install -g serve
added 86 packages in 10s

25 packages are looking for funding
  run `npm fund` for details

C:\Users\niles\OneDrive\Desktop\Online Portfolio\portfolio>serve -s build
```

A message in the terminal indicates "Copied local address to clipboard!".
- BROWSER:** Shows a browser window titled "Online Portfolio" with the local address `http://192.168.56.1:3000`.
- STATUS BAR:** Shows "Ln 28, Col 1" and other standard status bar information.

6. Deployment

GitHub

1. Install dev dependency:-

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

2. In package.json add:-

```
"homepage": "https://myusername.github.io/my-app",  
  
"scripts": {  
  "predeploy": "npm run build",  
  "deploy": "gh-pages -d build",  
}
```

Then:-

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

3. Deploy:-

```
npm run deploy
```

our app will be live at the homepage URL.

7. Testing after deployment

1. Accessibility and functionality

- Open the deployed URL.
- Test navigation, links, resume download, contact links.
- Check for errors in browser console.

2. Cross-browser

- Test in Chrome, Firefox, Edge; if possible Safari.
- Verify layout and fonts; ensure no critical JS errors.

3. Responsiveness

- Use DevTools → responsive mode.
 - Test breakpoints: 320–480 px (mobile), 768 px (tablet), >1024 px (desktop).
 - Ensure navbar and sections are readable and not overflowing.
-

8. GitHub repo, README, and screenshots

1. Initialize git and push:-

```
echo "# React-Online-Portfolio" >> README.md
git init
git add README.md
git commit -m "my react portfolio application"
git branch -M main
git remote add origin https://github.com/NickAxzaar/reactnileshportfolio.git
git push -u origin main
```

Created README.md in project root, include sections like:-

- Project title and description
- Tech stack (React, CSS)
- Features:
 - About, Projects, Skills, Resume, Contact sections
 - Responsive layout
 - Lazy-loaded components and images
- Performance optimizations (lazy loading, production build)
- Production build commands (npm run build)
- Deployment steps (Netlify/Vercel/GitHub Pages) and final URL
- Challenges and solutions (for example: organizing sections, image optimization, deployment settings)
- Screenshots (/screenshots/home.png, /screenshots/projects.png) and deployed link

3. Screenshots:

- Take 2–3 screenshots (desktop + mobile view).
- Save in screenshots/ folder.
- Reference in README using markdown:

![Home page](./screenshots/home-desktop.png)

![Mobile view](./screenshots/home-mobile.png)

4. PDF for assignment:-

- I can export the README or a separate document (with same info) to PDF from VS Code, browser, or a Markdown-to-PDF tool.

The screenshot shows a GitHub repository page for 'React-Online-Portfolio'. The repository is public and has 3 commits. The README file is displayed, containing instructions for getting started with Create React App and available scripts like npm start and npm test. The repository has 0 stars and 0 forks. It also includes sections for releases, packages, languages (JavaScript 73.3%, HTML 17.3%, CSS 9.4%), and suggested workflows for Webpack and SLSA Generic generator.

<https://github.com/NickAxzaar/reactnileshportfolio>