

# Appcrafters Intern Software Engineer Coding Challenge: Build a Resource Manager Web Application

## Welcome to the Appcrafters Coding Challenge!

We're excited to get to know how you think and code. This challenge is designed to reflect the work you'd do as a Intern Software Engineer at Appcrafters — solving real problems, writing clean code, and working with modern tools.

### Background: Real Project Context

At Appcrafters, we help early-stage startups bring their ideas to life. One of our startup clients is working on a **developer-friendly knowledge-sharing platform** where users can manage helpful resources like articles, videos, and tutorials.

They're looking for a basic **MVP** to manage these resources internally before going public. Your task is to build the first version of this **Resource Manager**, where users can create, view, update, and delete resources.

### User Story:

“As a content manager,  
I want to be able to add, view, update, and delete learning resources,  
so that I can keep our knowledge base clean, useful, and up-to-date.”

### Your Task

You are required to build a **web application** using **React-based technologies** that implement the following:

### Core Features

#### 1. List Resources

- Display all existing resources.
- Each resource should include:

- Title (string)
- Description (text)
- Type (e.g., “Article”, “Video”, “Tutorial”)

## 2. Add Resource

- Provide a form to add a new resource.
- Client-side validation (e.g., required fields).

## 3. Edit Resource

- Allow editing of an existing resource.

## 4. Delete Resource

- Provide a way to delete a resource, with confirmation.

## 5. Data Persistence

- Use either:
  - A simple backend API (Node/Express, Supabase, Firebase, etc.)
  - Local state or localStorage (for simplicity)

### Tech Requirements

#### Frameworks/Libraries

- **Required:**
  - React (with TypeScript preferred)
  - Any React-based framework: **Next.js (preferred)**, **Vite + React**, **Remix**, etc.

### Optional Enhancements

- Tailwind CSS or any responsive CSS framework
- React Hook Form or similar for form validation
- SWR, React Query, or Axios for data fetching
- Folder structure that aligns with **Clean Architecture** principles (DTOs, services, etc.)

### Bonus Points (Not Mandatory)

- Responsive UI with clean UX

- Filters or search by type
- Reusable components
- Use of Git branches (feature-based)
- Clear separation of concerns in code
- Error and loading state handling
- Unit or integration testing

## Evaluation Criteria

We will evaluate your submission based on:

<b>Area</b>	<b>What We're Looking For</b>
<b>Code Quality</b>	Clean, readable, modular code with consistent formatting
<b>React Knowledge</b>	Proper use of components, hooks, props, and state
<b>Architecture</b>	Logical file/folder organization and separation of concerns
<b>Functionality</b>	All core features are working as expected
<b>Git Usage</b>	Clear, descriptive commit messages and incremental commits
<b>UI/UX</b>	Clean, intuitive, and responsive user interface
<b>Documentation &amp; Comments</b>	Well-written README with setup instructions, tech choices, and meaningful inline code comments where necessary

A candidate who documents their thought process and makes the project easy to understand will stand out — even if everything isn't perfect.

## **Submission Instructions**

1. Push your code to a **public GitHub repository**.
2. Include a README.md with:
  - Setup instructions
  - Tech stack used
  - Any assumptions or known limitations
3. Send the GitHub repo link to: [\*\*careers@appcrafters.com.au\*\*](mailto:careers@appcrafters.com.au)

Subject: Junior Engineer Coding Test - Web - <Your Full Name>

## **Time Expectation**

This test is designed to be completed within **48 hours**. Please don't aim for perfection — focus on clarity, functionality, and clean code. We're more interested in how you approach the problem and structure your solution.

## **Good Luck!**

We're looking forward to seeing your work. Don't hesitate to ask for clarification — collaboration and curiosity are highly valued at Appcrafters.