

# Cookbook Project Documentation

## Introduction

**Project Title:** Cookbook Web Application

**Team Members:**

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## Project Overview

### Purpose

The **Cookbook** project is a web application built using **React.js with Vite**. It allows users to browse, manage, and share recipes easily. The goal is to provide a user-friendly platform for food lovers and home chefs to organize their favorite recipes.

### Features

- **User Authentication** - Secure login and signup functionality.
  - **Recipe Management** - Users can add, edit, and delete recipes.
  - **Search & Filters** - Advanced search options to find recipes easily.
  - **Favorites & Bookmarks** - Users can save their favorite recipes.
  - **Responsive Design** - Optimized for mobile and desktop use.
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# Architecture

## Component Structure

The application follows a modular component-based architecture:

- **App.jsx** - The main entry component.
- **Header.jsx** - Navigation bar component.
- **Home.jsx** - Displays a list of recipes.
- **RecipeCard.jsx** - A reusable component for individual recipe display.
- **RecipeForm.jsx** - Form to add/edit recipes.
- **Footer.jsx** - Footer section.

## State Management

- Uses **Context API** for managing global state.
- `RecipeContext.jsx` handles recipe-related data across components.
- Local state is used within individual components for UI interactions.

## Routing

- Uses `react-router-dom` for navigation between pages.
- Example routes:
  - `/` → Home Page
  - `/recipe/:id` → Recipe Details Page
  - `/add-recipe` → Add New Recipe Page

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# Setup Instructions

## Prerequisites

- Install **Node.js** (latest stable version recommended)

## Installation

1. Clone the repository:
  2. `git clone https://github.com/yourusername/cookbook.git`
  3. Navigate to the project directory:
  4. `cd cookbook`
  5. Install dependencies:
  6. `npm install`
  7. Start the development server:
  8. `npm run dev`
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## Folder Structure

```
📁 cookbook
├── 📁 src
│   ├── 📁 components
│   │   ├── 📄 Header.jsx
│   │   ├── 📄 Footer.jsx
│   │   ├── 📄 RecipeCard.jsx
│   │   └── 📄 RecipeForm.jsx
│   ├── 📁 pages
│   │   ├── 📄 Home.jsx
│   │   └── 📄 RecipeDetails.jsx
│   ├── 📁 context
│   │   └── 📄 RecipeContext.jsx
│   ├── 📄 App.jsx
│   └── 📄 main.jsx
├── 📁 public
├── 📄 package.json
├── 📄 vite.config.js
└── 📄 README.md
```

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## Running the Application

- Run the frontend locally:
  - `npm run dev`
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## Component Documentation

### Key Components

#### RecipeCard.jsx

```
import React, { useEffect } from 'react';
```

```

import YouTube from 'react-youtube';
import axios from 'axios';
import { useNavigate, useParams } from 'react-router-dom';

const Recipie = () => {
  return (
    <>
      <div className="recipe-page">
        {recipie ? (
          <div className="recipe-container">
            {/* Recipe Header: Image and Ingredients */}
            <div className="recipe-header">
              <div className="recipe-img">
                <img
                  src={recipie.strMealThumb}
                  alt="food-item"
                  className="recipe-image"
                />
              </div>
            </div>

            <div className="ingredients-container">
              <h3>Ingredients</h3>
              <ul className="ingredients-list">
                {Object.entries(recipie).map(([key, value]) => {
                  if (key.startsWith('strIngredient') && value) {
                    const ingredientNumber = key.slice('strIngredient'.length);
                    const measure =
                      recipie[`strMeasure${ingredientNumber}`] || '';
                    return (
                      <li key={key} className="ingredient">
                        <h5>{value}</h5>
                        <p>{measure}</p>
                      </li>
                    );
                  }
                })}
                return null;
              }}}
            </ul>
          </div>
        )}

        {/* Recipe Details: Procedure, Area, Category */}
        <div className="recipe-details">

```

```

        <h4>{recipie.strMeal}</h4>
        <div className="recipe-specials">
          <p>{recipie.strArea && recipie.strArea}</p>
          <p>{recipie.strCategory && recipie.strCategory}</p>
        </div>

        <div className="procedure">
          <h5>Procedure</h5>
          <p>{recipie.strInstructions}</p>
        </div>
      </div>
      { /* YouTube Video */ }
      { recipie.strYoutube && (
        <div className="youtube-video-container">
          <h5>Video Tutorial</h5>
          <YouTube
            className="youtube-video"
            videoId={recipie.strYoutube.slice(32)}
            opts={{
              height: '315',
              width: '560',
            }}
          />
        </div>
      ) }
    </div>
  ) : (
    <p className="loader"></p>
  ) }
</div>
</>
);

export default Recipe;

```

## Reusable Components

- **Header.jsx** - Navigation bar
  - **Footer.jsx** - Bottom section
  - **RecipeCard.jsx** - Displays a single recipe card
  - **RecipeForm.jsx** - Handles recipe creation/editing
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# State Management

## Global State

- Managed using **Context API** in `RecipeContext.jsx`.
- Provides recipes data to all components.

## Local State

- Used within components for UI handling, such as form inputs.

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# User Interface

## Styling

- **CSS:** Normal CSS.
- **Theming:** Custom styles for buttons, cards, and navigation.

## Testing

- **Testing Strategy:** Uses **Jest** and **React Testing Library** for unit tests.
- **Code Coverage:** Ensures key components have sufficient test coverage.

## Screenshots or Demo

**Demo Link:** <https://drive.google.com/drive/folders/1DzD-ogHOdkLuh0zh9IPNq3tasBa1uxIC>

## Known Issues

- Recipe images are not stored persistently yet.
- Filtering options need refinement.

## Future Enhancements

- Implement dark mode.
- Add a comments section for each recipe.
- Improve search functionality with category-based filters.