Christianbook Web Dev Coding Challenge Documentation

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# Overview

This documentation provides an overview of the Christianbook Web Dev Coding Challenge project. The project consists of a web application that allows users to search for product details using SKUs. The project includes both frontend and backend components and utilizes technologies such as React, Tailwind, Express, Axios, and Cheerio.

# System Architecture

The system follows a client-server architecture:

Client (Frontend): Built using React and Tailwind CSS. Responsible for presenting the user interface, handling user interactions, and making HTTP requests to the backend.

Server (Backend): Built using Express. Provides RESTful API routes to retrieve data from the sitemap and product pages. It also performs XML parsing and HTML scraping to extract relevant information.

# Frontend

The frontend is built using React and Tailwind CSS and consists of the following main components:

NavBar: A navigation bar at the top of the page that includes a search bar component.

SearchBar: Allows users to search for products by entering SKUs. Upon submission, it navigates to the product details page.

Home: A simple welcome message displayed when the user first accesses the application.

SKUDetails: Displays product details such as title, author, and prices based on the entered SKU.

# Backend

The backend is built using Express and includes the following main components:

index.js: Sets up the Express server, handles CORS, and defines routes.

routes.js: Defines API routes for fetching all SKUs, all URLs, and product details based on SKUs. It uses Axios for HTTP requests, XML2JS for XML parsing, and Cheerio for HTML parsing.

# Deployment

The project can be deployed locally by following these steps:

Clone the repository from GitHub.

Install the necessary libraries by running build.sh or build.bat.

Run the project by running run.sh or run.bat.

# References

The following technologies and resources were used in the development of this project:

React: https://reactjs.org/

Express: https://expressjs.com/

Axios: https://axios-http.com/

Cheerio: https://cheerio.js.org/

XML2JS: https://www.npmjs.com/package/xml2js

Tailwind CSS: https://tailwindcss.com/