

Low Level Design Document (LLD)

MOBILE SHOP SHOPPING CART

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Document Version

| Date Issued | Version | Description | Author |
|-------------|---------|-----------------|------------------|
| 07-04-2023 | 1.0 | Initial Version | Aravind Ontagodi |
| 08-04-2023 | 1.5 | Final Draft | Aravind Ontagodi |
| 09-04-2023 | 2.0 | Final Version | Aravind Ontagodi |

Contents

| | |
|---|----------|
| Document Version..... | 2 |
| Abstract..... | 4 |
| 1. Introduction..... | 5 |
| 1.1. Why this Low-Level Design Document?..... | 5 |
| 1.2. Scope..... | 5 |
| 1.3. Constraints..... | 5 |
| 1.4. Out of Scope..... | 5 |
| 2. Technical Specification..... | 5 |
| 2.1. API..... | 5 |
| 2.2. Linters..... | 6 |
| 2.3. JavaScript Libraries..... | 6 |
| 2.4. Deployment..... | 6 |
| 3. Technology Stack..... | 7 |
| 3.1. Frontend..... | 7 |
| 3.2. Backend..... | 7 |
| 4. Proposed Solution..... | 8 |
| 5. Work Flow as a user..... | 8 |

Abstract

The Mobile Shop a Shopping Cart application is a website where users can add the items to the cart and when user clicks on the cart icon it opens the cart page where user can modify the number of items of the same product and also user can delete that item from the cart. even when user refresh the page cart items will be persisted.

1. Introduction

1.1. Why this Low-Level Design Document?

The Purpose of this document is to provide a detailed description of the mobile shop a shopping cart application. We will explain the features and purpose of the application and explain each and every component used in our project.

1.2. Scope

The main objective of the Shopping Cart application is to give the user a clean UI and easy way to add the items to the cart.

1.3. Constraints

We can only add the items in the home page of the application because products are statically served by the json server.

1.4. Out of Scope

Features like login and storing user data in a database for further use is out of scope for this project.

2. Technical Specification

2.1. API

To fetch the product items we have implemented the the API using json-server

| Name | Source |
|-----------------|---|
| JSON Server API | https://mobile-shop-server.cyclic.app/ |

2.2. Linters

To maintain good standards across the projects we have used JavaScript linters to weed out the potential bugs and errors in JavaScript code.

2.3. JavaScript Libraries

Below is the list of libraries we are using.

| Library | Version |
|------------------|---------|
| react | 18.2.0 |
| react-router-dom | 6.9.0 |
| @reduxjs/toolkit | 1.9.3 |
| react-redux | 8.0.5 |
| redux | 4.2.1 |
| @mui/material | 5.11.4 |
| axios | 1.3.4 |
| vite | 4.2.0 |
| tailwindcss | 3.2.7 |
| postcss | 8.4.21 |

2.4. Deployment

To host our application, we have chosen Netlify as a hosting provider because it is free and fast for hosting small projects.



3. Technology Stack

The Mobile Shop a Shopping Cart application is the frontend only application. We implemented the mock API using json-server to fetch products that we can add to cart.

3.1. Frontend

| Technology | Use |
|------------------------------------|---|
| React.js | Render Application |
| Tailwind CSS | Styling the application |
| React Router DOM | Client-side routing |
| @reduxjs/toolkit,redux,react-redux | Client-side state management |
| Axios | To make HTTP requests |
| Material UI(mui) | To Add the required icons |
| Vite | Vite is a frontend tool that is used for building fast and optimized web applications. This project is scaffolded using Vite. |
| postcss | A tool for transforming CSS with JavaScript |

3.2. Backend

| Technology | Use |
|-------------------------------------|--|
| CORS(Cross Origin Resource Sharing) | It allows users to make requests from one website to another website |
| dotenv | To Store the environment variables |
| json-server | To create backend API |

4. Proposed Solution

For this Mobile Shop a Shopping Cart Application we have decided to use JSON Server to develop the API that gives the products when we first time load the website and build the distraction free UI for the users to add the items to the cart

5. Work Flow as a user



Work flow as a user