

Demo 1

Technical Documentation

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1. Overview

Our Equipment rental website RenTool is an e-commerce website that targets people who want to search and rent a variety of equipment that they are looking for. We intend to make it convenient for both customers and renters who use our website to rent out equipment and manage it. Some features that could make your website user-friendly include a simple and intuitive interface, clear and concise descriptions of the equipment available for rent, and a streamlined checkout process.

1.1 Project Objectives

- Provide easier way to find and rent equipment: Filter and search the equipment: we make it easier for customers to filter items and query for specific items that they want to view the information on and rent it.
- Improve the process of renting the item: Making it easier for customers to rent equipment by setting dates and locations and providing clear communication channels can help streamline the rental process and improve customer satisfaction.

1.2 Project Features

- Store items to database: make it efficient for renter to list and store out their items, manage and edit the items to their preference.
- A location feature that allows customers to select the pickup and drop-off locations for the equipment.
- A secure payment system that accepts multiple payment methods

2. Technical documentation

We developed our website using one of the multi-tier architectures known as the 3-tier architecture. The three tiers consisted of the presentation tier, application tier, and data tier. When the users enter our domain via their browser, the user interface will be displayed on the screen, which is a result of the combination of HTML, CSS/Tailwind CSS and JavaScript files that are contained in the React

application. To ensure maximum security and privacy reasons, the react application does not communicate with our data tier, which is the MongoDB, directly. To cater to that, we will use the node API to act as a bridge between React and Mongo dB, which is in the application tier, and it requires a significant amount of business logic to process requests from the react application and provide the data back to the react application.