

Warehouse Management System (WMS)

By Jonathan Fulkerson

Product Webpage: https://github.com/jfulkersoniu/INFO_C450_WMS

Demo Link: https://iu.mediaspace.kaltura.com/media/t/1_mjaufin2

This project was made to solve logistics issues by creating a simple application that will help track inventory from the time it is received and putaway in the warehouse, to when it's ordered by a customer, to when it's shipped out. Every warehouse needs a good WMS. Our system can be run on any computer and only needs a wireless internet connection to ensure your database stays up to date and accurate.

Some features of our WMS include:

- Location and quantity tracking by UPC
- A guided picking interface with error handling to prevent users picking the wrong location, item, or quantity
- Flexible database architecture through MongoDB that can be easily updated and scaled to meet business needs
- Easy to use UI that will reduce human error by using natural language and simple designs such as these (below)

UPC: <input type="text"/>
<input type="button" value="Accept"/>

Quantity: <input type="text"/>
Confirm Quantity: <input type="text"/>
<input type="button" value="Accept"/> <input type="button" value="Cancel"/>

Location: <input type="text"/>
Confirm Location: <input type="text"/>
<input type="button" value="Accept"/> <input type="button" value="Cancel"/>

Inventory Life Cycle

Inventory will be processed through three main stages. The receiving process, the picking process, and the packing process. During this time, inventory needs to remain accounted for. We accomplish this by using different stages of availability throughout the process. We also ensure that once items are attached to an order, we track those orders as they go through the process from picking to packed, by using status indicators to know what stage of the process they're in. Using these statuses will help you to cut down on lost orders and to keep accurate records for your customers.