

Internet Programming

Experiment-02:

Aim: Identifying the Project Title

Tools: MS-Word

Theory:

Project Purpose:

A warehouse management system (WMS) is a software solution that offers visibility into a business' entire inventory and manages supply chain fulfillment operations from the distribution center to the store shelf.

Warehouse Management (WMS) solutions additionally enable companies to maximize their labor and space utilization and equipment investments by coordinating and optimizing resource usage and material flows. Specifically, WMS systems are designed to support the needs of an entire global supply chain, including distribution, manufacturing, asset-intensive, and service businesses.

In today's dynamic, omnichannel, fulfillment economy, connected consumers want to buy anywhere, fulfill anywhere, and return anywhere. In order to be able to meet this need, businesses need the ability to respond quickly with warehouse management software that optimizes fulfillment capabilities. Our industry-leading, cloud-based warehouse management system prepares you for tomorrow's supply chain, today. WMS Cloud extends supply chains to align inventory management and fulfillment services with modern purchasing methods, and offers real time visibility into an entire inventory—available via smart phone and browser—the only requirement being access to the Internet.

Target Audience:

Warehouse Manager

Warehouse manager role is one of the most crucial roles in a warehouse. Usually, we define warehouse manager as a power user. Warehouse manager can access all the screens and functions in a warehouse.

Supervisor

A supervisor is in charge of planning and supervising employees. They can manage and see below functions:

- Shipment orders and their progress
- Inventory reports and transactions
- Planning and performance monitoring
- Purchase orders and receipt progress
- Error handling and corrections
- Cycle counting and corrections

Order Picker

Order pickers are the users who can see all the picking tasks in the system. Generally, an order picker has access to mobile picking screens and a checking screen to see his tasks.

Order Packer

An order packer is a user who packs the orders before they are shipped. Order packers usually have access to packing screens. The packing screen should have all the required information for a picker such as

- Printing the shipment label
- Printing packing slip
- Suspending the order
- Scanning the barcodes
- Selecting the box type

Receiver

A receiver role usually is used to give access to inbound workers. A receiver role should have access to below functions:

- Unloading the items to a staging area
- Receiving items
- Reporting damaged products
- Put-away pallets and items into inventory locations.

Client

Client role is specifically used to give access to clients of 3PL companies and customers of B2B wholesale warehouses. Generally, client role has below functions;

- Viewing Inventory reports
- Viewing available to promise reports
- Sales order entry
- Purchase order entry

Project Scope:

The most difficult aspect of managing warehouses for medium and small scaled companies is the high price charged by the commercial warehouse management service providers. There are many functionalities in the commercial models which are generally not useful for medium sized companies and yet they are charged for them even they are not used.

This project aims to provide a simple, scalable and user friendly UI that can be used by small and medium sized companies. The functionalities and modules provided by this project are – login pages for warehouse manager, warehouse worker, tracker and shipper, dashboard for reporting and analysis, real-time efficient inventory management, paperless inventory documentation and robust customer service.

Project Perspective:

Warehouse manager encounters problems such as:

- Realizing that something is actually placed somewhere else after expecting to find it somewhere else.
- Accepting a purchase order under the impression that you have enough inventory to complete it and then discovering that you don't. Your order lead time will now be much longer because you must place a backorder.
- Denying a request after determining that you do, in fact, have enough stock to complete it.
- You're attempting to store stock you've acquired but are having problems figuring out where to put it.

Any of these issues could be a sign that you haven't been keeping accurate records of your inventory and consistently updating them. Warehouse Management System (WMS) helps to solve this problem and makes the process easier and more manageable.

Learning Objective: Students should be able to identify their problem statement for the project and the area where website development will be required.

Learning Outcomes: Students should have the ability to

LO1: Identify a problem which can be solved using css and html.

LO2: Implement changes and make the website more interactive.

Conclusion:

In conclusion, warehouse management system project aim to improve the efficiency or warehouse operations, reduce errors, enhance the customer satisfaction. The target audience of the project include warehouse staff, supervisors, managers and other stake holders involved in warehouse management. Project scope included the implementation of a new WMS software system that could streamline, process and provide real time visibility into inventory levels, order processing and shipment tracking.

For Faculty Use:

Correction Parameters	Formative Assessment [40%]	Timely completion of Practical [40%]	Attendance / Learning Attitude [20%]	
Marks Obtained				