

SALES AUTOMATION SYSTEM IN BUSINESS TO BUSINESS (B2B)

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Abstract: Inventory management and supply chain management are the backbone of any business operations. With the development of technology and availability of process driven software applications, inventory management has undergone revolutionary changes. In any business or organization, all functions are interlinked and connected to each other and are often overlapping. Some key aspects like supply chain management, logistics and inventory form the backbone of the business delivery. Managing inventory can be a daunting task, and if it isn't done properly it could cost company thousands of dollars. Inventory management grows more and more complicated with increase in sales volume and diversification of product assortment. Stock review is a regular analysis of stock versus projected future needs. This can be done through a manual review of stock or by using inventory software. Defining your minimum stock level will allow you to set up regular inspections and reorders of supplies. Make sure to take into account certain situations that can arise, such as vendors taking longer than average to replenish stock. This will aid you in using just-in-time ordering, where the inventory is held for a minimum amount of time before it moves to the next stage in the supply chain.

Keywords: Centralized system, Data, Transparency, Automatic PO, and Stocks Maintain.

INTRODUCTION

Little retailers don't have any organization structure for stock or any such system they need to do genuinely which changes over adversities at the day end as they can't fulfill the end-customers demand on schedule. This Sales Automation System will in like manner get the vast majority of distributor on this stage which will help the retailers with growing their business and advantages and which will similarly help the end customer at the day end). Stock administration and inventory network the board are the foundation of any business activities. With the advancement of innovation and accessibility of cycle driven programming applications, stock administration has gone through progressive changes. In any business or association, all capacities are interlinked and associated with one another and are frequently covering. Some key viewpoints like production network the executives, coordination's and stock structure the foundation of the business con-valance work. Subsequently these capacities are critical to advertising directors just as money regulators. Stock is consistently unique. Stock administration requires steady and cautious assessment of outside and inside elements and control through arranging and audit. The vast majority of the associations have a different division or occupation work called stock organizers who consistently screen, control and audit stock and interface with creation, acquisition and money offices.

1. PURPOSE

Characterizing your base stock level will permit you to set up standard investigations and reorders of provisions. Try to consider specific circumstances that can emerge, for example, merchants taking longer than normal to recharge stock. This will help you in utilizing in the nick of time requesting, where the stock is held for a base measure of time before it moves to the following stage in the store network. Little retailers don't have any organization system for stock or any such structure they need to do genuinely which changes over hardships at the day end as they can't fulfill the end-customers demand on time. This Sales Automation System will moreover get the greater part of distributor on this stage which will help the retailers with extending their business and advantages and which will similarly help the end customer at the day end. Fundamental

EXISTING SYSTEM

Various researches have been made by different researchers for developing this project. However, they serve a different application and have different technologies implemented. Some of those papers are mentioned below stating their technology and application.

DRAWBACKS OF EXISTING SYSTEM

- **Less User Friendly:** The existing system is not user friendly because the retrieval of day-to-day activities data/records is very slow and records are not maintained efficiently and effectively.
- **Complex for generating the report:** We require more calculations and efforts to generate the report so it is generated at the end of the session. And the student does not get a chance to improve their attendance.
- **Lengthy time:** Every work is done manually so we cannot generate report in the middle of the session or as per the requirement because it is very time consuming.

LITERATURE SURVEY:

“Control Policies in Multi-echelon Inventory Systems with Inventory-level-dependent Demand Rate”, Chunlian Yao; Wei Li; Yi Chen; Lihua Gao is a author of this paper, this paper published in 2020. This paper presented an inventory model of series system with inventory-level-dependent demand rate for multi-echelon inventory management policy, which was based on the concept of echelon stock. Then a relaxation-particle swarm optimization algorithm (R-PSO) was proposed to solve the model, which integrated the serial-relaxation algorithm with the particle swarm optimization algorithm. This method overcomes the shortages of the traditional relaxation algorithm. Finally, a numerical example was given to illustrate the model and the algorithm efficient.

“Research on inventory issues based on carbon trading when the inventory capacity is limited” is paper of Sohee Park; Geonwoo Kim, 2020 The environmental pollution and climate change are threatening people's daily life. Our country and government have taken more and more measures to control the carbon emissions, and there will be a carbon emissions trading market where enterprises can buy or sell their right to discharge carbon in our country soon. So the carbon emission costs have been a problem that enterprises have to take into consideration and the purchase and inventory tactics based on which have been problems that enterprises consider too. This paper research the inventory problems when the inventory capacity is limited, add carbon emission factors to traditional purchase strategy, comprehensively take carbon quota and carbon trading into account, and improve the inventory model that the inventory capacity is limited under the low carbon environment. This paper testify that carbon trading mechanism can truly decrease the carbon emission through the calculation and derivation, derive the change regular of the optimal order quantity when the carbon price and coefficient of carbon emissions, and derive the level of carbon emissions that an enterprise do not need to sell or buy the right to discharge carbon.

"A classical inventory model amendment based on management accounting" Ioan Buciu in this paper described The paper deals From the perspective of management accounting, there exists a mistake for decades in the classical inventory model in mainstream textbooks such as “Operations Research” published by Tsinghua University Press. The reason of the model mistake is clearly expounded. The cost of a commodity unsold is the “inventory asset” of the commodity unsold. After a commodity was sold out the “inventory asset” of the commodity is converted into the expense of CGS which is the abbreviation of “Cost of Goods Sold”. The reason of the model mistake is to count all the initial ordering cost of goods ordered as the initial ordering expense in the model derivation process. Moreover this paper deduces the modified model of inventory management strategy for stochastic demand, and presents different model solutions of a same inventory management case for contrast. The contrast of the same case's different conclusions according to the original model in the textbook and according to the modified model in this paper, made it very clear that the modified model conforms to the objective economic reality, therefore it is correct

"Research on the optimization of retailer inventory strategy based on system dynamics simulation" Gayatri Deore; Ramakrishna Bodhula; Vishwas Udpikar, Aiming at a satisfying inventory strategy, simulation was put into use in a dynamic system. In this paper, we focused on a simply two-stage supply chain inventory management system. The model of inventory system was simplified rationally, and we assumed that it was primarily consisted of a manufacturer and a retailer. The study based on the theory of System Dynamics and vensim software was used to optimize variable parameters in the supply chain inventory system. The retailer inventory strategy was optimized under uncertain environment and the variable parameters of adjustment production time, demand production delay time and demand sale time were reset, and then a rational inventory management project was selected in this system. Finally, an example was come up with and it showed that the method was feasible and a better retailer inventory strategy was proposed.

PROPOSED SYSTEM

- Stock management.
- Generate Purchase order.
- Time wasted in purchasing of products.
- Need to visit multiple wholesalers.
- Wasting time on calculating profits.
- Dumping of products in the shop.
- Many people/customers face problem in keeping the records of incoming and outgoing orders to overcome these issues.
- POs can help keep track of incoming orders, and a well-organized. Purchase order system can help simplify the inventory and shipping process.

SYSTEM ARCHITECTURE

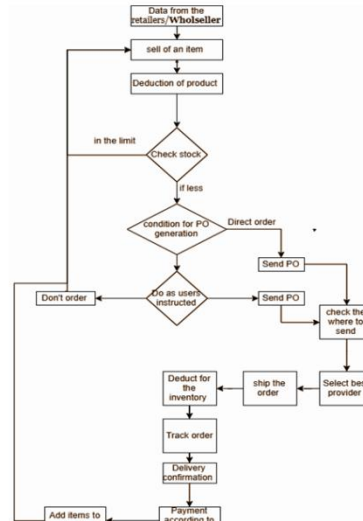


Fig -1: System Architecture Diagram

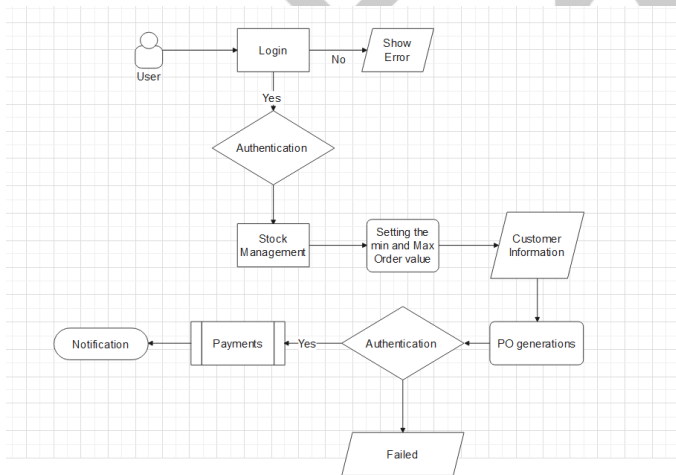
ADVANTAGES

1. Innovative.
3. Centralised Database.
4. Easy to use.
5. Efficient cost.

APPLICATION:

1. Education.
2. Research.
3. Organizations.

FLOW DIAGRAM:



METHODOLOGY

The single problem can be solved by different solutions. This considers the performance parameters for each approach. Thus considers the efficiency issues:

1. Problem Solving Methods are concerned with efficient realization of functionality. This is an important characteristics of Problem Solving Methods and should be deal with it explicitly.
2. Problem Solving Methods achieve this efficiency by making assumptions about resources provided by their context (such as domain knowledge) and by assumptions about the precise definition of the task. It is important to make these assumptions explicit as it give the reason about Problem Solving Methods
3. The process of constructing Problem Solving Methods is assumption-based. During this process assumptions are added

that facilitate efficient operationalization of the desired functionality

USER CHARACTERISTICS

Little retailers don't have any administration framework for stock or any such framework they need to do physically which changes over misfortunes at the day end as they can't satisfy the end-clients request on time. This Sales Automation System will likewise get most of distributor on this stage which will assist the retailers with expanding their business and benefits and which will likewise help the end client at the day end).

SOFTWARE INTERFACE

Bootstrap is a free and open-source CSS framework directed at responsive, mobile-first front-end web development. It contains CSS- and (optionally) JavaScript-based design templates for typography, forms, buttons, navigation, and other interface components. As of August 2021, Bootstrap is the tenth most starred project on GitHub, with over 152,000 stars, behind freeCodeCamp (over 328,000 stars), Vue.js framework, React library, Tensor Flow and others.

PHP is a general-purpose scripting language geared towards web development.[7] It was originally created by Danish-Canadian programmer Rasmus Lerdorf in 1994.[8] The PHP reference implementation is now produced by The PHP Group.[9] PHP originally stood for Personal Home Page,[8] but it now stands for the recursive initialism PHP: Hypertext Preprocessor.[10]

PHP code is usually processed on a web server by a PHP interpreter implemented as a module, a daemon or as a Common Gateway Interface (CGI) executable. On a web server, the result of the interpreted and executed PHP code – which may be any type of data, such as generated HTML or binary image data – would form the whole or part of an HTTP response. Various web template systems, web content management systems, and web frameworks exist which can be employed to orchestrate or facilitate the generation of that response. Additionally, PHP can be used for many programming tasks outside the web context, such as standalone graphical applications [11] and robotic drone control.[12] PHP code can also be directly executed from the command line.

MySQL provides our small, medium and large enterprise customers with affordable, open access to their web data warehouses. MySQL allows us to offer our System Administrator low cost, low maintenance database solution for applications without sacrificing power, performance or scalability.

Benefits of MySQL are as follows:

- It table format does not vary between releases
- It has cleanly separated table handler modules and can mix access to different type of tables.
- It seems to be developed iteratively, and the features are very stable when they ship them.
- It is a relational database. Over the past several years, this relational database management systems have become the most widely accepted way to manage data.
- It offers benefits such as:
 - Easy to access data
 - Flexibility in data modeling
 - Reduced data storage and redundancy
 - Independence of physical storage and logical data design
 - A high level data manipulation language

SDLC MODELS:

Planning: This is the first phase in the systems development process. It identifies whether or not there is the need for a new system to achieve a business's strategic objectives. This is a preliminary plan (or a feasibility study) for a company's business initiative to acquire the resources to build on an infrastructure to modify or improve a service. The company might be trying to meet or exceed expectations for their employees, customers and stakeholders too. The purpose of this step is to find out the scope of the problem and determine solutions. Resources, costs, time, benefits and other items should be considered at this stage.

Systems Analysis and Requirements: - The second phase is where businesses will work on the source of their problem or the need for a change. In the event of a problem, possible solutions are submitted and analyzed to identify the best fit for the ultimate goal(s) of the project. This is where teams consider the functional requirements of the project or solution. It is also where system analysis takes place—or analyzing the needs of the end users to ensure the new system can meet their expectations. Systems analysis is vital in determining what a business's needs are, as well as how they can be met, who will be responsible for individual pieces of the project, and what sort of timeline should be expected.

Development: The fourth phase is when the real work begins—in particular, when a programmer, network engineer and/or database developer are brought on to do the major work on the project. This work includes using a flow chart to ensure that the process of the system is properly organized. The development phase marks the end of the initial section of the process. Additionally, this phase signifies the start of production. The development stage is also characterized by instillation and change. Focusing on training can be a huge benefit during this phase.

Integration and testing:- The fifth phase involves systems integration and system testing (of programs and procedures)—normally carried out by a Quality Assurance (QA) professional—to determine if the proposed design meets the initial set of business goals. Testing may be repeated, specifically to check for errors, bugs and interoperability. This testing will be performed until the end user finds it acceptable. Another part of this phase is verification and validation, both of which will help ensure the program’s successful completion.

RESULT

Please Sign in

Username

Password

DashboardBrandCategoryProductOrdersReport+

Total Product
24
Friday 24, 2021

Low Stock
0

Total Orders
0
INR Total Revenue

User Wise Order

Name	Orders in Rupees
admin	4096.96

DashboardBrandCategoryProductOrdersReport+

Home / Brand

Manage Brand

Show **10** entries Search:

Brand Name	Status	Options
ITC	Available	Action
P&G	Available	Action
Hindustan Unilever	Available	Action

Showing 1 to 3 of 3 entries Previous **1** Next

DashboardBrandCategoryProductOrdersReport+

Home / Category

Manage Categories

Show **10** entries Search:

Categories Name	Status	Options
Food	Available	Action
Daily use	Available	Action

Showing 1 to 2 of 2 entries Previous **1** Next



Dashboard Brand Category Product Orders Report

Home / Product

Manage Product Add Product

Show 10 entries Search:

Photo	Product Name	Rate	Quantity	Brand	Category	Status	Options
	Aashirvaad Atta	245	99	ITC	Food	Available	Action
	Yippee Noodles	10	85	ITC	Food	Available	Action
	Lifebuoy	199	47	Hindustan Unilever	Daily use	Available	Action
	Bru Coffee	180	1	Hindustan Unilever	Food	Available	Action
	Ariel Detergent	250	73	P&G	Daily use	Available	Action
	Pantene Pro-V	240	195	P&G	Daily use	Available	Action

Showing 1 to 6 of 6 entries Previous 1 Next

Home / Order

Edit Order

Order Date: 2021-09-24
 Client Name: Naved
 Client Contact: 1234567890

Product	Rate	Available Quantity	Quantity	Total
Yippee Noodles	10	85	5	50.00
Bru Coffee	180	1	2	360.00
Ariel Detergent	250	73	2	500.00

Sub Amount: 970.00 Paid Amount: 0
 Total Amount: 1144.00 Due Amount: 1144.00
 Discount: 0 Payment Type: Cash
 Grand Total: 1144.00 Payment Status: Full Payment
 GST 18%: 174.00 Payment Place: In Handik
 G.S.TAN: 174.00

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CONCLUSION

Inventory management has to do with keeping accurate records of finished goods that are ready for shipment. This often means posting the production of newly completed goods to the inventory totals as well as subtracting the most recent shipments of finished goods to buyers. When the company has a return policy in place, there is usually a sub-category contained in the finished goods inventory to account for any returned goods that are reclassified or second grade quality. Accurately maintaining figures on the finished goods inventory makes it possible to quickly convey information to sales personnel as to what is available and ready for shipment at any given time. Inventory management is important for keeping costs down, while meeting regulation. Supply and demand is a delicate balance, and inventory management hopes to ensure that the balance is undisturbed. Highly trained Inventory management and high-quality software will help make Inventory management a success. The ROI of Inventory management will be seen in the forms of increased revenue and profits, positive employee atmosphere, and on overall increase of customer satisfaction.

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