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# Using Database Management System to Solve Sugar Inventory

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## Abstract

To get best performance for an analytic system or data warehouse systems, two technologies, column oriented database management systems and main memory database management system can be combined to get advantages of these two. Both technologies give best performance to its opponent database system, for example Main memory database management systems . The performance focuses on Monitoring database system in encompasses Column database, Quotation making, Purchase for database Process Movement, and Packing. This system helps companies in setting up an information system for sharing information about the exports across all interface units. It's a more personalized and interactive form of communication and synchronizes communications across both electronic as well as traditional channels. This helps to eliminate the human errors and typical calculation can be processed easily. This package is designed for the particular need of the company to work out the operations effectively and efficiently. The purpose of the system is to provide accurate results in the export operations and to handle the data in effective manner. Whereas by having databases & data warehouse created and maintained on static drives.

**Keywords:** Database Management System, Feasibility study, System, Analysis

## Introduction

In database management system is a distributed that delivers computing as a service instead of a product. It is the sharing of resources, software, and information between multiple devices over a network which is mostly the internet. It is expected that this number will grow significantly in the future. Database growing interest in outsourcing database management tasks to third parties that can provide these tasks for much lower cost due to the economy of scale just like putting it into the cloud. In this paper, we discuss the recent trend in database management system and the possibilities. Database management constitutes the principal item in the working capital of the majority of trading and industrial companies. It includes raw materials, finished goods, work in progress, supplies and other accessories. To maintain the database continuity in the operations of business enterprise, a minimum stock of inventory required. However, the physical control of inventory is the operating responsibility of stores super intendment and financial personnel have nothing to do about it but the financial control of these inventories in all lines of activity in which they comprise a substantial part of the current assets is a frequent problem in the management of working capital. Database management inventory is designed to regulate the volume of investment in goods on hand, the types of goods carried in stock to meet

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the needs of production and sales while at the same time, the investment in them is to kept at a reasonable level.

**Existing System**

For optimal sugar sales and inventory management processes, you need robust functionality for managing your logistics facilities. Support for inventory management helps you record and track materials on the basis of both quantity and value. Database Warehouse inventory management functions cover internal warehouse movements and storage. Using this software we can reduce costs for warehousing, transportation, order fulfillment, and material handling – while improving customer service. You can significantly improve inventory turns, optimize the flow of goods, and shorten routes within your warehouse or distribution center. Additional benefits of inventory management include improved cash flow, visibility, and decision making. This software is user friendly and hence easy to use. Employees can plan, enter, and document warehouse and internal stock movements by managing goods receipts, goods issues, storage, picking and packing, physical stock transfers, and transfer postings.

**2.1 Drawbacks**

In manual system are quite tedious, time consuming and less efficient and accurate in comparison to the computerized system. So following are some disadvantages of the old system

1. Time consuming

2. Less accurate

3. Less efficient

4. Lot of paper work

5. Slow data processing

6. Not user friendly environment

7. Difficult to keep old records

**Proposed System**

The scope of this system is to provide user efficient working environment and more output can be generated through this. This system provides user friendly interface resulting in knowing each and every usability features of the system. This system helps in tracking records so that past records can be verified through them and one can make decisions based on the past records. This system completes the work in a very less time resulting in less time consumption and high level of efficiency in this system is developed such a way that even a naïve user can also operate the system easily. The calculations are made very quickly and the records are directly saved into databases and the databases can be maintained for a longer period of time. Each record can be retrieved and can be verified for the future transactions. Also this system provides high level of

 

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security for data leaking as only admin people can access the database no changes can be made in it until it verifies the user login id and password. We also have operator login through which operator can take orders but can't make changes in the database. Limited access is available to the operator.

### 3.1 Advantages

- Expense becomes less.
- Large volumes of data can be stored with ease.
- Security is assured.
- Maintenance of file is flexible.
- Stored data and procedures can be easily edited.
- Easy report generation.
- Less manpower required.

### 3.2 Feasibility

The feasibility of this Paper is analyzed in this phase and business proposal is put forth with a very general plan for the project and some cost estimates. During system analysis the feasibility studies of the proposed system.

Three key considerations involved in the feasibility analysis are

- Economical Feasibility
- Technical Feasibility
- Social Feasibility

### 3.3 Economical Feasibility

It carried out to check the economic impact that the system will have on the organization. The amount of fund that the company can pour into the research and development of the system is limited. The expenditures must be justified. Thus the developed system as well within the budget and this was achieved because most of the technologies used are freely available. Only the customized products had to be purchased.

### 3.4 Technical Feasibility

This study is carried out to check technical requirements of the system. Any system developed must not have a high demand on the available technical resources. This will lead to high demands on the available technical resources. This will lead to high demands being placed on the client. The developed system must have a modest requirement, as only minimal or null changes are required for implementing this system.

### 3.5 Social Feasibility

The aspect of study is to check the level of acceptance of the system by the user. This includes the process of training the user to use the system efficiently. The user must not feel

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threatened by the system, instead must accept it as a necessity. The level of acceptance by the users solely depends on the methods that are employed to educate the user about the system and to make him familiar with it. His level of confidence must be raised so that he is also able to make some constructive criticism, which is welcomed, as he is the final user of the system.

**Problem Definition**

This is one integrated system that contains both the user component (used by salespersons, sales managers, inventory managers etc) and the admin component (used by the administrators for performing admin level functions such as adding new items to the inventory, changing the price of an item etc). This system runs on multiple terminals, offers a GUI interface to its users and connects to a common database(s). This system is used to store the details of the inventory, update the inventory based on the sale details, produce receipts for sales, generate sales and inventory reports periodically etc.

In order to solve their problem, the proposed system focuses on main modules in order to computerizing their manual notes into computerized notes to reduce work burden. In the Sugarcane Management system, Module

**Customer Details**

- Quotation Making
- Purchase
- Finished Sugarcane Movement
- Packing Section

**4.1 Customer Order:**

The customer order module receives the order given by the customer Figure 4. The Following Operations done in Customer Order are: Obtains information about the items ordered.

- Create an automatic order no and store personal details.
- Maintains the details about the customers.
- When the order is confirmed by the head, the orders are accepted and the status is Updated. Then the order report is forwarded to the next department Bill of items

**4.2 Quotation Making Process**

The Quotation making process module generates the actual work process involved in the sugarcane process Information about each item is displayed.

- Specifications for each item are displayed
- Wastage item rate is made.

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### 4.3 Purchase

The Purchase order department is given requisition to raise purchase order from various departments. Based upon the quotations from the vendors purchase order is raised and rate is calculated with tax. Delivery Chelan is produced by purchase department when ordered items are received.

### 4.4 Finished

Goods Movement the Finished Goods Inventory module maintains all the finished goods stock and at last it is sent to packing department Figure 3

### 4.5 Packing Section

Packing may be of different methods, styles and labels according to the customer. Create label for each box. Box containing is being scanned based upon the barcode and whenever the box is scanned. After it is sent to packing list o finally invoice is generated for the packing list.

### 4.6 Module Description

This Paper is aimed at developing an Sugar Sales and Inventory Management System (SSIMS). The Project has the following modules

- Sales Manager
- Sales Person
- Inventory Manager
- Admin

A sales person should be able to login to the system through the initial screen of the system

change the password after logging into the system see the status of the inventory, i.e., whether a particular category sugar is available or not etc search for a particular sugar category is available or not.

Enter the sugar category purchased by a customer and produce a bill for the same (the bill will have a unique sale id, date, time, quantity/price details etc) cancel the produced bill, in case of error in entering the details, and produce a new one

Take back an already sold item that is not satisfactory to the customer (the shop allows that) and produce a receipt for the same inform the inventory manager about the category that are not available, so that they can be stocked. inform the sales manager about any exceptions (such as an category is being purchased, but it is not available in the system)

The sales manager should be able to Login to the system/change his password after logging in etc check how many bills have been generated in the day so far check how much money is transacted in the day so far check how many bills have been cancelled so far in the day(due to wrong entry by the sales persons) check how many category have been returned so far in the day

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check for any exception reports from the sales persons and correct it by contacting the inventory manager generate sales-trend graphs for each of the item (like how is apple selling in the last one month) login to the system and change his password after logging in add new users to the system.

**System Implementation**

System implementation covers a broad spectrum of activities from a detailed workflow analysis to the formal go-live of the new system. During system implementation organizations may refine the initial workflow analysis that had been completed as part of the requirements analysis phase. With the aid of the vendor they may also start mapping out the proposed new workflow. The system implementation phase requires the vendor to play a very prominent role. In addition to the workflow analysis it is during this phase that full system testing is completed. Other key activities that would occur during this phase include piloting of the new system, formal go-live and the immediate post implementation period during which any application issues are resolved. The project manager or the supervisor will take a responsible role during this stage since the project manager decides when to get them all together. In systems design, project managers oversee the project. Since they have practically seen everything about the project, they know when the correct time is to get them all together. It is not all about getting them all together that is important. It is also the time during which developers have the first glimpse of their actual work making it a perfect moment for evaluation. During this time, developers become users as they try out the software to determine if it is up to their expected performance and output. During this stage, different type of errors will be determined. It will gauge how far the team has advanced in building software. Since they are also responsible for building software, it is also proper that they have to fix these problems. Even though it is not mentioned before, this stage will mark importance of documentation of the software. As the system is being developed, developers must document on what they have done in this stage. Once they are brought together, it becomes even more important since developers will know how their documentation will fare against other developers.

Documentation is very important especially in this stage as bugs are determined. Sometimes developers will even find out that certain expected functions are not working. Instead of scrutinizing the software all over again, developers will go back to the documentation and see which part of the program has gone wrong. Documentation will also give the developers a chance to re-evaluate the process they have created. The term “software maintenance” is used to describe the software engineering activities that occur following delivery of a software product to the customer. The maintenance phase of the software life cycle is the time period in which a software product performs useful work. Maintenance activities involve making enhancement to software products, adapting products to new environments and correcting problems. Software product enhancement may involve providing new functional capabilities, improving user display and modes of interaction, and upgrading external documents. Adaptation of software to a new environment may involve moving the software to a different machine. Problem correction involves modification and revalidation of software to correct errors. The enhancement of this project can be accomplished easily. That is, any new functional capabilities can be added to the

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project by simply including the new module in the homepage and giving a hyperlink to that module. Adaptation of this project to a new environment is also performed easily. Even with the best quality assurance activities, it is likely that they customer will uncover defects in the software. Corrective maintenance changes the software to correct defects.


Fig. 1.Login Form

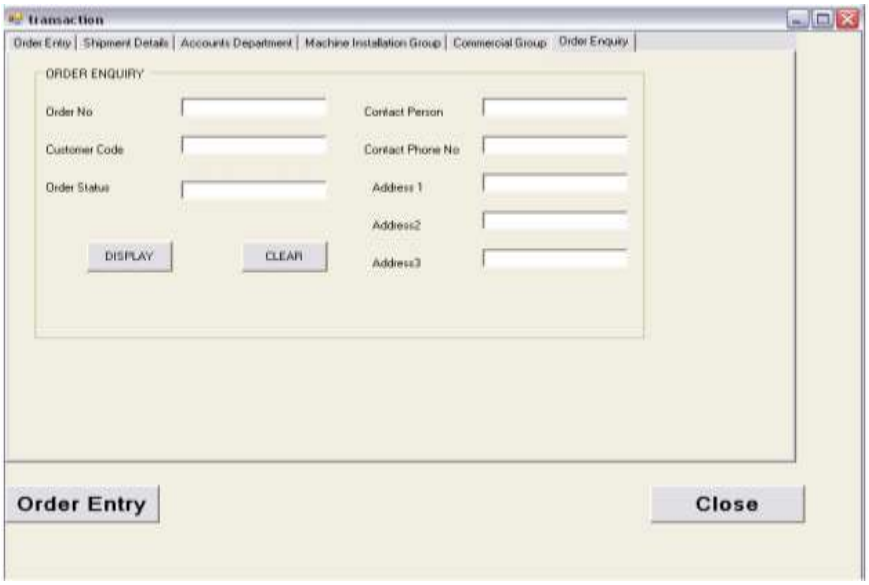


Fig. 2.Transaction Form

 

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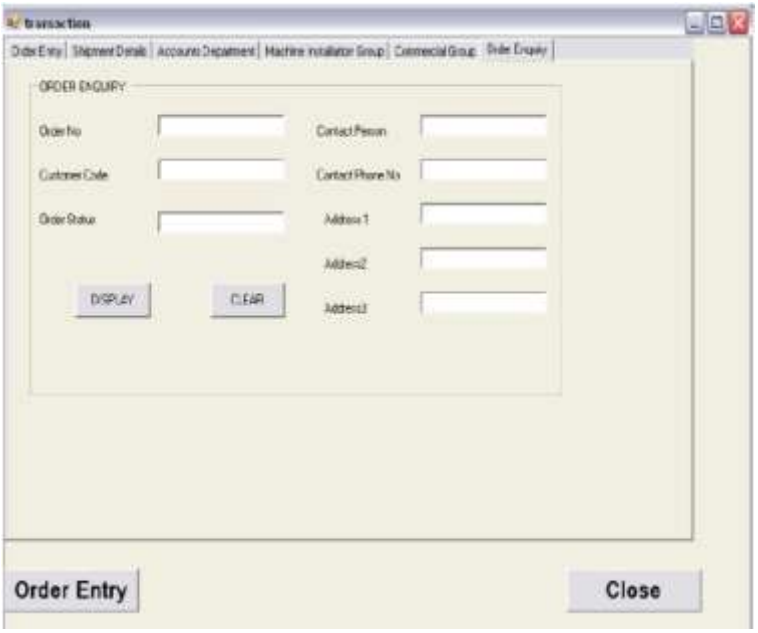


Fig.3.Order Enquiry

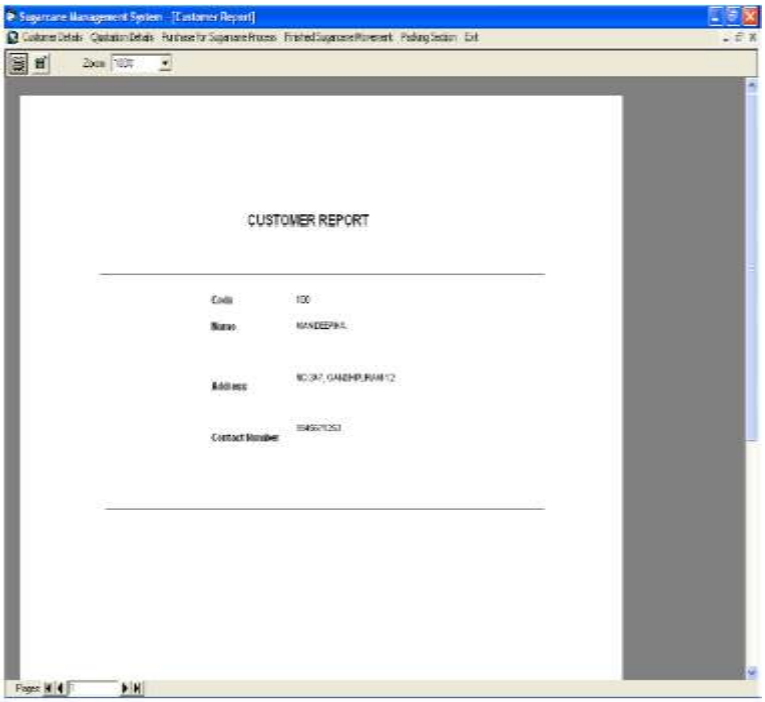


Fig. 4.Customer Report

 

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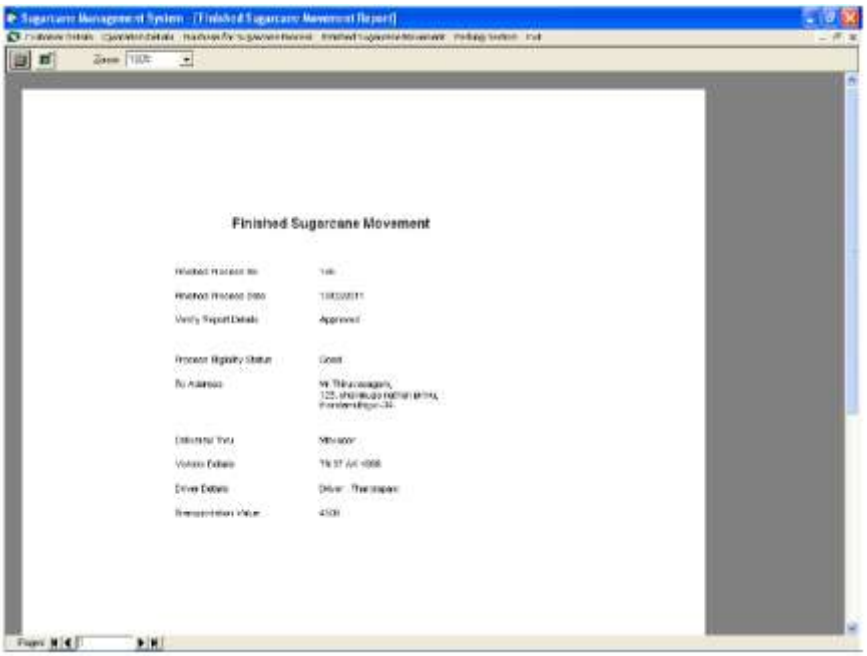


Fig. 5.Finished Sugarcane Movement

## Conclusion

The goal of the system can be uploaded into a company to make it available globally and secured to develop the system makes it more flexible, portable more secure. It also supports dynamic content forms. System is full-fledged and user-friendly to take greatly reduced the clerical overhead and drastically reduced the time taken in the products. It satisfies all requirements needed by the user. Each and every form relationships are smoothened with the organization and to solve customer satisfaction. Management Satisfaction has been gained because of increased shorter delivery cycle. Administrator can manage the system more efficiently.

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