UNIVERSITY OF DIYALA COLLEAGE OF SCIENCE DEPARTMENT OF COMPUTER SCENCE



SALES MANAGEMENT SYSTEMS AND STORES

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By

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وزارة التعليم العالي والبحث العلمي جامعة ديالى كلية العلوم قسم علوم الحاسوب

نظام إدارة المخازن والمبيعات

تقديم هذا البحث الى مجلس جامعة ديالى كلية العلوم قسم علوم الحاسوب كجزء من متطلبات الحصول على درجة البكالوريوس في علوم الحاسوب أعداد ز هراء حسن حميد تبارك قاسم محمد دنيا عبد الرزاق اشراف

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شکر و تقدیر

"كن عالما ... فإن لم تستطع فكن متعلما ، فإن لم تستطع فأحب العلماء ،فإن لم تستطع فلا تبغضهم"

بعد رحلة بحث و جهد و اجتهاد تكللت بإنجاز هذا البحث ، نحمد الله عز وجل على نعمه التي مَن بها علينا فهو العلي القدير ، كما لا يسعنا إلا أن

نخص بأسمى عبارات الشكر و التقدير للدكتور " جمال مصطفى التويجري " لما قدمه لنا من جهد و نصح و معرفة طيلة انجاز هذا البحث

إلى من زرعوا التفاؤل في دربنا وقدموا لنا المساعدات والتسهيلات والمعلومات ، فلهم مناكل الشكر والتقدير

الإهداء

بسم الله الرحمن الرحيم (وقل اعملوا فسيرى الله عملكم ورسوله والمؤمنون) صدق الله العظيم

إلهي لا يطيب الليل إلا بشكرك ولا يطيب النهار إلى بطاعتك ... ولا تطيب اللحظات إلا بذكرك ... ولا تطيب الآخرة إلا بعفوك ... ولا تطيب الجنة إلا برؤيتك "الله جل جلاله"

إلى من بلغ الرسالة وأدى الأمانة .. ونصح الأمة .. إلى نبي الرحمة ونور العالمين "الى من بلغ الرسالة وأدى الأمانة ..

إلى من كلله الله بالهيبة والوقار ... إلى من علمني العطاء بدون انتظار ... إلى من أحمل أسمه بكل افتخار ... أرجو من الله أن يمد في عمرك لترى ثماراً قد حان قطافها بعد طول انتظار وستبقى كلماتك نجوم أهتدي بها اليوم وفي الغد وإلى الأبد... والدى العزيز

إلى ملاكي في الحياة .. إلى معنى الحب وإلى معنى الحنان و التفاني .. إلى بسمة الحياة وسر الوجود إلى من كان دعائها سر نجاحي وحنانها بلسم جراحي إلى أغلى الحبايب أمي الحبيبة

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Abstract

With the human needs increasing dramatically as a result of the tremendous developments that have occurred in human societies in recent centuries, the need for management institutions has emerged in order to meet human needs and as a key to the growth and development of warehouse and sales management.

This research aims to study the administrative systems used by commercial institutions, to identify the most important elements of commercial enterprise management, and to develop a system capable of managing these systems in an optimal way.

And due to the difficulty of managing big data, administrative programs have emerged, which are large and complex data processing programs that simultaneously include storage, research, sharing, transportation, and the incoming and outgoing data resulting from the analysis of one large group of data

Likewise, it is inconceivable that any economic activity in the establishment be carried out without there being prior catering operations for all materials, in order to implement its planned program and complete it properly, and this requires setting a tight catering system in order to ensure the supply of commercial units on a regular and continuous basis because any interruption or A delay in the supply will affect the production process and, consequently, the financial condition of the institution. We used c # and sql databases to design this system

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CHAPTER 1

INTRODUCTION

1.1INTRODUCTION

Information is today an important and important resource for the organization as it is the decisive factor in the success of the organization in achieving its mission and objectives, especially in manufacturing establishments which are characterized by a high degree of complexity and overlap between vital functions in their subsystems. All kinds.

Although information is available to any organization and available in any form within the organization, this is not enough to solve the problems that organizations may face in the management process and other vital institutional processes. Information should be placed in a system that is easy to obtain in a timely manner. And to the extent appropriate. Computerized information systems are one of the systems that can collect, process, classify and preserve the data and information that managers need to perform all administrative functions, From planning, organizing, directing and controlling, where today we are witnessing the competition of many companies producing computerized systems and software to produce computerized systems that meet the needs of institutions, and represent the basic elements of the functional importance of the organizations and systems.

Manufacturing enterprises are characterized by the variety of systems that run the manufacturing process in particular and manufacturing enterprises in general. This makes it difficult to meet the agility of this type of enterprise. The interplay of information from several sub-systems in manufacturing enterprises is the key element in managing them. Including the warehouse system, the procurement system and the sales system, where the decision of the plant manager to establish the process of manufacturing a particular product is affected by the quantity of raw materials available to him in the warehouse of the establishment, A product specified in the quantity of the product in the warehouse, the amount of raw materials available for its manufacture and the period of time required for its manufacture, or the decision to purchase certain quantities of raw materials in the ongoing manufacturing processes that will take place in the future. Business institutions are considered one of the factors for the success of economic growth. Therefore, many studies and researches aimed at developing business management methods have been established since 1771. The first of these studies is the world (Adam Smith), noting the economic benefit of the institution from the management of workers in the institution Commercial and scientific methods, followed by the feast of researchers and scholars to this day.

We will organize the researchers in this humble research, where we will address the impact of applying the concepts of the management systems of the institution to the business establishments and finding solutions to problems that provide the information in the appropriate and timely manner to the managers. We will try hard to provide a solution for most of the problems and challenges facing managers in managing their businesses through the concept of enterprise resource management systems.

1.2THE GOALS OF THE PROJECT

- The aim of this research is to establish a system that works according to the concept of enterprise resource management systems, in order to manage business processes in the business sense, and directly connect them with the warehouse system, purchasing system and sales system in the organization.much more[1].
- Create a software system capable of managing various trading systems.
- Management of warehouse materials in sites and business environments.
- Enterprise resource management equipment, workers used in business operations.
- Management of the needs of the commercial enterprise overlapping with the procurement, warehousing and sales systems.
- Provide reports derived from daily recorded information for business operations in the business.

1.3 PROBLEM STATEMENTS:-

The problem lies in the users lack of knowledge of the use of the program or computer or fear of moving and controlling sales and warehouse management ,and we must motivate the customer to transfer his work electronically through our explanation of the program and its features and shorten the time and effort on it and train it to use the program professionally .We must know the identification of the required and its implementation in the project and the price of the program and the project is sold once or more and the program is private or general and must know the movement of expenses within the system and the movement of revenue and adjust the accounts for competition in terms of gain and loss and know the amount of items inside the stores.

1.4 PROJECT OUTLINES:-

The remaining chapters are:

- Chapter two which is entitled Overview and information about c# and SQL
- Chapter three which is entitled describe to the project and how to work
- Chapter four which is entitled the conclusion and future work

CHAPTER 2

overview

2.1 OVERVIEW

Administrative Management of Dependent Depot Management The administrative subordination of the warehouse management is determined according to the company management or factory management opinion according to the size of the company, whether large or medium, etc. According to the different nature of the tasks, there is more than one administrative organization that determines the subordination of the warehouse management and from these regulations or models the following: First: Direct dependency of the general manager of the company or establishment: In this organization, the warehouse management is directly followed by the general manager. Second: Administrative dependency of the production department: In some factories or companies, the warehouse department is the director of the production department in order to link the warehouse management tasks directly with the production process, which is one of the entities that guarantee the continuation of the production process. Third: Administrative Dependence of the Procurement Department: Due to the close relationship between the Procurement Department and the Warehouse Management, a number of companies and institutions link warehouses / warehouses to the Procurement Department. Fourth: Administrative subordination of materials management: The modern approach of the department is to link the procurement and warehousing departments with one department, the materials department, so that the department will coordinate between the two departments in order to secure the materials and items for the departments and production units in a quick and appropriate manner at the lowest cost. : • Receipt of items: a task through which the acceptance of materials and items received from all suppliers or production units within the company or factory. • Storage: The storage process is as follows: - Management of stores and its yards. -Operation and use of transport and handling equipment. - Maintain inventory. • Exchange of materials: This task represents the disbursement of materials manufactured to customers or supply the administrative units within the company materials and items that

All these items will be designed in the language of (C Sharp) and with the help of databases which in turn will store data much more [2].

2.2(C#)

C Sharp is a modern object-oriented programming language developed in 2000 by Anders Hejlsberg in Microsoft, a generic language designed to develop applications on Microsoft's core operating systems and requiring .NET framework on Windows to work.much more [3].

C # is often seen as a hybrid that takes the best of C and C ++ to create a modern language; it is a targeted language; it aims to integrate computing power into C ++ with ease of programming Visual Basic.

Although .NET framework supports many other programming languages, C # Sharp has become one of the most common languages.

In fact, it was initially founded as a competitor to Java. Sun (later purchased by Oracle) did not want Microsoft to make changes to Java, so Microsoft chose to create its own language instead. In general, C # contains features similar to those in Java.

C Sharp has grown C # very quickly since it was first created, and this of course is under the broad support of Microsoft to help it get its big place today.

Is now one of the most popular programming languages in the world!

2.2.1 THE MAIN USES OF C SHARP C

In fact, in short, almost anything! You can use C # to create Windows applications, client applications - server, database applications, and much more[3].

2.2.2 POPULARITY C # AND ITS SPREAD

C # has quickly become one of the most popular programming languages available, being strong, flexible, and well supported

Today, C # ranks fourth among the most popular programming languages, with nearly 31% of all developers using it regularly.

Microsoft collaborates with the ECMA (Information Standards and Communication Standards Organization) and with the International Standards Organization (ISO) to create C # standards. This will encourage other companies to develop their own language versions.much more [4].

Companies that use C # already include: Apex, Bunka Orient, Component Source, devSoft, FarPoint Technologies, LEAD Technologies, ProtoView, Seagate Software, and many more ...

C # is also the third largest community on StackOverflow (a giant technical communication platform, created and developed using C #!) With over 1.1 million themes.

In terms of search volume according to Google Adwords, C # ranks fifth in terms of programming language that people are more interested in. In addition, interest in C # learning grew by 22.2% in 2015.

2.3 (SQL)

Sql (Structured Query Language) is a non-procedural programming language for relational databases in terms of management and handling, so it is not like other well-known programming languages such as Pythons, Python and Java, but is more specialized for designing databases and handling information from them. Where add, delete, modify, archive and search.

In this research we will learn in detail what SQL language and its characteristics and why different from other known programming languages, and the relationship of SQL databases, especially if we know that this language is not the only language that can be used to deal with databases, although it is the language that managed to maintain its existence And its importance among many other languages.much more[9].

2.3.1 WHAT IS LANGUAGE?

As mentioned in the introduction, SQL is a structured query language designed to deal with databases in the first place. It is not used to build applications as well as other programming languages. SQL is known to have a standard version of which is internationally compatible, although each user uses their own systems Developed by SQL, but the upgraded version is based primarily on internationally agreed standards that are basically supervised by the US National Institute of Standards (ASNI).much more [10].

2.3.2 IMPORTANCE OF SQL:-

With this language you can build a database management system and execute all the commands that bind database users. These include:

- Organize data in the database such as adding, editing, deleting and archiving data.
- Search the database and access the information needed directly.
- SQL can protect data and ensure accuracy of information.

 \cdot Control permissions and permissions for users who interact with the database.much more [11].

THE DIFFERENCE BETWEEN SQL AND OTHER PROGRAMMING LANGUAGES

It is true that SQL is a language, as well as Java, Cy and Python also have languages, but not each programming language with the same meaning. SQL is a fourth-generation programming language, while other languages such as C-Sharp and Java are third-generation programming languages.

Fourth-generation languages are used to deal with databases and some are similar to human languages, unlike third-generation languages that can not be used to manipulate databases and differentiate their commands and structure from 4G languages.

So we know what SQL language is, its importance, its features and the difference between it and other known programming languages. SQL is the backbone of databases unlike other programming languages that can not be used to manipulate databases.much more [12].

CHAPTER3 inerfaces

3.1 INERFACES:-

To manage data and sales in an easy way using the system of sales management and stores, use the proposed system in language **c**# to design the system, and the availability and storage of data across the database **sql**

3.2.1 THE MAIN INTERFACE

This interface lets you identify the system types, functions, and operations that this system provides as shown in Figure (3.1).



Fig(3.1) main interface

3.2.2 LOG IN

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The first part of the system starts by entering the ID and the symbol to enter as a manager in the first and second text boxes, then press the enter button as shown in Figure (3.2).



Fig(3.2) log in

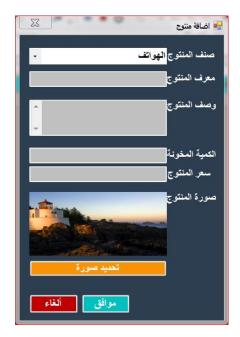
After logging in with the administrator, the system fully activates the system's capabilities and configures the main interface as shown in Figure (3.3).



Fig(3.3) Interface work.

3.2.3 PRODUCT MANAGEMENT

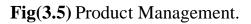
This section supports three parts. The first is to add the products that the system stores the data about and is entered by the user or manager as documents and documents to store them As shown in Fig(3.4).



Fig(3.4) Add a product

The other part regulates the management of products and watch the movement of goods issued, received and stored As shown in Fig(3-5).

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The last part is the compilation of information on each type or class of materials that specify quantities sold and stored As shown in Fig(3.6).

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Fig(3.6) Categories.

3.2.4 ADD CLIENTS

In this section, the manager can add customers who consume specific material to obtain detailed data about them As shown in Fig(3.7).



Fig(3.7) Add clients

3.2.5 SALES

The sales window includes the two most important parts. The first is the sales department, which can be used to identify incoming and outgoing invoices as well as the search for previous invoices As shown in Fig(3.8).



Fig(3.8) Sales Administration

In addition to the sales window, which is this interface of one of the most important sections of the system because it contains a window for the general management of materials and invoices issued by the store and all information about customers and materials that will be traded by the institution As shown in Fig(3.9).



Fig(3.9) Sales window

3.2.6 USERS

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This section also has two parts. Its main function is to manage the users of this system and control the capabilities available to each user and the possibility of data access by trusted users institution As shown in Fig(3.10) and Fig(3.11).

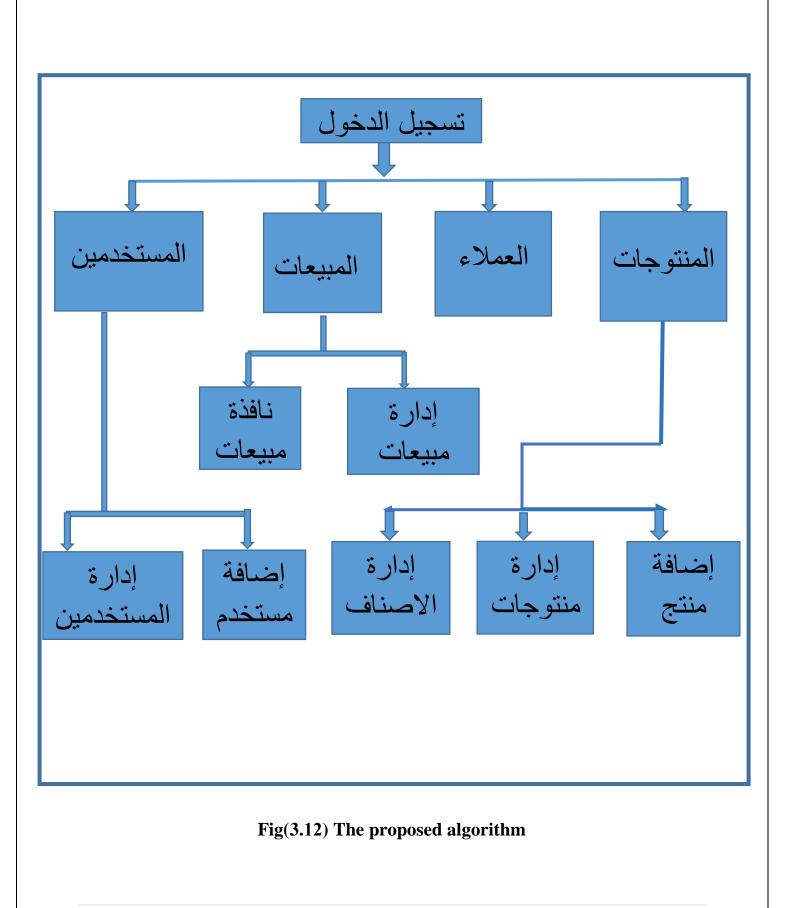


Fig(3.10) Add user

توع المستخدم	الياسورد	الأسم الكامل	اسم المستخدم
مدير	٤٥	غيث كنعان قحطان	ghaith
مغير	10	زهراء حسن حميد	ZX

Fig(3.11) User Control

3.3 THE PROPOSED ALGORITHM



CHAPTER4

conclusion

4.1CONCLUSION

Thank God, our humble research was done to find ways to facilitate the management of sales, stores and materials management in the best way to achieve the objectives of the institution. To preserve the right of the enterprise and the right of the consumer and the quality of production and to speed up the storage process in the best way to carry out the process of storage and trading in a continuous wheel to achieve the quality and requirements of customers. It also included a system that provides reports to managers of business enterprises back to them accurate information on sales and stores and problems.

4.2 FUTURE WORKS

Based on this work, we can develop the possibility of the system to be ready for the management of giant companies and stores and collect multiple data and to give reports on each store in one and calculate the total ratios of stores and predict sales coming through artificial intelligence depending on the reports of the movement of each material and the quantity of turnout.

References

- S.Anil Kumar-N.Suresh, Production and Operation Management/second edition. New Delhi: New Age International (p) ltd, 2006, 2008.
- [2] Sturat Chambers, Robert Johnston Nigel Slack, Operations Management, 6th ed. london, United Kingdom: Pitman Publishing, 2010.
- [3] [Online]. <u>https://www.industryforum.co.uk/expertise-3/manufacturing-operations/</u> access time 12 august 2017 ,5:00 AM
- [4] Ralph M.StairProfessor Emeritus, Principles of Information Systems A Managerial Approch, Ninth Edition. Australia Canada: George W.Reynolds.
- [5] Mary Sumner, Enterprise Resource Planning. Essex : Pearson Education Limited, 2014.
- [6] Quentin Hardy, "NetSuite Moves to Commerce as a Service," 2017.
- [7] Hardy.Quentin, "NetSuite :Enterprise Software Still Follows a Manufacturing Model," 2017.
- [8] "ERPsoftware360".
- [9] [Online]. <u>https://www.odoo.com/page/about-us</u> access time 2 august 2017 ,3:15 AM
- [10] [Online]. <u>http://www.odoo.gotodoo.com/tag/release-history-version-of-odoo/</u> access time 2 august 2017 ,3:32 AM
- [11] www.odoo.com. [Online]. <u>https://www.odoo.com/page/editions</u> access time 2 october 2017 ,3:19 AM
- [12] [Online]. <u>http://www.odooerp.com.au/blog/benefits-odoo-erp-systems/</u> access time 2 august 2017, 3:19 AM

الخلاصة

مع تزايد احتياجات البشر بشكل كبير نتيجة للتطورات الهائلة التي حدثت في المجتمعات الانسانية في القرون الأخيرة برزت الحاجة الى مؤسسات الادارة من اجل تلبية احتياجات البشر وكمفتاح رئيسي من اجل نمو وتطوير ادارة المخازن والمبيعات.

يهدف هذا البحث الى دراسة الانظمة الادارية التي تستخدمها المؤسسات التجارية، والتعرف على اهم عناصر ادارة المؤسسات التجارية، وتطوير نظام قادر على ادارة هذه الأنظمة بالطريقة المثلى.

ونظرا لصعوبة ادارة البيانات الضخمة ظهرت البرامج الادارية التي هي عبارة عن برامج معالجة البيانات كبيرة والمعقدة بوقت واحد حيث تشمل التخزين والبحث والمشاركة والنقل والصادر والوارد الناتجة عن تحليل مجموعة واحدة كبيرة من البيانات.

كذلك فإننا لا يمكن تصور قيام أي نشاط اقتصادي في المؤسسة دون أن تكون هناك عمليات تموين مسبقة لكل المواد, بهدف تنفيذ برنامجها المخطط و إتمامه بالشكل السليم, وهذا يتطلب وضع نظام تمويني محكم من أجل ضمان تموين الوحدات التجارية بشكل منتظم و مستمر لأن أي انقطاع أو تأخر في التموين سيؤثر على العملية الإنتاجية و بالتالي على الحالة المالية للمؤسسة. استخدمنا لغة ال #c وقواعد البيانات sql لتصميم هذا النظام