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EXECUTIVE SUMMARY TOPIC:

“DESIGN, DEVELOPMENT AND IMPLEMENTATION OF A COMPUTER SYSTEM OF SALES BY CATALOGUE AND CONTROL OF SHIPMENTS IN QUINTO ELEMENTO COMPANY”

APPLICATION:

“WEB SYSTEM OF CATALOG SALES AND CONTROL OF SHIPMENTS FOR THE COMPANY QUINTO ELEMENTO WITH OPEN SOURCE TOOLS”

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DESIGN, DEVELOPMENT AND IMPLEMENTATION OF A COMPUTER SYSTEM OF SALES BY CATALOGUE AND CONTROL OF SHIPMENTS IN QUINTO ELEMENTO COMPANY

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Resumen. *QUINTO ELEMENTO es una empresa dedicada a la comercialización de prendas de vestir y accesorios en la modalidad directa de venta por catálogo, la cual utiliza una gran red de subscriptores (Directoras, líderes y empresarias) para la captación del cliente, promoción y envío de productos. Esto genera una gran cantidad de información que necesita ser adecuadamente administrada. Lo que hace imperativo la implementación de un sistema informático que permita automatizar sus procesos.*

En esta perspectiva el sistema informático implementado se ajusta a las necesidades del proceso de pedidos, validación y despacho, es una poderosa herramienta que genera una solución en tres ámbitos primordiales: Automatización de procesos; Gestión y control; Toma de decisiones tempranas.

Por lo tanto el sistema informático implementado permite organizar y automatizar la información que genera el proceso de registro, pedidos y despachos. Así como darle una mejor imagen corporativa a la empresa, logrando optimizar sus recursos tanto tangibles como intangibles y tomar decisiones tempranas, basadas en una fuente de información clara y de rápido acceso.

Con esta adecuación se mejora el proceso de registro de las empresarias, el control y gestión de pedidos, así como la imagen corporativa de la empresa de venta por catálogo QUINTO ELEMENTO, lo que genera una nueva estructura administrativa de gestión y control, basadas en una plataforma de información y control fiable, que permite dar los lineamientos necesarios para mantener un alto rendimiento y permanente crecimiento.

Abstract. *QUINTO ELEMENTO is a company dedicated to the marketing of clothing and accessories in direct catalog sales mode, which uses a network of subscribers (Managers, leaders and entrepreneurs) to attract customer, promotion and shipping of products. This generates a lot of information that needs to be properly managed. Which makes it imperative to implement a computerized system to automate their processes.*

In this perspective, the implemented computer system meets the needs of the ordering process, validation and release, is a powerful tool that generates a solution in three key areas: Automation; Management and control; Making early decisions.

Therefore the computer system implemented to organize and automate the information generated by the registration process, orders and shipments. And give you a better corporate image the company, thus optimizing its tangible and intangible resources and take early decisions based on a clear source of information and quick access.

With this adjustment the registration process businesswomen, control and order management, as well as the corporate image of the company's sales catalog QUINTO ELEMENTO is improved, creating a new administrative structure of management and control, based on a platform of information and reliable control, which allows to give the necessary guidelines to maintain high performance and steady growth.

Keywords

Automation , Subscription, Sale, Catalog, Shipping, Control .

Palabras Claves

Automatización, Suscripción, Venta, Catálogo, Envío, Control.

1. Introduction

QUINTO ELEMENTO is a company dedicated to the marketing of clothing , in the form of direct catalog sales

which engages a large network of subscribers between directors , leaders and entrepreneurs , spread throughout most of the country, which are responsible for promoting the products , customer capture , consolidate, and send both receive product orders .

"Our commitment to your satisfaction" is the motto that the company maintains QUINTO ELEMENTO, focused on the mission of "Meeting the needs of our customers by providing quality garments and distinction, always complying with the established deadlines . Reward and encourage the work of Managers, Leaders and Entrepreneurs and stimulate subscription " and the vision of " Expanding the dissemination of the product throughout the country, becoming one of the leading companies in direct catalog sales , double the number of monthly subscriptions and achieve 100 % compliance of delivery . "

From its beginnings with a discreet catalog in 2011 , QUINTO ELEMENTO doubling sales annually , the number of products and pages, also the number of subscribers . Therefore today between orders , proof of payments, recruiting new subscribers, checks stock and shipment data there is a huge volume of information that the company recipe and sends daily so communication methods that the company currently uses as email and phone calls are insufficient and impractical .

The company lacks a reliable tool that allows you to : systematize and manage your sales process and delivery of goods as well as streamline communication between the company and its subscribers as a catalog .

Because of this and the growth of the company, QUINTO ELEMENTO has seen the need to implement a system designed according to your specifications and requirements, to improve and optimize their internal and external control, automating activities.

The projections of the company for sales management, promotion and delivery of products, starting from the registration of subscribers from catalog entry may be growing as entrepreneurs, leaders and directors and the information on orders and sales they generate grow with each subscription, which makes it critical for business registration and management of this information.

By automating the process of orders and sales, expect to see reflected an increase in the reliability and efficiency of the company as well as reducing costs and time. Thanks to this control, the responsible personnel will be at your fingertips premier management information, allowing you to assess your catalog management processes, sales and shipments.

1.1 General Purpose

Design, develop and implement a Web Information System catalog sales and control of shipments for the company QUINTO ELEMENTO with Open Source tools that allow

the optimization of enterprise resources and improve communication with your subscribers.

1.2 Specific Objectives

- * Study the sales process and control of shipments handled at the company QUINTO ELEMENTO to design a system that meets your requirements.
- * Comprehensive requirements analysis computer system to be implemented.
- * The study of existing tools used in developing the computer system in WEB platform that meets the RUP.
- * Design and implement a robust computer system to improve and standardize the subscription process, the system of shipments and sales Management Company.

1.3 Scope

A system of catalog sales, shipments and control online subscription, which includes the following main modules, arises:

1.3.1 Online Catalog Module:

- * Record catalogs .
- * Record catalog pages .
- * Product Registration .
- * Presentation and display dynamic online catalog.
- * Records and statistics display.

1.3.2 Subscription Management Module :

- * Data Record subscription request.
- * Administration and approval of applications.
- * Automatic notifications via email .
- * Subscriber Management.

1.3.3 Module and Sales Order:

- * Control user subscriber session .
- * Direct Determination of stock .
- * Record orders.
- * Approval and validation of orders.
- * Automatic notifications via email .
- * Reports and order history .

1.3.4 Control Module Shipping:

- * Assistant warehouse for organizing shipments.

- * Reports and delivery status notification .
- * Receive notifications for missing or misdirected products.
- *Reports and statistics control shipments.

1.4 Process Analysis

Direct mail order involves several processes which are summarized below :

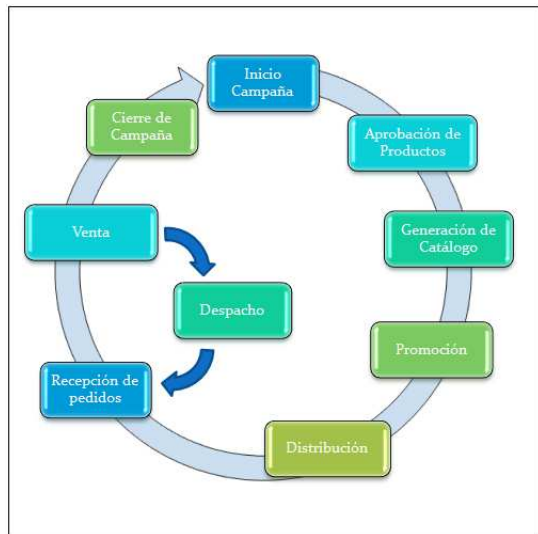


Figure. 1. Processes of generation and catalog sales.

QUINTO ELEMENTO It has a rotation catalog three months , namely the lifetime of a catalog is released after three months , depending on the season sale .

To ensure ongoing market research firsthand , trends are defined and thus choose the best models to be included in the catalog to be launched .

The catalog generation is all the design process for a new catalog , for this to chart outside companies dedicated to photography, photo editing and design and modeling agencies and printing is involved , this process requires strict monitoring and approval which ensures boost corporate image and highlight the design or functionality of the product to make it attractive for sale , this depends on customer acquisition and sale of products .

The promotion is done mainly directly with a campaign of visits to regional directors , which are responsible for socializing and convey information to its network of leaders.

There are two forms of distribution it is the first indirectly , using the network of directors and leaders who are responsible for distribution to its entrepreneurs and the second is a direct distribution of shipping, which is made directly with the people concerned.

Order intake starts from the starting date indicated in the catalog launched, this process is recurrent and lasts for three days, only the leaders and directors requested products indicating your order to businesswoman owns every part of the order ie in a period of three days the leaders consolidate all requests of their entrepreneurs and send it in detail , and the receipt of such order is made by telephone , by fax or via email.

Once entered and fingered the order proceeds to the inventory check , in the absence of stock of a product to the leader or director of the non-existence communicates this makes phone, the next step is to calculate the value pay for the order and the invoice value , once these values obtained proceeds to inform the director or leader who requested and the director or leader deposit 50% of the order value and send the voucher by email or reports the number of telephone deposit, once verified the deposit to proceed with the billing can be of two forms depending on the request of the leader or entrepreneur is billed directly to the director or leader or an individual invoice is being made to each of the entrepreneurs who are consolidated in the order.

After performing the Annex is printed invoice each winery that products must be dispatched and the corresponding shipment reference addresses and the name of the business, address and city phone and the information content of the package.

The period between the date of final latency of a catalog and the start of another is called closing period lasts about a week and is the period where it consolidates and analyzes sales commissions are payable and closing make and count inventory.

For the development of the computer system the following open source tools will be used :

- * Development IDE : Eclipse Galileo
- * Development methodology : RUP
- * Persistence Engine : Hibernate
- * Database : PostgreSQL
- * Report generator : iReport .
- * Apache Tomcat.
- * Richfaces 3.X

2. Theoretical Framework

Stay ahead in technology is one of the factors that lead to development of a company , and not the exception in the field of direct catalog sales , promotion and delivery of products. Which presents a highly competitive market by the number of such companies in the sector looking to excel in the market , and where technological innovation is

one of the prerequisites for the technical development of these businesses .

2.1 Positioning

QUINTO ELEMENTO It is a direct selling company catalog which seeks to excel in the market , improving order processing , leads and sales with a technological tool track to meet their needs in this area , improving your sales process and attention to their customers and subscribers .

In determining the standards to follow in the proper management of the sales process is achieved by catalog design and implement a tool that meets the structural guidelines of the company .

In -depth and continuous study of the tools available for the design and development of the proposed computer system is the base where the progress of a system that meets the requirements of software development is based, as well as technical guidelines on catalog sales direct.

2.2 System Catalog Sales

According to the National Mail Order Association (NMOA.org) , it is believed that Benjamin Franklin was the first creator of catalogs in the United States . In 1744 , he created the basic concept of mail order when he created the first catalog , which sold scientific and academic books .

With the development of the Internet , the websites of the companies became the most used way to shop for their ease of dissemination .

In the system of direct sales by catalog, contact the customer personally , is given the magazine sales and subsequently returns to lift the order. The principal activity of the sale catalog makes it unlike the systems in which it is handled only support .

Direct sale is one in which the vendor / a face , directly to the public , and which of your domain , preparation, product knowledge and ability to convince the results depend .

The success of any product not so much the price , competence or qualifications you may have , but mainly in the way of selling ; hence the need to ensure a high quality of supply with improved sales techniques, where the key element must be fed by a continuous process of training , qualification and practice.

Distance Selling is the type of sale in which there is no personal contact between the / salesman / a and / the buyer / a , forms can be:

Automatic: It consists in dispatching and receiving the product through vending machines.

Catalog: The feature of this system is that the / potential customer receives a catalog at home in the described all products that can be purchased and contains forms for ordering.

Subscription : method of sale typically used by publishers of periodicals or books by installments or issues in which payment is made on a regular basis .

Multilevel sale It is to sell products or services to people , then sell to other / as and also try to convince / as for them / as also sold.

Personal sale It is being done through a personal relationship between the / salesman / a and / the buyer / a . There are two ways :

Sale within the establishment.

Sales outside the establishment.

2.3 Standards for the Sale and Subscription Catalog

The marketing method known as direct selling is to sell products directly to consumers at home or elsewhere.

The catalog sales system is versatile because it produces quick benefits for both the company and the selling of products.

Availability and control of the time taken to sell, this allows housewives to work without a fixed schedule on a daily basis .

The sellers are motivated by a percentage discount on products and prizes .

The subscription catalog is simply how to collect personal information to register or pay some sort of service.

2.4 Methods of Product Development and Sales by Catalog

Sales Promotion It aims to strengthen and coordinate advertising sales with personal efforts , and includes activities such as putting in-store displays , trade shows and celebrate distribute samples , prizes and coupons .

No Paid Advertising It is an impersonal way to stimulate demand and do not pay the person or organizations that benefit from it. Usually , this type of advertising is done through a presentation on the news that promote a product, service or company. The insertion is made in the press , radio or television or any other means of mass communication.

Public Relations It is planned by an organization to influence the opinions and attitudes of a group before her effort. The market to which the public relations effort is directed can be any "public " as clients , a government agency or individuals living near organization.

The most common tools for sales promotion , advertising and public relations for consumers are:

Coupons: These are certificates that give buyers a saving when they purchase specified products . Many coupons are distributed as separate inserts in newspapers, but are also distributed via direct mail , magazines , etc. While also being distributed online through websites and emails.

Discounts : They are reduced to the regular price of the product , so consumers achieve savings from the normal price of the product .

Bonus : These are items that are offered for free or at very low cost as an incentive to buy a product.

Free Samples : These are offers of a small amount of a product to prove it. It's a way to get potential customers to try the product, either for free or by paying a minimum amount .

Contests or sweepstakes: They are activities that give consumers the chance to win something, like cash , travel or merchandise , whether by luck or extra effort.

Promotions at points of purchase: They include displays and demonstrations that take place at the point of purchase or sale .

Rewards for being a regular customer : They are cash or other incentives offered by the habitual use of certain products or services of a company.

Advertising specialties: Are useful items engraved with the name of the advertiser and given away to consumers.

The most widely used tools for sales promotion , advertising and public relations for dealers and distributors are:

Displays in retail outlets: Are efforts being made at the point of sale, such as product display and information sheets that serve directly to retailers while supporting the brand.

Sellers contests: These are activities that give marketers intermediary, the chance to win something for recommending the product that is being promoted.

Product demonstrations: They are a means, considered by traders as important to draw attention to a product, by demonstrating how it is used.

Special Discounts: Reductions are the regular price of the product for major purchases or preset packages. These reductions can only benefit to the merchant and / or its

Bonus : These are items that are offered for free in exchange for a major purchase .

2.5 Processes in System Catalog sales

The optimum process for direct mail order company "QUINTO ELEMENTO" is defined by points :

Home Campaign

Cycles are performed , called campaigns. A year are a total of 4 campaigns 90 days.

Product Approval

A market study is performed to determine trends and to properly select samples of clothing and accessories sent by suppliers.

Generating Catalog

Once selected garments to be sold, we proceed to the hiring of models , professional photographers for the photo shoot , which will serve to develop the graphic designer clothing catalog . Once it has been completed its work , we proceed to send the digital file to the printer for reproduction.

Promotion

One feasibility study, which determined that clothing could promote through discounts is performed. Ads or ads that are attractive to customers , highlighting the distinction of garments with promotions and benefiting consumers create.

Distribution

Strategic alliances with suppliers and distributors are performed through long-term contracts to ensure that the garments are unique to the company, ensuring the quality of them and their respective delivery.

Catalogs the directors , leaders and businesswoman is delivered with adequate time to familiarize them and analyze their sales strategy of products presented in the catalog.

Reception of Orders

To process the order of a garment is identified existence in the warehouse stock , the order must be in writing , recording user to load the product and the time it was processed .

Office

This process is led by the cellar master he is responsible for keeping existing products into and out of warehouse, inventory control , income , reviewing merchandise. The auxiliary function is to hold review and verify the release of goods with the sales order. The sales manager made a request of outgoing products. The order of sale is recorded in the system of the company by the chief of staff.

Sale

Selling is one of the most used by companies, organizations or individuals who offer their products , services or other activities , its success depends on the number of times you perform this activity , how efficient they do and their gains .

Close Campaign

It is the closing of existing products for sale , allowing the release of new products according to the season.

2.6 As Java Programming Language

Java is a programming language general-purpose object-oriented computing platform;**Error! Marcador no definido.** useful for applications of all kinds , being highly accepted as a tool for application development.

It was developed by Sun Microsystems in the year 91 and propagated in 95 , conceptualized and implemented so that applications built on it can run the same way on different architectures , platforms and devices.

Java language features

- Simple Language: It has a very similar to C and C ++ syntax.
- Object Oriented : All programming in java is mostly object-oriented .
- Security : Security is a very important feature in java as they have implemented safety barriers.
- Portable: By being indifferent to the architecture on which it is working , its portability makes it very efficient , its programs are the same in either platform .
- Interpreted and compiled Java can be compiled and interpreted in real time, because when the source code is transformed into a sort of machine code is constructed.
- Platform independent : This allows application developers to write the program once and run on any device, which means that the code is executed on a platform need not be recompiled to run on another .
- Robust: Java was designed to create highly reliable software. Therefore it provides numerous checks in compilation and runtime . The memory management is not an issue, manages the language itself and not the programmer . Further, the language contains structures to detect exceptions .
- Concurrent : Another feature of Java is that it is prepared for concurrent programming without using any library.

The Java Virtual Machine (JVM).

A compiled Java program does not understandable by any processor code , that code only understands Java Virtual Machine and translates it into code that can be understandable if the processor on which it operates and it can run on the operating system on which it is installed.

So an application in bytecode can be executed in different platforms due to the translator, who translates bytecode to native code of the platform on which it runs. This work is carried JVM ¹ .

Several versions of JVM for each platform.

2.7 Specialized Library: Richfaces 3.X

RichFaces It is a library of visual components for JSF², written originally by Exadel and acquired Jboss . RichFaces has an advanced framework for the integration of Ajax functionality in these visual components , by supporting the Ajax4JSF library.

Characteristics:

- Integrates perfectly into the JSF lifecycle .
- It includes Ajax functionality , so you never see the JavaScript and Ajax has its own container.
- It contains a set of visual components , the most common for developing a rich web application.
- Supports facelets³
- Supports CSS themes or skins ,
- It is open source , also active with active community.

2.8 PostgreSQL 8.x database.

PostgreSQL is a SGBD⁴ relational and object-oriented free, released under the BSD⁵ license.

The PostgreSQL project is currently still an active process of development worldwide thanks to a team of developers and open source contributors .

Characteristics:

- It is a base of powerful, robust , and stable data.
- It has support for views , foreign keys , stored procedures , triggers, and almost all types and operators supported in SQL92 and SQL99 .
- Implement the use of rollback 's, subqueries and transactions.
- The application programming interface to access the Management System database is available in C , C ++ , Perl , Java , Python , PHP , among others.

¹ **JVM:** Java virtual machine .

² **JSF:** Java Server Faces for its acronym in English .

³ **Facelets:** It is a set of open source under the Apache web templates license and driver technology JavaServer Faces (JSF) .

⁴ **SGBD:** Management System database.

⁵ **BSD:** (Berkeley Software Distribution) . It belongs to free software licenses .

- Supports referential integrity , ensuring the validity of the data.
- Is highly reliable in terms of stability is concerned.
- Presents interoperability with other DBMS like SQL.
- It has a rich set of data types , further enabling their extent by defined types and user-programmed and operators.
- Its management is based on users and privileges.
- Can be extended with external libraries to increase their functionality .
- Works well with large amounts of data and high turnout , with many users accessing the system simultaneously .
- The response speed offered by this manager with relatively small data bases may seem a bit lacking , but keeps the same speed to manage really large data bases.
- It has high scalability , is able to adjust the number of CPUs and the amount of memory that holds the system optimally.
- It has full support ACID (atomicity, consistency , isolation , durability) .

2.9 Persistence Engine Hibernate 3.x.

Hibernate is a tool for object-relational mapping (ORM) for Java and .Net also available with the name of NHibernate platform facilitates the mapping of attributes between a traditional relational data base and object model of an application by declarative files (XML) or entries beans entities that establish these relationships.

Hibernate is free software, distributed under the terms of the license **GNU LGPL** ⁶ .

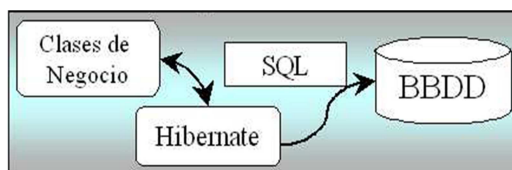


Figure. 1. Persistence with Hibernate.

2.10 Report generator: IReport 3.X

The iReport tool is a visual builder , powerful , intuitive and easy to use reports written in Java. Allows users to visually correct complex reports with charts , images, subreports.

IReport is integrated with JFreeChart , one of the most widespread OpenSource graphics library for Java .

Print data can be retrieved by several ways including multiple JDBC connections , TableModels , JavaBeans , XML, etc.

Characteristics of iReport

The following list describes some of the important features of iReport :

- 100 % written in JAVA and also OPENSOURCE and free.
- Handles 98% of labels JasperReports .
- Allows design their own tools : rectangles, lines , ellipses, fields textfields , letters , subreports (underreporting) .
- Supports natively internationalization.
- Browser of the document structure .
- Integrated Collector and exporter.
- Supports JDBC.
- Supports JavaBeans as data sources .
- Includes Wizard's (assistants) to automatically create reports.
- Has wizards for building the underreporting .
- Has wizards for templates .
- Ease of installation.

2.11 Apache Tomcat

Called Jakarta Tomcat or Tomcat functions as a servlet container developed under the Jakarta project at the Apache Software Foundation. Tomcat implements the servlet and JavaServer Pages (JSP) Oracle Corporation.

It is a web container support servlets and JSPs , but not an application server like JBoss or JOnAS . It Includes Jasper compiler that compiles JSPs turning them into servlets.

The Tomcat servlet engine often occurs in conjunction with the Apache web server can function as a web server itself .

2.12 Development Methodology RUP

The software must be conceived, designed and developed as a product subject to quality standards. The software is a product developed by groups of people whose interaction should be managed. The emphasis in the development process ensures proper product to customer requirements .

One of the best known and methodologies used to ensure the construction quality software is RUP .

⁶ **GNU LGPL:** GNU General Public License . (Free Software License) .

RUP is a software development process , along with the Unified Modeling Language UML is the most widely used standard methodology for the analysis , design, implementation and documentation of object-oriented systems . RUP is not a system with well-established steps , but a set of adaptable to the context and needs of each organization methodologies , is a process to develop a project that clearly defines who , how, when and what to do in the project.

Adaptar el Proceso	<ul style="list-style-type: none"> •El proceso deberá adaptarse a las necesidades del cliente. •Las características propias del proyecto u organización influirán en su diseño específico.
Equilibrar prioridades	<ul style="list-style-type: none"> •Los requisitos de los diversos participantes pueden ser diferentes, contradictorios o disputarse recursos limitados. •Debe encontrarse un equilibrio que satisfaga los deseos de todos.
Demstrar valor iterativamente	<ul style="list-style-type: none"> •Los proyectos se entregan en etapas iteradas. En cada iteración se analiza la opinión de los inversores, la estabilidad y calidad del producto, y se refina la dirección del proyecto así como también los riesgos involucrados.
Colaboración entre equipos	<ul style="list-style-type: none"> •Debe haber una comunicación fluida para coordinar requisitos, desarrollo, evaluaciones, planes, resultados, etc.
Elevar el nivel de abstracción	<ul style="list-style-type: none"> •Este principio motiva el uso de conceptos reutilizables. Esto evita que se vaya directamente de los requisitos a la codificación de software, sin saber con certeza qué codificar para satisfacer de la mejor manera los requisitos y sin comenzar desde un principio pensando en la reutilización del código.
Enfocarse en la calidad	<ul style="list-style-type: none"> •El control de calidad no debe realizarse al final de cada iteración, sino en todos los aspectos de la producción.

Figure. 3. Development Principles RUP.

RUP divides the process into four phases , within which several iterations⁷ in variable number according to the project are made and where more or less emphasis is placed on various activities.

Startup phase , a plan phase where the main use cases are identified and risks are identified is made. The idea takes shape , the product vision , as part of the business, the scope of the project. The aim at this stage is to determine the project's vision .

Development phase , the project plan , which use cases are completed and mitigating risks is performed. The necessary activities and required resources are planned , specifying the characteristics and architecture design . At this stage the aim is to determine the optimal architecture .

Construction phase, is based on the development of a fully operational product and in developing the manual . Build the product , architecture and plans until the product is ready to ship to users. At this stage the aim is to get the operational capability of the product.

Transition phase, the goal is to obtain a finished product. Product installation is performed and proceeds to the training of users .

3. Design and Development of Information System Web

3.1 Based on the needs expressed for application development approach " Web Information System catalog sales and control of shipments of the company QUINTO ELEMENTO with Open Source tools . " It is generally seen first analysis of requirements for the proper functioning of system raised

3.2 . Requirements Analysis

The software requirements engineering is a process of discovery, refinement, modeling and specification.

Recognition of the problem the main features of the problem, their involvement , impact and its actors, which identifies a real solution is analyzed.

Product Definition all the main features that define the product as a total solution to the problem described .

Description of stakeholders and users detailing all those directly involved in the definition and scope of this project.

Users summary describes all those directly involved in using the system.

Alternatives and competition seeks to acquire externally developed a system that meets essential requirements of the company .

3.3 Definition of Architecture Development

The system is to develop and implement a Web Information System catalog sales and control of shipments of the company QUINTO ELEMENTO with Open Source tools ; the same that lets you store data , and once processed convert into valuable information .

The system will consist of modules, which is feeding back information it becomes an indispensable agent for process integration and communication between the different parties involved in the sales process of the company.

3.4 Data Planning and Modeling

At this point all phases of project planning and the flow of iterations of each phase are detailed , a development plan based on the methodology and attached to the phases of the methodology is modeled system is performed.

⁷ **Iterations** : Repeatedly execute a series of operations (routine) to satisfy a certain condition .

3.5 Use Case Diagram

Describes and documents all test cases for each interface and function used by the end user on the system developed within a controlled environment, well documented and describe the results obtained by each process.

3.6 Diagram Entity - Relationship

It shows the basic design that gives solution to the problem, introducing the format in which the information relates and be stored as well as the basic rules of storage.

3.7 Activity Diagram

Described one by one the flow of each process in the system administered by presenting a clear view and prepare the development of the system logic.

3.8 Sequence Diagram

Describes the flow of events per each process to administer the system, presenting a view prevents flow errors, both as navigation data.

4. Conclusions and Recommendations

4.1 Conclusions

- The implementation of the Information System Web catalog sales and shipments control allows optimization of enterprise resources and improve communication with your subscribers, compared to manual control system that had been carrying.
- Apply a development methodology, RUP in this case, it will allow for an orderly work and get results in software quality.
- When making a Web system and be posted on the Internet, will allow users to access 24 hours a day, 365 days a year from any browser, from the comfort of your home, without the need to install complicated components.
- Once the application deployment has come to appreciate the benefits in terms of saving time in the receipt of orders, payment verification, delivery of merchandise.

4.2 Recommendations

- Updating the web system according to the release dates of the new catalog of the company, to keep the information with the goal of keeping the interest of site visitors and subscribers who uses.
- The maintenance of computer equipment and network infrastructure has to be constant, to prevent any failure and inconvenient that may affect the flow of the computer system web.
- Having a policy of regular web computer system backups, as well as the information that the company considers essential, it is one of the strategies to prevent the loss of any unexpected event information.

Thanks

I wish to express my sincere thanks:

To God, the Virgin, for giving me my health and family welfare.

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