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TRABAJO DE GRADO PREVIO A LA OBTENCIÓN DEL TÍTULO DE INGENIERO EN SISTEMAS COMPUTACIONALES

TEMA:

"STUDY OF THE METHODOLOGY SIFTWARE DEVELOPMENT OPEN UP (OPEN UNIFIED PROCESS), IT`S HAS APPLIED TO THE DEVELOPMENT OF WEB APPLICATIONS USING THE FRAMEWORK ZK-JSP"

APLICATIVO:

"CONTROL SYSTEM AND MANAGEMENT OF MEDICAL APPOINTMENTS AND MEDICAL RECORDS (SISMED) BY MEDICAL DEPARTMENT OF THE PRODUCER AND EXPORTER OF FLOWERS ENTERPRISE "PONTE TRESA INVERSIONS S.A.""

AUTOR: DIEGO EDWIN GUERRÓN CORAL

DIRECTOR: ING. PEDRO GRANDA

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Trabajo de Grado de Ingeniería en Sistemas Computacionales
"CONTROL SYSTEM AND MANAGEMENT OF MEDICAL APPOINTMENTS AND MEDICAL RECORDS (SISMED) BY MEDICAL DEPARTMENT OF THE PRODUCER AND EXPORTER OF FLOWERS ENTERPRISE "PONTE TRESA INVERSIONS S.A.""

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Título de Trabajo

"Sistema de control y administración de citas médicas e historias clínicas"
GUERRÓN CORAL DIEGO EDWIN
Universidad Técnica del Norte
Carrera de Ingeniería en Sistemas Computacionales
Correo-e: **dieguito8510@yahoo.es**

Summary: This project was developed in order to improve the management of the resources of the company and does not have a computer system to store safely and efficiently medical information of each of the members of the company. Also this application will help the authorities to produce decisions based on system data. It is noteworthy that the system integrates with any new module to be developed in the future, because it uses technologies and methodologies that provide a multilayer architecture allowing developers to maintain the application.

1. Summary

The Ecuador and generally Latin America and the world, has experienced numerous and significant technological advances, so that both private and public institutions have seen the need to automate most processes, in order to provide better service. That is why the producer and exporter of flowers Ponte Tresa Investment Company engages in technological development and approves projects that improve the performance of each of the departments and better attention is given to workers.

Managing appointments, monitoring of medical records, among others, creating an optimal, scalable and reliable system: to contribute to this stage of computing changes in the state, a system that automates the processes taking place in the

2. Introduction

Having analyzed the processes taking place in the medical department and established the guidelines would be followed in the development of the application, it was established that the system would be a web application, and will not require much disk space will be light, and will implemented server side.

It will provide great platform compatibility (portability), operating in a web browser.

3. Justification

The activities performed by the Company and progress made in the medical department mainly require a system to improve the conditions of manipulation of information, and that

medical department developed.

The system will also allow to have a database with information on: employees, medical history, disease control.

these processes are performed manually and disables the save customer data for improved care in later.

For this reason, the project tends to improve the handling of data and provide consolidated and integrated information through reports.

4. Theoretical Framework

In this section a description of the features, performance and definitions of each of the tools used for the design, development and implementation of the developed system will be made.

4.1. Tools

The application is made under terms of an architecture of high technology and quality standards, allowing the system to be effective, efficient and

scalable.

Applications. - Server An application server is a Web server that provides the next generation business logic on which applications are built.

Application servers differ from Web servers by the extensive use of dynamic content and its integration with common databases. To prepare the system was used as a server Apache-Tomcat-7.0.62 applications, this application server can be downloaded, used, embedded and distributed without licensing restrictions. For this reason it is the server used by developers and independent software vendors.

Language Programación. - For application development the Java programming language is the same as robust, stable, efficient, and scalable platform used, making it one of the programming languages used by developers worldwide.

Data. - Base for storing information used PostgreSQL 9.4.2, a management system database

object-relational, distributed under BSD license.

PostgreSQL uses a client / server model and contains a number of multi-process them to ensure system stability.

(Eduardo Otoniel Tumax Sulecio, 2009)

Arquitectura. - Architecture is the first step in identifying the hardware elements needed to implement the system, and the services to be performed.

The main objective is to have complete documentation and diagrams that describe the process that will have the system, which must be understandable to non-technical staff, and in turn, they can be used as a basis to further the design of the system

Framework Persistencia. - Currently there are many frameworks and ORM (Object Relational Mapping) that contribute and facilitate the development of applications quickly and efficiently. To build the project Hibernate is a

tool for object-relational mapping for the Java platform that facilitates mapping was used attributes from a base of traditional relational database and the object model of an application, using declarative files (XML) that establish these relationships.

Use the Java reflection mechanism that allows an object running examine and manipulate himself. **(Loor, 2010).)**

Framework of Negocio. - In the system the model MVC Model-View-Controller is a platform for building portable applications, reusable and scalable business using the Java programming language was used.

(Mestras, 2009)

Presentation. - Framework for the presentation layer is used as a framework ZK, for aesthetic friendly and standardized throughout the application views.
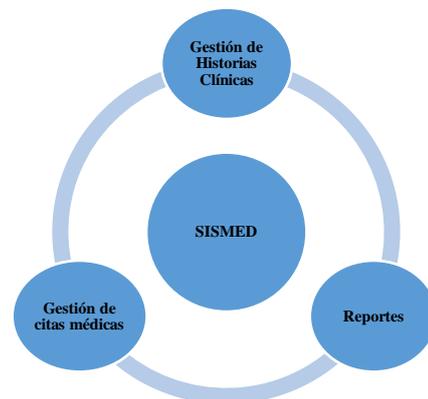
OpenUp. - Methodology is a software engineering process. It provides a disciplined approach to assigning tasks and responsibilities within a development organization approach.

It is characterized by iterative and incremental, be focused on architecture and guided by use cases. It includes artifacts (which are the tangible products of the process such as the use case model, source code, etc.) and roles (role of a person at a given time).

5. System Operation.

This section describes the functional models developed as a basis for the development of the system are described.
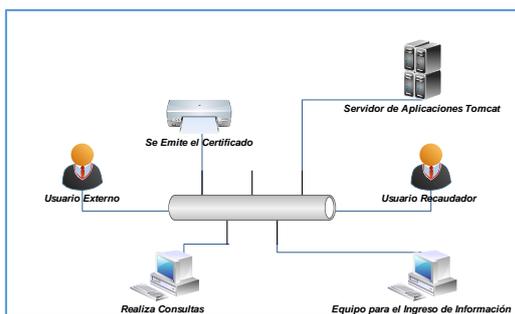

Stories Clínicas. - Management This module is the creation and management of medical records.

Dating Médicas. - Management consists reservation / medical attention shifts.

Reportes. - This section is generating reports as: list of patients seen by diseases, list of reservations shifts, recipe list, and list of orders for tests, among others.

6. Design and Development Aplicativo.-

For the design and application development a study of the physical infrastructure where you are installing the software took place, so that the following diagram is generated for the facilities.

7. Conclusions

- Collecting functional requirements of the system is crucial since it allows obtaining an effective modulus and thus a quality system.

- You have a methodology for software development, it is indispensable, since it clarifies the perspective desired by the user.

- The technology used in the development of this project makes it easier for programmers to provide source code tidy, comfortably and safely.

- It was found that the use of libraries of ZK Ajax helps a lot to handle, allowing the application to be much more efficient in terms of development time, since there are predefined components.

- The web applications developed in Java can be displayed on any browser.

- The open use different tools help in the development of the application code allowing you to create friendlier end-user applications.

8. Referencias

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