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"WEB SYSTEM FOR MANAGING SINAI BAPTIST CHRISTIAN CHURCH FROM IBARRA"

AUTHOR:

LIZBETH ALEXANDRA OLIVO MAYORGA

PRINCIPAL:

Ing. Marco Pusdá

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Web System For Managing Sinai Baptist Christian Church From Ibarra

LIZBETH ALEXANDRA OLIVO MAYORGA
Technical University North
Faculty of Applied Science Engineering
Engineering degree in Computer Systems
Email: lizbethaom@gmail.com

Abstract. *The advancement of technology has allowed it to reach all sectors of society, in order to help improve its functions as well as decision making in all types of institutions to further improve the treatment and recovery information through the use of technology as the system management information is now outdated and disorganized, it is for this reason that we have thought of creating a web system for managing Christian Baptist Sinai Church Ibarra which has the following Security Membership Ministries, Treasury and Reporting modules. The paper presents five chapters, each of which describes the processes and methodologies used during system development methodology such as RUP, free tools like Symfony and TCPDF. The system allows the pastor to take control of economic resources, goods and personnel, allowing handling information through real-time reports in a fast and safe, where access from any computer via the internet which have users of the institution by removing the barrier of time and space. By developing an impact assessment has been concluded that the project gives us high positive result significantly improving the implementation of IglesiaSystem Sinai Church Ibarra.*

1. Introduction

A web application has evolved with respect to desktop applications, since fail and engages resources in a more practical way as immediate access to information, less hardware requirements, platform compatibility and multiple users can access the same time.

The advancement of technology has enabled to reach all sectors of society. In order to help to improve service and in decision making in all types of institutions that it has been thought of creating a web system for managing the Sinai Baptist Church Christian from Ibarra; in order to engage this sector of society in the computer field.

2. Justification

At present, the decision to adopt a system for the management of information is important. The web system for the administration of the church is important and beneficial, especially for this sector of society, and that will allow to SINAI updated and technologically grow further to improve the proper handling of information in the church.

So, it has been determined that direct beneficiaries will be the church administrators, such as pastor, the secretary, the treasurer and the leaders of each ministry, who are the users who will be responsible for managing this system.

3. Theoretical Framework

3.1.PHP

PHP is an acronym for Hypertext Preprocessor.
PHP started as a modification to Perl written by Rasmus Lerdorf in late 1994. It's a leguaje senior embedded in html pages, ideal for developing open source is focused on web programming, can collect data from forms, dynamic pages in addition to its

integration with various external libraries, it can also be used on any operating system and uses object-oriented programming.
The PHP code is enclosed in tags <? php and> at the beginning and end allowing in and out of it.
Supports any manager database as MySQL, Oracle, PostgreSQL.

3.2 SYMFONY

Symfony is a framework designed to optimize the development of web applications with PHP and create a structure allowing the source code more readable and easier to maintain. Among the main features can be noted that separates business logic further automate common tasks thus minimizing development time while maintaining the goal of each application to be made, with such support managers databases like PostgreSQL, MySql , Oracle among others.
Symfony was built in order to fulfill the following requirements:

- Easy to install and configure on most platforms (with the guarantee that it works properly on Windows systems and Unix standards).
- Independent System Manager Database.
- Easy to use in most cases, but flexible enough to adapt to more complex cases
- Based on the premise of "suit instead of setting" , in which the developer needs to configure only the unconventional.
- Keep most of best practices and design patterns for web.
- Prepared for customizable enterprise applications and policies and architectures of each company as well as being stable enough to develop long-term applications.
- Readable code including comments and php Documentor allows easy maintenance.
- Easy to spread, allowing integration with third party libraries developed.

Advantages

- **Faster and less greedy:** In the IT world, it is not uncommon for people to refer to the performance of an application, once they reach the end of the project. I mean, once everything has been designed both functional and technology levels and unless you take it all again, performance optimization is not exactly an easy task.

- **Unlimited Flexibility:** Whatever your needs, Symfony is customizable. Its dependence on injector and event dispatcher that is fully configurable, with each of the bricks are completely independent.

3.3 APACHE

The Apache HTTP server is a HTTP web server open source Unix platforms (BSD, GNU / Linux, etc..), Microsoft Windows, Macintosh and others. The Apache server is developed within the HTTP Server (httpd) project of the Apache Software Foundation. Its primary objective is to provide a safe and effective extensible HTTP server with services
It is a powerful, flexible and compatible web server in addition to being multiplatform

ie running under any operating system
It is a program that allows access to static or dynamic web pages hosted on a computer, and works with the PHP language.

3.4 PostgreSQL

PostgreSQL is a management system database object-relational, distributed under BSD license and its source code available, freely distributed. It is the management system databases more powerful open code. Postgresql is available on any platform of Windows and Unix. Among the main features it can be said that his administration is based on users and privileges, reliable and stable, also supports views, foreign key, referential integrity, triggers, stored procedures, and subqueries.

3.5 TCPDF

TCPDF is an Open Source Class / Library for Popular Web Programming Language PHP, which allows you to create PDF files dynamically. (Laurcent, 2011).

3.6 Methodology RUP

Rational Unified Process in English, and its acronym RUP is a software development process, and together with the Unified Modeling Language UML is the most widely used standard methodology for analysis, implementation and documentation of systems oriented objects. The RUP is not a system with well-established steps, it is a set of adaptive methodologies to the context and needs of each organization, where the software is organized as a collection of atomic units called objects consisting of data and functions that interact together.

4. Architecture

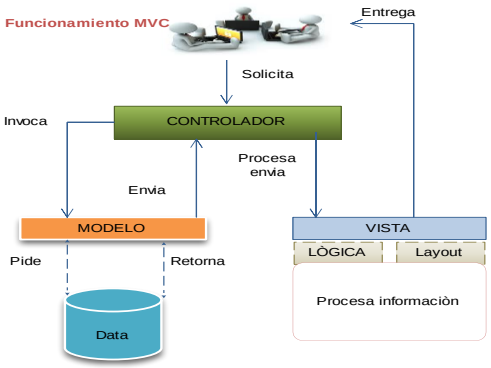

Figure: Architecture layered system
Source: The Author

The model represents the information that the application operates its business logic.
The view renders the model into a web page that allows the user to interact with the user.
The controller is responsible for processing user interactions and makes appropriate model or vision changes.

The MVC architecture separates the business logic with presentation, separates the model view of the application, this means that it is easier to maintain the application.

5. System Operation

IglesiaSystem is a web application developed for the Christian Baptist Church Sinai city of Ibarra, the same candle for the spiritual growth of the people who attend.
It aims to integrate all the modules in a system where the information were

available on the same, and where each user can access where you can meet your specific needs.
The system consists of five modules that handle are: Security, Membership, Treasury which consists of donations and inventory module and end module reports where all reports issued IglesiaSystem run.

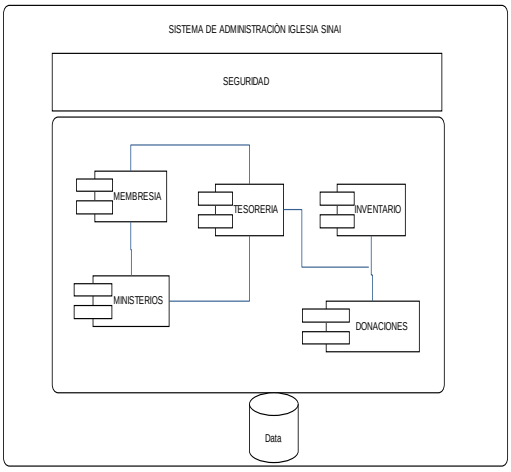

Figure: System Operation IglesiaSystem
Source: The Author

Security module

This module is used to grant privileges to users so the system security controls.

Membership Module

In module keeps track of the information of the members of the church, entering necessary personal information and Christian information. Forms are implemented by an easy to use environment and interact with the user.

Treasury Module

This module will take control of money, the reason for the entry and exit of money to register, and the registration of this information, the system will generate reports that will help the authorities to take control of the economy of the church. Includes two modules Module Asset Inventory and Donations

Inventory Module

This module is designed to keep track of all the assets that belong to the church. The system lets you save each time an item enters or leaves the premises of the church and whether it is shopping or donations, you can also view and edit the information and you can unsubscribe any item that is within the church.

Donations Module

This module will help keep track of donations that enter and leave the church, to determine where and where the donation will be directed.

Module Ministries

This module was created to keep track of attendance at meetings in the various ministries. Besides monitoring that is done visits recorded.
Discipled in which the individual disciple what else is determined be recorded.

Reports Module

Module cash and inventory has much important information for the reporting party, the reporting module collects data from these two modules to generate reports to the authorities of the Church.
Inside the church many resources as human resources, goods and money are handled for “IglesiaSystem” which is a system designed to keep track of these resources by assigning roles to users, through a safe, friendly and trusted environment.

6. Conclusions

- The investigation and collection of functional requirements of the system is crucial as this allowed the construction of an effective system and a financial system with this quality.
- Having a methodology for software development is essential because it clarifies the perspective desired by the user.
- Using the PHP language allows to maintain complete control of application development.
- Using of free tools is beneficial for the church, because no coasting licenses and can use the software without restriction.
- Merging different open standards in the development of the application allows to create applications more friendly to the end user.

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