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TOPIC: MOBILE APPLICATION, FOR THE PREVENTION AND DETECTION OF THE SEXUAL ABUSE OF GIRLS, CHILDREN AND TEENAGERS OF IBARRA's CITY

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Summary: *The present project is the development of an adaptable web page to any mobile device with access to Internet, in such a way that it allows to offer information and papers to resist the sexual abuse of children, girls and adolescents in the city of Ibarra; specially for the Provincial District attorney's office of Imbabura. For its development one was employed with the existing methodology at the Direction of TIC's based on those of agile development SCRUM at which one is employed directly and continuously with the user of the system. The hardware of software used for this project is based on the Architecture 3 layers with ASP.NET on the servant and browsers, mobiles, laptops, etc. on the client, in addition to using the database SqlServer. In conclusion, the application is designed to help to prepare the sexual abuse.*

Key words: *Provincial district attorney's office of Imbabura, Web page, SqlServer, ASP.NET, mobiles, Agile Development.*

1. Introduction

In the society the phenomenon of the infantile sexual abuse is a problem that the children / experts have supported for ages and in all the cultures. The sexual maltreatment to minors is a form of infantile maltreatment, since it can be a question of violent acts, but also the aggressor can make use of promises or threats to execute acts that do not leave trace, or that do not imply physical contact.

At present, one is not provided with this type of application to help the affected persons, parents and judges since although our country has numerous political, national and international commitments, as well as juridical obligations and especially the ethical responsibility of protecting the children, girls and adolescents (NNA); the problems of the infantile sexual abuse is an alarming reality, which demands interventions from different professional ambiences.

In the Ecuador studies and investigations have developing regarding this one problem, nevertheless there are clear the scarce programs and projects that treat the infantile sexual abuse from the primary prevention.

The main target is to contribute to take care of Ibarra by means of a mobile application, to prepare, to detect and to resist the sexual abuse of children, girls and adolescents and to inform the rights, of Constitutional laws that it them protects.

2. Materials and Methods

Next there are described the hardware and methodology used for the development of the system announcing concepts of frameworks, database, web servant, languages, big byline, reports and methodology of development.

2.1 Development hardware

The hardware of development used for the creation of the system is the following ones:

ASP.NET

It is a framework for web applications developed and commercialized by Microsoft. It is used by programmers and designers to construct dynamic web sites, web applications and web services XML. [1]

SQLSERVER

Microsoft ® SQL Server ® 2012 Express is a free system of effective and reliable administration of information, which offers a finished and reliable

information store for light web sites and applications of office. [2]

INTERNET INFORMATION SERVICE

Also, known like IIS there is a web servant and a set of services for the operating system Microsoft Windows. The services that sound offers: FTP, SMTP, NNTP y HTTP/HTTPS.

The computers that have this installed service can publish web pages so much place as vaguely. It is based on several modules that give him aptitude to process different types of pages. For example, Microsoft includes those of Active Server Pages (ASP) and ASP.NET. Also, those of other manufacturers can be included, like PHP or Perl. [3]

VISUAL STUDIO .NET

It is a finished set of hardware of development for the applications construction; Web ASP, Web services XML, applications for office and mobile applications. Visual Basic, Visual C ++, Visual C#, these computer languages make use of the functions of. NET Framework. Visual Studio is provided with a framework (.Net 3.5) and it is designed for performance progress, escalabilidad and safety. [4]

HTML 5

It is the fifth important review of the basic language of the World Wide Web, HTML. The new characteristics keep on being introduced to help the authors of Web applications.

HTML5 establishes a series of new elements and attributes that reflect the typical use of the modern web sites[5]

CSS3

Style sheet in cascade is a language used to define the presentation of a structured document written in HTML or XML. The specification of CSS3 comes with interesting innovations that more elaborated ones and more dynamics will allow to do webs, with major separation between styles and contents. It will give support to many needs of the current webs, without having to resort to designers' tricks or computer languages. [6]

JSCRIPT

Also known like JS faced to objects, based on prototypes, imperative, weakly tipiado and dynamic. It is used principally in its form of the side of the client, implemented like part of a web navigator allowing progress in the user's interface and dynamic web pages. [7]

JQUERY

Library rapid, JavaScript small and rich in functions. It does the things as covered HTML and manipulation of documents, management of events, animation and Ajax.
It works across a multitude of navigators. [8]

SPLUNK

It is a software to look, to monitor and to analyze information generated by machines (Big Data) of applications, systems and infrastructure IT across one web interface.

The Splunk target is to do the information of these machines (this Big Data) accessible to the whole organization, allowing the identification of bosses, achievement of measurements, diagnosis of problems and provision of intelligence (Business Intelligence) any part of the business. [9]

2.2 Development methodology

The methodology SCRUM used for the development of software is agile and flexible; it is based on a process of constant work, iterativo and incremental.

Desing of the Program

I document where there are described the activities faced to achieve a specific target of research, development and innovation of technology in an interval of time and definite cost, in addition to specifying the scope, justification, beneficiaries between other aspects related to the system to develop.

Rolls

There exist two fundamental aspects to differ, the actors and the actions:

a) Actors

ProductOwner. - is the responsible person of transmitting the vision, he knows the requests and marks the priorities of the project or product.

Scrum Master. - is the person who assures the pursuit of the methodology guiding the meetings and helping the team in its tasks inside the project.

ScrumTeam. - is the responsible persons of developing and delivering the product.

Users or Cliente. - are the final beneficiaries of the application to be developed.

b) Actions

Definition of the project (ProductBacklog): It is a document that gathers the set of requests that collaborate to the project. It is a document of high level, which contains generic descriptions (not detailed), and that is subject to modifications along the development.

Definition of the Sprint (Sprint Backlog): A subcommittee of requests, which come from the ProductBacklog, is the document that describes the tasks that are necessary to realize the requests subcommittee.

Pedagogic design

The most excellent topics of the sexual abuse are described in children, girls and adolescents, the targets, strategies and hardware that appear to resist the problems.
There are announced denunciations, real cases and the laws of support of the constitution.

Technical design

Document that lists all the user's histories determining the priority of each of them.

User's manual

Document focused for the final user, who describes in detail the functioning of the system. Every module fulfills a different function for every user.

Technical manual

Document centred for the experts on systems; in which, there is described the architecture of the system, installation, configuration, requests between other technical information.

Record of project Term

I document where it is announced that the development of the application has been considered finished and am approved by the persons to whom the project is delivered.

3. Results

Later the impact of the application is described in the population; in addition to the development and functioning of the software following the process established by the methodology SCRUM.

3.1 Market research

In accordance with the market research that was carried out by means of a survey in the urban area of take care of Ibarra, to know to what type of user the application is directed and to have a notion of the consumers' quantity; in addition to the characteristics, specifications of the application that the user wants to buy.

The following number of surveys was carried out by ages status:

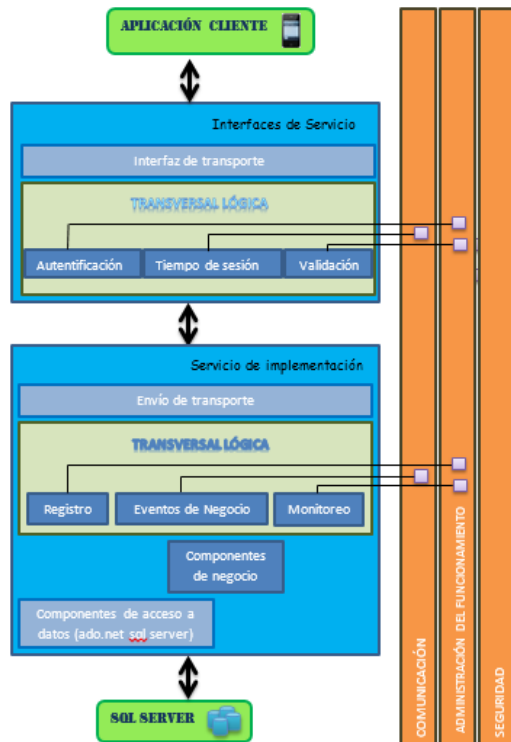| SURVEYS		
N°	years	# surveys
1	0 - 14	114
2	15 - 64	239
3	65 y +	30

Table 1: Number of surveys

The impact that is foreseen is positive, not only because it will simplify the information search on this matter, but also because by means of the diffusion of the campaign to announce the application there will be achieved to create expectation and interest of more persons, who might turn into potential clients and begin learning in these topics, giving birth to a major number of persons with wide knowledge.

3.2 Architecture of the System

The architecture of the System, it is based principally on the boss of design of 3 layers (presentation, logic and information), where each of the components was used according to the needs

and typical of the framework used for the development of the system.

It represents 1: Architecture of the System

The architecture is done by the intention of which any of its three layers could be updated or replaced in accordance with as they are changing the needs.

Presentation layer: It is the layer of the client where information related to certain services opens as for example, messages of help, denunciation, contents of laws, etc.
It is related mainly to the layer of business logic.

Layer of business logic: Web servant more code invoked by this one, is the one that is in charge of generating the answer to send the client (generally HTML).

Layer of access to information: The database servant contains this layer. Here the information is stored and received. The business logic gains access to this layer across Internet.

3.3 Development of the System

The system is based across a main architecture, in order to which this is more manageable and to we

allow to obtain the only presentation and access, since this account with several modules that have different functions depending on the permissions of the logged in user.

It represents 2: User's function

Manager: The user manager has access to all the modules and can create, modify or eliminate any user, as the system needs it.

Typist: The typist and alone manager these two users have permissions, to deposit the respective denunciations in this form. They can insert, modify and eliminate any information field as for the denunciations realized that they are stored in the database.

It represents 3: Form of the denunciation

Guests: They are those who have access to all the public information and to the reports of the denunciations.

To part of the manager and the digitador also they have access to order the help mail, when they are in danger of some type of sexual abuse. The message allows to locate the exact position of the victim to be able to offer the due help.

It represents 4: To send message

3.4 Experimentation and Ratification of the System

Splunk is an easy, rapid, sure software to look, to analyze and to visualize the information machine generated by the web application.

The information generated inside an organization, cell phone, servant, computer, every day, generates million events, records, Logs or files without an apparent end. For Splunk this is what allows him to observe what others ignore making visible the information that it can help to that your company is more productive, profitable, competitive and sure.

4. CONCLUSIONS

✓ The users who are ready to realize consultations periodically in the application, will understand perfectly the content of the topic since they are persons with formed criterion.
✓ This subject-matter is of big importance for the parents since they are the protectors and must know how to act before a situation of this magnitude; coming to the persons indicated for the corresponding help.
✓ The application is designed for devices that will help to prepare the sexual abuse.

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