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Web Based Archiving System with SMS Support

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ABSTRACT : This study aimed to develop Web Based Archiving System with SMS Support that would help the students, admin or whoever is in need to easily access this system. In order to reduce the cost and management and make it convenient for the user, this system included some of the detailed information regarding the students in their school. The researcher use Scanner for scanning the documents. This study designed and developed a Web Based Archiving System with SMS Support it specifically examined the quality of the develop software based on McCall's software quality Model. It also determined the level of system acceptability based on the required functionality, to provide fast and easy way to find the documents for students need. Develop a system which easily handle and monitor the transactions of students who needs the specific documents and generate reports. The research process from conducting preliminary survey of initial design until the develop system underwent evaluations, reviews and updates. Findings reveal that the developed system has passed all the criteria based on the McCall's software quality model. It is concluded that the system is highly acceptable by end-users and provides fast and easy way to archive documents.

I.INTRODUCTION: According to EDAMS (2018). Stated that, a case study of a University Registrar in the Philippines. Derived from Inu.edu.ph, Development of Electronic Document Archive Management System, and this study would like to investigate the process of document retrieval and record keeping of the paper archives. It's a new way of record management and transaction processing that would achieve efficiency in processing student documents. It would be a great help to the administrative personnel, academic personnel, grantors or stakeholders, and students in updating, retrieving and generating student data. Every year, the students of Sagay National High School-Rizal Extension are rapidly increasing. Security maintenance of the documents and files are going harder and difficult. The school

receive lots of request, but they cannot response immediately due to lack of facilities and personnel for some students documents are still manually collected and need arrangement therefore those who inquires and sends request form have to wait for five (5) to more days to get a response. The current practice of Sagay national high school Rizal-extension to respond to the request of students and other school is to check the name and documents of each students manually as well as verifying whether they can release them to the student or not. Because of this practice, the requesting parties need to wait and return after three days or more to get the documents. With the help of Web based Archiving System with SMS Support the gap will be lessened or eliminated. Web Based Archiving System with SMS Support is a system that will develop manage and keep all information or documents of the students in every institution. This system will help the institution to make the administrative task and provide real-time access to the data. Building this system in web based interface will further help ease accessibility through any web browser. Through the use of Web Based Archiving System with SMS Support, the staff can store and look for students personal data in the easiest and fastest way possible. Gathering data and storing files from new enrollee and searching for documents of old students in a fastest manner. That person who wants to send request and ask for inquiries they have the best alternative like using our system. And will receive immediate response within one (1) day, unlike the manual inquiry that may consume five (5) or more days.

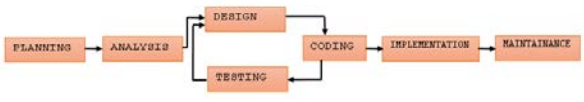
II. METHODOLOGY

This chapter presents the research of the system development methodology used by the researcher in the software development of the system, design methodology which includes the methods of research, methods of collecting data, development of research instrument, and sampling design. With the help of the tools and techniques, researcher will have the knowledge, skills, and capability to apply those series of information to their researcher’s topic.

Software Development Model

This section presents the system design and methodology which includes the requirements, analysis, and documentation on the different stages such as data analysis and quick design, system design, prototype cycle, testing, and implementation.

Rapid Application Development



Prototype Model Approach

Figure 2.0 shows the Prototype Model used by the

researcher for the development of the system. It shows the different processes that the researcher need to follow to have a better outcome for the developing system.

Planning

This aims to gather specific software requirements and data base. The researcher conducted an interview to the Secretary every year, the students of Sagay National High School-Rizal Extension are rapidly increasing. Security maintenance of the documents and files are going harder and difficult. The school receives lot of request, but they cannot respond immediately due to lack of facilities and personnel for some students documents are still manually collected and needs arrangement therefore those who inquire and sends a request form have to wait for five (5) or more days to get a response. The current practice of Sagay national high school Rizal-extension to respond for the request of students and other school is to check the name and documents of each students manually as well as verifying whether they can release them to the student or not. Because of this practice, the requesting parties need to wait and return after three days or more to get the documents. And seek suggestions for the respondents.

Analysis

The researcher analyzed the data, information and the user needs. This phase helped the researcher to formulate a solution to the user needs. The researcher conducted a survey which was a verbal interview wherein the researcher offered the client a developed project that will be helpful in terms of accessibility. During the interview of the researcher, he/she explained the different functions of the proposed system wherein the client agreed and made some suggestion regarding what the researcher offered. After conducting an interview the researcher designs for the developed system.

Design

The researcher started to develop the system based on the requirements of the user and ensuring the system design to be more interactive and user friendly with efficient functionality. They first built is a prototype based on the planned design and data table. The researcher showed the architectural design of the system, the flow on how it works, and the functions of the features that are included in the system.

Coding

This is the development cycle stage, requirements refining will develop until the development is completed, and testing. In this study, programmer level 30% is had undergone testing

by three experts with using Expert Testing (McCall's). Programmer level 60% is the user acceptance testing is performed by the researcher, secretary and students by using End-User (Self-made questionnaire, ISO). Programmer level 90% is the final testing; this will include the feedback of the proposed system before it will be implemented. It will also inform the researcher and the developer if there are any bugs, suggestion and if the system's functionality will works well.

Implementation

system is developed and tested, it has to be implemented in the organization. This phase includes training the users, providing documentation, and conversion from any previous system to the new system. During this stage preparation of the developed system is being processed and system test will be executed. The researcher should do some training the place of their client to make sure the system will totally works. The researcher will refine the system by client's additional needs.

Maintenance

The project plan will be updated by the group during this stage. The team will be able to update user's documentation and perform user acceptance testing for the implementation of the project.

Respondents of the Study

Table 1.0 shows that the sample size in this study are the two (2) the Secretary and thirty-three (34) Students of Sagay National High School Rizal-Extension. The researcher used the purposive sampling technique.

Respondent	Number Of Staff and Students
Secretary	1
Grade 10	34
Total: 2	35

III. RESULTS AND DISCUSION

Table 2.0: Evaluation Result given by the Respondents

The Quality of Developed Software in terms of Usability

The table shows the different criteria in terms of Usability with its corresponding Mean and Interpretation. On Operability the system was rated by the expert with a Mean of Three Point Thirty Three (3.33) which is interpreted as Average. On Training, the system was with a Mean of Three Point Sixty Seven (3.67) which is interpreted as Good. The Grand Mean in terms Usability is Three Point Five (3.5) which is interpreted as Average. The Overall Mean of the system based on McCall's software quality model resulted to Three Point Thirty Three (3.33) which interpreted as Average.

The researcher used the following rating scale:

Table 3.0:
Score Range

Interpretation	
4.21 - 5.00	Very Good
3.41 - 4.20	Good
2.61 – 3.40	Average
1.81 – 2.60	Poor
1.00 – 1.80	Very Poor

The table shows the different interpretation of every criteria which shown below. Four Point Twenty One (4.21) to Five (5.00) interpreted as Very Good. Three Point Forty One (3.41) to Four Point Twenty (4.20) interpreted as Good. Two Point Sixty One (2.61) to Three Point Forty (3.40) interpreted as Average. One Point Eighty One (1.81) to Two Point sixty (2.60) interpreted as Poor. And One (1.00) to One Point Eighty (1.80) which interpreted as Very Poor.

TABLE 4.0 The Quality of the Developed Software in terms of the following software criteria

Criterion	Mean	Interpretation
Effectiveness		
• Effectiveness	4.11	Good
Efficiency		
• Efficiency	4.28	Very Good
Satisfaction		
• Likability	4.11	Good
• Pleasure	4.28	Very Good
• Comfort	4.42	Very Good
• Trust	4.34	Very Good
Safety		
• Economic damage risk	4.05	Good
• Health and safety risk	4.28	Very Good
• Environmental harm risk	4.28	Very Good
Usability		
• Learnability	4.00	Good
• Flexibility	4.42	Very Good
• Accessibility	4.48	Very Good
• Context conformity	4.48	Very Good
Grand Mean	**4.27**	**Very Good**

The table shows the different criteria in terms of ISO with its corresponding Mean and Interpretation. On Effectiveness and Likability the system was rated by the respondents with a mean of Four Point Eleven (4.11) which is interpreted as Good. On Efficiency, Pleasure, Health and safety risk and Environmental harm risk, the system was rated by the respondents with a mean of Four Point Twenty

Eight (4.28) which is interpreted as Very Good. On Comfort and Flexibility the system rated by the respondents with a mean of Four Point Forty Two (4.42) which is interpreted as Very Good. On Trust the system rated by the respondents with a mean of Four Point Thirty Four (4.34) which is interpreted as Very Good. On the Economic damage risk the system was rated by the respondents with a mean of Four Point Five (4.5) which interpreted as Good. On the Learnability the system was rated by the respondents with a mean of Four (4.00) which is interpreted of Good. On Accessibility and Context conformity resulted to Four Point forty Eight (4.48) which is interpreted as Very Good. The Grand Mean of the system based on ISO resulted to Four Point Twenty Seven (4.27) which interpreted as Very Good.

Conclusion

The in light findings of the study, the researcher conclude that the Web Based Archiving System with SMS Support is of good quality system, highly accepted by end users, secured, reliable, fast and easy to use, provides fast and easy way in getting, storing, adding, and editing student's data as well as generating student's reports selected by the user.

1. The system has archived the documents of Sagay National High School-Rizal Extension by using the developed system.
2. The system has generated needed reports and forms by the School Office.
3. The system has passed the evaluation based on McCall's Criteria, thus considered as of good quality.

The system has passed all the characteristics from ISO/IEC 25010, thus it is considered as usable.

Recommendations

Based on the findings and conclusions drawn, the following recommendations are put forward:

1. The Sagay National High School-Rizal Extension will consider implementing the system to manage the documents easily and faster; however, the system can't send SMS without signal. In addition, it is needed to improve the technicalities of the system.
2. It is also recommended that similar study may be conducted to assess further the effectiveness and usefulness of the developed system.

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