# Patient information and billing system

Computers are widely used in day to day activities. A computer is a general purpose device that can be programmed to carry out a finite set of arithmetic or logical operations. Since a sequence of operations can be readily changed, the computer can solve more than one kind of problem. A patient is any recipient of health care services. The patient is most often ill or injured and in need of treatment by a physician, physician assistant, advanced practice registered nurse, veterinarian, or other health care provider.

Information is a data that is accurate and timely, specific and organized for a purpose, presented within a context that gives it meaning and relevance, and can lead to an increase in understanding and decrease in uncertainty. Information is valuable because it can affect behavior, a decision, or an outcome. Computerization is a control system that manages processes in industrial workplace. It reduced human errors and processing time, thus it can boost productivity and resulted into high quality of product produce.

In Information System, computerization is concerned about interrelating different but interdependent transactions. This can result in a system with well-integrated processes that can perform much faster and more accurate than a manual system. Computerization overcomes many of the defects in the manual system, is fast and gives control on the system. Computerization helps in decision making. The output formats can be tailored to suit quick retrieval of information that is necessary for decision making. Billing is the total amount of the cost of goods of goods or services billed to a customer, usually covering purchases made or services rendered within a specified period of time.

A billing system is a combination of software and hardware that receives call detail and service usage information, groups this information for specific accounts or customers, produces invoices, creates reports for management, and records (posts) payments made to customer accounts. Computerized Patient Information and Billing System were prepared for Clinics to explore options for implementation of the said system and to improve the current system which is manual file system. This software can be used to keep track of the patients registering in a clinic. Also, this system support accessing the previous visit histories of any patient, search for patient by name, other properties, etc. Patient information and billing system includes the basic information about the patient and billing records.

Statement of Objectives

General Objective

The study aims to develop and implement computerized patient information and billing system, for the Dr. Rhodelita Rellosa Victor Children's Clinic before the end of the first semester school year 2013-2014, which could help them to fasten the admission and discharging process of patients, and to provide automatic computation of one's patient bills.

Specific Objectives

To design a prototype that will provide accurate patient information, monitor the medical services that each patient undergo, make the recording of all patient information more organized and generate automated reports of patients in the Dr. Rhodelita Rellosa Victor Children' s Clinic. To develop a

system that will lessen the numbers of paper works. Provide security of patient information and medical records of each patient. To design a prototype that will compute and provide a credible and error free invoice for the client or customer. 1. 3 Significance of the Study

Children's Clinic The study will serve as a new instrument for the technological advancement that greatly benefits the Dr. Rhodelita Rellosa Victor Children's Clinic. This computerized system is intended to lessen the manpower which will lead to a faster and more accurate billing process which will lead to profitability of the Children's Clinic. Patients

The service of the Dr. Rhodelita Rellosa Victor Children's Clinic to the patient will become more convenient. Less time will be consumed during the payment process. This will also lessen time for patients to wait for computation of Children's Clinic bills. The study is also expected to increase the satisfaction of the patients to the services of the Children's Clinic.

Owner Patient Information and Billing System will help the owner to finish task faster and easier thus giving more time to do other activities. This will also provide convenience in terms of report generation. And also it can provide accurate results in the billing and payment transactions.

Customers

The system can give an accurate billing result, no more erroneous bill calculations that the manual system provides. Since, it is a computerized system it can provide reliable and credible results.

Other Researchers

Every study needs a previous related study, thus this can be a reference for future development. Researchers who will be having similar topic with this piece of work can definitely find useful information here. Besides, this study will help them conceptualize related ideas that were not included in this paper.

Scope and Limitations of the Study

Scope of the Study Patient Information and Billing System will provide the transaction activities including patient registration and also the billing transaction. The following are the scope of the project Patient Information and Billing System: A. Login

The log-in module is designed to provide security for the system. This module will need a username and a password in order to open and access the system. B. Patient Registration This module is where the information of the patients takes place. C. Billing This module provides data entry of patient's statement of accounts which is capable of adding, editing, saving and printing. It also computes the patient's bills including the deductions of Senior Citizens discounts. D. Help.

The help module includes information that will help to instruct the users in using the system.

Limitation of the Study The following are the limitation of the project entitled Patient Information and Billing System: A. Manual System This study tries to eliminate the manual Patient Information and Billing System that is currently used by Dr. Rhodelita Rellosa Victor Children's Clinic. All information from a

patient will be recorded, even the laboratory procedures and medicines. With this information, the patient bills will be automatically computed and generated.

Methodology of the Study

In doing this study, the researchers prepared different methods and techniques upon gathering information that will help the researchers in order to ensure that there is a development taking place in the system.

Prototyping Model

Prototyping Model The Prototyping Model is a systems development method (SDM) in which a prototype (an early approximation of a final system or product) is built, tested, and then reworked as necessary until an acceptable prototype is finally achieved from which the complete system or product can now be developed. This model works best in scenarios where not all of the project requirements are known in detail ahead of time. It is an iterative, trial-and-error process that takes place between the developers and the users.

Steps in Prototyping

Requirements Gathering This is the first step that the developers encountered. Wherein in this stage, the developers worked with the client, observed the business processes and conducted different interviews to determine the necessary requirements in developing the system. Also information about the business organization like company background and existing system are documented.

After this step, the developers followed an iterative process wherein we created another quick design, build another prototype, let our client evaluates the prototype and refined if necessary.

Quick Design The developers develop the initial design quickly, which meets the user's basic requirements. The design only shows the overview of the future system.

Build Prototype In this step, the quick design is transformed into a prototype by the developers. This prototype only performs the basic requirements of the business organization. Customer Evaluation The developers delivered the prototype to the business organization. The client provided necessary comments and suggestions to improve the prototype. Also, the client evaluates the prototype if it meets their needs in our case the initial prototype didn't meet the client's needs.

Refine Requirements Then after the customer evaluation, the developers decided to refine and make necessary improvements and changes to improve the prototype. The developers analyze the requirements again to apply it to the refined requirements.

Design The developers created a new design that fits the client's requirements. The design shows the overall functions, features and modules of the future system.

Implement In implementation, the developers chose the appropriate programming language. This language will help the developers in developing a system. The developers transferred the created design into codes.

Test In this step, the developers test the generated codes in the implementation. The developers allow the client to test the system. In testing, all the errors encountered are debugged.

Maintain The developers will maintain the system. With this step, the developers will upgrade, update and improve the system. This step will enhance the system and will function in accordance to the needs of our client.