**CHAPTER II  
  
CONCEPTUAL FRAMEWORK**

This chapter presents the review of related literature and review of related studies. It also includes the conceptual model of the study and the operational definition of terms.  
  
**Review of Related Literature**

**Records Management System**

According to techopedia.com, a Record Management System is the management of records for an organization throughout the records-life cycle. The activities in this management include the systematic and efficient control of the creation, maintenance, and destruction of the records along with the business transactions associated with them.

Techopedia also explains the activities involved in records management. These are identifying first the information that is needed to be captured; this follows up the information planning and enforcement of policies and practices regarding creation, maintenance, and disposal of records. Next is the classification, identification, and storing the records. The last activity mentioned is the coordination of providing internal and external access to the records without forfeiting the data privacy and business and data confidentiality of the organization.

Furthermore, ricohdocs.com explained that the records management is basically the process of creating, maintaining, using, and disposing records in an organized way. This helps achieve transparent, accountable, and efficient governance. The records should be managed following the records management program of an organization that is governed by a certain policy.  
  
 In addition to this, wikipedia.org clarifies that the ISO 15489-1: 2001 standard (“ISO 15489-1: 2001”) defines record management as “the field of management responsible for the efficient and systematic control of the creation, receipt, maintenance, use and disposition of records, including the processes for capturing and maintaining evidence of and information about business activities and transaction in the form of records.”

**Maternity Clinic**

Wikipedia.org defines the maternity clinic as a clinic that specializes in maternal care. It is responsible of caring for women during and after pregnancy. It also provides care for newborn infants, facilities for childbirth, maternity checkups, and family planning. It may also act as centers for clinical training in midwifery and obstetrics.

**Midwifery**

According to Wikipedia.org, Midwifery, as known as obstetrics, is a health science and health profession that deals with pregnancy, childbirth, newborn care, reproductive health and postpartum period.

Midwifery in the Philippines as a profession was relatively unknown until Dr. Jose Fabella founded the first school of midwifery in May 1992 – the Maternity and Children’s Hospital (now called Dr. Jose Fabella Memorial Hospital). According to the Integrated Midwives’ Association of the Philippines (IMAP, Inc.), Dr. Fabella led the midwifery to utilize in the Philippines by training the young women in midwifery to gradually supplant the unlicensed midwives. Midwifery was became a course and continuously expanding in the country. Thereafter, the midwifery profession has reached a high standard and its activities have increased in a scope. This result into recognition that a dynamic midwives association must be created to serve, train, educate, and provide health service in the country. Integrated Midwives Association of the Philippines was created through this recognition on March 17, 1976.

**Inventory Management**  
 Inventory Management is the practice of supervising and controlling the non-capitalized assets and stock items in an organization. Inventory Management supervises the flow of the assets from manufacturers to warehouses and to the point of sales. Inventory Management’s main function is to keep records of the flow of the organization’s assets.

In addition, an article in investopedia.com discussed the inventory management as the practice overseeing and controlling of the ordering, storage, and use of components that a company uses in the production of the item it sells. It is also the practice of overseeing and controlling of quantities of finished products for sale.

**WAMP**

WAMP is an acronym for Windows, Apache, MySQL, and PHP. According to their website, wampserver.com, WAMPServer is a Windows web development environment. It allows the user to create web application with Apache2, PHP, and MySQL database. PhpMyAdmin is also included to manage the database easily.

**Windows Operating System** An article written by The Editors of Encyclopedia Britannica in britannica.com discussed the Windows OS. Windows was created by Microsoft Corporation to run on Personal Computers (PC). It features the first Graphical User Interface (GUI) for IBM-compatible PCs. Through the years since 1985, Microsoft’s Windows dominated in the market and approximately 90 percent of PCs run a version of Windows. Up until today, Windows expands its product creating more possibilities and innovation to its customers.

**Apache HTTP Server**

Apache HTTP Server is free and open-source cross-platform web server software. According to their website, httpd.apache.org, Apache HTTP Server Project aimed at creating a robust, commercial-grade, full of feature, and freely-available source code implementation of an HTTP (Web) Server.

**PHP**  
 An article in Wikipedia.org about scripting language discusses about PHP. PHP is a server-side scripting language that is designed primarily for web development; PHP also extends its usability in general-purpose programming language. It is originally created by Rasmus Lerdorf in 1994 and it stands for the recursive acronym for PHP: Hypertext Preprocessor. An addition from the article, a PHP code may be embedded into HTML or HTML5 markup, web frameworks, web content management systems, and web template systems.

**MySQL**

MySQL is an open-source relational database management system. It is created by a Swedish company named MySQL AB and founded by David Axmark, Allan Larsson and Michael “Monty” Widenius. MySQL’s name is a combination from Michael Widenius’ daughter “My”, and the abbreviation for Structured Query Language, “SQL”. MySQL’s first internal release was on May 23, 1995 and a Windows version was released on January 8, 1998. Continuous versions were released every year and in 2008, Sun Microsystems acquired MySQL AB. Shortly after 2 years, Oracle Corporation acquired Sun Microsystems in January 27, 2010.

**Cascading Style Sheet**

As stated in www.w3.org, CSS is responsible on insulating the script body to its display. This is specially made to give the author/creator a control outside of structure, particularly the text alignment, object position on the page, audio and speech output, font characteristics and tables. In addition, by using style sheets your project can be more accessible than usual.

In expanding the idea to the subject matter, CSS can be your reference by offering some features that can give a precise control on your project such as control on spacing, alignment and positioning. Authors/creators can avoid unexpected use of such tags. Relevance to the subject of issue about tags, the style sheet itself can also avoid and help on reduce image misuse.

Using style sheets can allow you to access the basic fundamentals of HTML like font size, color and style and also it can support automatically generated numbers, markers and other content that can help the authors to stay oriented within their document.

**ISO 9126**

International Organization for Standardization 9126 is about evaluation of software. ISO 9126 is divided into 4 major parts: quality model, external metrics, internal metrics and quality in use metrics.

ISO 9126 also have 6 main quality characteristics, stated as the following: functionality, reliability, usability, efficiency, maintainability and portability.

Functionality defines the purpose of any product or service. It also stated that the more functions the software have the more it is become complicated.

For example, in creating structure design for a business, as usual, you listed all the things that are needed in order to create such a design. These listed things are the functions. Functions in functionality is expressed as totality of essential functions that the software product provides. The author stated that it is important to note that the presence or absence of these functions in software product are either define as existing or not same idea as yes or no.

Reliability means the capability of the system to maintain its operation under some pressures for example, if an existing system goes down for 20 seconds then comes back the system should be able to recover and continue functioning. This defines that reliability in a system must give a quality of performance with or without issues.

Usability is existing with regards to the functionality. Usability defines the usefulness of a system, the usefulness of its function to be particular. For example, ATM machine should dispense cash as requested, if the user request to withdraw i.e. $5000, the ATM should release $5000. This where the usability works with regards with functionality. If the system didn't work as expected therefore the usability is not existing.

Efficiency also works with functionality, but this one is different because it is concern with the system resources. With relevance to software product, efficiency is indicated by the amount of disk space, memory and network.

Maintainability in a sense of fixing the errors and maintaining its operation. The developers for example, in order to maintain their system's functions, they protected it by the means of code readability or complexity as well as modularization. Any concern that helps identifying the cause of errors and fixing the errors is the main definition of maintainability in system product.

Portability this characteristic define as how the software can adopt to its environment.

Reference used: http://www.sqa.net/iso9126.html

**Short Message Service**

According to www.lifewire.com, t's a way to send short, text-only messages from one phone to another. You can send a message by using cellular data network provided by your network provider. The length of a SMS messages are usually 160 characters and space is counted.

**Short Message Service Gateway**

As defined by www.techopedia.com that Short Message Service Gateway serves as a gate for where the messages are sent and received. It is also concern with the data traffic whenever the text messages are sent late.

**Object Oriented Programming**

In reference to searchmicroservices.techtarget.com OOP defines organization around objects rather than functions and it prefer data rather than logic. In history, each program displayed as a logical structure and proceeds with inserting data process it inside the program and produces an output data.

**Database**

The usual definition of database based on my experience is that it is consist of data rows and columns with regards to the data inserted. It is also a collection of information that is organized so it means that it can easily accessed, managed and updated.

Database definition according to www.searchsqlserver.techtarget.com, that data is well-organized inside into rows, columns and tables. As stated, you can insert, update and edit each data table. Whenever a new data is added, the database or database table expanded as well as updated.

**Operating System**

"The operating system (OS) is the most important program that runs on a computer. Every general-purpose computer must have an operating system to run other programs and applications" - http://www.webopedia.com/TERM/O/operating\_system.html

Operating system is the tree of each branches because you cannot use your computer as you are using it normally without a user-friendly OS. Also, you cannot run a software without a supporting Operating System because the system knows the compatibility of it. For a larger system, Computer Operating System does have more responsibilities that usual because of its different usability and functionality.

**Microsoft Office**

Microsoft office is consisting of Word, Excel, PowerPoint, Access, Publisher and Outlook. Each program has different purpose; it depends on the user on what program is needed. If you are creating some documents or resume to be particular, you have to use Microsoft Word. If you are a Financial Assistant, you can use Microsoft Excel because it has a function that can actually help with regards to computing. If you want to create a presentation, you can use Microsoft PowerPoint. If you are inspiring to create a program with inserting, updating and deleting data, you can use Microsoft Access as your database. You can create some designs with the help of Microsoft Publisher. Inside the office, the emails should be protected and private, you can use Microsoft Outlook as your program for sending email exclusively.

**Adobe Photoshop**

Photoshop is a software where you create some designs for your project, also it is use in editing photos. It is the most predominant photo editing software in the market because of its features that can actually help your project to become professionally-looked. Digital painting is also possible to create using Photoshop.

**Conceptual Model of the Study**

On the basis of the foregoing concepts, theories and findings or related literature, studies presented and insights taken from them, the conceptual model of the study was developed as shown below.

OUTPUT

Web-based Maternity Clinic Management System for Jewel’s First Maternity Clinic

PROCESS

System Design

System Development

System Testing and Improvement

INPUT

Knowledge Requirements

* Maternity Clinic
* Record Management System
* Inventory System
* Billing System
* Database
* Dataflow Diagram
* Entity Relationship Diagram
* ISO 9126
* PHP
* HTML
* CSS

Software Requirements

* WAMP
* Photoshop
* Sublime Text 3

Hardware Requirements

* Computer Unit
  + 2GB RAM
  + 500GB Hard Disk
  + Intel® Atom ™CPU N2600

EVALUATION