**Chapter 1  
  
THE PROBLEM AND ITS SETTING**

This Chapter contains the introduction, background of the study, objectives of the study, scope and delimitation, and significance of the study.  
  
**Introduction**

Maternity Clinic, also Lying-in Clinic, is an institution in the Philippines that provide excellent maternal services for pregnant women, newborn infants, and promoting reproductive health for the community. It offers maternal services including prenatal checkup, postnatal checkup, delivery or child birth, consultation, immunization, Newborn Screening, laboratory, and Family Planning. Maternity Clinic’s organization must be mainly composed of Midwives, Obstetrician, Gynecologist, and Pediatrician. Midwives, Obstetrician, and Gynecologist are responsible mostly to the maternal services for pregnant patients, while the Pediatrician is the one who manage the health of the child.   
  
 Maternity Clinics are under the Department of Health (DOH) and must secure necessary permits to operate. Some Midwives are affiliated to some associations like the Midwives Association of the Philippines (IMAP, Inc.). IMAP, Inc. was born on 1947 headed by Atty. Angelina C. Ponce where its main visions are to promote highest standards of midwifery practice, enhance the competence of members, reduce maternal and infant mortality, and sustain collaboration and partnership with related agencies.

**Background of the Study**

The Jewel’s First Maternity Clinic is located at 136 Block 8 Zone 2 Brgy. Fort Bonifacio, Taguig City. Its second branch is located at 131, Lot 8, Meralco road Upper Bicutan, Taguig City. It’s a private maternity facility that performs clinical and maternal duties to their patients for almost 8 years and founded by Mrs. Remedios A. Saludes, R.M.  
 This maternity clinic is still using the old process of paper system in their recording process. Through the use of papers in recording patient’s information, checkup results, and transaction records, piles of records are stored in their respective filing cabinet. It causes a slow retrieval of files and sometimes misplacement of some records due to overloading of files in the filing cabinet. The process of generating of report, too, takes time because the staff-in-charge needs to retrieve a record and create a report using pen and papers. Patients can only know the availability of their desired appointment when they ask the in-charge midwife about it.

During the duration of pregnancy, a patient is required to undergo Prenatal Checkup to have a healthy pregnancy. In the first trimester, the patient must go through once or twice prenatal checkup. The succeeding five months will have at least three visits for prenatal checkups every month. The ninth month will be every week until the due date of pregnancy. Prenatal Checkup is mainly composed of Physical Examination and Medical History. Physical Examination is firstly done through measuring the height and weight of the patient to calculate the Body Mass Index (BMI). The BMI will determine the prescribed weight gain to be maintained while pregnant. Physical Examination is also consists of measuring the blood pressure, heart and breathing rate. The midwife will conduct a complete physical evaluation especially in cervix, uterus, and vagina of the patient to have a confirmation about the stage of pregnancy. It is sometimes advisable for the patient to have a Pap smear test to evaluate the status of patient’s cervix.

On the other hand, Medical History examination is also important to have an assessment about the pregnancy history of the patient. The midwife will interview about the patient’s past pregnancies, if she had undergone childbirth, menstrual cycle, and gynecological history. The said patient will also be examined about her medical history, medications used, and her lifestyle. The patient must be honest and open about this to ensure a healthy pregnancy.

Recording process during the delivery of the patient starts by identifying the date and time of labor and delivery, patient’s information and type of delivery. During this time, the prenatal checkup results of the patient are essential for the midwives to have an early assessment about the maternal care. These checkup results will be the basis for a successful childbirth.

After a successful delivery, the following information of the newborn infant will be now recorded and stored in the filing cabinet. One of this is the Physical Examination to check for obvious signs or status of the newborn infant. After 24 hours, the Newborn Screening (NBS) will also be done to ensure that the infant is safe from Congenital Metabolic Disorder. Without Newborn Screening, an infant with Congenital Metabolic Disorder may lead to mental retardation or death if it is left untreated.

Postnatal Checkup will be scheduled six weeks after the patient’s childbirth. It is also called “Six week check”. The midwife will make sure that the infant is growing healthy and the mother is recovering well from the operation. Postnatal Checkup is an important evaluation for both patients. It is important for the mother to discuss her physical, mental, and emotional state after the childbirth. It is also a chance for the patient and her partner to talk about to the midwife about the difficulties she experienced during the six weeks and other related things about her post pregnancy. On the other hand, the newborn infant will undergo physical examinations to check if all the organs are developing well. Immunization and vaccines are also included to ensure the health of the patient. Information about the newborn infant will be stored in a baby book which will be used in the following checkups.

The researchers recognized that there is a problem in the storage of the patients’ records and the generating of reports. The researchers believed that a dynamic Maternity Clinic Management System is needed to solve the problem.

The researchers aimed to develop a Maternity Clinic Management System which is expected to automate most of the transactions and clinical services of the clinic giving emphasis to management, retrieval, storage and the creation of reports of the patients’ records. It also gives emphasis between the improvement of communication and connection between the *Jewel’s First Maternity Clinic* and its valued patients.

**Objectives of the Study**

The general objective of the study is to develop a Maternity Clinic Management  
System. Specifically aims to:

1. Design the system with the following attributes:  
 a. patient record management system;  
 b. scheduling system;  
 c. online appointment;

d. billing system; and  
 e. report generator for Medical Records, Prenatal and Postnatal Checkup Results .  
2. Create the system using Sublime Text as text editor, WAMP (Windows, Apache,  
 MySQL, and PHP: Hypertext Preprocessor), HTML (Hypertext Markup Language),   
 CSS (Cascading Style Sheet), and Adobe Photoshop CS6.

3. Test and improve the system in terms of functionality and usability.  
4. Determine the level of acceptability of the developed system using ISO 9126.

**Scope and Delimitation of the Study**

The study focuses on designing, development, testing, and improvement of a   
Maternity Clinic Management System for *Jewel’s First Maternity Clinic*.The system provides the user an automated Patient Record Management System   
where the user can perform the prenatal and postnatal checkups, monitor patients who  
need immediate medical assistance, and create patient record reports.   
  
 In addition to this, the user can also perform a Clinic Item Monitoring to ensure that   
there are enough supplies for the clinic.

Scheduling System is also included in the study to manage the appointments between  
the doctors, midwives, and patients.

Billing System is also added to have a secured and fast issuing of Statement of Account for patients.

Lastly, Online Appointment is for the patients. Scheduling for an appointment made easy by knowing instantly the availability of desired date and time.

Laboratory result, Recording Labor and Delivery information of patients, and centralizing the database of two clinic branches are not included in the system.  
  
**Significance of the Study** This study that we will develop and deploy can help the *Jewel’s First Maternity Clinic* on securing their clinical records and most importantly the processing of their everyday clinical tasks. It will be simplified and maximized time spent. This will result into better maternal services and boost the profit.

Additionally, this study will provide the patients a better service.