

**Universiti Teknologi MARA**

**System Requirements for Antenatal  
Clinical Information System**

**Ruhaizal Bin Mat Taruddin**

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## ABSTRACT

The information system has becoming increasingly important in managing data and record. Making the data and information available in a concise and uniform way is important to the users. The method currently used in Government Health Clinic (Maternal and Child Health Clinic – KKIA) for the data record management is not efficient for users including doctor (medical officer), medical assistant, nurse, and patient (pregnant women) in the procedure of antenatal care. Currently all information being recorded using books, and documents kept in rack. It will lead to time consuming in record keeping and may result in mishandling. Nurses especially need to record same data into two (2) different books. It gives additional workload to the nurses, and at the same time the process takes extra time and delayed next patient check-up's turn. Patient as well need to keep their copy of booklet with them every time of check-up. For that reason, it is significant to have a comprehensive and reliable system in managing antenatal data. This is to ensure the improvement of the workflow efficiency in an organization. This project explores the requirements needed for Antenatal Clinical Information System. It is a crucial and complex parts in any system development project as the requirements have to be right and sufficient according to the users or stakeholders need. Choosing the right techniques for requirements gathering and analysis is very important in determining the effectiveness of the developed system. The objectives of this project are to identify the requirements of Antenatal Clinical Information System in Government Health Clinic (KKIA), and to analyse requirements of Antenatal Clinical Information System. The project used Requirements Engineering (RE) process adapted from Ishaya P. Gambo. This project methodology consists of 5 phases namely; Project Initiation, Problem Identification and Planning, Requirements Elicitation, Requirements Analysis and Specification, and lastly Requirements Validation. The techniques used in Elicitation are interview, and document analysis while the techniques used in Analysis and Specification are Use Case Diagram, Activity Diagram, Sequence Diagram, and Class Diagram by using StarUML as a tool for data modelling. The techniques used in Validation is prototyping. The requirements analysis findings suggested that the system to be developed must consists the functions of Login, Registration Management, Record Management, Appointment Management, View Record, Print Record and Logout. It is recommend for the next stage, the requirements need to be transform into detail design in Software Design Document (SDD), which include Data Design, Architectural Design, and Interface Design.

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