1. *Requirements*

Gathering data from a client in development process would actually help the system to reach its desired functionality. Therefore, every system development comes to this, data requirements. In this phase, every data required are gathered as functional and non-functional requirements. It is important because of system’s modules dependency to its client’s information. This will be the basis of input and output process of the system. In clinic patient’s management, data are gathered as planned in order to manipulate the modules inside the system. As the data are given for system’s module as follows; patient record management system, clinic item monitoring system, scheduling system, online appointment, billing system and report generator for medical records , prenatal and postnatal check-up results.

1. *Analysis*

Analysis is detailed examination of the elements or structure of something, typically as a basis for discussion or interpretation. Most of organizations use business process automation to improve workflow and end-to-end business process. This type of strategy begins with an actual analysis of a “physical process” or manual process inside the organization in which the services are done or given. As a dependent phase, it will rely on what is present and dramatically improve the processes by proposing some improvements in order to provide satisfying services. A new technology alone is not enough to say that it is a project success but also endorsing the improvements of business processes inside the organization in such a way that users trust the system and find it easy enough to use. As related in systems analysis, clients will give information about their manual processes and eventually offers automation corresponds to their concern. This will help to provide such services in order to reach their goals in a way that technology is involved.

1. *Design*

In this phase the system and software design is prepared from the requirements specifications which is studied and gathered in the first phase. The system design specifications serve as input for the next phase of the model. In every system development this phase is important because of its functionality and usefulness in creating a system. Data flow diagram (DFD) is a type of business process in which the data is flowing. Inside of it are high level diagram and low level diagram. These processes are shown inside the DFD in where the data gathered are designed as data flows. With relying on client’s data, database designs are created. Database are consisting of multiple of tables wherein the input and output process began. Also, the tables are the container of input data. Without it, the data flow and database design will actually crash.

1. *Coding*

In this phase as receiving the system design documents, the work of dividing it into modules and actual coding is started. Since, in this phase the code is produced so it is the main focus for the developer. This is actually the longest phase of software development cycle. Coding phase is actually the creation of the system itself with a dependency in system designs and information. If the design is performed in detailed and organized manner, code generation can be accomplished without much hassle. Every organization has way in using programming languages in order to develop a system. The programming language is chosen with respect to the type of software being developed.

1. *Testing*

In this phase the testing of the developed system happens. Quality assurance is important in order to give a feedback to a developer on which and where the errors occurs. Also, in this phase the communication between the Quality Assurance and Developer becomes more compact because of the improvement of the system that they’re working on. Testing a developed system before it is getting deployed is important in an organization because it is showing the needed improvements before the deployment phase.

1. *Deployment*

The deployment phase is the moment that the system is get tested and ready to be deployed. User Acceptance Testing (UAT) is talking about the deployment of the system in an organization wherein the improvements and debugging are still occurring because of the users’ suggestions and needs. These suggestions are reported directly into the developer team in order to update all the necessary concerns that the user are concern for. After the *beta testing* the actual deployment of the developed system in the market will happens after all the needed and mandatory testing are done.

1. *Maintenance*

Making sure that the application/software is up and running in the respective environment is talking about maintenance. Maintenance is the last phase wherein the system are already deployed and then the actual problems comes up and need to be solved from time to time. Every organization must still have a communication to their client in order to solve each problems and any other concern in their product. This process where the care is taken for the developed product is known as maintenance.