# 4. Project Planning

## 4.1) WBS (Work Breakdown Structure)

WBS is a fundamental project management technique or method for undertaking the different parts of the application. It will give the vital structure to the itemized direction for schedule development and control. It will further enable us to manage the project and issue.

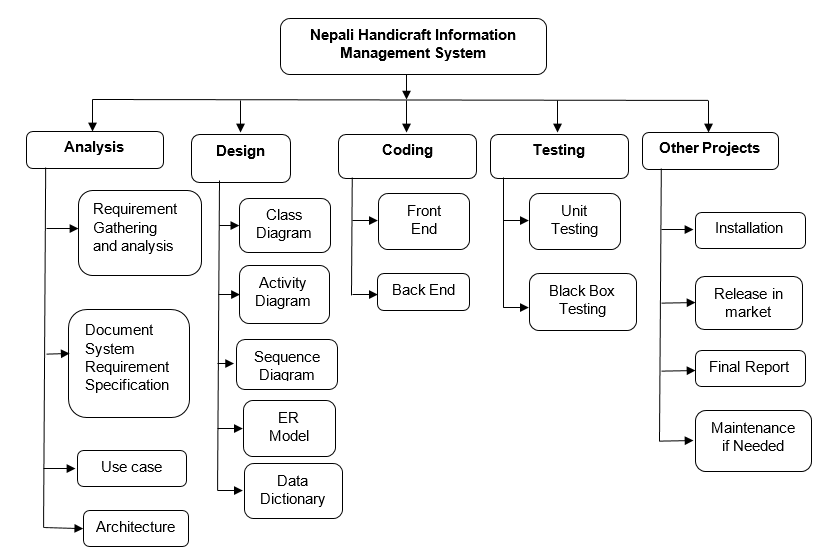


Fig: Work Breakdown Structure

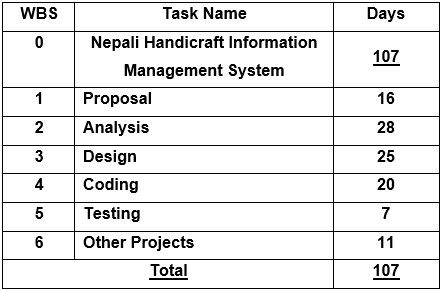


Fig: WBS time estimation

## 4.2) Milestones

It is the task of zero duration that will help to represent a clear and sequence event that incrementally builds up until our project is complete. It will help us to show an important achievement of the project. It will also help to maintain a certain level of progress of the project, and such progress will help us to complete our project on time.

The time duration for the first task is set to 16 days which is the proposal of the project. I am planning to finish a proposal in 16 days because it is the core document that will help us to give an overview of our project.

I'll set the time duration of analysis for 28 days. I will set time duration for requirement gathering and analysis, document system requirement specifications, use case, and architecture for 8, 5, 8, and 7 days respectively. The reason for taking 28 days in an analysis is because analysis will act as the blueprint for the project and it will also help later to have a clear understanding of the project's needs and requirements.

For designing, I will take 25 days approximately. In design, I will make a Class diagram as a Structural Model which will help to represent the static view of a project. Activity Diagram and Sequence Diagram as Behavioral Diagram which will help to focus on dynamic aspects of a project. ER Modeling, Data Dictionary and Reviewing final design under Database Design because it will help the project to improve its data consistency and also it will help to increase the performance of the database system.

For coding, I will give 20 days’ maximum. For developing Frontend - 7 days and Backend - 13 days. As for designing frontend, it is comparatively easy to Backend. Backend requires complex and logical problem-solving skills so time duration for the backend is likely twice to the frontend.

For testing, I will give 3 and 4 days for unit testing and black-box testing respectively. These testing will help to keep the project's code organized and well documented. It will also help to test the behavioral of the project.

And for doing other projects, I will allocate 11 days. In this duration, I will install and release the project in the market. After completing, I will prepare a final report and maintain the project if required.



Fig: Milestones

## 4.3) Gantt Chart

Gantt Chart, it is a type of chart which will show the task to be done in a vertical axis and time interval for doing the task on the horizontal axis. We can find the horizontal bars in the graph that will show the length of the particular part of a project to be done.

It is one of the important charts for planning and scheduling our project that will help us to identify how long our project will take to complete and to determine the required resource for the development of the project.

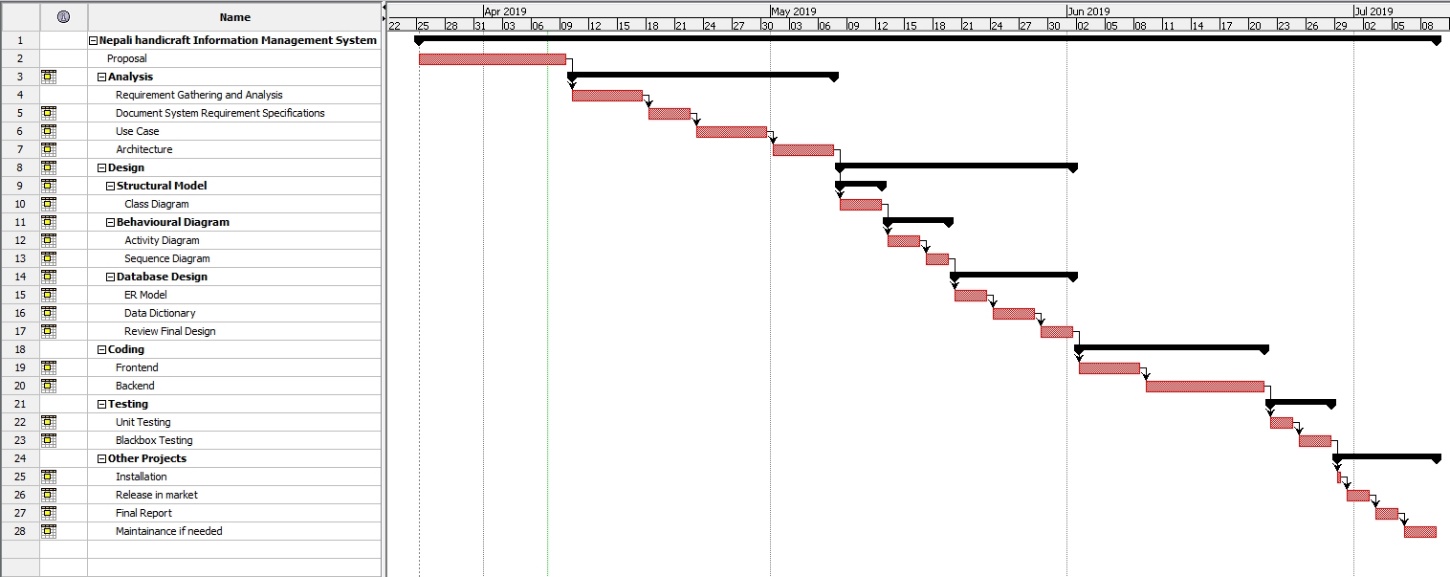


Fig: Gantt Chart

Gantt Chart consists of horizontal and vertical lines that intersect each other to form a small square representing the unit of measurement, which may be days. It can be days, weeks or months. The shaded bar will represent the operation or the work center of the project. Here, the horizontal axis will represent the total lifespan of the project whereas the vertical axis will represent the list of the task of a project. The horizontal bar of different varying lengths will represent the sequence of the project. For example: After completing one task, another task will start which will give both, time as well as the sequence of the operation of the project.