# Chapter 4: PROJECT PLANNING

## 4.1 Work Breakdown Structure (WBS)

It is the process to divide difficult project into simple adaptable task. Since, this project has many task and requirement to meet and it has become complex. Therefore, WBS is perform to breakdown the project into the small parts to make it easier and maintain efficiency.Some step addresses in the WBS are as follows:

* Proposal
* Analysis
* Design
* Implementation
* Testing
* Reporting

Figure 4 work breakdown structure (WBS)

## 4.2 Milestones

A milestone is the management tool that is use to define the point in a project schedule. Therefore, while doing project milestone can help hugely scheduling. Milestones are commonly find in the project management.

|  |  |
| --- | --- |
| **Milestones** | **Date ( year-2019)** |
| Project proposal   * Brainstorming * Planning * Scoping * Risk management * Configuration management | 25th March - 9th April (16 days)   * 2 days * 6 days * 3 days * 2 days * 1 day |
| Analysis   * Feasibility study * Requirements gathering * System Requirement Specification * Functional requirement * Non-functional requirement * Use case diagram | 10th April - 8th May (29 days)   * 1 day * 8 days * 10 days * 6 days * 4 days * 8 days |
| Design   * Initial class Diagram * Final diagram * Data flow diagram * ER diagram * Behavioural Design * activity diagram * sequential diagram * UI Design * Front end Design * back end design | 9th May - 3rd June (26 days)   * 4 days * 4 days * 2 days * 2 days * 4 days * 2 days * 2 days * 9 days * 4 days * 5 days |
| Implementation   * Database Building * Coding | 4th June - 24th June (21 days)   * 13 days * 8 days |
| Testing   * Black and white box testing * Integrated testing | 25th June - 1st July (7 days)   * 4 days * 3 days |
| Final Document   * documentation | 2nd July - 12th July (11 days)   * 11 days |

Figure 5 Milestones Scheduling

In the above table, its task and the deadline are mentioned firstly project proposal Where proposal started from 25th march and finished in 9th April and its take 16 days to complete. In 16 days, we have done brainstorming, scoping, planning, risk management and configuration management. It takes 16 days because we have to plan about the project and manage the risk for the project.

Likewise, analysis started from 10 April and finished in 8thmay and its take 29 days to finished, in 29 days we have done feasibility study to check the system is feasible or not. Requirements gathering to gather the information about the projects it takes 8 days to complete. System requirement specification takes 10 days to complete because to gather the functional and non-functional requirements and use case diagram takes 8 days to complete.

The design takes 26 days and started from 9th may and finished in 3rdJune. It include class diagram, ER-diagram, dataflow diagram, behavioral design, and user interface i.e. frontend and backend.

Implementation takes 21 days and started from 4th may and finished in 24rd June in which building database will takes 13 days and coding will takes 8 days. Testing will takes 7 days and started from 25h may and finished in 1 July where black and white testing takes 4 days and integrated testing will takes 3 days to complete. It is important to test the application before submitting to the owner of the company, final document takes 11 days started from 2ndJuly and finished in 12thJuly.

# 4.3 Gantt Chart

To track the project schedule we are going to use Gantt chart. It is useful to show the various task or phases. It is easy to use and its show the starting time and the deadline of the project.

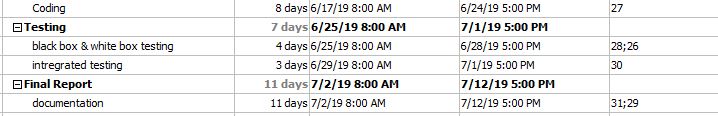


Figure 6: time estimated scheduling

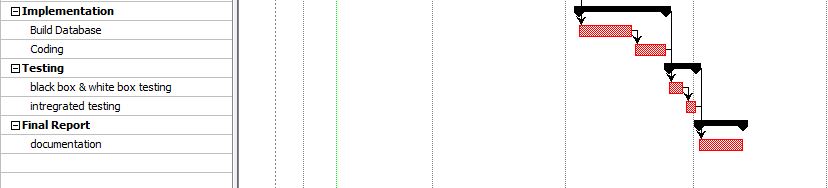
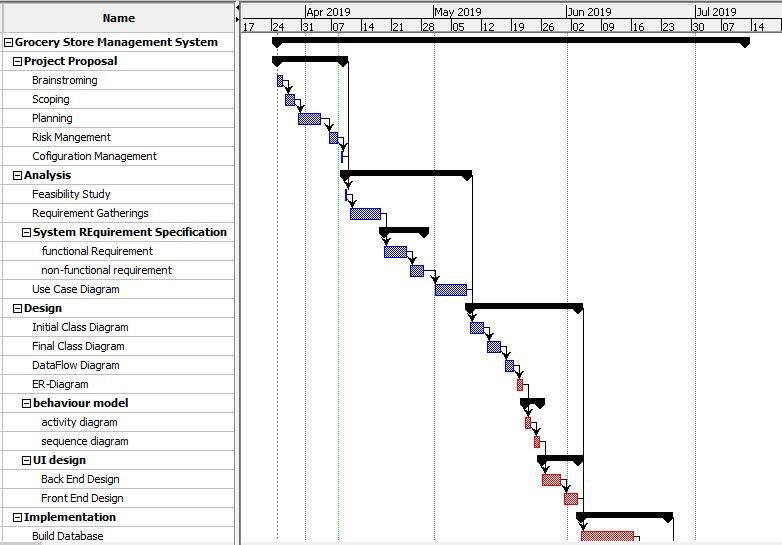


Figure 7 : Gantt chart for time estimated