HYPOTHESIS

In this chapter The Hypothesis of the software developed is explained. As a discipline, Project Management developed from several fields of application including civil construction, engineering, and heavy defense activity. Two forefathers of project management are Henry Gantt, called the father of planning and control techniques, who is famous for his use of the Gantt chart as a project management tool; and Henri Fayol for his creation of the 5 management functions which form the foundation of the body of knowledge associated with project and program management. Both Gantt and Fayol were students of Frederick Winslow Taylor's theories of scientific management. His work is the forerunner to modern project management tools including work breakdown structure (WBS) and resource allocation. The 1950s marked the beginning of the modern Project Management era where core engineering fields come together working as one. Project management became recognized as a distinct discipline arising from the management discipline with engineering model. In the United States, prior to the 1950s, projects were managed on an ad hoc basis using mostly Gantt Charts, and informal techniques and tools. At that time, two mathematical project-scheduling models were developed. The "Critical Path Method" (CPM) was developed as a joint venture between DuPont Corporation and Remington Rand Corporation for managing plant maintenance projects. And the "Program Evaluation and Review Technique" or PERT, was developed by Booz Allen Hamilton as part of the United States Navy's (in conjunction with the Lockheed Corporation) Polaris missile submarine program. These mathematical techniques quickly spread into many private enterprises. The above figure explains a typical development phases of an engineering project not all the projects will visit every stage as projects can be terminated before they reach
completion. Some projects do not follow a structured planning and/or monitoring stages. Some projects will go through steps 2, 3 and 4 multiple times.
METHODOLOGY

In this chapter I would like to discuss the various methodology that I have followed while developing this software.

Following methodology will be followed during PhD course.

1. Gather adequate and representative evidence of phenomena
2. Develop appropriate ways to analyze collected data
3. Demonstrate the validity or reasonableness of the findings or conclusions
4. Methodology & Validity
   a. Construct validity
   b. Internal validity
   c. External validity
   d. Reliability
5. Methodologies for Data Collection, Collation & Analysis
   a. Research paper Data
   b. Historical Data
   c. Internet Data
6. Archival Analysis
7. Literature Review/analysis
8. Design/Implementation
9. Contribution
10. Limitation
11. Conclusion
IMPORTANT, RESULTS AND DISCUSSION

In this chapter I have discussed the important results and discussion that have been carried out while development of the software.

Some of the Results are as follows:

![Dashboard for the Software](image)

**Figure 15.1 Dashboard for the Software**

Discussion has been carried out for the implementation and finalization of the dashboard. The dashboard contains all the features that are required in software development lifecycle.