CHAPTER-XII

HYPOTHESIS

This research project can be utilized in various industries today where data warehouse and data mining is critical in software projects. Data is a crucial part of any software project and we need to maintain the data in a secured server. Most of the software industries keep their data centrally in a data warehouse so that it’s easy for the stake holders to access the data and work on the data as an when it is required by the stake holder working on the software project. While extracting the data from the data warehouse various data mining algorithms are used and efficiency of extracting the data is also improved. The software development life cycle requires data at each stage of the software development each stage accesses data from the central repository and updates the data to the central repository so that incase it is required by the next stage the information will be updated and accessed. Information moves from all the phases of the software development lifecycle and it’s crucial so it’s important to keep the data updated and stored in a central repository using the data warehouse. Data mining for project management is very important tool for extracting the relevant data from the data warehouse this data warehouse collects the data from the various stages of the SDLC. This software tool will be used to extract information from the different stake holders. All the information will be collected into a central repository. 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 a technique, which 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. 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.

METHODOLOGY
Software engineering is the practice of using selected process techniques to improve the quality of a software development effort. This is based on the assumption, subject to endless debate and supported by patient experience, that a methodical approach to software development results in fewer defects and, therefore, ultimately provides shorter delivery times and better value. The documented collection of policies, processes and procedures used by a development team or organization to practice software engineering is called its software development methodology (SDM) or system development life cycle following methodology will be followed during PhD course.

1. Searching Research papers
2. Collecting data from various sources like Internet and books
3. Constructing the Model for the research work
4. Designing the Hypothesis of the Problem
   a. Designing research methodology
   b. Checking expandability
   c. Designing data warehouse
   d. Implementing Data mining algorithms
5. Data collection in central repository
6. Literature Review/analysis
7. Design/Implementation
8. Contribution
9. Limitation
10. Conclusion
ESSENTIAL OUTCOMES AND CONVERSATION

The essential outcomes of this research project are the data warehouse, which is designed to keep all the records of the software industry project in a central place and the use of data mining algorithms to access the data from the central repository. The creation of the role based user interface, which will be linked with the system design and development.

![Various data warehouse modules](image)

Figure 13. Various data warehouse modules

The discussion about the modules was discussed and finalize the system will have various modules and all the modules will be accessed online once you connect to the data warehouse. The services will be available to all the stakeholders who request the information various modules are listed above they are finalized after the discussion with the project managers and system senior level management employees of the organization.
CONCLUSION

The research project will be helpful to all the levels of the organization starting from small business organization to the large organization most of the functionalities of the software project management are covered in the research project the software engineering phases are all implemented in the research project all the information is collectively organized in the data warehouse all information about various software engineering projects will be stored in the central repository. Using this software project the stakeholders will be able collectively work together and concentrate on the central point of the software project under execution also. This research will provide configuration and change management will also be possible. The system will provide interaction facility with the client and the company persons so that exact work can be carried out team building is now possible using this system. The data warehouse is designed and maintained in the central location within the organization various users information and the stakeholders information is stored in this central repository keeping data intact the data warehouse will collect data from central repository the system. Most of the software development team working in synchronization with the project will be connected using this research project collective data management will be possible and most of the system will enhance the system performance. Project manager and the team members will be connected together and work in synchronization so a targeted result oriented project the software which is being designed for the client needs to be worked upon the global environment. Various modules can access the data from the different sources these modules can also communicate with each other modularization of information is also important and to keep the data availability round the clock is also important this can be achieved using the system design and development of the software research project. The various phases of software engineering used in the project management can mutually exchange information stored in the data warehouse easily hence the consistency can be maintained in the data of the software project. The modules provide collaboration between modules and phases the system is designed and developed to provide ease of functionality for project management.

The reporting module will generate the project reports all the reports can be compiled and displayed to the end users using the project. The data-mining algorithm is used to compile the project reports by extracting data from the data warehouse. The data warehouse is a large space
SAN storage device the entire project that is going on in the company and which the company completes are all stored in the data warehouse. The information flow occurs across the software modules and all the modules update the data to the central data warehouse using this system the various stakeholders who are connected to the system get the updated information and report related to the project in which they are working.