Chapter 1
A Practical Approach to Visualizing Different Phases of Project Management Using MSProject

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ABSTRACT

This chapter discusses the problems of project preparation, project planning, project execution, and monitoring of a real-world project. Emphasis is placed on MS Project – a software product designed to create plans, projects, and schedules as well as control and management of their implementation. It is discussed in a practical manner its ability to understand how much time and work developers are investing in a software project. As a result, the project management actions helped the project be delivered on time without compromising any time, budget, or resource constraints. The authors considered different scenarios related to project risk. They used the project crashing technique, and the time of the project was significantly reduced allowing the project to finish on time. The relations between the activities, the resources, and the time for their implementation are defined. The effectiveness of using different types of calendars—standard and continuous—specific to the continuous mining activities is evaluated.

INTRODUCTION

This project involves Developing a dashboard for Library Management in an application being developed for School ABC on the basis of Software Project Planning Techniques. This is accomplished in the context of a class framework which contains project preparation, project planning, project execution and monitoring, and project adaptation. In the project preparation phase, the Library Management Process included School ABC, Trusties, Project-team, Students, Suppliers as the major stakeholders, where School ABC, was internal stakeholder, Trustees were external stakeholders in an organization and Project-team, were external stakeholders. The objective of the project was to reduce the manpower and time spent on the library management process to make the system more manageable for a skeleton crew. The major funding was provided by Investors and Trustees and project was organized via dividing the dashboard into small parts such as Profile, Quick Links (consists of Accounts department, Uniform department etc.), Circulars, Cumulative Monthly Attendance, Images of student activities, Discussion Forums, Meeting Links. In planning, the critical milestones were Project Approval, Requirement Review, Design Approval and Final Approval which were successfully achieved. The coordination responsibilities were carried out by Project Manager, Functional Manager, Operational Manager, Internal Stakeholders which were further responsible for the schedule coordination respectively. Microsoft Project & MS Excel was used for the planning of project and evaluating risk respectively which involved Waterfall model as method which was the most efficient and accurate way suited for the project. In the third phase of execution and monitoring, for tracking the progress a number of metrices such as Formal code metrics, Developer productivity metrics, Agile process metrics, Operational metrics, Test metrics were used. Resource consumption was calculated with the help of Cost Variance, Resource capacity utilization, Group and project portfolio utilization, planned resources vs. resources in use, planned time vs Used time. Using project crashing technique, the Time of the project was significantly reduced hence allowing the project to finish on time. Initially the skill set of the staff was not taken into consideration hence to resolve that matter an early intervention was done by the management team so that the difficulties could be resolved in a timely manner without descoping the project, and hence there was no requirement for adding supplementary resources. As a result, the project management actions helped the project to be delivered on time without compromising with any of time, budget and resources constraints.

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