

# **Abstract**

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## **Database-Assisted Project Management Applied to Software Development Projects of Maritime Research and Consultation Center (MRCC)**

This research aims at providing better understanding of Project Management approach by studying its objectives, life cycle, phases and characteristics. It also discusses risk management, risk sources, types, estimating methods, and response to risk. DB target is the storage and retrieval of project information: resources, project tasks, their plan, and knowledge at an accelerated rate in order to support and manage MRCC software projects. The research uses the DB to prepare the PM parameters which are needed to support Project Management actions taken when the project is under construction. Furthermore, this research provides the project manager with both non-financial and financial reports. Non-financial reports include: a report on the critical tasks name, duration, and assigned resources another report on delayed tasks, and a report on the resources consumption. On the other hand financial reports include project cash flow, report on tasks and its related cost, report on over-budget tasks, and a report on Earned Value (EV) measures: Schedule Variance Percentage (sv%) and Cost Variance Percentage (cv%). In Information Technology projects financial measures are used in non-financial purposes such as: indicating present project management value and improving the project's overall performance results.