DEVELOPMENT AND IMPLEMENTATION OF A PROJECT MANAGEMENT SYSTEM FOR ROKSHU CORPORATION WITH DATA ANALYTICS

A Capstone Project
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Manila

In Partial Fulfillment of the
Requirements for the Degree of
Bachelor of Science in Information Technology

By

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ABSTRACT

This study presents the development of a web-based project management system designed for Rokshu Corporation to improve task organization, collaboration, and progress tracking. The company has experienced challenges such as missed deadlines, unclear responsibilities, and communication gaps when relying on traditional project management methods. To address these issues, the proposed system provides features such as task assignment, scheduling, and real-time monitoring, all accessible through an online platform. By centralizing project information in one system, it enhances productivity, accountability, and teamwork within the organization. This project aims to offer Rokshu Corporation a simple yet effective solution for managing projects more efficiently and achieving better outcomes.

TABLE OF CONTENTS

LIST OF FIGURES

Figure

LIST OF TABLES

Table

CHAPTER I

INTRODUCTION

1.0 Introduction

In today's digital age, organizations and teams depends on technology to manage tasks and projects effectively. Proper project management ensures that work is completed on time, resources are used wisely, and goals are achieved. However, many groups, including small organizations and student teams, still face challenges in tracking tasks, meeting deadlines, and collaborating efficiently. Traditional methods such as paper-based planning or scattered communication often cause confusion, delays, and lack of accountability.

To address these issues, this study focuses on developing a web-based project management system that provides tools for task assignment, scheduling, progress monitoring, and real-time collaboration. Being web-based, the system can be accessed anytime and anywhere with an internet connection, making it practical for both remote and on-site teams. This project aims to offer a simple yet effective solution that improves productivity, strengthens communication, and helps organizations achieve better project outcomes.

1.1 Project Context

In every organization, managing projects effectively is essential to ensure that goals are achieved on time and resources are maximized. However, many companies, including Rokshu Corporation, face difficulties in organizing tasks, monitoring progress, and maintaining clear communication among team members. Relying on manual methods or basic tools often results in missed deadlines, unclear responsibilities, and inefficient workflows.

To address these challenges, our team developed a web-based project management system tailored for Rokshu Corporation. The system provides an accessible platform where tasks can be assigned, schedules can be tracked, and progress can be monitored in real time. By

centralizing project information, it helps reduce confusion and promotes accountability among team members.

This project is significant because it introduces a practical solution that enhances collaboration and productivity within the company. Through this system, Rokshu Corporation can improve its project handling process, minimize delays, and strengthen teamwork, ultimately leading to better outcomes for both employees and the organization as a whole.

1.2 Objective of the Study

The objectives of this study outline the goals that the researchers seek to accomplish through the development and implementation of the Web-Based Project Management System for Rokshu Corporation. These objectives ensure that the project remains focused on solving the existing challenges in task management, collaboration, and project monitoring within the organization.

1.2.1 General Objective

The general objective of this project is to design and implement a web-based project management system that streamlines project organization, improves communication among team members, and provides efficient tracking of tasks and progress for Rokshu Corporation.

1.2.2 Specific Objectives of the Study

This study specifically aims to:

- Develop a system that enables task creation, assignment, and scheduling in an organized manner.
- Provide a feature that allows users to monitor project progress and deadlines in real time.
- Facilitate collaboration and communication among employees through a centralized online platform.

- Store and manage project-related data in one accessible system to improve accountability.

1.3 Scope and Delimitation of the Study

This section outlines the coverage and boundaries of the study to clarify what the project includes and excludes.

1.3.1 Scope

This study focuses on the design and development of a web-based project management system for Rokshu Corporation. The system covers essential project management functions such as task creation, assignment, scheduling, and progress monitoring. It also provides features that support collaboration and communication among team members. Since it is web-based, the system can be accessed through any device with an internet connection, ensuring convenience and flexibility for its users. The study further includes system testing and evaluation based on the feedback of selected employees and stakeholders of Rokshu Corporation.

1.3.2 Limitation

The system is limited to core project management features and does not include advanced tools such as budgeting, automated resource allocation, or third-party software integration. It also requires a stable internet connection to function properly, which may affect users in areas with poor connectivity. The evaluation of the system is based only on the feedback of a specific group of respondents from Rokshu Corporation and may not represent all potential users.

1.4 Significance of the Study

This study is valuable because it will benefit different groups within and beyond Rokshu Corporation:

- For the Management

  The system provides a reliable tool to oversee projects, track progress, and ensure accountability among team members. It helps management make better decisions by giving them access to organized and updated project information.

- For Employees

  The system offers an easier way to manage assigned tasks, monitor deadlines, and collaborate with colleagues. It reduces confusion and strengthens teamwork by centralizing communication and project data in one platform.

- For Clients of Rokshu Corporation

  With improved project management, clients can expect more organized processes and timely delivery of outputs, which strengthens trust and satisfaction with the company's services.

- For Future Researchers and IT Students

  This study can serve as a useful reference for those who wish to develop similar systems or explore improvements in project management tools. It provides insights into how technology can address organizational challenges and enhance productivity.

CHAPTER II

REVIEW OF RELATED LITERATURE AND STUDIES

This chapter indicates the ideas and concepts relevant to the present subject relating to the other studies and is discussed to provide the foundation of the proposed study. In order to find the correct method and procedures, careful review of literature and studies must be done for the development of the study.

2.1 Review of Related Literature and Studies

Foreign Studies

Haloul et al. (2024) conducted a comprehensive review of Project Management Information Systems (PMIS) across industries such as construction, IT, finance, and manufacturing. Their study emphasized that PMIS allows managers to plan, monitor, and evaluate projects more efficiently. The findings suggest that web-based PMIS enhances organizational performance by centralizing project data and promoting professional project delivery.

In a separate work, Mortadza and Rizal (2024) examined the role of digital Project Management Systems (PMS) in improving project reporting. They argued that traditional reporting methods often lead to delays and miscommunication, while PMS solutions enable real-time visibility and automation that strengthen decision-making and collaboration. Despite these benefits, they also identified barriers to adoption, such as integration difficulties, cybersecurity concerns, and resistance to organizational change.

Similarly, Singh and Jankovitz (2018) explored the importance of project management skills in preparing professionals for modern workplaces. They concluded that project management tools not only support accountability and teamwork but also improve communication within collaborative projects. Their study recommended strategies such as structured scheduling, use of communication frameworks, and accountability mechanisms to ensure project success.

Local Studies

Laguador (2017) investigated project monitoring practices among selected IT companies in the Philippines. Results revealed that many firms still rely on manual methods, such as spreadsheets, which often lead to inefficiencies and errors. The study recommended the use of digital project management platforms to improve task monitoring, coordination, and accountability.

Cruz and Medina (2019) analyzed the implementation of task management systems in a Manila-based BPO company. Their findings showed that the introduction of a web-based tracking system reduced task delays and improved coordination among employees, especially those working on different shifts. Managers benefited from the ability to assign, track, and evaluate tasks in real time.

Del Rosario (2021) examined the adoption of project management tools in small and medium-sized enterprises (SMEs) in Cavite. The study highlighted that SMEs using online task management platforms experienced greater productivity and transparency. However, it also noted challenges such as high adoption costs and lack of technical expertise, which limited wider system usage.

2.2 Technical Background

This section discusses the technical foundations of the study, including frameworks and concepts that guide the design and functionality of project management systems. It explains the flow of inputs, processes, and outputs (IPO) relevant to both the existing and proposed systems.

2.3.1 Conceptual Framework of the Existing System

The traditional project management practices used in many organizations rely on manual methods such as verbal task assignments, emails, spreadsheets, and face-to-face meetings. While these approaches allow for basic monitoring, they are highly prone to delays, miscommunication, and fragmented data storage. Without a centralized system, managers struggle with visibility, while employees experience unclear responsibilities and overlapping tasks.

Traditional Way

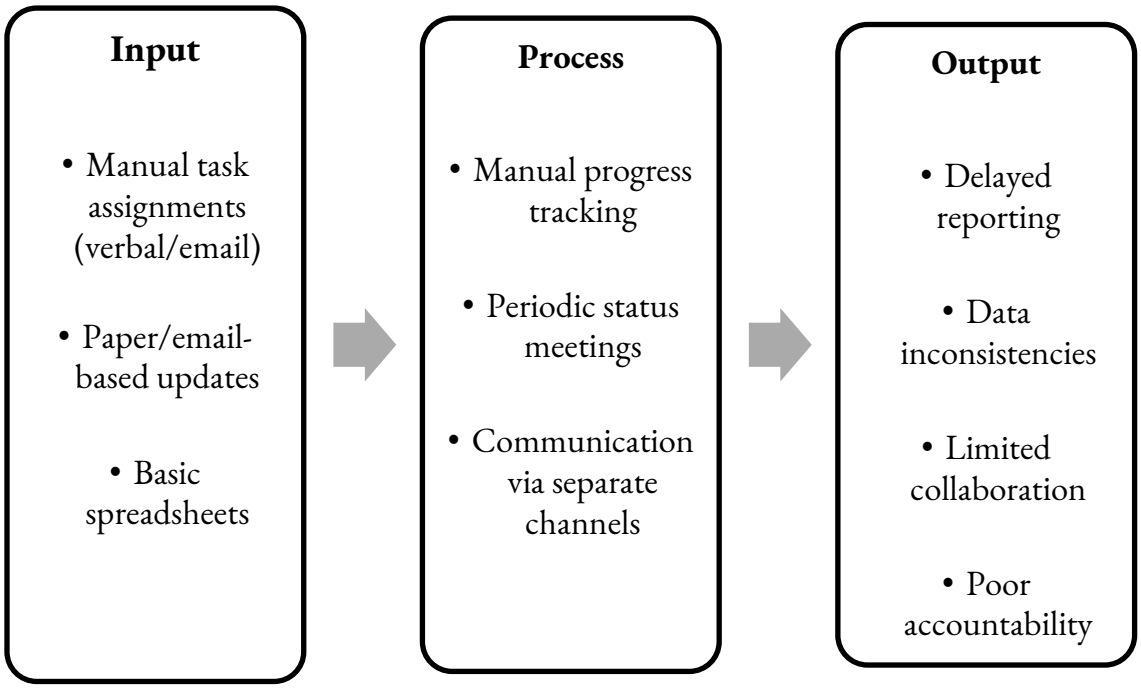

Figure 2.3.1.1

This figure presents the existing traditional project management methods. The input includes manual task assignments, email/paper-based updates, and basic spreadsheets. The process involves manual progress tracking, periodic project status meetings, and separate communication channels. The output results in delayed reporting, inconsistent data, limited collaboration, and poor accountability among project members.

2.3.2 Conceptual Framework of the Proposed System

The proposed web-based project/task management system addresses the gaps in the existing setup by introducing automation, centralized storage, and collaboration tools. It is designed to provide Rokshu Corporation with real-time tracking, clear accountability, and improved project visibility.

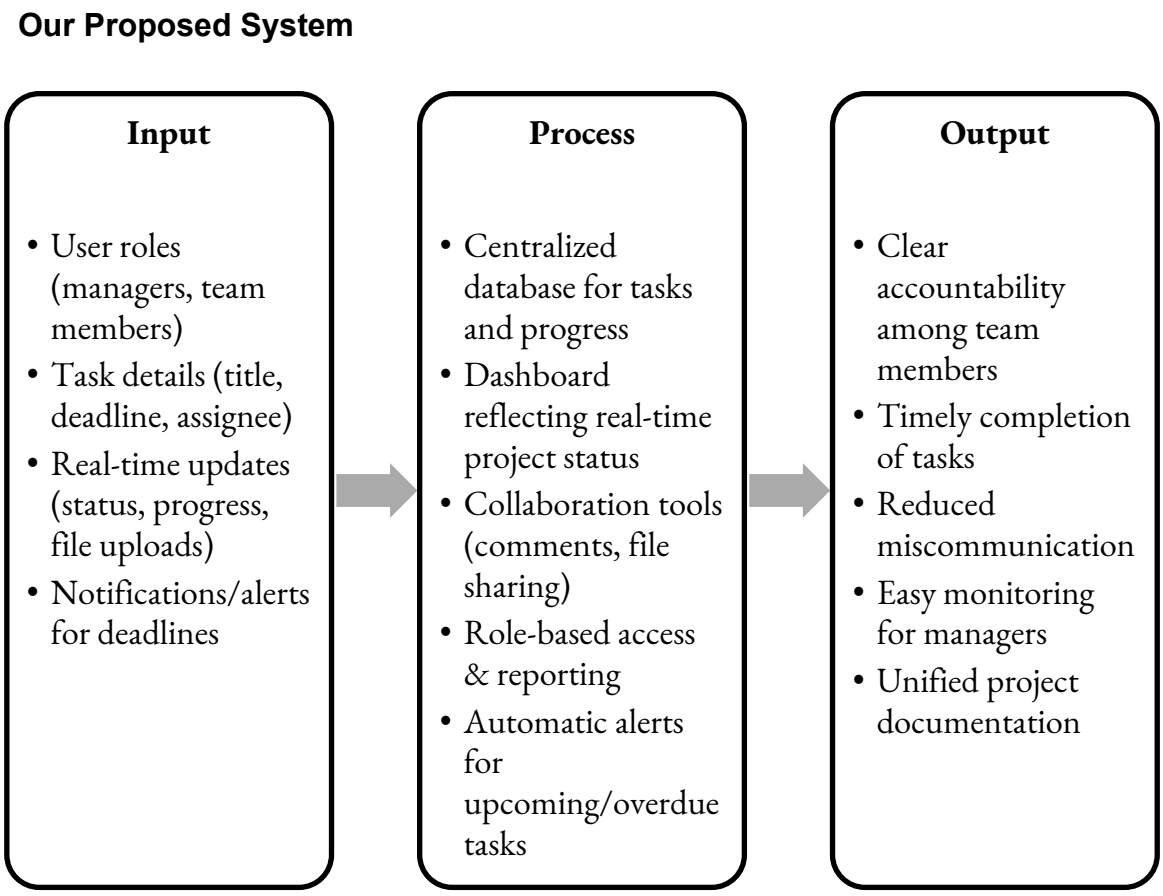

Figure 2.3.2.1

This figure shows the proposed system where the input includes user roles, task details, deadlines, and real-time updates. The process covers centralized data storage, dashboard reporting, collaboration tools, and automatic alerts. The output ensures timely task completion, transparency, improved collaboration, and unified project monitoring.

2.4 Definition of Terms

To provide clarity and consistency, the following key terms are defined as used in this study:

Project Management System (PMS) – A software tool that assists in planning, assigning, monitoring, and evaluating projects and tasks within an organization.

Task Management – The process of creating, assigning, tracking, and completing tasks within a project to ensure timely execution and accountability.

Web-Based System – A software application that runs on a web server and can be accessed through a browser using the internet, providing flexibility and accessibility across devices.

Dashboard – A visual interface in the system that displays real-time project information such as task progress, deadlines, and assigned responsibilities.

Collaboration Tools – Features in the system that allow team members to communicate, share files, and work together efficiently on assigned tasks.

Centralized Database – A structured digital storage where all project data, including tasks, updates, and reports, are securely stored and accessed by authorized users.

Role-Based Access Control (RBAC) – A security method where system access and permissions are based on user roles, such as manager or team member.

Notifications/Alerts – Automated reminders generated by the system to inform users of upcoming deadlines, overdue tasks, or updates in project status.

Progress Monitoring – The continuous tracking and assessment of project activities and task completion to ensure alignment with goals and deadlines.

Accountability – The responsibility of each user to complete assigned tasks on time, made visible through system tracking and reporting features.

CHAPTER III

RESEARCH DESIGN AND METHODOLOGY

In this chapter, the System and Program flowchart, Data Flow Diagram, Use Case Diagram, Software Architecture, and other project diagrams are indicated. This diagrams are important so that the study is readable to anyone.

3.1 Research Design

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3.1.1 Software Architecture

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3.1.2 Data Flow Diagram

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3.3.3 Software Development Life Cycle

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3.3.4 System Flowchart

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3.3.5 Entity Relationship Diagram

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3.3.6 Use Case Diagram

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3.2 System Screenshots

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3.2.1 Data Gathering Technique

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3.2.3 Setting of the Study

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3.2.4 Subject of the Study

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3.2.5 Sampling Technique

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3.2.6 Statistical Treatment of Data

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CHAPTER IV

PRESENTATION OF DATA ANALYSIS AND INTERPRETATION

This chapter discusses the analysis and interpretation of data as well as the findings of the conducted evaluation.

4.1 Evaluation Procedure

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4.2 System Test Plan

.....Start Here

4.3 Statistical Analysis

4.3.1 Respondents Profile

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4.3.2 Questionnaire Results

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4.4 Statistical Result Interpretation

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CHAPTER V

SUMMARY OF FINDINGS, CONCLUSION, AND RECOMMENDATION

This chapter presents the summary of the findings of the study, the conclusions made by the researcher on the basis of findings, and the recommendations of the researcher.

5.1 Summary

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5.2 Conclusion

Start Here (at least 2 Paragrahps, 5 Sentences per Paragraph)

5.3 Recommendation

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APPENDICES

APPENDIX A

REFERENCES

APPENDIX B

SOURCE CODES

APPENDIX C

INFORMED CONSENT

APPENDIX D

ACCOMPLISHED SURVEY FORMS

APPENDIX E

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