**INFORMATION MANAGEMENT SYSTEM FOR CAPIZ REHABILITATION CENTER**

A CAPSTONE PROJECT

presented to

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**CHAPTER I**

**INTRODUCTION**

*Overview of the Current State of Technology*

Globally, information management systems have become crucial in correctional facilities to boost efficiency and improve rehabilitation for inmates (PDLs), as seen with systems like Canada's Integrated Criminal Justice Information System or ICJIS facilitating vital data sharing and health management. Despite their benefits, challenges such as ensuring data security, providing adequate staff training, and overcoming resistance to new technology highlight the continuous need for robust and user-friendly systems

In the Philippines, there's a recognized and pressing need to improve correctional facilities using modern technology. Government bodies like the Bureau of Jail Management and Penology (BJMP, 2020) have pointed out that current ways of keeping records and communicating are simply not efficient, which ultimately slows down the rehabilitation process for inmates (also known as Persons Deprived of Liberty or PDLs). This lack of a central digital system directly affects how quickly rehabilitation programs can be put into action, highlighting a significant demand for a customized information management system that can effectively tackle these specific local challenges (Philippine Statistics Authority, 2020).

Our proposed system for the Capiz Rehabilitation Center aims to solve key problems like slow record-keeping and difficulty tracking inmate progress, which hurt daily operations and rehabilitation efforts. By using this new information system, we plan to improve how inmate data is managed and streamline daily tasks, ultimately helping PDLs in the facility achieve better rehabilitation outcomes.

*Desired State of Technology*

The main goal of this project is to create a single, secure information management system for the Capiz Rehabilitation Center that will make daily work much easier and more effective. This system will allow jail staff to quickly find and manage inmate information, organize activities and rehabilitation programs, and visitors log automatically for faster responses and improved safety.

The propose study will save staff time, reduce errors, and provide staff with a clear, real-time view of operations, leading to a safer, more organized, and professional correctional facility.

*Statement of the Problem*

1. The jail's paper files are messy and unorganized, making it hard for staff to manage inmate records.
2. Difficulty in locating inmate records, tracking their progress, and manage activities that causes mismanagement in the arrangement of schedules.
3. The jail uses a manual, paper-based visitor log, making it difficult for staff to quickly confirm visitor information and ensure facility safety.
4. The jail lacks a structured way to track and generate official records on PDL status changes, such as releases, transfers, and parole eligibility. This makes it difficult for staff to create accurate and timely reports for official checks, which can lead to errors in record-keeping and delays in getting inmates released or moved when they are supposed to be.

*Objectives of the Study*

*General objective*

Our main goal in this study is to develop "An Information Management System for the Capiz Rehabilitation Center." This system aims to make daily operations easier, handle inmate information better, and improve efforts to help inmates (PDLs) get rehabilitated, and all to make the center work better and safer.

*Specific Objectives*

1. To create a Profile Management module that securely stores and organizes personal, legal, and admission data of Persons Deprived of Liberty (PDLs), enabling staff to efficiently access and manage inmate records within the system.
2. To create a Scheduling and Activity Management feature that allows jail staff to plan and monitor PDL activities, court appearances, and visitations, ensuring organized and conflict-free scheduling.
3. To create a Visitors Log Module to transforms a manual, error-prone process into a secure, efficient, and legally compliant system that is essential for the day-to-day operations and safety of a correctional facility.
4. To create a Report Management module that generates comprehensive reports on PDL status changes, including parole, sentencing, and transfers to other facilities, to support administrative oversight and provide accurate, historical data for official records.

## *Theoretical and Conceptual Frameworks*

## *Theoretical Framework*

**Task Characteristics**

* Manual record-keeping of PDL profiles.
* Scheduling court appearances, and visitations.
* Tracking the progress of rehabilitation programs.
* Writing and filing incident reports.
* Managing staff access to sensitive information.

**Performance Impacts**

* The Incident Reporting and Logging system.
* The Staff and User Management module.
* Offline

IMSCRC

**Utilization**

* Administration
* Analytics
* System Reliability

**Technology Characteristic**

* Improved Efficiency
* Enhanced Effectiveness
* Greater Data Integrity

## Figure 1. Theoretical Framework of the Study

## The diagram in Figure 1 shows the representation of the theoretical framework for the Project Justice: Information Management System for Capiz Rehabilitation Center.

## The theoretical framework for this study will be grounded in the Task-Technology Fit (TTF) model, as proposed by Goodhue and Thompson (1995). This model is particularly relevant for the Capiz Rehabilitation Center's information system because it goes beyond just user acceptance (like TAM) and focuses on the critical link between the system's capabilities and the specific tasks that the staff must perform. The TTF model posits that a positive impact of a technology on an individual's performance is dependent on how well the technology's features and functions "fit" the demands of the user's tasks.

## The characteristics of task describe the daily responsibilities of staff at the Capiz Rehabilitation Center. These tasks are often complex and deal with sensitive information related to Persons Deprived of Liberty (PDLs). The core duties include: Manual Record-Keeping: Staff manually maintain records for each PDL, including their personal details, legal status, and other important information. Scheduling: They are responsible for scheduling and keeping track of important appointments for PDLs, such as court dates, medical check-ups, and visits from family or legal counsel. Progress Tracking: Staff monitor and record the progress of PDLs as they participate in various rehabilitation programs. Reporting: They are responsible for documenting and filing incident reports as they occur within the facility. Information Management: Staff must also manage access to this sensitive information, ensuring that only authorized personnel can view specific records.

## *Conceptual Framework*

**Figure 2. Conceptual Framework of the Study**

## Our Conceptual Framework is simply our plan or map for building the new Information Management System for the Capiz Rehabilitation Center (IMSCRC). It shows how we'll take the problems we found at the CRC (like unorganized records or hard-to-track progress) and connect them to the parts of our new computer system (like managing inmate profiles or scheduling). It also highlights our guiding ideas: making the system easy for staff to use (User-Centered Design) and keeping all the sensitive information very safe (Security principles). This whole plan ensures our project directly helps the CRC run smoother and better support inmates in their rehabilitation.

## Staff

## The staff are the ones who put all the important information into the system. In the system, staff have access to modules, like Dashboard, Profile Management, Scheduling, Visitor Logs, and Reporting, to handle all daily tasks efficiently and securely.

## Administrator

## The admin is in charge of the whole jail, and they can see and use all the tools to make sure the system is used correctly and all the information stays safe.

## Authentication

## The process required for Staff and Admin to securely log in to the system. Authentication ensures that each type of user has access to the appropriate features within the platform based on their role.

## Dashboard

## The Dashboard is a feature that gives a quick overview of information and reocrds for both Staff and Admins. Staff can see details about inmate activities and schedules, while administrators get a full picture of the jail's operations, including system usage and important reports.

## Profile Management

## Allows staff to easily create, access, and update all details about an inmate from the moment they enter the jail until they leave. This includes their personal information, legal records, and records of any disciplinary actions or rehabilitation progress.

## Scheduling and Activity Management

## This module allows staff to easily create, view, and change the schedule for every inmate. They can plan things like court dates, family visits, and rehabilitation programs. It may also warn staff if they try to schedule two things at the same time for the same person, which prevents conflicts.

## Visitors Log

## A feature that allows staff to easily record and track who enters and exits the jail. The system will then create a digital record, which includes the visitor's name, the date and time of their visit, who they are visiting, and the reason for the visit. This also allows staff to see a visitor's history, including their past visits and any notes about them.

## Report Management

## This module allows staff quickly generates different types of reports including reports on PDL status changes, events like when an inmate is released on parole, has a change in their sentencing, or is transferred to another facility. All reports are created in a standard format, making them easy to read and share.

## *Definition of Terms*

## PDL (Persons Deprived of Liberty) - Individuals who are incarcerated or detained in correctional facilities.

## Incident Reporting - The process of documenting and addressing incidents that occur within the rehabilitation center.

## Profile Management - The systematic organization and maintenance of inmate information, including personal details, rehabilitation progress, and incident history.

## Jail - Refers to a type of correctional facility that holds individuals who are awaiting trial, serving short sentences, or waiting to be transferred to another prison. It's where Persons Deprived of Liberty (PDLs) are typically held for shorter periods, contrasting with larger prisons that house those serving longer sentences.

## Bureau - Refers to a specific government department or agency, such as the Bureau of Jail Management and Penology (BJMP) that manages correctional facilities like the Capiz Rehabilitation Center.

## *Scope and Limitation of the Study*

This study focuses on designing and implementing a web-based Information Management System for the Capiz Rehabilitation Center's internal operations. The system includes modules for managing PDL profiles, scheduling activities, incident reporting, and generating administrative reports. Key limitations include its single-facility focus, the assumption of existing hardware and network infrastructure, potential staff resistance to new technology, and financial constraints that exclude advanced features. The study also does not cover long-term maintenance or external factors like policy changes.

*Significance of the Study*

***Staff*.** The new system at the Capiz Rehabilitation Center will improve staff efficiency and productivity by reducing time spent on manual paperwork and centralizing inmate records. This will allow staff to focus more on the rehabilitation of Persons Deprived of Liberty (PDLs), leading to a less stressful and more productive work environment.

***PDLs.*** The Persons Deprived of Liberty (PDLs) directly benefits

by improving their access to and participation in rehabilitation programs through organized scheduling and monitoring. Additionally, it aids in their successful reintegration into society by providing staff with the necessary tools to create personalized and effective release plans based on accurate tracking of their progress and needs.

***Administration.*** The administration with a powerful management tool, offering real-time data and comprehensive reports for data-driven decision-making. It will also enhance accountability and transparency by creating a clear audit trail of all actions. This will lead to a more professional and organized environment.

***Government and Other Correctional Facilities****.* This project serves as a model for other correctional facilities in the Philippines seeking to modernize their systems. By demonstrating the effectiveness of a tailored information management system, it contributes to the national goal of improving public service delivery through technology and offers a practical blueprint for enhancing efficiency and rehabilitation efforts across the country.

***Future Researchers.*** The system will benefit the future researcher/s as a guide or reference in their own efforts at any research proposal or project.

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# CHAPTER II

# REVIEW OF RELATED LITERATURE AND STUDIES

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# *INjail system*

# The INjail system was developed to solve the major problem of fragmented and disorganized jail data across Indiana's counties. The need for this unified system was identified by the Indiana Jail Overcrowding Task Force in 2019, which called for a real-time, statewide jail information system to help manage overcrowding and improve coordination within the justice system. The Indiana Office of Court Technology took on the project with federal funding starting in 2020. After successful trials in 2023, the system has shown to significantly improve jail operations by making information more transparent and fostering smoother collaboration between courts and jails. Its key features include real-time inmate tracking, court integration, and a unified data dashboard. Despite its progress, the system still faces challenges with statewide adoption, data formatting consistency, and ongoing discussions about privacy protection.

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# *Enterpol Jail Management System*

# The Enterpol Jail Management System is a software program developed in the early 2000s to assist law enforcement with jail operations. The system is built with various modules that handle specific tasks, such as tracking inmates, managing records, and overseeing daily activities, and provides real-time information for improved accuracy and efficiency. A key feature of Enterpol is its ability to integrate with other justice systems, including dispatch and court systems, which allows for seamless information sharing. The software also includes useful functionalities like automated alerts, medical logs, and custom templates. However, some drawbacks of the system include its limited scalability for a large number of users or facilities due to its age, and a steep learning curve for new staff.

# *An Automated Web-Based Enabled Correctional Centre’s Management System*

# A study from Nigeria titled “An Automated Web-Based Enabled Correctional Centre’s Management System” addresses the inefficiency of manual, outdated processes in correctional facilities by proposing a modern, centralized, and web-based system for managing inmate information. The system's primary features include real-time digital tracking of inmates, which allows staff to access and update information from any location with an internet connection, and the use of biometric verification, such as fingerprints, to ensure the identity of inmates. The study found that this new system significantly improved the accuracy of inmate data and enhanced staff efficiency by automating tasks. However, the research also noted challenges to its implementation, such as unreliable local internet and power infrastructure, and difficulties in integrating the system with existing government or court systems.

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# *JailCore*

# Internationally, web-based systems like JailCore and M2SYS are used to enhance jail operations through features such as real-time tracking and biometric identification, although they face challenges related to cost and data privacy. Organizations like the World Health Organization (WHO) support the use of such digital tools for inmate healthcare and rehabilitation. In the Philippines, however, the adoption of fully integrated systems is limited, with existing programs like e-Dalaw and other locally developed tools focusing only on specific functions like communication and scheduling. To address this gap, a new system is being proposed for the \*\*Capiz Rehabilitation Center\*\*. The goal of this system is to create a complete and user-friendly platform that will effectively manage inmate records, improve operational transparency, and provide support for rehabilitation programs.

# CHAPTER III

# METHODOLOGY

# The researchers employed the Agile methodology due to its emphasis on adaptability, collaboration, and iterative cycles is ideally suited for the unpredictable, discovery-driven nature of scientific projects, allowing them to quickly adjust to new findings and continuously improve their work.

# What is Agile Project Management? A Comprehensive 101 Guide

**Figure 3. Agile Methodology**

*Agile Methodology*

# Agile methodology is a project management approach that emphasizes collaboration, adaptability, and iterative development to manage projects, particularly in software development. It's not a rigid methodology but rather a framework of values and principles that guide teams in delivering value through continuous improvement and responsiveness to change.

*Requirements*

This is the starting point where the project's goals, features, and user needs are defined. Instead of a complete, rigid document, this phase focuses on gathering the essential information to begin the first development cycle.

We have successfully conducted interviews with the jail staff and administrators to understand their needs. We also completed thorough research of existing systems and methods. Our team then held a brainstorming session to turn all the information we gathered into a clear and detailed plan for what we will build. This phase was crucial because it ensures our work will be based on real-world needs.

*Design*

The team creates a plan and a high-level design for the features identified in the requirements phase. This is a conceptual blueprint, not a detailed, final one, as the design will evolve with each iteration.

After a solid plan has been created, we will move into the Design Phase. We created a visual plan for the system's look and feel, and how all its parts will work together. This includes making a simple, clickable test version of the system (a prototype) to show to our main contact person at the jail. Getting their thoughts on the design at this early stage helps us avoid big problems later on, as it is far easier to change a design than to change a finished program.

*Development*

This is where the actual work happens. The team builds the software or product based on the design and requirements for the current iteration.

This is the main part of the project where we will build the system. We will create the system in small sections, one at a time. For example, we might build the inmate records tool first, then the scheduling tool. This way of working allows us to focus on one part at a time and get it right before moving on to the next.

*Testing*

The developed features are rigorously tested to identify and fix any bugs or issues. This ensures that the product meets the quality standards and functions as intended.

*Deployment*

The finished, tested product or features are released to the users or made available in a live environment. This is a key part of the Agile process, as it allows for frequent delivery of value.

*Review*

After deployment, the team and stakeholders review the work from the completed cycle. They discuss what went well, what could be improved, and how the results will inform the next cycle. This feedback loop is crucial for continuous improvement.

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# BIBLIOGRAPHY APPENDICES\*

Gantt Chart Organizational Chart Present DFD

Top-Down Design ER Diagram Screen Layout

Certification (English Critic)

Certification (Plagiarism Test)

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