

# **Integrated Jail Management System for the Bureau of Corrections**

Ma. Bernadette B. Bautista

## **CHAPTER I**

### **INTRODUCTION**

#### **BACKGROUND OF THE STUDY**

It cannot be denied that the advent of additional laws leads to the increase of law violators, and with the intensive campaign of law enforcements against criminality, prison congestion came into existence. This dreadful congestion of the prison cells may also be attributed to the delays in the resolution of prisoners' pending cases and the inaccurate manual monitoring of qualified prisoners due for early release from the jails to the Board of Pardons and Parole (BPP). Because of this, prisoners are deprived of their early liberty. Moreover, their continuous confinement adds burden to the expenses of the government.

Evidently, the overcrowding situation in the different prison institutions gives extra burden on the part of the government. In food allowance alone, the allotted budget per inmate is PhP40.00. The present population of the New Bilibid Prison (NBP) in Muntinlupa City and all major penal institutions in the country reaches approximately 30,000 inmates which needs a daily budget of one million two hundred pesos (PhP1,200,000.00) or an annual budget of four hundred thirty eight million pesos (PhP438,000,000.00) more or less to feed them excluding the budgetary requirements for their other basic needs such as medicines, uniform,

beddings and other personal needs such as soap, toothpaste, slippers, etc.

Congestion or prison overcrowding is not just a national issue but a worldwide issue as well. Prisons, in most parts of the world, are overcrowded where the prison cells accommodate prisoners more than its ideal capacity. This seeming condition does not contribute to the effective rehabilitation of convicted persons.

The Philippine Criminal Justice System (PCJS) enforces the rules of conduct needed to protect life and uphold peace and order. It is composed mainly of five pillars namely: (1) Law Enforcement Pillar; (2) Prosecution Pillar; (3) Courts Pillar; (4) Corrections Pillar; and the (5) Community Pillar. These pillars work hand in hand in the administration of the justice system.

Of the five pillars of the PCJS, the Corrections Pillar performs its task as the safe keeper and undertakes the rehabilitation of offenders and convicted felons. It is composed of the different agencies in the government that play vital role in administering the corrections system. It aims to rehabilitate and ensure humane treatment of prisoners. However, jail congestion hinders them in their core functions. For several years, overcrowding of prison facilities aggravated the miserable conditions of prisoners in the country.

Considering how complex the manual procedures of the nation's Corrections System, the need for automating the large amount of highly viable documents is apparent. The problem of congestion may be lessened not in the form of infrastructure expansion, which is very costly, but through good and innovative solutions like electronic connection of databases across different prisons or penal colonies to monitor prisoner's qualifications, facilitate fast and on-time release of

prisoners and monitor aging cases which needs prompt and immediate action from the court.

This study is intended to establish a centralized database connecting via a wide area network covering the seven institutions, namely: (1) New Bilibid Prison (NBP) in Muntinlupa City; (2) Correctional Institution for Women (CIW) in Mandaluyong City; (3) Iwahig Prison and Penal Farm (IPPF) in Palawan; (4) Davao Penal Colony (DAPECOL) in Davao City; (5) San Ramon Prison and Penal Farm (SRPPF) in Zamboanga City; (6) Sablayan Prison and Penal Farm (SPPF) in Occidental Mindoro; and (7) Leyte Regional Prison (LRP) in Abuyog, Leyte. It aims to improve the existing manual records management of the Bureau of Corrections (BuCor) that facilitate accurate monitoring and fast transmittal of inmates' records to the Board of Pardons and Parole for review.

## OBJECTIVES OF THE STUDY

### **General Objective:**

To develop an Integrated Jail Management System (IJMS) for the Bureau of Corrections that would aid in decongesting the National Penitentiary and its Penal Institutions.

### **Specific Objectives:**

1. To design a system that provides effective jail management that can efficiently monitor inmates to grant them the needed rehabilitation program as well as determine the inmates' eligibility for early releases.
2. To create the system, as designed.
3. To evaluate the performance of the developed system.

## SCOPE AND LIMITATIONS OF THE STUDY

This study involves the development of an Integrated Jail Management System covering the seven major penal institutions in the Philippines, which are being administered by the Bureau of Corrections (BuCor).

It includes the entire process of storing, retrieving and maintaining data of the inmates that includes their personal profile, case information, jail location history and the status of their cases. It focuses on the accurate computation of the expiration of the minimum and maximum sentences of the inmates to determine the prompt monitoring of their releases.

Although this study is limited to the major penal institutions for pilot testing, future studies may consider the interconnectivity of the pilot phase to the other agencies involved in the administration of justice such as the Bureau of Jail Management and Penology which administers the local jails.

## CHAPTER II

### **CONCEPTUAL FRAMEWORK**

This chapter presents the review of related literature and studies underlying the framework of the study. It includes the conceptual model of the study and the operational definition of terms.

#### **REVIEW OF RELATED LITERATURE AND STUDIES**

Crime is generally defined as an offense against morality on the public welfare or simply the violation of the law. Foon, et al. (1988) stated that it is a product of the society and its social circumstances. Due to the ever-

changing world, new forms of crimes such as computer fraud, bank and insurance fraud in international trading, terrorist movements, etc. progress in many countries which resulted to the great increase in the number of prisoners. Evolvement of additional laws mean additional violations and additional violations mean additional crimes. With this concept, Kushairy et al. (1988) stressed that “crime cannot be entirely eradicated. This is a reality which the civilized world has invariably accepted.”

Kushairy et al. (1988) affirmed that the law of corrections and rehabilitation had a graceful transition from the primitive law of retribution. Presently, there are rarely cases of strong support for vengeance as the sole principle of incarcerating offenders. Admittedly, in order to provide public safety, there have been circumstances wherein the use of difficult and at times harsh actions were being implemented to discourage convicted felons and prospective criminals, however, the fact remains that the principle of correction and rehabilitation has taken center stage.

With this new idea of rehabilitating offenders, Kushairy et al. (1988) further disclosed how the United Nations Congress in 1955 came up with the Standard Minimum Rules for the Treatment of Offenders. However, it was clearly observed that due to the countries’ differences in terms of legal, social, economic and geographical aspects, not all the rules are applicable in all places and at all times. Nevertheless, by setting acceptable minimum conditions as adapted by the United Nations, these rules will encourage a continuous effort that will surely improve the rehabilitation of prisoners. The primary considerations of these rules are those relating to personal hygiene, clothing and bedding, food, recreation, exercise and sport and medical services.

In response to this campaign, Alvor (2005) imparted that the Philippines constantly adopted not only the provisions of the UN Standard Minimum Rules for

the Treatment of Prisoners but also the UN Standard Minimum Rules for Non-Custodial Measures (the Tokyo Rules) and other international human rights instruments which emphasizes the welfare of prisoners.

In the Philippine setting, Alvor (2005) further stated that the Philippine Corrections System is composed of the government institutions, civil society and the business sector that undertakes the confinement and rehabilitation of convicted persons.

### **Institutional Framework**

According to Aspiras (2002), the Philippine Corrections System is fragmented where the supervision and control over the convicted felon is handled by three (3) departments in the executive branch of the government, namely the Department of Justice (DOJ), Department of Interior and Local Government (DILG), and the Department of Social Welfare and Development (DSWD).

The Bureau of Corrections is an agency under the Department of Justice, which acts as the institutional base of rehabilitating prisoners. It manages and operates all the major prison institutions in the Philippines. Aside from the New Bilibid Prison (NBP) in Muntinlupa City, it also manages the only institution made exclusive for women, the Correctional Institution for Women (CIW) in Mandaluyong City and the five (5) penal institutions nationwide namely: Iwahig Prison and Penal Farm (IPPF), Palawan; San Ramon Prison and Penal Farm (SRPPF), Zamboanga City; Davao Penal Colony (Dapecol), Davao City; Sablayan Prison and Penal Farm (SPPF), Occidental Mindoro; and in the Leyte Regional Prison (LRP), Leyte.

Another institutional base is the Bureau of Jail Management and Penology (BJMP) under the

Department of Interior and Local Government. It supervises all provincial, sub-provincial and city jails all throughout the Philippines. It houses prisoners whose sentences range from one day to three years and detainees awaiting disposition of their cases.

The Board of Pardons and Parole is another agency under the umbrella of the Department of Justice that undertakes the non-institutional treatment of offenders. It is tasked to uplift and redeem valuable human material to economic usefulness and to prevent unnecessary and excessive deprivation of personal liberty. It grants early releases through parole or recommend to the President the grant of executive clemency, either conditional pardon or commutation of sentence to qualified prisoners.

Another non-institutional treatment of offenders is the Parole and Probation Administration (PPA). It was mandated to allow convicted prisoners to serve their sentence in the community subject to certain conditions.

The Department of Social Welfare and Development supervises the youthful offenders confined in the Regional Rehabilitation Centers whose sentences are suspended until the convict reaches the right age.

### **Highlights of the Philippine Corrections System**

The whole process of the Corrections Pillar is mobilized once the court finds the accused guilty of the crime charged. The convicting court will order the law enforcers to commit the body of the offender to the custody of the prison or corrections official.

As stated in the Bureau of Corrections Operating Manual (2000), a national prisoner committed to the National Penitentiary will be received in their own Reception and Diagnostic Center (RDC) upon presentation of the required documents namely: (1)

Mittimus or Commitment Order of the court; (2) Information and Court decision in the case; (3) if the prisoner was detained or confined in a local jail, a certificate of detention is needed; and (4) a certificate that the case of the prisoner is not on appeal.

Thereafter, the prisoner will be placed in a quarantine period for not less than five (5) days within which he shall be given physical examination to check his health condition. If the prisoner is found having an infectious or contagious disease, he shall be segregated from the other prisoners and if a prompt and immediate need for confinement in the hospital is determined, the prisoner will be handed over to the hospital inside the prison perimeter of the NBP. The prisoner shall likewise be oriented with prison rules, and a counselor, social worker or other program staff officers will conduct private interview.

After the quarantine period, the prisoner will remain in the RDC for another period not exceeding fifty-five (55) days where he will undergo series of examinations such as psychiatric, psychological, sociological, vocational, educational, religious and other examinations. The results of these tests shall be the basis for the prisoner's individualized rehabilitation program and the basis of the Chief of the RDC in determining the prison facility suited for the prisoner.

The National Penitentiary keeps a bound registration book wherein all commitments are recorded manually and chronologically. The register contains vital information such as inmates' personal circumstances, reason for commitment; sentence, date and hour of admission to the prison, as well as the date and hour of discharge or transfer to another prison confinement and its basis.

After registration, the prisoner is photographed, front and side view, fingerprinted and assigned a permanent and unique prison or file number. The male

inmates shall undergo regulation haircut with no beard/mustache.

The sentence of the prisoner commences upon conviction and upon serving his sentence in the national penitentiary. The Bureau of Corrections Operations Manual further stated that the Director of Corrections may grant Good Conduct Time Allowance (GCTA) to a prisoner who displays good or excellent behavior while inside prison. As such, he is entitled to sentence deductions. It is an incentive given to prisoners to motivate them to cooperate in their rehabilitation programs.

More so, another form of motivation for prisoner to behave accordingly is the grant of early release subject to the qualifications set forth by the Revised Rules on Parole or Pardon (2003) of the BPP. The grant, however, depends on his behavior while inside prison and the period of time the prisoner has served with the corresponding GCTA.

Prisoners with indeterminate sentence are entitled to the grant of parole after serving the minimum of their sentence. Prisoners sentenced with definite sentence, life sentence or reclusion perpetua are disqualified from parole. However, the BPP may recommend them to the President for the grant of executive clemency in the form of commutation or reduction of his sentence or other form of early release called conditional pardon with parole conditions. It may be noted that the BPP can grant parole but can never grant executive clemency. They can only recommend to the President, who has the sole power to grant executive clemency. As for the death convicts, the existence of new law automatically reduced their sentence to life but without parole.

After meeting the specified qualifications for an early release, the Director of Corrections shall forward the carpeta and prison record of the prisoner to the BPP

for appropriate action. The BPP will then deliberate on the cases of qualified prisoners and determine if the prisoner is now ready to be reintegrated back to society. Thereafter, the BPP will transmit to the BuCor the results of review for proper implementation.

### **Issues on Corrections System**

Like many other countries, the Philippines is also experiencing one of the biggest problem of managing prison institutions – congestion. Asia News (April 2006) disclosed that prisons in the Philippines are indeed overcrowded. Manila City Jail was built to hold 800 detainees but accommodating more than 5,000 prisoners whereas Quezon City Jail that is meant to cater 815 people has reached its population into nearly 3,500 inmates. Analyzing the amount of space as against the number of detainees, it clearly shows that a detainee has less than 0.3 square meters of space compared to three-square meters per detainee stipulated by the United Nations. Detainees die of contagious diseases like tuberculosis, chickenpox and other simple diseases that spread quickly. The majority of them even die before their trial.

Howard (2000) cited how miserable the conditions of the early prisons and that of its inmates. Even if the present corrections systems have greatly improved, it is still struggling to find ways on how to improve the prison management. Admittedly, Canada and the United States are also experiencing prison overcrowding and sited great intensity of correctional services. The increases in inmate populations with declines in correctional expenditures have resulted in congestion. Jail institutions exceed its maximum capacity. Many believed that overcrowding causes undignified conditions for prisoners and does not conform to the present rehabilitation programs intended for the prisoners.

Haney (1996) related that the dawn of prison congestion started in 1980s and believed that prisons everywhere are undeniably congested. Specifically, it was clearly identified that overcrowding brought about several negative effects on individuals like depression, high blood pressure, poor health, and poor rehabilitation. Regardless of some differences, it was observed that overcrowding notably worsens the meaning of life in prison and that the majority of the prisoners intensify the negative output of imprisonment. Thus, with the increased level of uncertainties the prisoners must handle, overcrowding directly affects the mental and physical health of prisoners. Likewise, with the decrease in the ratio of resources intended for the prisoners, frustration levels inside prison raises thereby creating additional barriers between inmates and the goals of corrections.

Howard (2000) disclosed that prison overcrowding carries out many depressing effects on inmates. Research shows that jail congestion produces struggle for inadequate resources, violence, diseases and increased probability of recidivism and suicide rates.

Komu, et al. (1988) cited that overcrowding causes various effects such as unhealthy climate that forbids the correctional officers to perform effectively the programs intended for the rehabilitation of inmates. In addition, because of the large number of prisoners, security measures are mostly taken into consideration rather than concentrate on correctional reforms.

Indeed, overcrowding gives burden and too much pressure on the workload of correctional officers primarily because of insufficient personnel thus giving mental torture and disappointments. Also, it produces disturbances and frustrations among inmates that may cause breakouts, riots and other conflicts. It also tends to produce infectious diseases that may possibly lead to pandemic.

According to Howard (2000), the prison environment has several factors that could produce negative outcomes on inmates. Congested prison conditions seem to be never-ending, individuals inclined to disruptive behavior meet and with the lack of personal control, idleness and boredom prevails.

Nigerian Newsday (February 2006) revealed that Nigerian prisons are certainly affected by congestion too. The country's 277 prison facilities accommodate about 45,000 inmates that cause largely dreadful conditions, which seem unhealthy for human beings.

Certainly, Nigerian Newsday admitted that prison reform is way behind in Nigeria. Their prison system is afflicted by excessive dilemma like congestion, long delays on case trials which sometimes lasted up to ten years, poor feeding, unhealthy conditions and widespread diseases that kill a lot of inmates on a regular basis. Likewise, they are also facing a big problem on social misconduct like dealing in drug cases and jailbreaks.

Similarly, Alvor (2005) cited that the Philippines is also facing problems on jail institutions such as congestion, disorganized corrections system, lack of information technology systems and inadequate training.

Aspiras (2002) agreed that congestion stands out as the most severe dilemma afflicting the Philippine Corrections pillar today. More likely, it will worsen the prison system and cause rehabilitation strenuous. Prison facilities are in fact overcrowded that forces the inmates to sleep in turns.

The Philippine Corrections Pillar undertakes the effective rehabilitation of the offenders and convicted prisoners. One of its key agencies, the Bureau of Corrections, attests to the fact that our national penitentiary is indeed over populated.

As included in the Department of Justice 2005 Accomplishment Report, the Bureau of Corrections' population shows a total of 29,818 inmates in its seven operating institutions nationwide. Table 1 shows a 2005 percentage distribution of inmate population among the prison facilities.

**Table 1**  
**Prison Population for 2005**

<b>PRISON FACILITIES</b>	<b>CAPACITY</b>	<b>POPULATION</b>	<b>% SHARE</b>	<b>RATE OF CONGESTION</b>
New Bilibid Prison	8,700	18,638	62%	114%
Correctional Institution for Women	1,000	1,306	4%	30%
Iwahig Prison and Penal Farm	3,500	2,301	8%	---
Davao Prison and Penal Farm	3,100	3,945	13%	27%
San Ramon Prison and Penal Farm	1,300	1,110	4%	---
Sablayan Prison and Penal Farm	1,500	1,420	5%	---
Leyte Regional Prison	1,000	1,098	4%	9%
<b>TOTAL</b>	20,100	29,818	100%	48%

Source: DOJ 2005 Annual Report

Action Programs of the DOJ in Motion FY 2005 for the Bureau of Corrections include the strengthening security measures/programs; expansion of the record computerization; improvement of the decongestion program; and the enhancement of the rehabilitation / treatment program.

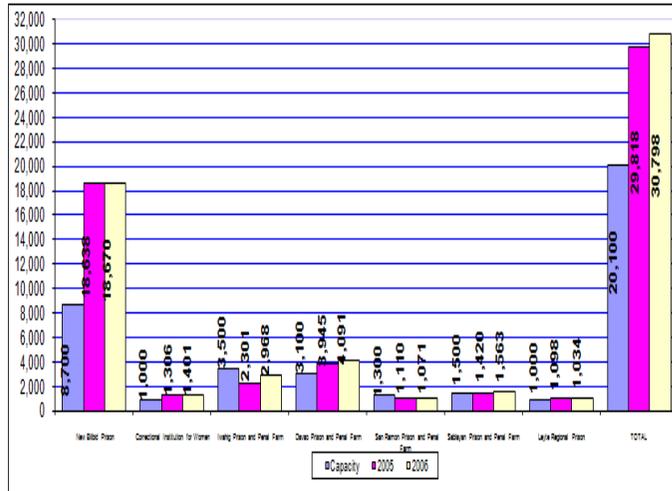
In the 2006 Accomplishment Report of the Department of Justice, the Bureau of Corrections maintained 30,798 inmates, an increased by 3.27% from the 2005 level of 28,818 in its institutions nationwide, as shown in Table 2.

**Table 2**  
**Prison Population for 2006**

<b>PRISON FACILITIES</b>	<b>CAPACITY</b>	<b>POPULATION</b>	<b>% SHARE</b>	<b>RATE OF CONGESTION</b>
New Bilibid Prison	8,700	18,670	61%	115%
Correctional Institution for Women	1,000	1,401	5%	40%
Iwahig Prison and Penal Farm	3,500	2,968	10%	---
Davao Prison and Penal Farm	3,100	4,091	13%	32%
San Ramon Prison and Penal Farm	1,300	1,071	3%	---
Sablayan Prison and Penal Farm	1,500	1,563	5%	4%
Leyte Regional Prison	1,000	1,034	3%	3%
<b>TOTAL</b>	20,100	30,798	100%	53%

Source: DOJ 2006 Annual Report

Comparison of the two tables given, as shown in Figure 1, disclosed that majority of penal colonies have increased its population. This is a clear indication that the Bureau of Corrections still lacks the much needed jail management system that could clearly identify prisoners already qualified for an early release to help decongest the prison cells.



**Figure 1. Population Comparison for 2005 and 2006**

Hence, Aspiras (2002) noted that the releases made by the Board of Pardons and Parole is hampered by the delay in the transmission of records. Figures show that there is an immediate and regular need to review the petitions and deliberate the cases of prisoners qualified for parole or conditional pardon.

Presently, the Bureau of Corrections has an x-base program running in a very primitive dos-base program that can compute for the expiration of minimum and maximum sentence of the prisoners. The computation is based on the commencing date of the sentence, depends mainly on the sentence imposed upon by the judge and the addition of the Good Conduct Time Allowance (GCTA). The system can also generate prison records; however, it does not have the capability of determining who among the prisoners are already eligible for an early release or whose maximum sentences will expire.

Determining the expiration of the minimum sentence is very important because it is when the prisoner becomes eligible for parole and one-half of

which qualifies the prisoner for executive clemency. More so, the Bureau of Corrections lacks the electronic monitoring scheme in determining qualified inmates for early release. Expiration of sentences is written manually in a logbook and is being checked daily to determine whom among the prisoners whose minimum or even maximum sentence will expire.

According to Aspiras (2002), records management in prison is not good enough which contributed to the unreasonable delay in the release of qualified prisoners. Most of the time, prisoners were not reviewed by the BPP on time. There are several cases wherein prisoners, whose minimum sentences have long expired, were not given the opportunity to avail of an early release. This is simply because their records were not properly monitored. There are occasions wherein the BPP grants parole to prisoners who were at large or have escaped. Or worse, there are instances wherein the BPP grants parole to prisoners who died several years ago. This is so because the records being transmitted by the Bucor to the BPP seem inaccurate which do not reflect any escape reports or death reports.

### **Jail Population Management**

The Gallatin County, State of Montana, USA believed that the issues on overcrowding could be handled effectively through an excellent jail management system. In their Corrections Master Plan, it was stated therein that the effective management of their jails depends not only upon the number of available beds, but also upon the efficient administration of the larger system in which the prisoners reside. Jail management covers the timely processing of cases; access to a range of pre-trial release options; and the availability of a variety of sanctions intended to transform criminal behavior.

Taking these things into consideration, a

thorough assessment of the Gallatin County criminal justice system was made. The analysis includes an examination of jail “snapshot” data; sample of cases tracked from the jail booking to sentencing; review of a sample of drunk-driving cases; examination of operational policies and procedures; and a review of system resources.

After realizing the absence of an electronic access of the law enforcements to warrant information from the jail, the courts, or probation and parole, the Gallatin County believed that the different systems involved in corrections should be integrated.

Laboring in an obsolete information system that cannot satisfy their operational and planning needs, the Gallatin County decided to design a more effective system. They believed that the improvement of the criminal justice system must begin with the investment of an efficient information system.

Similarly, the Michigan Department of Corrections, USA also believed in a systematic jail management system. With this, they have developed the Offender Tracking Information System (OTIS) intended to offer information to the public that can then be verified through the Michigan Department of Corrections (MDOC), Michigan Courts, the Michigan State Police or other law enforcement agencies. The OTIS provides information about offenders previously or currently confined and being managed or supervised by the MDOC. A search result will provide information about any offender who is, or was, in a Michigan prison, on parole or probation under the supervision of the MDOC, has transferred in or out of Michigan under the Michigan Interstate Compact, or who has escaped or absconded from their sentence.

The Virginia Department of Corrections, USA provides a web-based Inmate Status Information System. This is an inmate locator developed to help locate an

inmate who is currently incarcerated in their system.

Likewise, the Florida Department of Corrections, USA also provides a comprehensive search of all databases on all absconder/fugitive, inmate escapes, inmate population, inmate releases and supervised population.

Similarly, the Sungard-Ossi in the United States maintains easily accessible data on inmates from booking to release through their Jail Management System (JMS). It is fully integrated with the OSSI Records Management System (RMS) to remove and/or avoid duplication of data entries, ensure integrity of data, and be able to produce a reliable and a more comprehensive management reporting. With the utilization of these and other features, the JMS can enhance the effectiveness and the security of jails.

Philadelphia Commissioner Leon A. King II, Esq. (2002) imparted that the Philadelphia Prison System (PPS) undertakes to produce a reliable correctional atmosphere that confines effectively an accused or convicted persons. They made every effort to provide a more humane environment through efficient programs and services; and the initiative to prepare incarcerated persons into society.

Meanwhile, all Philadelphia Prison System services operate on a concept management. It is a prison management technique that lessens the need for inmate movement daily services such as dining, medication, and sick call, on the housing unit, in an effort to the security and inmate programming.

### **Alternative Measures to Overcrowding**

Managing over populated jails is not an easy task. An effective Jail Management System could be a substantial element in reducing the workload of the corrections system, however, many are still analyzing on

how to decongest the prisons.

Howard (2000) believed that there are various methods to reduce prison overcrowding. Among the most significant are prison designs and reducing the prison population by developing community-based alternatives to imprisonment.

Correspondingly, Komu, et al. (1988) considered three possible solutions to the overcrowding problem. First, is the development of alternative diversion measures; secondly, development of earlier release systems from prison and, lastly, establishment of new institutional facilities.

Opposing to the third possible solutions being considered by Komu, Howard (2000) disclosed that many corrections officials and researchers agree that it is not practical to anticipate solving overcrowding problems by merely constructing additional and newer prison facilities. As Rosenfled & Kempf stated “the financial realities of trying to build our way out of the correctional crisis makes today’s fiscal conservatives sound like yesterday’s rehabilitationists.

## **The Parole System**

The parole system is a cost-effective alternative to imprisonment. It is a reward for prisoners who show excellent behavior while in prison. It motivates prisoners to behave well, thus making it safer for prisoners, visitors, staff, and administrators.

Parole provides prisoners an access to the community-based treatment programs allowing them to serve the remainder of their sentence outside of prison. It helps the offender to return into the community as a law-abiding member.

In the US, the parole system is intended to lighten the State’s burden of supporting the needs of the prisoners. It also intends to extend rehabilitative

services to the convicted person and to facilitate their re-integration back to the community.

D' Amico (2005) further averred that statistics from the U.S. Bureau of Justice show that in the year 2001, its annual budget reaches to approximately \$1 billion and the annual cost of housing a state prisoner reaches about \$33,000 or \$90 a day.

Similarly, Aspiras (2002) stressed the expeditious release of offenders in our country, either through the form of parole or conditional pardon, could play a part in decongesting our jails. This could well be attained through the joint efforts of the Corrections Pillar.

Realizing the present situation of our prison system, President Gloria Arroyo's ten-point agenda of the Medium Term Philippine Development Plan (2004-2010) clearly states that one of the strategies needed for our own Corrections and Rehabilitation Pillar is the strict monitoring of prisoners' *carpetas*/prison records through a systematic and improve records system to avoid any delay in the release of prisoners. Thus, this study was conceived.

## **Operating System**

An operating system (OS) is generally described as the program that, after being initially loaded into the computer, manages all the other programs and perform basic tasks, such as recognizing input from the keyboard, sending output to the display screen, keeping track of files and directories on the disk, and controlling peripheral devices such as disk drives and printers.

A lot of operating systems are proliferating in the market nowadays. According to Microsoft, one of the most stable OS is the Microsoft Windows Server 2003 that was built on the core strengths of the Windows

family of operating systems, i.e. security, manageability, reliability, availability, and saleability. It is the most productive infrastructure platform used in servers for powering connected applications, networks, and Web services from the workgroup to the data center. Additionally, advances in Windows Server 2003 provides many benefits for developing applications, resulting in lower total cost of ownership, enhanced security, and better performance.

For the workstations, Windows XP Professional provides comprehensive security features to protect sensitive and confidential business data both locally on a user's desktop computer and as it is transmitted over network, phone lines, or the Internet. With support for the latest security standards and enhanced protection from viruses, you can rest assured that they are protected from some of the more common types of Internet attacks.

### **Visual Basic 6.0**

The Microsoft Developer Network (MSDN) illustrates Visual Basic 6.0 as a language rapid application development environment that gives fast, easy, and intuitive tools to quickly develop Windows applications. Visual Basic can develop simple utilities or sophisticated applications. It has data access features that allow the creation of databases, front-end applications, and scalable server-side components for most popular database formats.

### **Crystal Report**

Wright (2008) cited that Crystal Reports is a popular third party package that is included with Visual Basic, which allow to create reports for an application. It

is a business intelligence application used to design and generate reports from a wide range of data sources.

### **Relational Database Management System (Microsoft Access)**

A Database Management System (DBMS) is a program or set of programs that stores and organizes data. When a DBMS is organized by means of related tables using common fields, it becomes Relational Database Management System (RDBMS).

MS Access is an example of an RDBMS. Like all database systems MS Access stores database information in a database file store information about the database objects such as tables, queries, forms, macros, reports, access web pages, and modules. An RDBMS is used to store, retrieve and update data via facilities and mechanisms that are supported from within the database system.

In a related study conducted by Maneja (2005) in the development of a “Computerized Disc Jockey”, he utilizes Microsoft Access as the system’s back-end database due to its efficiency.

### **Software Evaluation**

Kaner (2006) defined software evaluation as the process used to assess the quality of computer software. Software testing is an empirical technical investigation conducted to provide stakeholders with information about the quality of the product or service under test.

On the other hand, beta test is the second phase of software testing in which a sampling of the intended end-users tries the product out. Beta testing can be considered "pre-release testing." Beta test versions of

software are now distributed to the end-users to give the program a "real-world" test and partly to provide a preview of the next release.

### **Client-Server Architecture**

Mitchell (2008) defined the term client-server as a popular model for computer networking that utilizes client and server devices each designed for specific purposes. This model can be used on the Internet as well as local area networks (LANs). Examples of client-server systems on the Internet include Web browsers and Web servers, FTP clients and servers, and DNS.

A client computer and a server computer are usually two separate devices, each customized for their designed purpose. A server device typically stores files and databases including more complex applications like Web sites. Server devices often feature high-powered central processors, more memory, and larger disk drives than clients. Client devices are typically PCs with network software applications installed that request and receive information over the network. Mobile devices as well as desktop computers can both function as clients.

Network clients make requests to a server by sending messages, and servers respond to their clients by acting on each request and returning results. One server generally supports numerous clients, and multiple servers can be networked together in a pool to handle the increased processing load as the number of clients grows.

### **CONCEPTUAL MODEL OF THE STUDY**

On the basis of the foregoing concepts, theories, and findings of related literature, studies presented, and insights taken from them, a conceptual model is developed as shown below.

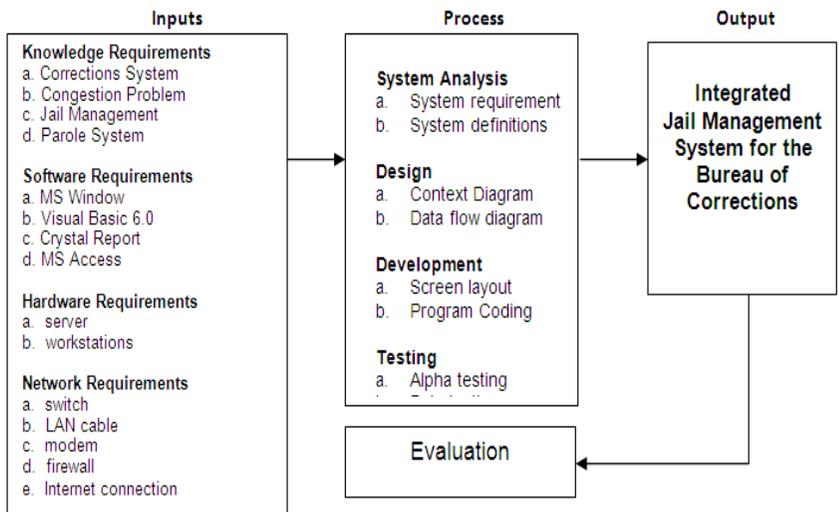


Figure 2. The Conceptual Model of the

In order to develop the output which is an Integrated Jail Management System, this study follows the input-process-output model. The input block is categorized into three, such as the knowledge requirements, software requirements and the hardware requirements. The knowledge requirements include Crime and Corrections System, Jail Congestion Problem, Jail Management, and Parole System. The software requirements include Operating System, Relational Database Management System and Microsoft Development Tools such as Visual Basic and Crystal Report. The hardware requirements consist of server and workstations and the network requirements comprise of switch, Local Area Network (LAN) cable, modem, firewall and an internet connection.

The process block includes system analysis, system design, system development and system testing for the whole system. System analysis consists of

system requirement and definitions. The system design includes context diagram and system data flow diagram. The system development comprises of screen layout and program coding. Finally, system testing undergoes alpha and beta testing.

## **OPERATIONAL DEFINITIONS OF TERMS**

**Integrated System** refers to the combination of the system components of the Bureau of Corrections that perform separate functions in order to establish a centralized database for monitoring the individual status of inmates aimed to reduce jail congestion.

**Jail Management** refers to the administration and supervision of prison facilities.

**Jail Management System** is the effective method of managing prison facilities specifically the congested ones.

**Jail congestion** refers to the overcrowding in prisons/jails which indicates that a jail institution accommodates more prisoners than its ideal capacity.

**Corrections Pillar** refers to the component of the criminal justice system that serves to rehabilitate criminal offenders.

**Corrections System** is the process entered by the criminal offender who was charged and convicted by the court and was confined in a rehabilitation center such as the jails or prison, juvenile centers, etc.

**Carpeta** refers to the prison jacket or an envelope containing all pertinent documents on the case of an inmate.

**Jail Decongestion Program** refers to the strategy being undertaken on how to effectively reduce overcrowding in prison facilities.

**Community-based treatment** refers to the

rehabilitation program for convicted felons who are serving their sentences outside of prison cells.

**Parole system** refers to the conditional release of an offender from a prison institution after meeting the specified requirements declared by law.

**Parolee** refers to the prisoner released from jail by virtue of parole.

**Conditional Pardon** refers to the conditional liberty granted by the Constitutional power of the head of the State.

**Pardonee** refers to any prisoner released on conditional pardon.

**Good Conduct Time Allowance (GCTA)** refers to the deduction of days from the sentence granted to prisoners for each month of good behavior while inside the National Penitentiary.

**Active inmates** refer to the inmates presently confined in jails.

**Inactive inmates** refer to inmates already released from prison whether in the form of parole, finished sentence, death, acquittal, etc.

**Local Area Network (LAN)** refers to the connection of information processing devices within a limited physical area such as office, building or other work site. It allows end-users in a work group to communicate electronically, share hardware, software and data resources.

**Wide Area Network (WAN)** refers to the data communication network covering large geographic area such as large city, provinces or regional area.

**Protocol** is the set of rules and procedures for the control of communications in a communications network.

**TCP/IP (Transmission Control Protocol / Internet Protocol)** refers to the most common protocol in a network environment.

**Database Management System** refers to the set of computer programs that controls the creation, maintenance, and utilization of the databases.

**Database Administrator** is the specialist responsible for maintaining standards for the development, maintenance, and security of an organization's databases.

**SQL (Structured Query Language)** refers to the query language that has become a standard for advanced database management systems packages.

**Client-server network** is the computing environment where end user workstations (clients) are connected to LAN servers.

## **CHAPTER III**

### **METHODOLOGY**

This chapter presents the project design, the project development, the operational and testing procedure, and the evaluation procedure.

#### **PROJECT DESIGN**

The Integrated Jail Management System maintains records of persons *convicted* of any crime and is presently detained in any National Penitentiary or Penal Institutions in the Philippines. It monitors their statuses, movements and dates when these persons are eligible for any form of release. Prompt action on inmates' release is made to ease the burden of congestion in jails.

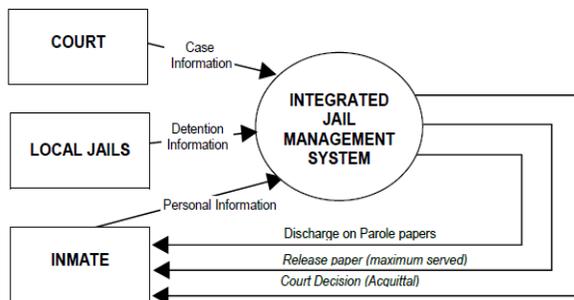


Figure 3. Context Diagram of the Study

Figure 3 shows that case information from the Courts, the detention information if ever the prisoner was confined in the local jail and basic personal information from the prisoner itself is vital in the operation of the Integrated Jail Management System. If a person is charged and convicted of a certain crime, he will automatically enter the corrections system. Certain steps and processes took place until the prisoner come out and be released from the system upon the expiration of his sentence; or by order of the Court or competent authority acquitting him of the offense charged; or after being granted parole or conditional pardon.

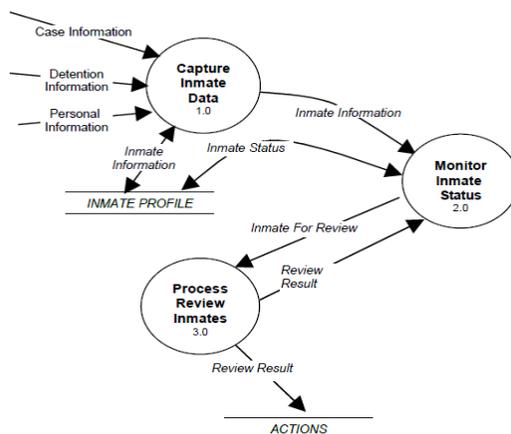
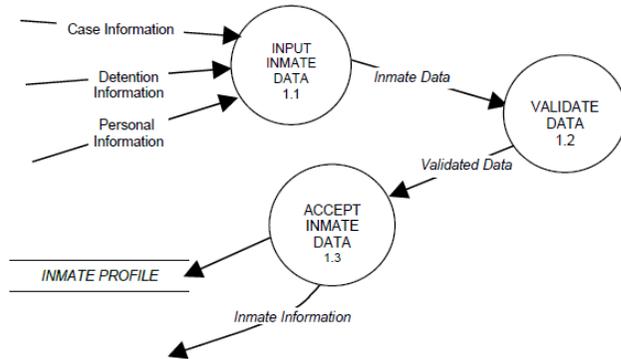


Figure 4. Logical Data Flow Diagram (Level 0)

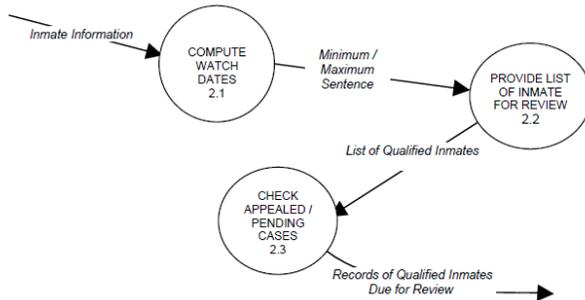
Figure 4 shows that upon input of data, the system captures and stores inmate information in the

inmate profile database. The system also monitors the inmate status, filters and produces qualified inmates for review by the BPP. Qualified inmates are processed and updates on the results of the review are stored in the actions database.



**Figure 5. Capture Inmate Data (Level 1 of Process 1.0)**

When exploded, process 1 is responsible for the data entry of the required information. The inmate data is validated and checked if the person has an existing record. If no record exists, the system allows the creation and thereby accepts the inmate data, else, the system opens the existing record and enables the users to make the necessary modifications.



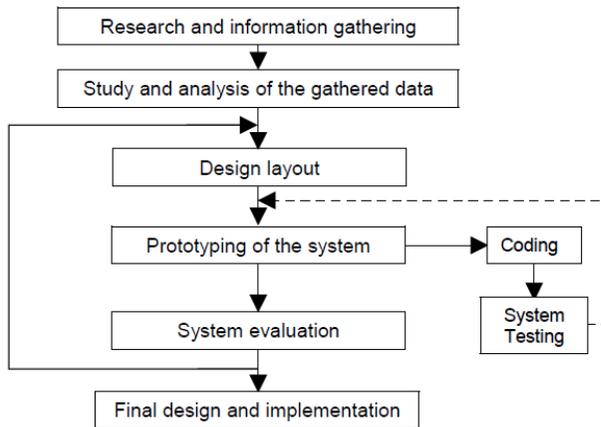
**Figure 6. Monitor Inmate Status (Level 1 of Process 2.0)**

Upon acceptance of inmate record, the system automatically computes for the expiration of the

minimum and maximum sentence to determine the exact date when the prisoner will be eligible for parole or when will the prisoner serve his sentence in full. The system provides a list of inmates for review and then check if the prisoner filed an appeal. If so, the prisoner will no longer qualify for the review.

## PROJECT DEVELOPMENT

The diagram below shows the conceptual process of the system. It includes six steps namely: (1) research and information gathering; (2) study and analysis of the gathered data; (3) design layout; (4) prototyping of the system; (5) system evaluation; and (6) final design and implementation



**Figure 7. The Conceptual Process of the System**

### Research and Information Gathering

To obtain adequate knowledge of the proposed system, a comprehensive study was made by gathering available documents such as Operation Manuals, Accomplishment Reports and other relevant issues and studies, etc. Likewise, interviews from concerned

officials and employees were also conducted to support the information gathered from the published issues and concerns.

### **Study and Analysis of the Design**

After gathering sufficient knowledge on present situation of the national penitentiary and penal colonies, a study was conducted to determine whether a new and/or innovative information system can be a reasonable solution to the problem. After which, a thorough analysis of the existing system as well as the organization environment was carried out. The information needs of the end-users were likewise analyzed.

### **Design Layout**

Subsequently, the functional requirements of the Integrated Jail Management System that answers the needs of the end-users was determined. Likewise, the specifications for the hardware, software and networking needs that would be most appropriate for the functional requirements of the system was identified.

### **Prototyping of the system**

A prototype of the system was made to enable the end-users appreciate the solution to the present problem of the Corrections Pillar. It is a developed program using powerful tools such as Visual Basic 6.0 and RDBMS software like MS Access that can handle database records efficiently.

### **System Evaluation**

In order to gather suggestions and recommendations from the end-users, the researcher

conducted interviews and surveys during the development stage of the project.

### **Final Design and Implementation**

After gathering all the information needed in the project, the system was developed using Visual Basic 6.0, an easy to use application development tools.

It is believed that this software could be the best alternative to expensive development proprietary software because of its capability to handle business operations across multiple platforms. It could independently support jail management systems having large databases across the country.

In order to minimize the cost of the project, MS Access was used as its back-end. It could, however, be upgraded to a more powerful back-end database management software in the future like Microsoft SQL. Since both databases are proprietary software of Microsoft, there will be no compatibility issues in case the Bureau of Corrections migrated the database MS Access to a more sophisticated MS SQL.

For implementation, end-users are trained on its functionalities to ensure smooth operation of the system. A post-implementation review was conducted to monitor, evaluate and modify the system, as needed.

### **OPERATION AND TESTING PROCEDURE**

#### **Operation Procedure**

1. Verify the system authorization of the end-user/s to get access to the Integrated Jail Management System.
2. Update static data in the Libraries module and synchronize with the different penal institutions.
3. Input or update personal information, case

information and case status of the inmates.

4. Generate reports such as prison record, synopsis, statistical reports, demographic reports, status report and facts sheet and inmates due for review.
5. Back-up and restore data to enable transfer of information in the different penal institutions.

### **Testing Procedure**

1. Create a login password for the users who will be granted access to the system. Different levels of security must be addressed.
2. Encode the information in the file maintenance module and test the functionality of the command buttons such as add, edit, delete.
3. Generate desired reports and validate the output.
4. Compute the expiration of minimum and maximum sentences.
5. Validate using manual computations until proven free of errors.

### **EVALUATION PROCEDURE**

To determine the acceptability and usability of the project, a survey was conducted and the system was tested to determine the reliability and functionality of the program.

1. **Preliminary Evaluation** – Initial evaluation was conducted personally by the researcher through alpha testing and inspection on how the system operates. The results of queries and computation became the basis in improving the system.
2. **System Presentation** – The system was

presented to the evaluator-respondents consisting of IT professionals and probable end-users. Suggestions and recommendations were properly noted such as additional queries and report formats.

3. **Final Evaluation** - Survey questionnaires were distributed to at least thirty (30) evaluators consisting of ten (10) officials and concerned employees of the Bureau of Corrections specifically those involved in records management and the day to day transactions of the prisoners, ten (10) IT experts who evaluated and contributed to the project and ten (10) officials and employees from the Board of Pardons and Parole.

The comments, suggestions and recommendations were used and noted in the improvement of the system. This study adopted the Technological University of the Philippines (TUP) formulated evaluation instrument for hardware and software components, with the following criteria: functionality, content, reliability, availability, maintainability and scalability. Please refer to Appendix A , for sample copy.

4. **Statistical Treatment of Data.** The scale of the evaluation ranges from 1 to 5, with 5 being the highest and 1 is the lowest. The scores were tallied and computed by the Mean Range Formula for the interpretation of the result in meeting the Software Quality Factors Standard for Acceptance.

**Table 3**  
**System Evaluation Sheet of the Numerical Scale and Interpretation**

<b>Numerical Scale</b>	<b>Interpretation</b>
4.51 – 5.00	Excellent
3.51 – 4.50	Very Good
2.51 – 3.50	Good
1.51 – 2.50	Fair
1.00 – 1.50	Poor

## CHAPTER IV

### **RESULTS AND DISCUSSIONS**

This chapter presents the project description, structure, capabilities and limitations, and the results and interpretation of project evaluation.

#### **PROJECT DESCRIPTION**

The project deals mainly on the Integrated Jail Management System, which handles voluminous records and/or transactions related to the national prisoners confined in the National Penitentiary and all penal colonies in the country. It has an accurate monitoring scheme that could simply ease the burden of jail congestion. It gives prompt and precise information in an instant thus giving satisfaction not only to the prisoners or to their relatives but also to the jail officials and employees as well.

## **PROJECT STRUCTURE**

The developed application system was designed in a client-server architecture comprises of the following components:

### **A. Hardware Components**

- **Server**

The system requires a powerful server where data from the penal colonies are stored. It acts as the central repository of data for the entire Integrated Jail Management System.

- **Workstations**

Together with the powerful server, the system also requires workstations, where the penal colonies enter and process their data to generate the necessary output. To obtain the ideal response time for each transaction in the system, workstations must have minimum requirements of Pentium 4 or higher with at least 256 MB of RAM, Local Area Connection (LAN) card, universal serial bus (USB) slots and Windows XP with Service Pack 2.

- **Switch**

To be able to establish a Local Area Network (LAN) connection, a core switch was required to facilitate interconnectivity between the server and the workstations.

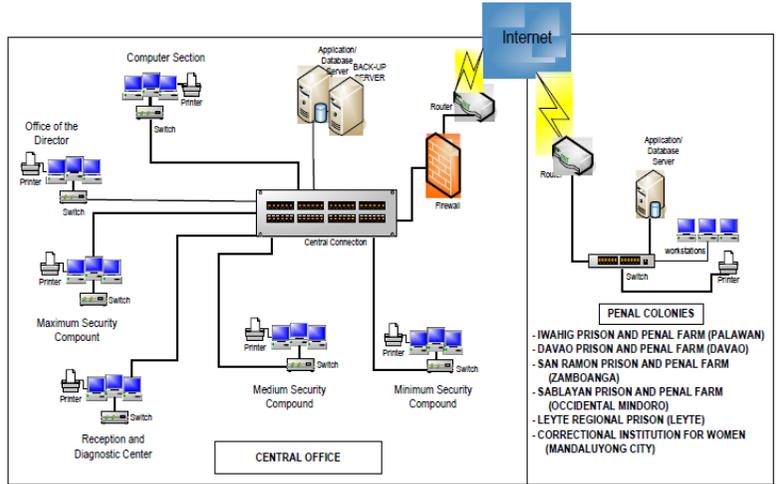
- **Router**

It was used to establish a Wide Area Network (WAN) among the penal colonies in the country.

- **Firewall**

To enable a much more secured network infrastructure, a firewall system must be setup to block unauthorized users of the system and to prevent viruses from coming in to the system.

To sum up everything, the network infrastructure, as shown in Figure 8, is detailed hereunder:



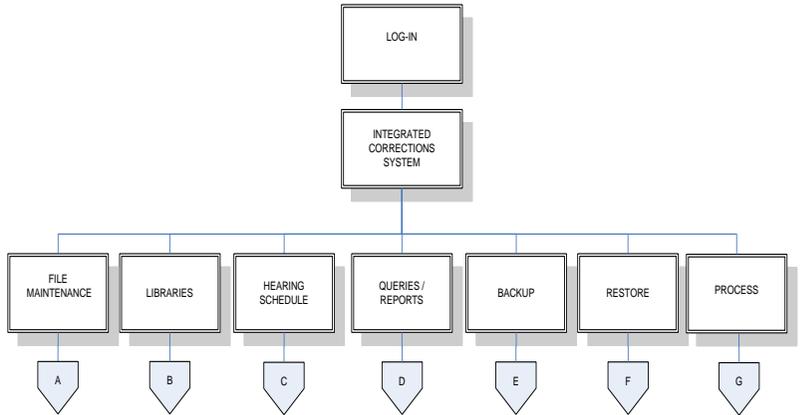
**Figure 8. Network Infrastructure Diagram**

The central server is housed at the Administrative Building (Building 1) of the Bureau of Corrections located at the New Bilibid Prison in Muntinlupa City. Workstations are distributed in the different offices located in each jail dormitory, i.e. Reception and Diagnostic Center, Maximum Security Compound, Medium Security Compound and the Minimum Security Compound, all of which are located in the New Bilibid Prison in Muntinlupa City. A local server and workstations are also distributed to the penal colonies.

### Software Components

The Integrated Jail Management System (IJMS) is an application system written in Visual Basic 6.0 that facilitates accurate monitoring of prisoners confined in the National Penitentiary and Penal Colonies in the Philippines.

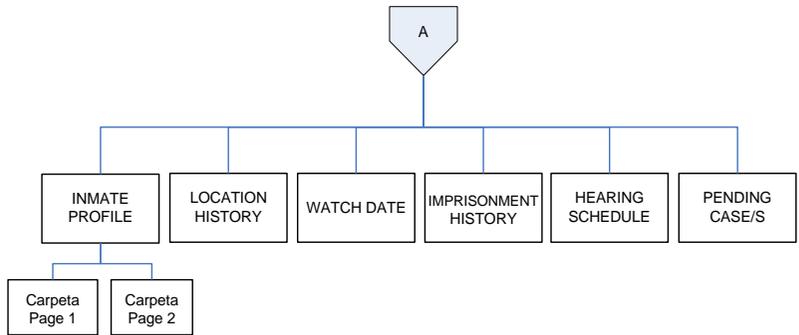
Program Modules Hierarchical Chart  
Integrated Corrections System



**Figure 9. Hierarchical Chart**

The IJMS Program Hierarchical Chart, as shown in Figure 9, indicates how the entire system performs. The Log-in Screen, which is very vital to the security of the system, is placed on top of everything. Successful attempts are then followed by the Main Screen of the IJMS.

The IJMS is broken down into seven (7) functionalities namely, File Maintenance, Libraries, Hearing Schedule, Queries/Reports, Backup, Restore and Process.

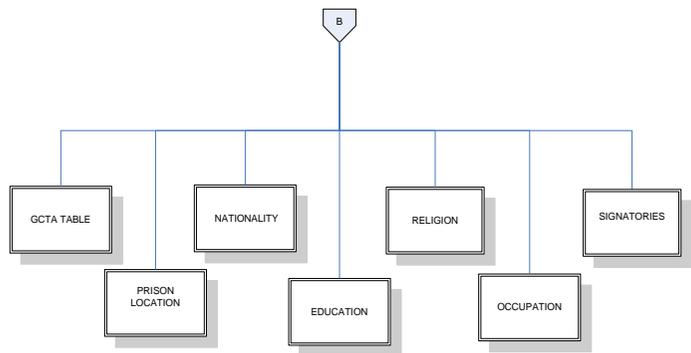


**Figure 10. File Maintenance**

File Maintenance, as shown in Figure 10, is where the end-users enter the data needed for each prisoner. It is subdivided into six (6) modules namely, Inmate Profile, Location History, Watch Date, Imprisonment History, Hearing Schedule and Pending Case/s.

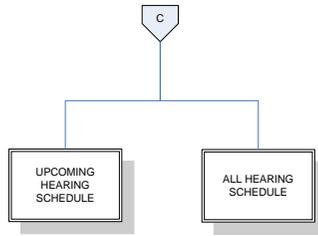
- a. Inmate Profile (Carpeta Page 1 and Carpeta Page 2) is where the end-users input basic personal information about the prisoner.
- b. Location History is where the end-users input jail location of the prisoner from the time of incarceration up to the time of discharge from prison. This tracks the history of all the jails where the prisoner has been committed.
- c. The Watch Date module is where the computation of the sentence is shown. It displays the watch dates vital in monitoring prisoners.
- d. Imprisonment History is where the details of the Offense/s are entered, Court information and sentence information. It also shows previous offense/s, if any. It automatically computes for the expiration of minimum

- and maximum sentence as the end-user inputs the sentence details.
- e. The Hearing Schedule module is where the day, place and time of hearing for the pending case/s of the prisoner is displayed and viewed.
  - f. Pending Case module is where the end-users input the case details committed by the prisoner, prior or during his conviction, which remains pending in court.



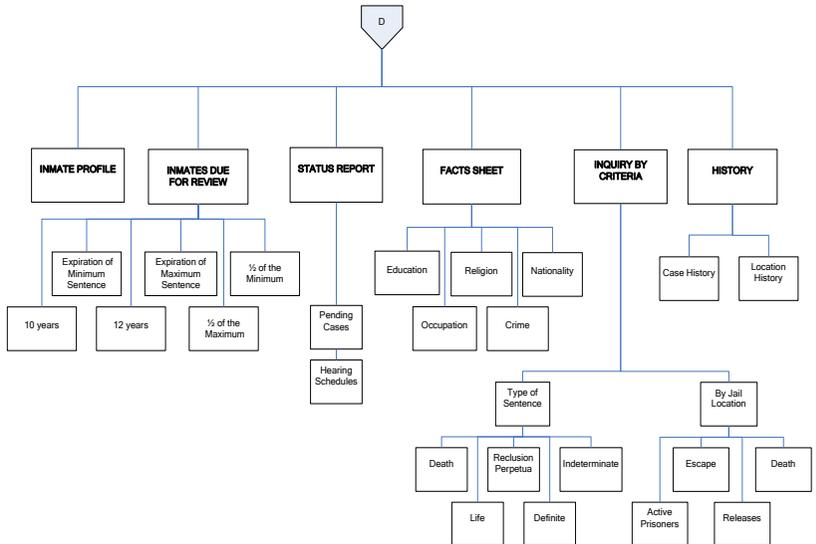
**Figure 11. Libraries**

The Libraries Module, as shown in Figure 11, is where the standard codes needed in the system are entered. Entry and maintenance of these codes are limited only to the central office of the Bureau of Corrections located in Muntinlupa City. Penal colonies are not allowed to create or edit entries in this module to maintain standardization and data integrity.



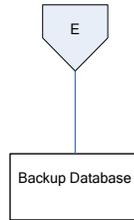
**Figure 12. Hearing Schedule**

The Hearing Schedule module, as shown in Figure 12, is vital in monitoring who among the prisoners are required to attend hearings outside the prison premises. This entails jail guards to escort the prisoners to the court and safely bring them back to the penitentiary. This is necessary in determining the schedule to maximize the limited number of jail guards needed for escorts.



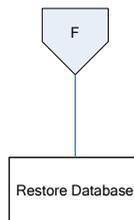
**Figure 13. Queries/Reports**

Figure 13 shows the Queries/Reports module. This is where the system provides facility to view on screen and optionally on the printer the different queries needed by the end-users. Some of the information that could be queried are the Inmate Profile including the case details, inmates due for review, inmate inventory, fact sheets on nationality, age, offense, education, etc.



**Figure 14. Back-up**

Figure 14 shows the Back-up utility Module. This is the functionality where the System Administrator backs up the data. The backup data in the Penal Colonies are transferred to the Central Penitentiary in Muntinlupa. This functionality is disabled if an ordinary or limited user logs-on to the system.



**Figure 15. Restore**

The Restore utility module as shown in Figure 15 is where the System Administrator restores the data. The backup data from the Penal Colonies are then transferred to the Central Penitentiary in Muntinlupa through the restore procedure. Just like in the backup module, this feature is disabled for ordinary or limited users.

Realizing the different hierarchical charts shown above, the program specifications with detailed screen designs are shown in the succeeding pages of this study.

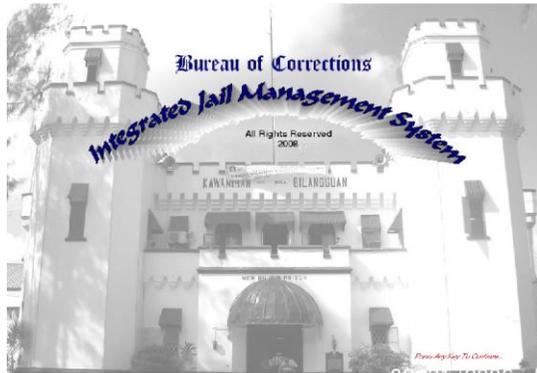
Just like any other secured application system, the IJMS has its own Log-in Security Screen, as shown in Figure 16, which validates all attempts to use the system. The Log-in the Security screen gives access to authorized users and block all unauthorized users of the system.



**Figure 16. Log-in Security Screen**

In this module, levels of security are applied. Upon supplying the username and encrypted password, the system validates the access rights granted to the user who attempted to log in. Not all authorized users have the same access rights upon entering the system. Aside from the Systems Administrator, who has the full access in all modules of the system, all other users of the system has limited access depending on the access rights granted by the Systems Administrator.

Upon supplying the username and password, successful attempt to use the system brings the end-user to a simple splash screen for the IJMS, as shown in Figure 17. This screen, which is presented before proceeding to the main screen, is used as an introductory part to show copyrights and licenses.



**Figure 17. Splash Screen**

Pressing any key will bring the user to the main screen of the system.

## **PROJECT CAPABILITIES AND LIMITATIONS**

The IJMS was developed primarily to address major problems being encountered in monitoring national prisoners. The system is capable of adding, updating and maintaining inmates' personal information, crime and sentence information and results of review and recommendation. It has the capability to compute for the expiration of the prisoner's minimum and maximum sentences. Based on the computed expiration, the system has the capacity to monitor watch dates to determine the prisoners' eligibility for early releases. It also has the facility to generate needed reports. In addition, the developed system has the ability to transfer pertinent information among the penal colonies by uploading and downloading the data through the use of a computer network.

However, because of the broad coverage of the entire Corrections Pillar, this study focused only on the seven major penal institutions of the country basically due to financial and time constraints. The developed system does not include maintenance of inmates' records confined under the jurisdiction of local jails i.e. city jails,

municipal jails, provincial jails and/or any other rehabilitation centers across the country. Nonetheless, future enhancements of the developed system could take into consideration integrating the above-mentioned jails as well as rehabilitation centers.

## **PROJECT EVALUATION**

Based on the system presentation done before the IT professionals and probable end-users, the project was assessed in terms of system functionalities. It was evaluated to be user-friendly with ease of operation and functions but was able to cater to the needs of accurately monitoring the prisoners.

As for the conduct of final evaluation, the project has an overall average rating of 4.66, which corresponds to a descriptive rating of excellent accessibility rate. The technical evaluator-respondents primarily focused on the functionalities and capabilities of the program, the entity relationship and the database structure.

In addition, prison officials as well as the employee-respondents were concerned about the data integrity and the accurate monitoring of prisoners in all jails. They were assured that the data of the prisoners confined in the penal colonies are transferred electronically to the main National penitentiary located at the New Bilibid Prison in Muntinlupa City. More so, the system was evaluated as to the consistency of the generated reports.

Realizing the over-all results of the evaluation, the researcher could provide favorable conclusions in terms of the general level of acceptability of the project. To assess the software components of the project, the same sets of evaluation criteria were used in terms of (a) Functionality; (b) Content; (c) Reliability; (d) Availability; (e) Maintainability; and (f) Saleability.

**Table 4. Evaluation Results of the Prison Officials and Employees**

<b>CRITERIA</b>	<b>MEAN</b>	<b>DESCRIPTIVE RATING</b>
A. Functionality	4.67	Excellent
B. Content	4.73	Excellent
C. Reliability	4.60	Excellent
D. Availability	4.47	Excellent
E. Maintainability	4.40	Very Good
F. Saleability	4.47	Excellent

Table 4 illustrates the overall mean score of each decisive factor and the acquired descriptive rating as perceived by the prison officials and employees. With a very good overall mean score of 4.56, the project was concluded to perform the expected operations and generate the necessary output. The prison officials and employee respondents found the program interface to be user friendly and very effective especially in monitoring prisoners.

**Table 5. Evaluation Results of the Board of Pardons and Parole Officials and Employees**

<b>CRITERIA</b>	<b>MEAN</b>	<b>DESCRIPTIVE RATING</b>
A. Functionality	4.67	Excellent
B. Content	4.63	Excellent
C. Reliability	4.73	Excellent
D. Availability	4.80	Excellent
E. Maintainability	4.85	Excellent
F. Saleability	4.60	Excellent

Table 5 reveals that an excellent rating was given to all software criteria by the officials and employees from the Board of Pardons and Parole. This shows that the program performed as expected by the end-users. It generated accurate results with optimum ease and user friendliness. These ratings show a complete, functioning program was developed with functionality, content and easy maintenance facilities.

On the other hand, Table 6 shows the evaluation given by technical people and have given an *Excellent* rating of 4.93 for functionality, 4.63 for content, 4.60 for reliability, 4.80 for availability and another 4.80 for maintainability and a *Very Good* rating of 4.43 for saleability.

**Table 6. Evaluation Results of the Technical Experts**

CRITERIA	MEAN	DESCRIPTIVE RATING
A. Functionality	4.93	Excellent
B. Content	4.63	Excellent
C. Reliability	4.60	Excellent
D. Availability	4.80	Excellent
E. Maintainability	4.80	Excellent
F. Saleability	4.43	Very Good

Finally, Table 7 confirms that all respondents i.e. the Prison Officials and employees, BPP Officials and employees and Technical Experts found that the project acceptability with the highest potential of being implemented to the major penal institutions in the Philippines. An overall mean of 4.66 was given, which is considered to be excellent and was computed to prove the respondents affirmative perception on the project.

**Table 7. Overall Evaluation Results**

CRITERIA	MEAN SCORE				DESCRIPTIVE RATING
	<i>Prison Officials and Employees</i>	<i>BPP Officials and Employees</i>	<i>Technical Experts</i>	<i>Overall</i>	
<b>A. Functionality</b>	4.67	4.67	4.93	4.76	Excellent
<b>B. Content</b>	4.73	4.63	4.63	4.67	Excellent
<b>C. Reliability</b>	4.60	4.73	4.60	4.64	Excellent
<b>D. Availability</b>	4.47	4.80	4.80	4.69	Excellent
<b>E. Maintainability</b>	4.40	4.85	4.80	4.68	Excellent
<b>F. Saleability</b>	4.47	4.60	4.43	4.50	Very Good
			<b>Overall Mean</b>	<b>4.66</b>	<b>Excellent</b>

## **Chapter V**

### **SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

This chapter presents the Summary of Findings, Conclusions and Recommendations of the study.

#### **SUMMARY OF FINDINGS**

Based on the results of the study, the following are the summary of findings:

1. **Functionality.** The respondents rated the system excellently because it provides ease of operation. Provision for comfort and convenience and user friendliness.
2. **Content.** The respondents rated the system to be excellent since the system produces accurate reports, updatedness and presentation of information.
3. **Reliability.** The respondents rated the system to be excellent in terms of conformance to a desired result, the absence of failures and accuracy in performance.
4. **Availability.** The respondents rated the system to be excellent on its performance according to specification, the provisions for security requirements and the completeness of the system.
5. **Maintainability.** The respondents rated the system to be excellent in terms of ease of performance, provision of diagnostic tools and provision for enhancement and modifications.
6. **Saleability.** The respondents rated the system to be very good because of presence of market demands, competitiveness of price and the attractiveness of the design.

## **CONCLUSIONS**

In consideration of the objectives of the study and the results of the evaluation, the following conclusions were drawn:

1. That the designed system meets the need of providing an organized jail management system that integrates the National Penitentiary and all penal colonies thus establishing a centralized database. It can generate accurate reports for the rehabilitation of the prisoners such as monitoring of inmates according to their educational attainment, occupation, religion, etc.
2. That the system is capable of adding, editing, maintaining and searching records of inmates. It can also monitor inmates due for review or due for release to help decongest the prison cells.
3. That the system was rated to be excellent based on the results of evaluation conducted.

## **RECOMMENDATIONS**

For the improvement of the study, it is recommended that:

1. The system is implemented not only in the major penal institutions in the country but also in the local, provincial and municipal jails.
2. For the government, ponder on the Medium Term Philippine Development Plan (2004-2010) intended for the Corrections and Rehabilitation Pillar i.e. strict monitoring of prisoners' carpentas/prison records through a systematic and improve records system to avoid any delay in the release of prisoners.

3. Future researches may include the migration of data from MS Access to MS SQL.

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