

Jail Information System of the Provincial Jail of Misamis Oriental

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Abstract - Keeping track of inmates' profile in the Provincial Jail is a constant challenge, especially as they move from one part of facility to another or from Misamis Oriental Provincial Jail to any Prison within the country and also the growing population of the inmates is a big problem in keeping track of inmate's profile. In an effort to improve the tracking of inmates, we conducted a study on how the authorities of the provincial jail is keeping the records of the inmates. We found out that the major problems are; redundancy of inmate's profile, unorganized tracking of inmate's profile, and time – consuming in the generation of jail reports. Our Objective in making this program is to make the job of the provincial jail employees easier. The employees of the Provincial Jail need to keep in track of the profile of the inmates. So we decided to make a computer – based Jail Information System which aims to solve the redundancy of prisoner's profile,

organize the tracking of prisoner's records, and to generate reports on time. The system allows accurate generation of jail reports. Jail reports are generated faster compared to the manual system which takes a lot of time to complete the entire search for an inmate's personal information. Being efficient, the proposed system is an advantage to both the institution and its personnel.

Keywords - provincial jail, information system, Misamis Oriental

INTRODUCTION

A computer – based information system has been the priority solution to a complex problem for most institutions like the Provincial Jail. It is used to maximize the efficiency, convenience, and quality of service offered.

The study of information systems, originated as a sub-discipline of computer science, in an attempt to understand and rationalize the management of technology within organizations. It has matured into a major field of management, which is increasingly being emphasized as an important area of research in management studies, and is taught at all major universities and business schools in the world.

Today, Information and Information technology have become the fifth major resource available to executives for shaping an organization, alongside people, money, material and machines. Ciborra (2002) defined the study of information systems as the study, which deals with the deployment of information technology in organizations, institutions, and society at large. Information systems deal with the development, use and management of an organization's IT infrastructure.

In the post industrial, information age, the focus of the companies, organizations, and institutions has shifted from being product oriented to knowledge oriented. The aim in developing this system is to maximize the efficiency, convenience, and the quality of service being offered by the Provincial Jail.

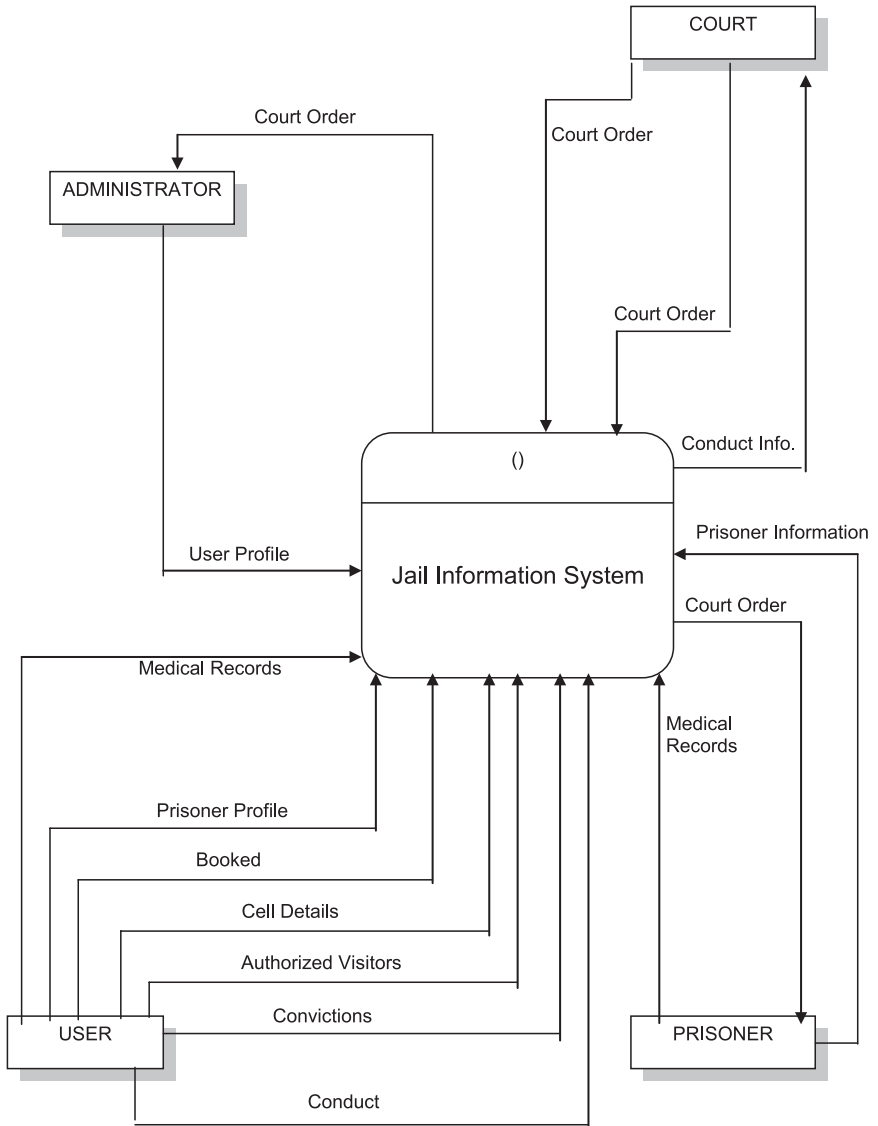


Figure 1. Context Diagram

FRAMEWORK

The Jail Information System offers the Provincial Jail of Misamis Oriental a computer – based system of keeping the inmates personal information. The system will have the following inputs: the user profile for the personnel who will be using the system (there will be two types of user: the administrator level and the user level; administrators have full access to the system for they are also responsible for maintaining the system. The user level have limited access to the system); the inmates profile (all personal information of the inmates); the booking details; the prison cell (including the type of cell and the cell capacity); the inmates' conduct; the article deposits (including the description and the value of the item being deposited by the inmate); authorized visitor (including the relationship of the visitor to the inmate); the visitors' visitation. These data are inputted and stored in the database of the system and are being used by the institution for updating of records, searching, viewing, and generation of jail reports. To print out the jail reports, the user has to click the print button. To terminate the use of this computer software at any given time, the user has to click the “Close” button.

OBJECTIVES OF THE STUDY

Development Objectives

Our Objective in making this program is to make the job of the provincial jail employees easier. As what we have observed the growing population of our inmates is making it harder for the employees of the Provincial Jail to keep track of the profile of the inmates. So we decided to make a computer – based Jail Information System which aims to solve the redundancy of prisoner’s profile, organize the tracking of prisoner’s records, and to generate reports on time.

Immediate Objectives

The major component of the software side of the proposed system is the back – end where the data are primarily stored, and the

hardware components in this system include the Workstations of the personnel of the provincial jail. The design system recommends the use of windows XP for the workstation and windows 2000/NT for the server operating system. Also recommended is the use of Microsoft Visual Basic Version 6.0 for the front-end and Microsoft Access for the back-end of the database.

Output

The output of the study will be a computer – based information system of the provincial jail. It is software application that will be installed on the workstations of the personnel. The software will store all the data that are inputted in the user interface digitally into a database and can provide readily available prisoner information to the personnel. A complete documentation of program structure and database specification and design is included. A complete documentation of all program source code is also compiled.

MATERIALS AND METHODS

To gather the needed data for the study, the researchers conducted an interview with the Officer in Charge of the Provincial Jail. Published Literature and studies was also explored to enhance the researcher knowledge about the system.

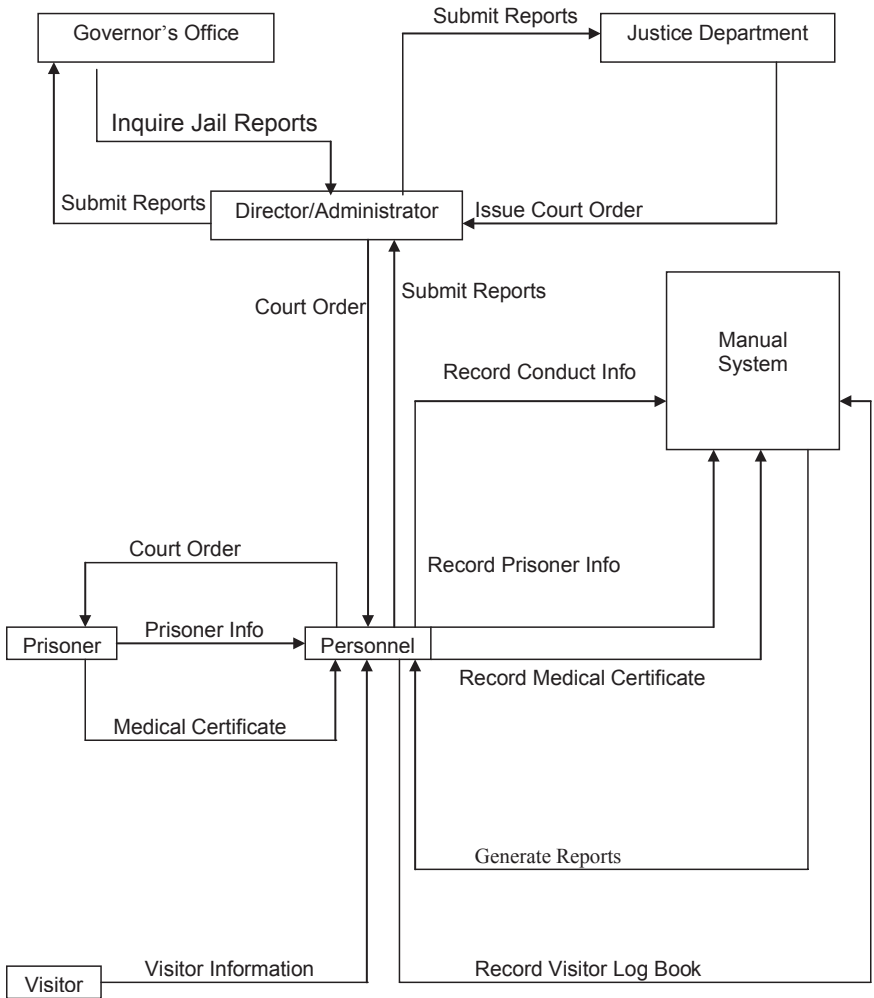


Figure 2. Current System

The current system of the Provincial Jail has six entities: Prisoner, Personnel, Visitor, Director/Administrator, Justice Department, and the Governor's Office. The flow of transaction starts from the prisoner. The prisoner will provide his/her personal information. The personnel then records the prisoner's personal information in an index card. After the personnel gets the necessary information, he/she will then ask for the medical certificate of the prisoner then place it on a folder and store it on a file cabinet together with the index card that contains the personal information of the inmate. After the information is stored, the prisoner will be booked into his/her cell. For the visitors, only those authorized visitors are allowed to visit the prisoner. Visitations are manually recorded in a visitors' log book.

For the generation of reports, the personnel do manually and submit the reports to the Director/Administrator. The Director/Administrator then submits the reports to the Governor's Office and to the Justice Department.

Proposed System

The proposed system is the computer – based Jail Information System. It has seven entities: Prisoner, Personnel, Director/Administrator, Visitor, Justice Department, Governor's Office, and the Jail Information System. The process between the prisoner and the personnel is almost the same as the manual system because it is always done manually. However, a difference exists when it comes to the keeping of the prisoner's personal information records, and in generating reports. The personnel and the Administrator almost follow the same procedure in accessing the Jail Information System. The personnel logs in to the system using his/her own account. The personnel can add, search, and update prisoner's personal information using the system. The system then records the log history of all the users automatically. The administrator also follows the same procedure in accessing the system. The administrator can create a new personnel profile, view the log history of the system, and generate reports. The administrator then submits the reports to the Governor's Office and the Justice Department. Through the system the personnel and the administrator log out when they're done. For the visitors; only those

authorized are allowed to visit the prisoner. The information of the authorized visitors is inputted in to the system. The system will then record the visitations of all the visitors.

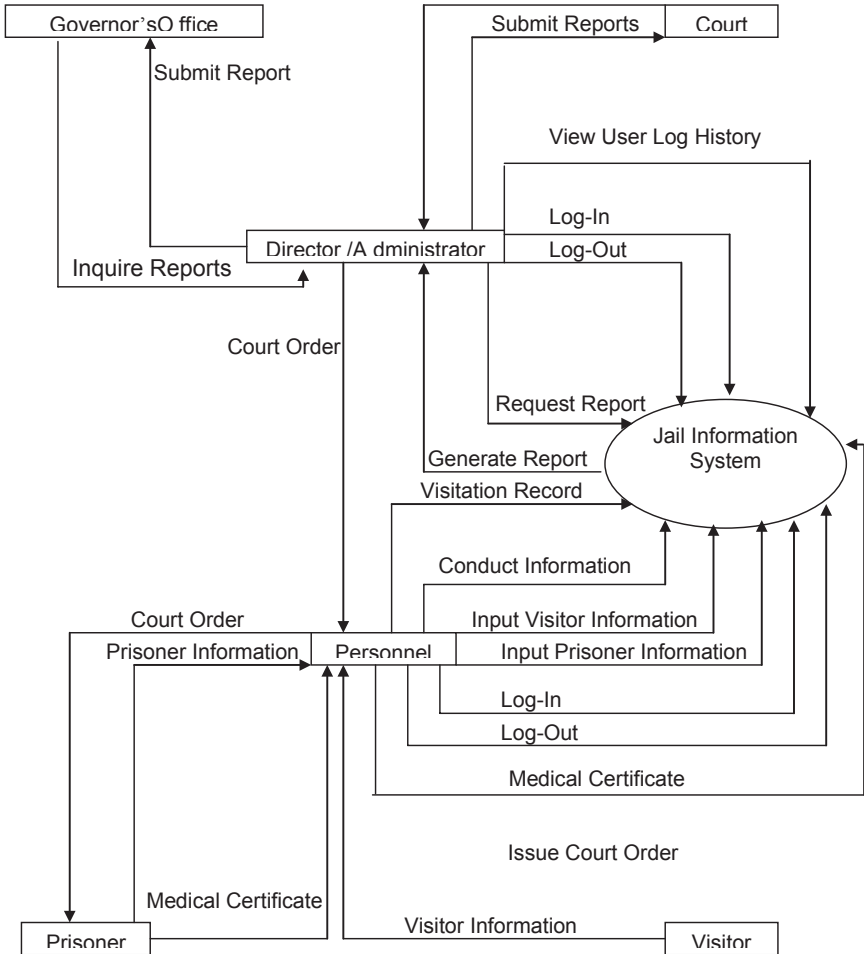


Figure 3. Proposed system

PROJECT DESIGN

Database Structure

There is only one database used by the Provincial Jail Information System. The database is JIS Database, a warehouse of data used to store all the information that are inputted by the user. The JIS Database has eleven tables: the tblprofile which holds the personal information of the prisoner, like the ID number, complete name, civil status, etc.; the tblprison holds the prisoner number, case number, crime description, confinement date, and the status of the prisoner; the tblcrime holds the crime list; the tblbook holds the booking number, and the booking date; the tblcell holds the cell number, cell type, and the cell capacity; the tblarticles holds the information of the items being deposited by the prisoner; the tblmedical holds the information of the medical certificate of the prisoner; the tblconduct holds the conduct information of the prisoner; the tblcorrespondence holds the information of the letters sent and received by the prisoner; the tblvisitors holds the personal information of all the authorized visitors of the prisoners; the tblarchive is used to store all the prisoner history. The JIS Database is password protected. Only authorized persons are allowed to access the database.

Project Description, Requirements and Specifications

Database functional Description

Basic Functions apply to all database tables.

ADD

Process Narrative

This function adds a record for new entries containing all data fields of the database table, with one or more key identifier. The user fills up a form (input screen) detailing the information for the database. In special cases, key fields can be generated by the system (e.g. the Prisoner Number) but it can also be altered depending on the database

administrator. Since this function is provided to input a new record, the user is only required to enter the details into text boxes and spaces provided in a form in the client side. A Microsoft Access command will handle the actual insertion process of the record into the database in the server side of the system.

Restriction/Limitation

The system should reject records that lack the necessary information especially for fields that cannot be NULL.

Formats for entries can be pure alphabet, numeric (integer or real), dates, etc.

Performance Requirements

The function produces a record for each prisoner and checks for duplicate records in PERSON profile. If there is a redundancy, the function will display a message telling the user the input record already exist. It may allow user to modify/edit the old record depending on the rights the client user have.

Design Constraints

All inputs can be lower or upper cases, the system will automatically convert each of the inputs to its upper case before it is stored in the database.

The system will not reuse any Prisoner Number for any reason, even though the record has been deleted. Every time the user uses this function, the system generates the Prisoner Number after the previous number generated and will randomly be assigned to a specific new prisoner.

MODIFY/EDIT

Process Narrative

It allows the user to change the field values of the prisoner's record or any other database pertaining to the prisoner by entering the

Prisoner Number and the new value of the field to be updated.

Restriction/Limitation

The restriction of the ADD function applies also to the MODIFY/EDIT function. In addition, while modifying a prisoner's record, the Prisoner Number field must be protected since this is a non – editable field.

Performance Requirements

The function must provide an option for canceling the changes or modifications made before such changes are saved or stored into the database.

When the user enters the Prisoner Number, this function must find the relevant record.

Design Constraints

Since this function will allow users to modify any field except the key field which is the Prisoner Number, there might be a risk when the users unintentionally modify one field. This can be traceable using the system and can be modified by the database administrator.

INQUIRY/REPORTS

Process Narrative

Using this function, users should be able to search particular data such as:

1. All the detained prisoners.
2. Prisoners that are convicted and being transferred.
3. Prisoners which cases are dismissed.
4. Crime history of the prisoner.
5. Search prisoner by crime.

Restriction/Limitation

Users can only get information in forms that are predefined by the system developers.

Performance Requirements

This function should perform as facility for queries so that the users maybe able to get the information they need on the user interface. This function may provide options so that users will be able to send the information either to a printer or to a file.

Design Constraints

Since the format of the presented information will be built as a part of the proposed system, any other format requested after implementation will demand a modification of the whole system.

SEARCH

Process Narrative

The user can search for details of:

1. A particular prisoner record. To get this information, users may use the identifier. (e.g. Profile ID, Prisoner Number or Prisoner Name).
2. Case Information of the prisoner.
3. Search prisoner by crime.

Restriction/Limitation

Name for the search string is automatically changed to uppercase since all data in the database are in uppercase. The string could be the first few letters of the name being search or exactly the dame name stored in the database, users can also search by date or by crime description.

Performance Requirements

Response time must be acceptable to the user. This means there is a response time of less than a minute or there is an indication to the user of how the search is being processed through user interface or visuals.

Basically, the search is reasonably fast because databases are indexed or certain conditions have been embedded in the Microsoft Access commands.

Design Constraints

Any other type of research requested after the implementation will demand a modification of the implemented system.

PRINT

Process Narrative

It generates the reports that appear on the user interface, or sends the reports to a printer or to a file. Users may generate reports that can be shown either on the user interface and has an option to send it to a printer or to a file.

Restriction/Limitation

Users can only get information in forms that are predefined by the system developers.

Performance Requirements

The user is able to print a list based on user specified criteria or individual records displaying all or certain information.

This function should print particular data such as:

1. All the detained prisoners.
2. Prisoners that are convicted and being transferred.
3. Prisoners which cases are dismissed
4. Crime history of the prisoner.

DELETE

Process Narrative

This function only apply to the Article Deposit and Booking part of the system

Performance Requirements

The user is able to delete an article deposit. These are the information of the items that are being deposited by the prisoner right before he/she was detained. Deletion will happen if the items were being claimed by the prisoner if he/she will be released or the items will be claimed by the relatives of the prisoner. This function will also enable the user to delete the booking records of the prisoner if incase he/she will be released or transferred but the profile records of the prisoner will still remain at the archives.

BACK – UP CONSIDERATIONS

All database files are backed-up periodically every month. The files are stored on a back-up database. The back-up files are stored in hard drives and are kept on a safe place with security and good disaster recovery. Back-up files are not overwritten, but instead a new file is created for every back-up process.

GRAPHICAL USER INTERFACE

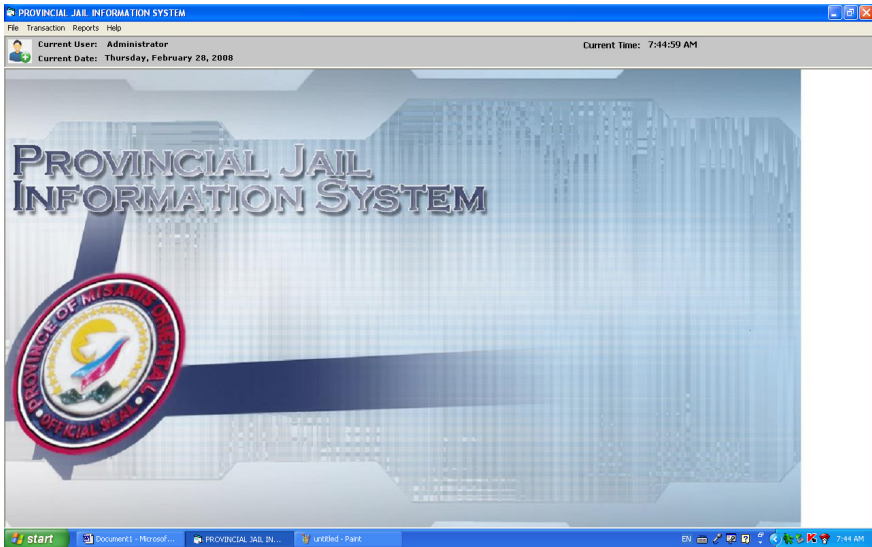


Figure 4. Main menu



Figure 5. Login

Prisoner Profile Proceed to Add Prisoner

Search By: NAME

ID Number:
Name: Last Name / First Name / Middle **Alias:**
Place of Birth: **Birthday:** 2 / 28 / 2008
Gender: **Height:** ft. **Civil Status:** **Weight:** lbs.
Nationality: **Occupation:**
Address: **Dialect Spoken:**
Education Attainment: **Children:**

ID No.	Name	Alias	Gender	Age	Civil Status	Height	Address
2008	Dela Cruz, Juan	Pogi	MALE	32	SINGLE	5'8	Claveria, Misamis Oriental

Figure 6. Prisoner Profile

CRIME LIST

Crime Code:

Crime Description:

Crime Code	Crime Description
101	Double Murder and Rape
102	Robbery and Theft

Figure 7. Crime list