

Maintaining and Tracking the Day To Day Activities of Any Prison

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Abstract:

Prison Manager is an application to automate the process for maintaining and tracking the day to day activities of any prison. This software is an Internet (Intranet) based online portal, which allows users to access the application from all over the world.

The Portal's major responsibility is to take care of the proper maintenance of any prison. This application maintains the centralized database so that any changes done by any one at any location reflects on fly. This is an online application that allows multi-user access of system and to track or manage the data simultaneously

Introduction:

The aim of this application is to reduce the manual effort needed to manage transactions and historical data used by jail admin team. Also this application provides an interface to police officials and other important government officials to view the details of prisoners, case details and to generate required reports. This helps to prevent unnecessary delays and human errors. This system helps in generating foolproof reports with in not time by users which is very difficult in current system (manual system).

This system design is modularized into various categories. This system has enriched UI so that a novice user did not feel any operational difficulties. This system mainly concentrated in designing various reports requested by the users as well as higher with export to excel options. This is a system that is a collection of registers and reports for the effective management of prisons. This system provides the following functionalities.

Functionalities:

Nominal Roll: The details of the prisoner are captured.
Case register: All the details of the cases against the prisoner are captured. This includes the sentence details, remand/conviction details, etc.
Automated release diary generator: This feature displays the list of prisoners to be released on a day, the next day, the next week, the next month, or any given duration of time.

Parole register:

This module tracks all prisoners on parole and provides necessary reports on this data.

Duty register:

Allows users to assign duties and to track them.

Interview requests:

All interview requests by the relatives of the prisoners is recorded and tracked.

In-out register:

An in-out register will track all prisoners and others who move in and out for various reasons. This includes provisions for recording the prisoners sent to courts for hearing.

Features of the Project:

- 24 X 7 availability
- Better component design to get better performance at peak time
- Flexible service based architecture will be highly desirable for future extension
- Professional look and feel
- Browser testing and support for IE

- Website is highly customizable and flexible enough to easily deploy without much effort

Project Scope:

This intranet application has been developed to be implemented in place of existing manual system. This project would automate the transactions of a prison and would retain the present functionality available in the current system. The specific purpose of this system is to store and process information about prisoners, In-out register, staff details, interview details and parole details and generate the reports as and when required. The administrator is responsible for the maintenance of this system. Based on the category of the user i.e. staff or administrator, the various parts of the system are made available to the users of the prison.

Problem Statement:

Problem statement is one of the basic and important phases of project phase. When the basic problem is determined, it is documented and the symptomatic problem is analyzed, then the current list of basic problem is completed. A system is simply a set of components that interact to accomplish some purpose. In "Prison Manager System" maintaining the details of different prisoners, their status (Imprison or remand), and their case details, timing schedules of the prisoners in in-out register, staff details, user logins, interview details and parole details are to be kept in a database and also can be retrieved easily when the authorized user wants to update the data. Actually the process going on here is when the prisoner enters into the prison and then all the details related to him will be stored manually and if the user wants to generate a report then he needs to concern with different departments physically, get the data and can prepare the report. The difficulty in the present system is users face some difficulties in storing in different locations, getting and integrating data in the prison manually. This project is developed using Java Programming Language under Windows Platform.

Existing System:

The existing system is a manual one. When the prisoner enters into the prison then all the transactions

related to him has to be stored manually at different departments which may leads to erroneous results due to human errors. This system doesn't provide proper security for the data.

Disadvantages:

- Difficulty in storing and finding the data from various departments.
- Difficult to handling more prisoners.
- Difficulty of maintaining frequently asked questions in a database
- Difficulty in generating a report
- Difficulty in tracking different activities of prisoners as well as staff.

Proposed System:

The Prison Manager system is to replace the existing manual system with a software solution. The Central Prisons Management People wants to maintain all the prisoner transaction details in the database prison wise, to avail them to all the employees. And they will update the prisoner details as and when required according to their authorization in online. The proposed system has one administrator to control the data, creating the users in a prison. The administrator is responsible to update prisoner's details, in-out register details, user details, staff details, interview details and parole details.

Staff is responsible for all the activities same as the administrator except user details. Another type of user called normal user is responsible for viewing the prisoner details, in-out register, make and view interview requests, make and view parole requests.

Merits of This System:

- Faster processing when compared to existing one.
- Maintaining prisoner details centrally.
- Modifications of details can be carried out immediately

- Role-Based dynamically changed authorization feature.

- Easy Generation of reports.

Requirements Analysis:

The requirement phase basically consists of three activities:

- 1.Requirement Analysis
- 2.Requirement Specification
- 3.Requirement Validation

Requirement Analysis:

Requirement Analysis is a software engineering task that bridges the gap between system level software allocation and software design. It provides the system engineer to specify software function and performance indicate software's interface with the other system elements and establish constraints that software must meet. The basic aim of this stage is to obtain a clear picture of the needs and requirements of the end-user and also the organization. Analysis involves interaction between the clients and the analysis. Usually analysts research a problem by asking questions and reading existing documents.

The analysts have to uncover the real needs of the user even if they don't know them clearly. During analysis it is essential that a complete and consistent set of specifications emerge for the system. Here it is essential to resolve the contradictions that could emerge from information got from various parties. This is essential to ensure that the final specifications are consistent. It may be divided into 5 areas of effort.

- 1.Problem recognition
- 2.Evaluation and synthesis
- 3.Modeling
- 4.Specification
- 5.Review

Each Requirement analysis method has a unique point of view. However all analysis methods are related by a set of operational principles. They are

- The information domain of the problem must be represented and understood.
- The functions that the software is to perform must be defined.
- The behavior of the software as a consequence of external events must be defined.
- The models that depict information function and behavior must be partitioned in a hierarchical or layered fashion.
- The analysis process must move from essential information to implementation detail.

Requirement Analysis in this Project:

The main aim in this stage is to assess what kind of a system would be suitable for a problem and how to build it. The requirements of this system can be defined by going through the existing system and its problems. They discussing (speak) about the new system to be built and their expectations from it. The steps involved would be

Problem Recognition:

The main problem here is the more time is taken to manage the activities of a prison. This has to be eliminated. A comprehensive solution has to be developed which will facilitate to fulfill the requirements faster and more efficient way.

Evaluation and Synthesis:

The system has to be designed only after complete evaluation of the existing one, upon which we can see that a lot depends on the medium of communication. The proposed system is used to maintain all the prisoner transaction details in the database prison wise, to avail them to all the employees. So this has to be used such that there is no waste of time.

Specification:

The specifications from the user, here maintaining all departments of a prison manually lead to manual errors. The appearance of forms, and their field names, the different screens he desired, the stages of this database etc., were all given. The system has been built following all the specifications.

OBJECTIVES OF DESIGN:

System design is like a blue print for a building, it specifies all the features that are to be in the finished product. Design states how to accomplish objectives determined in the analysis phase.

1. LOGICAL DESIGN:

The design of an information system produces the details that state how a system will meet the requirements identified during systems analysis. This stage is login design.

(a) Module Description:

We have identified the following modules

Prisoners & In-Out Register Module:

This module is responsible for managing Prisoner personal, case details, status and their in-out register details. Whenever a prisoner enters into prison then the administrator, user or staff can enter update his details inside the database. If the prisoner is in imprisonment status then he is not allowed to go for the court for attending cases if the prisoner is in remand status then he is allowed go out with our staff for attending the court case. This information will be stored inside In-out register.

Administration Module:

This module is responsible for managing the user logins and generating different kinds of reports (Today's releases reports, Today's duty report, Today's interview slots report and Today's In-out report). It allows the administrator or staff to store the staff information details which include adding, editing and deleting the staff. It provides a facility to enter the employee duty timings inside duty register.

Today's releases report – Displays the prisoners who are releasing today.

Today's duty report – Displays the today employee duty timings info.

Today's interview slots – Displays the interview slots for today.

Today's in-out report – Displays the in-out timings of different prisoners.

Interviews:

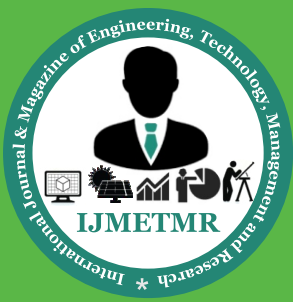
It allows the staff to raise an interview request from prisoner side person which will be displayed for the administrator for validating this request so that the administrator can go through the requests, validate them and approve them by providing a slot for that person which will be displayed for the staff for allowing that person in to that slot.

Parole Module:

It allows the staff to raise a parole request from prisoner side person which will be displayed for the administrator for validating this request so that the administrator can go through the requests, validate them and approve them by giving some time to bring the person outside by completing all the formalities in the person and check whether the same person came back to the prison within the stipulated time or not. It stores complete details of the person who is supporting for this parole. It stores previous parole information related to this person and generate a report as and when required.

Conclusion:

The new system, Prison Management has been implemented. The present system has been integrated with the already existing. The database was put into the MySQL server. This was connected by JDBC. The database is accessible through Intranet on any location. This system has been found to meet the requirements of the users and departments and also very satisfactory. The database system must provide for the safety of the information stored, despite system crashes or attempts at unauthorized access.



If data are to be shared among several users, the system must avoid possible anomalous results.

Bibliography:

o Core java volume-II Advanced features 7th edition by Cay S.Horstmann and Gary Cornell (Pearson education).

o Java Servlet Programming by O'relly publishers

o Java Complete Reference 5th edition by Herbert Schildt (Tata McGraw Hill).

o Algorithm and applications in java 3rd edition by Satraj Sahni (Tata McGraw Hill).

o Classical Data Structures by Samantha (Pearson education).

o Java Server Programming 2.0 with complete J2EE concepts included (apress).

o Software Engineering practice and principles 6th edition by Roger Pressmen (Tata McGraw Hill).

o Java How to program 5th edition Deitel and Deitel (Prentice Hall of India).

o Internet & World Wide Web How to program 3rd edition by Deitel & Deitel and Goldberg (Pearson education).

o Web enabled commercial application development using Java 2.0 by Ivan Bayross (Prentice Hall of India).

o Data base System Concepts 4th edition by Silbershatz, Korth, and Sudharshan (Tata McGraw Hill).

o Fundamentals of Data base systems 4th edition by Ramez Elmasri and Shamkant B.Navathe (Pearson education).