KAMPALA INTERNATIONAL UNIVERSITY
COLLEGE OF APPLIED SCIENCE AND TECHNOLOGY
DEPARTMENT OF COMPUTER SCIENCE

DESIGN, DEVELOPMENT AND IMPLEMENTATION OF COURT MANAGEMENT SYSTEM FOR UGANDA COURTS

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DECLARATION

I hereby declare that this dissertation titled “the design development and implementation of a court management system for Uganda law court” is my original work and has never been submitted to any university or college for any award where the works of others has been cited. acknowledgement has been made.

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This dissertation, "the design development and implementation of a court management system for Uganda law court" has been submitted with my approval as the supervisor.

Signature: 

Mr. ABUBAKAR SWALEH

Supervisor

Date 18/07/2012
DEDICATION

I dedicate this work to our beloved parents Mr. and Mrs. Oginga and Lydia Randiki and Mr. and Mrs. Moses and Stella Mbwiria who helped us reach this step in our education and gave us the courage and moral support during the writing of this report.

We also dedicate this to our beloved friends Ryan, Evans, Carol and Maya for all the support in the course of making this project complete.
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ABSTRACT

Two major challenges in legal decision making arise from the high complexity of the cases and from the high level of uncertainty caused by incomplete or missing information. In most cases it is not possible to apply Bayesian probability and legal standards prohibit the application of fast-and-frugal heuristics. Based on a connectionist approach to decision making, Simon (2004) argued that decision making in complex decisions is governed by coherence-based reasoning. The underlying parallel constraint satisfaction processes, which belong to the (LCM) system, are incomparable and enable individuals to quickly integrate huge amounts of information (Glöckner & Betsch, 2007). Elaborating on this approach, two studies were conducted in which individuals were presented with a complex legal case. In the first study, the standard of proof and the predictive power of evidence are manipulated, and in the second study, the standard of proof and the framing of the case (arbitration vs. criminal case). The data replicate and extend findings from Simon (2004), and support the parallel constraint satisfaction approach to decision making.

To fortify my understanding of the problems associated with loss of information and inefficient storage methods, this affect quality in a running of a given organization
CHAPTER ONE
INTRODUCTION

1.0 General Introduction
Legal case management system (LCM) refer to a subset of law practice management and cover a range of approaches and technologies made by law firms and courts leverage knowledge and methodologies for managing the life cycle of a case or matter more effectively. Generally, the terms refer to the sophisticated information management and workflow practices that are tailored to meet the legal field’s specific needs and requirements.

1.1 Background
As attorneys and law firms compete for clients they are routinely challenged to deliver services at lower costs with greater efficiency, the firms develop practice specific processes and utilize contemporary technologies to assist in meeting such challenges. "Uganda law courts" cannot be left out of this since in the adverse increase in population in the area, which has led to the increase in crimes, they need to implement the system in order to meet their roles in handling of the cases in time.

Law practice management processes and technologies include case and matter management, time and billing, litigation support, research, communication and collaboration, data mining and modeling and data security, storage and archive accessibility.

Case management is a comprehensive system of management of time and an event in a lawsuit as it proceeds through the justice system, from initiation to resolution. The two essential components of case-management system are the setting of a time table for pre-determined events and suspension of the progress of the law-suit through its time-table".

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1.2 Problem Statement
Court systems offer a diverse array of information resources both in electronic and print formats. The legal fraternity is solely responsible for managing the data, which proves to be a challenging job due to loss of files and other important material such as charge sheets. The main reason given for such incidences is manual managing strategies in the court system.

1.3 Objectives

1.3.1 Main objective
The purpose of this project is to develop an effective legal case management system for the court to be able to have an easy and flexible way of handling case files.

1.3.2 Specific objectives.
In order to meet the projected objectives the system should be able to meet the following objectives.

✓ To deliver services at lower costs with greater efficiency.
✓ To create data security, storage and archive accessibility.
✓ To have an effective case management system

1.3.3 Research Questions
This research will try to answer such questions as:

i) Do firms need the legal case management system for effective case management?

ii) What challenges does the staff face in managing the court?

iii) What are the impacts of the legal case management system on the court performance?

iv) How do you update the case assortment repository in case of new cases?
1.4 Scope

Geographical scope
Though there are many courts that the researcher could choose from, the researchers decided to choose Uganda law courts as their case study. The courts ill-stocked file library with a diverse assortment of cases mainly influenced this decision. The courts proximity from our residential area was also a factor consider.

System scope
The study addresses what is involved in the management process of a court system and what impact it has benefits of a good legal case management system we also looked at. The project also identified the problems the court faces and specifies different ways of minimizing them.

The study will be carried out in Uganda law courts and the system applicability relying on systems administrator and Human resource Manager will be installed.

Time scope
It will take for me six months of which the first two will be mainly about research and preparing, passing questioners. The third and forth one will be about organizing compiling the researched data for errors. It is in the last two month that I will document our study in form of project.

1.4.1 Significance
✓ This will help the researcher to gain practical skills giving the researcher a clear overview of how to design and implement what is studied theoretically in class.
✓ The system will also automate task scheduling of the court
✓ Court’s task delegation and assignment tracking can easily be done
✓ To-do's, reminders and alerts with automatic notification
✓ Automatic time capturing
✓ Time tracking and reporting
✓ One central location for all information related to each claim
✓ It allows easy case tracking
✓ It brings along easy management of reports
✓ File security
CHAPTER TWO
LITERATURE REVIEW

2.0 Introduction
This chapter was designed to discuss the literature review concerning a legal case management system. It constitutes the review of related literature, proposed theory and the principles of the study, and views of other researchers about the field.

2.1 Legal case management system
Legal case management system (LCM) refer to a subset of law practice management and cover a range of approaches and technologies made by law firms and courts leverage knowledge and methodologies for managing the life cycle of a case or matter more effectively. Generally, the terms refer to the sophisticated information management and workflow practices that are tailored to meet the legal field’s specific needs and requirements.

2.2.1 Functions of a legal case system
The main task of a legal case system is to capture, organize, preserve and provide access to cases, reports and other sources of information. Besides that, a legal management system is responsible for:

i) Circulation: handling of clients’ cases and the issuing/case follow-ups.

ii) Order materials and maintaining of the case materials.

iii) It is also responsible for processing new case activities and de accessioning already made case reports.

2.2.2 Legal case catalog
This is a register of all bibliographic items found in a legal case management system (Whitten et al, 2006). A bibliographic item can be any information entity that is considered a system material.
it is of great importance in sorting of activities in a legal case system. The predefined methods made by legal case catalog include:

1. **Case file Catalog** – Entries are sorted alphabetically according to the plaintiffs' or defendants' name of entries.

2. **Title catalog** – Entries are sorted according to the title of the cases entries.

3. **Dictionary catalog** – A catalog in which all entries (Plaintiff, defendant, attorney) are interfiled in a single alphabetical order.

4. **Keyword catalog** – Case entries sorted alphabetically according to some system of case keywords.

5. **System catalog** – Case entries are sorted according to some systematic tract of matter.

The legal case management system can also be referred to as the modern equivalent of the existing manual file system it simplifies the cataloging procedure by providing a search interface thereby increasing its efficiency.

2.3 **Information system**

In our rapidly changing world, the notions of environment and emergence of communication and control are fundamental to the understanding of what an information system really is. One scholar, (Alter, 2004), defines an information system as a system that meets information technology to capture, transmit, store, retrieve, manipulate or display information made in one or more business process. (O'Brien, 2006) further adds on to describe an IS as an organized combination of people, hardware, software communications network and data resources that collects, transform and disseminates information in an organization.

An IS also described as an arrangement of people, data, processes, information, presentation and information technology that interact together to support and improve day to day operations in business as Ill as support the problem solving and decision making needs of an organization (Whitten et al, 2006).
I can therefore define an information system as a means by which people and organizations, utilizing technologies, gather, process, store and disseminates information. It should however be noted that the needs of an information system necessitates the integration of theories from other disciplines relevant to the domain field. The field may include economics, psychology, linguistics, learning, not forgetting our field of study, management to mention a few. This explains the existence of different information system today e.g. geographic information system, expert system and automated information system among others.

2.3.1 Database
Database is an organized collection of related data Silberschatz, (2002). The term originated with in computer industry, but its meaning has been broadened by popular use, to the extent that the European database directive (which creates intellectual property right for database) includes non-electronic database within its definition. This article is confined to a more technical use of them though even amongst computing professional some attach a much wider meaning to the word meaning to the database.

The system must have a database, which can keep track and display all information about the transactions made.

Silberschatz, (2002) urges that a database is an organized collection of integrated files and Laudon, K.C., Laudon, (2004) also states it is a collection of data in organization to service many applications at the same time by storing and managing data so that they appear to be in one location.

Here user's information from the website will be stored in the database. Each user will have their own view, for example, those for hiring will also have their own data entry view.

Turban, (2003) argued that every management uses database system. For instance, marketing professionals uses it to analyze sales data, human resources managers use it to evaluate employees, operational managers use it to track and improve quality, accountants use it to integrate data across the enterprise, financial to analyze firm performance and school use it to improve services to students.
2.4 Database management system

Laudon & Laudon, (1996) defines a DBMS as a system software that facilitates the management of a database. According to McLeod, Raymond, (1995) a DBMS is the software that handles all access to the database.

Database management systems (DBMS) like MySQL allows one to use a computer to create a database add, change, and delete data in a database, sort the data in the database, retrieve data in the database, and create forms and reports using the data in the database.

2.4.0 Components of a DBMS

A DBMS includes four main parts:

i. Modeling language - it defines the schema of each database hosted in the DBMS. According to the DBMS database model. The four common types of models includes: Hierarchical model, network model, relational model and object model.

ii. Data structure – this includes fields, records, files and objects present in a database. Data structures are optimized to deal with very large amount of data stored on a permanent data storage device.

iii. Data query language – It allows peers to interactively interrogate the database, analyze its data and update it according to the peers privileges on data. It also controls the security of the database.

iv. Transaction engine – it is concerned with such things as data isolation and consistency in the driver cache and data volumes by coordinating with the storage engines.

2.4.1 Functions of a DBMS

i. Database development: made to define and organize the content, relationships and structure of the data needed to build a database.
ii. Database interrogation: can access the data in a database for information retrieval and report generation. End peers can selectively retrieve and display information and produce printed reports and documents.

iii. Database maintenance: the peer can add, delete, update, correct and protect the Data in a database.

iv. Application development: needs to develop prototypes of data entry screens queries forms, reports, tables and labels for a prototyped application. Or the fourth generation language or application generator to develop program codes.

2.4.2 System development life cycle
This refers to a logical process made by a system analyst to develop an information system Laudon, K.C., Laudon, (2004). Computer systems are complex systems often linking several systems supplied by different software vendors to manage these complexities, several methods I created waterfall model, Spiral model and Incremental model.

Despite the level of complexity, all SDLC method shares the following fundamental stages.

i. Requirement analysis - A detailed analysis of the peers need is carried out and a detailed functional requirement is produced.

ii. System design - The detailed requirements are transformed into detailed design document. This stage mainly focuses on how to deliver required functionality.

iii. Implementation and unit testing – this stage involves the implementation of the system into a production environment.

iv. Integration – the different components making up a system are combined and tested as a whole to ensure that the system requirements have been met.
Operation and maintenance – this is the final stage of the system development life cycle. It describes information on how to operate and maintain the information system in a production environment. It includes post implementation and in-process reviews.

McLeod, Raymond, (1995)

2.5 BENEFITS OF USING A COMPUTERIZED SYSTEM

2.5.1 Faster Access
(Stellman, Andrew, Greene, & Jennifer, 2005) states that automation is one of the key features to realizing the return on investment.

2.5.2 Time Saving
Computerized system provides information much quickly than manual system and it updates its data at any time to aid in management decision. (Turban, 2003).

2.5.3 Security
Computers offer security that is important as a means of preventing misleading information and maintains adequate control (Paulson, Hossam El-Bibbany & Boyd C., 1992).

2.5.4 Filing and Retrieval
(Laudon & Laudon, 1996) states that files are maintained on some type of disc storage and associated software. File handling system permit rapid updating, amendments; cross-referencing and retrieval of huge amount of data. computer-backing systems are becoming physically cheaper and permit faster access.

However, there are a number of reasons why manual systems are less beneficial than computerized systems

a) Labor productivity is usually lower, particularly for routine tasks.

b) Processing is low.

c) Complex processing may not be appropriate using manual methods.

d) The risks of error are greater.

e) Information is generally less accessible.

f) Paper based systems are generally very bulky both to handle and to store.
2.6 Conclusion
In conclusion, therefore, the above literature will enable the researcher to know the appropriate application to employ in the system and also to avoid him/her from designing what others have at hand. The literature also provides guidelines for the researcher on how to go about with the intended system.
CHAPTER THREE
METHODOLOGY

3.0 Introduction
This chapter reviews the methodology, techniques and the tools that were used to accomplish the development of the legal case management system. It also provides the oversight of methods for collecting the information that were also made to determine the peers and their requirement of the system.

3.1 Research Design
The study was based on primary data and data collection techniques involving the need of interviews as main instruments to enhance and give quality to the findings. Interviews are a meaningful tool through which data can be acquired by reading the perceptions and feelings while collecting data although at times they yield minor biases, which is an implication that not all information will be proven accurate. The study will ensure that interviews will be impressive to eliminate suspicious tendencies. Secondary data will also be relied upon by reviewing literature of previous writers on the same study and included textbooks, CDs, Internet, Journals and previous research on database security in organizations.

3.2. Targeted Population
The research covered all the law firms. The target size was 10 respondents from different departments who were then sampled randomly.
Sample population

The researchers will use purposeful sample techniques to choose respondents who are able to give reliable and accurate information due to their position of authority and expertise or those who have had access to services offered by law firms in Uganda. Therefore, the managers of the concerned institutions will be expected to give information concerning strategic objectives, political organization structure and human resources. Their clients will give information about the problems encountered with accessing court management systems.

3.2.1 Data Collection Techniques

The following are the methods of data collection that were made.

3.2.2 Interviews

I conducted multiple interviews, both structured and informed with and without a written guideline and set of questions, in two different phases of the research: during the experiment and post analysis. By so doing, we will be able to assemble and analyze the respondents' views of the (LCMS). Most of those references are however noted down for easier referencing.

3.3 Questionnaires

The questionnaire of closed and open-ended question was distributed to all concern persons. This method of data collection gave the respondents ample time to fill the questionnaires with the correct information freely. The information from this method was mainly made to facilitate coding and data analysis.

3.3.0 Different phases of development.

Analysis: the researchers had explore the current database protection system to establish problems it brings about and the will be in position to identify peer requirements as well as inputs to the system and required output. This will be through analyzing the current as well as
anticipating future problems of the unprotected data and integrity, which will help to enlighten the researchers on the needs of the system protection to be drawn.

**Design;** for validation of performance of the system in data processing, software and peer interface in order to specify how the system will be protected through use of SQL as the structured methodology tool, to allow for protection of confidential data.

**Planning,** this was done to guide the study in understanding why the system should be protected through a redefinition of its requirements, establishing how data is protected in the current system, and what effect it will bring in order to choose the best security option.

**Implementation;** Through implementation, validity of the security system was done followed by an installation of the necessary software and system maintenance. And thereafter came in with the concept of data security to improve its integrity in order to protect the position of the company.

### 3.4 System development tools

#### 3.4.0 Operating System

The researcher had used extreme programming (XP) methodology to accomplish the development of the system.

Extreme programming (XP) is a system development methodology, which is intended to improve system’s quality and responsiveness to different changing customer requirements. If easily, advocates frequent “releases” in short development cycles, which improve on productivity and introduce the checkpoints where changes on the customer’s requirements can be adopted. XP involves four activities.

1. **Coding:** advocates of XP argue that the only truly important product of system development process is code since it shouts the most suitable solution.
2. Testing. One cannot be certain that any included function works unless tested problems in system development have XP approach is that if a little testing can eliminate a few flaw, the a lot of testing eliminates many more flaws and this improves on systems functionality.

3. Listening

This is where the system designer listens to what the customer form the system and must understand their needs III in order to give the system peers feedback about the technical aspects of how the problem might be solved. Communication between system designer and system peers will further be addressed in the planning stage.

4. Designing: good designing will avoid many dependencies within the system meaning changing on apart of the system will not affect other parts of the system.

3.4.1 Programming Languages (s) and Tools

The researchers will use visual studio and SQL server 2005 to develop the database for Uganda court management system. Each log entry will identify an increasing Log Sequence Number (LSN), which will ensure that no event overwrites another.

SQL Server will ensure that the log is written onto the disc before the actual page is written back which enables it to ensure security of the data, even if the system fails. If both the log and the page will be written before the failure, the entire data is on persistent storage and integrity is ensured. To implement locking, SQL Server contains the Lock Manager. The Lock Manager maintains an in-memory table that manages the database objects and locks, if any, on them along with other metadata about the lock. Access to any shared object is mediated by the lock manager, which either grants access to the resource or blocks it.
3.4.2 System Designing Tools
The researcher will use web designing and programming tools. Web-designing tools include Dreamweaver version 8 and css.
CHAPTER FOUR
SYSTEM ANALYSIS AND DESIGN

4.0 Introduction
Having clearly understood the problem, collected and analyzed data and hence identified the system requirements, the next important phase is all the key issues identified previously are carefully considered. Detailed system analysis is then carried out on these issues to examine the system in terms of inputs, outputs, and the processes involved. Since most of the errors emanate from this area, a well-planned system design should be carried out to eliminate future system failures. This chapter therefore entails the various steps involved in system design during the system design and the system development.

4.1 Document Review
This was done through reviewing the courts current records pertaining results management and getting related literature to broaden the researchers’ knowledge and experience in order to assign system requirements and design to solve the record maintenance related problems.

The current legal case management system at Uganda law courts is a manual system. All the transactions performed at the court are noted down on files, which are then archived together in a safe place.

4.1.0 Strength of the current system
- It cannot be affected by poor failures.
- All transactions performed can be retrieved relatively easy.
- It is very easy to implement.
4.1.1 Weaknesses of the current system

- A lot of paper work is needed hence higher maintenance cost.
- The manual system is relatively slow and cannot satisfy the growing number of population.
- Inconsistency of data as it is moved from one location to another.
- Possibility of data loss if the original files are misplaced since there are no backup copies.

4.2 Analysis of the proposed system

Due to the numerous loss of court, resources and the time wasted while serving clients there was need to design and develop a system, which could curb these weaknesses.

The proposed system will run a database management system (DBMS) accessible from a well-designed graphical peer interface. It will furnish a genetic solution to the problems of the persistent data storage, data integrity, security, and the overall speed of operations. It will provide backup facility to facilitate recovery.

4.2.0 Benefits of the proposed system

- It will be relatively cheap to maintain since no other hardware or equipment needs to be bought after it has been implemented. Although the initial price of implementation may be high because of buying new hardware, the overall price of maintenance is minimal.
- It operates at a much faster rate than the manual system since all the data is stored under one location and accessing it from the computer is fast.
- Since all the data is stored under one database, data inconsistency is eliminated when moving the information because you will only have to move the database.
- The new system will support backup of its data. This will increase the systems reliability by enabling data recovery in case of a disaster.
4.2.1 Requirement analysis
A court database needs to store information pertaining to its peers, its employees, and the media it contains e.g. cases, peers, clients and organization. Cases will be identified by their case title, and the peers by their login id or staff ID. In order to allow multiple copies of the same case, each media item will have a unique ID number so that they can be stored under the same address.

The system peers will be required to provide their personal information including their name, sex, phone number, e-mail address when signing up for a courts services.

4.3 System design

4.3.0 E-R model
It is clear that the physical objects from the previous section- the peers and media details correspond to entities in the entity-relationship model, and the operations to be done on those entities-holds, follow-ups and so on- correspond to relationships. However, a good design will minimize redundancy and attempt to store all the required information in as small space as possible. To achieve this, a detailed ER diagram was designed as shown below.
NB/ Notice that the information about cases has been separated from the media equity. This allows the database to store multiple copies of the same item without redundancy. The state entity has also been separated from media in order to save space. The hold relationship stores the
entry’s place in line (denoted by “queue”): it can be made to create a waiting list of different cases. The peer might have a case associated with it. The system peers will therefore be responsible for performing all the administrative functions, such as checking media in and out and updating the case details.

4.3.1 Flow charts
This is a diagram that represents the sequence of operations in a process. There are different ways of specifying processes in a system including.

- Structural English
- Flow charts

The researcher however, preferred the use of flow charts to the other methods. This is mainly due to the simplicity of flow charts.

This system consists of several individual processes that when integrated together, they form a coherent system. Below are some of the processes that are found in this project.

```
Start
Login
User authenticated
Enter case details
Case saved to database?

Return unauthenticated user message

Update the date properly
```
4.4 Database design
This system is expected to provide a suitable communication link between the peer and the database. To ensure for an efficient system, it is important to design a database that is free from data redundancy and errors.

Since the system is to be made in a court, it might be able to store the media available in the court and also information pertaining to the court peers. This makes it necessary to create separate tables to accommodate this information.

4.1.0 Relational database design
After coming up with an entity-relationship model to describe the court system, I took advantage of the special relationships found in the design, and condensed the information to tables. This new design combines some entities and relationships into common tables to form a compact and efficient database representing the whole system.

Database schemas

Physical database design
4.2 GUI Design

The first step in designing the GUI was to choose a means of accessing the database. After evaluating various options, I settled on using the visual basics 9. The simplicity of VB 9 as compared to VB 6 and other programming languages was an important factor to consider, as it allowed me to develop a suitable peer interface using the additional plug-ins and the simple syntax that it has. By using VB 9, I could separate the application logic from the DBMS as well as from clients. In addition to simplifying operations on the database, it also makes extending the functionality of our system easier. When adding a new feature or improving and existing one, I will not need to change the entire database; it will only be necessary to modify the VB portion of the code associated with it.
5.0 Introduction

Once the design was complete, the development entailed two broad phases: back-end and peer interface. The back-end comprised database applications whereas the peer interface comprised the application that the peers would use to interact with the database for the database. Microsoft SQL server 2005 was made while Release 9 were made to develop the peer interface.

This chapter generally describes the steps involved in the implementation process. That is, development and implementation of a suitable peer interface, program testing, then finally, a description of the system changeover.

5.1.0 Graphical peer interface

For a peer to use the system, they must first register. First, they have to provide all the necessary information that is obligatory. If a peer provides the correct information at registration time, then the system allows him/her to create an account otherwise, an error is generated and the peer cannot be registered as a new peer.
5.1.1 Cases

All data in the Legal Case Management Software is organized in the so-called cases. The case is a comparatively independent cases introduced to the consultancy centre and managed by its experts. The case can include different activities, but they are always addressed towards one aim – solving the case.

The case is the main logical unit of the program. It could contain the following details:

- Description related to its origin
- Current statement
- Clients (physical and juridical persons) associated to it
- Planned or done activities related to the case (e.g. appointments and Consultations)
- Reports
- Attached documents etc.

The case is a process, which undergoes development. All activities associated with a certain case – statement changes, additional events etc are recorded in the “Follow-ups” section. The history of the case could be tracked from this section from the moment of its registration in the LCM on.
5.1.2 New case

My cases

After entering the system through a username and password, you will get on the page called: "My cases". The page contains by default a list, which summarized the cases on which you are working at the moment. The list includes the following features:

- A unique case identification number
- Creation date
- Title of the case
- State of the case

You can sort the list by creation date in ascending or descending order by clicking on the title of the "Creation date" column.
To open one of the cases in the list, click on the title of the respective row. You can also define which cases should be displayed in the list of cases with the help of the “Filter” dropdown menu.

**Type of case:**

In this section, there are two types of cases:

- **My cases** – cases in which you are involved
- **Public cases** – cases that are visible to all the peers in the system (e.g. any peer in the system can consult the case information)

If you have administrator rights in the system, you can list all the existing cases registered in the system without exception.

**Creation date of the case:**

- In the past month
- In the past 3 months
- In the past 6 months
- In the past year
- Year etc.

Further below, the “My cases” page contains a list of the latest follow-up activities performed for the shown cases. The list includes the following columns:

- The unique identification number of the case of the performed follow-up
- Start date and hour of starting the follow-up
- Length timeline of the follow-up (measured in hours)
- Meir initials of the peer who have filled the follow-up
- Type of the follow-up (task, consulting, appointment etc.)
- Description (short description of the activity)
Opening a new case in the system:

1. Click on the button “Cases” from the main navigation menu and then on the “Open a new case” button located in the central part of the screen, under the list of cases.

2. The form “New case” will open, with the following elements:

Title of the case Enter a short but descriptive title of the case, which will help you and other system peers to distinguish it easily among the others.

NB/

Assignment date Shows the moment, from which the case has been assigned and work on it has started. This field is useful for the cases in which you have worked on the case (e.g. on paper) and later on it has been filled in the system. By default, the value of this field is the date of creation of the case.

Legal reason optional field, which is usually filled in the normative act, article and paragraph number, according to which a breach has been done according to the requirements of your office.

Notes: optional field, free text about a case being worked on.

State of the case in the beginning statement. There are two possibilities:

✓ Draft -- the case is not yet opened officially to be worked on.

✓ Open -- work has been started on the case or the case has been assigned to certain peer of the system
5.1.3 Users

After registering a new case, it is automatically added to the list of your cases.

Since you are its creator, therefore you are the one responsible and engaged with work on this case.

However, sometimes it might happen that you should work together with another colleague (or colleagues) on the same case. E.g., you might include your assistant who is involved with the case. The LCM software is made in the way so that it encourages the collaboration and cooperation among the peers, and therefore it allows you to add more peers to a certain case, making them equal contributors.
Adding a new peer to a case:

1. Select a case from the “My cases” page (accessible by clicking on the “Cases” from the main menu).

2. In order to open the page for choice of peers, click on the button “Add a peer to a case” from the page “Case details” — “General” — “General information”.

3. The page for choosing peers shows a list of names of all the peers registered in the system.

   ✓ If the peers are more than 15, the page is divided into pages. You can go through the pages by clicking on the hyperlinks “Next” and “Previous”, situated in the lower part of the list, or by clicking directly on the number of the respective page.

   ✓ If the pages are too many, you can use the search field, by:

     ➢ clicking on the text field “Find peer”
     ➢ introduce name or part of name of certain peer
4. Use the fields on the left side to tick on the peer(s) you choose to add to your case.

5. Click on the “Validate” button in order to confirm your choice.

Clients and organizations
Each case, registered in the consulting centre, operates with persons or organizations that are external to the centre — the so-called clients. These are persons and/or institutions, who have requested the consulting centre to work on a certain case.

5.2 Follow-up
As the case evolves, new activities related to the case should be recorded into the system: consultations with the client, research, traveling, etc. The activities for each case will help to analyze and report how time is spent for your cases.
Adding a follow-up to a case

1. Select a case from the “My cases” (accessible by clicking on “Cases” from the main menu).

2. Click on the “Follow-ups” tab in order to open the list of existing follow-ups (done activities) within the current case.

3. Click the button “New follow-up”.

4. Fill in the form “New follow-up”, containing the following fields:

5. Click on the “Validate” button in order to save the form.

3. Click on the “Validate” button, which appears right after the dropdown menu after selecting a new value.

4. Clicking the “Validate” button leads to opening of another form called “Case stage change” which contain the following values:

  ✓ No conclusion
  ✓ Guilty
  ✓ Not guilty
  ✓ Cessation
  ✓ Re-investigation
5.2.0 Sentence
The given sentence on the case (if any). Can come in the following values:

✓ No sentence
✓ Fine (in money)
✓ Prison (in months)
✓ Probation (in months)
✓ Community work (in days)

In the additional text field you can mark a number, specifying the quantity. E.g. number of months of prison or quantity of the fine etc.

5.2.1 Case state
Depending on the current state of the case, you have some of the following possibilities:

➢ Draft
➢ Open
➢ Closed
➢ Merged
➢ Suspended
➢ Deleted (in reality, a case registered in the system is never deleted, but it is “marked” as such and only system administrators can access it. If necessary, the administrator of the system can restore the case on a later stage.)

NB! By marking the case as “closed” makes the peer unable to modify the data in it. Only the administrator is able to change the state of the case again, so that editing and additional modifications are done concerning this particular case.
In order to attach new document to an existing case, follow the steps:

1. Select a case from the "My cases" (accessible by clicking on "Cases" from the main menu).

2. Click on the section "Documents" in order to open the list of attached to the case documents.

   If there are no documents attached, instead of a list, there will be a text shown, saying: **There are no documents attached.**

3. Click on the button "Browse" inside the field "File name" and select the desired file from the dialogue window.

4. In the field "Description" writes down a short description of the contents of the document, which you are intending to attach.

5. Click on the "Validate" button in order to save the form.

After attaching the document, it becomes visible in the list of attached to the case documents and your collaborators get access to it too.
5.2.2 Archives

The “archive” panel accessible from the administrative menu, offers a method to create backup copies of all the information stored in the system. The backups can later be made either to restore the system in the event of a server disruption or to synchronize with another legal case management system.

Make sure that backups are generated regularly, at least twice a month. For very busy offices, backups should be generated every day.

In the event of a disruption caused by the server, which is hosting the legal case management system, all of the information stored in the system may be lost. The server may also be victim of vandalism, human errors, etc. Therefore make sure you generate backups regularly!

The interface to generate the backups has been made as simple as possible so that anyone in an organization can handle this task.

Generating a new backup archive of the system:

1. Click on the button “Archives” from the main navigation menu and then on the “Backup” tab located at the top of the screen.
2. When the “Backup” form opens, locate the box titled “Create a new backup” and click on the “New backup” button. It may take a few seconds in order for the operation to complete. Click only once!
3. A message will then appear over the “Create a new backup” box to inform that the backup was successfully created. At this point, the backup is stored only on the host computer itself.
5.3 Reports

An important aspect of case management is the possibility to extract statistical information based on the activities of the organization. In order to generate the reports, a basic structure must first be defined, which can later be made at regular intervals to generate the reports.

The “List of reports”, accessible from the “Reports” navigation menu item, therefore presents a list of report structures, which can be made to generate reports.
5.3.1 New report

Creating a new report:

1. Click on the “Reports” administrative menu item, and then click on the “New report” button located at the end of the list of reports.

2. In the “New report” form, enter the following information: Title Choose a short but representative title for the report, which will help you to find your report in the future. Description: More detailed information on the report, if necessary. It will be shown at the top of the report.

Notes Optional text shown at the end of the report. For example, if your office require printed reports to be approved by a manager, enter the name of the manager in the “notes” field so that the manager has a place to sign.

3. Click on the “Validate” button in order to save the information.

Upon successful validation of the report, the screen “report details” will be shown. From this screen, the report can be personalized to include the fields and filters necessary for the report.
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CHAPTER SIX
DISCUSSION, RECOMMENDATION AND CONCLUSION.

6.0 Objectives and Aims
This project has turned out to be challenging in many ways. Each stage has presented its own problems to be overcome. When collecting information from industrial sources, as covered by the first objective, we expected a lack of response. Previous experience had taught me that only a small percentage of sources are likely to respond at all. We tried to compensate this by applying to many varied sources, to improve the chance of receiving varied answers, which could typify a cross-section of the court community. What we were not prepared for, however, was the lack of ideas on how to improve the quality on the activities carried out in court industry. The general sense of opinion of those who replied seems to be that a LCM system is not required for the most part, as the people working in this field are not computer literate. In hindsight, it may have been better to also apply to some personnel not directly involved with the court system, who would have less knowledge of the technicalities whilst still having an interest in their use. This could have highlighted more of a need for a LCM system. The responses we have received, however, have introduced some other problems we had not envisaged, such as system crash supplied with new application. When running more than a few of these simultaneously, difficulties can arise when there is a need to move data between different software systems. Although OLE (object linking and embedding) has been designed with this in mind, it is not always possible to transfer data if the structure is foreign to that recognized by other systems.

6.1 Management
The Gantt chart in Appendix A details the original project plan set in January 2012. It lists the original topics this project had been classified under, and the expected date to start and
approximate completion date. When choosing this time-scale, we had to take other considerations, such as course-work, into account. We felt it was important to have a clear plan so we would always know what could be worked on at any given time. On a study of this size it is crucial to know at the start exactly what needs to be done so the work can be paced and pre-researched accordingly.

The topics have been separated as much as possible to allow independent work units to be carried out simultaneously with little need for information from other units. The exception to this rule was the suggestions we have made as to how I believe court quality can be improved. This required that we had information from court industry sources beforehand, as this was the main basis of the work. Furthermore, it was also essential that my research into the court system details be carried out alongside it, so the technical knowledge was also available.

Due to the fact that we have placed ourselves under this working guideline, our project management has been quite successful. One area we should have given more time to the collection of information from industrial sources. The replies we received were not prompt. The first was returned within one month, but then we had to wait until the end of the May term before the others arrived.

Further to the chart plan, we have also been attending regular meetings with our project supervisor. This has allowed us to sub-divide the work units again so each meeting had a target associated with it, ensuring the work-rate remained consistent. Whenever problems were met, we could then discuss them and come to a decision on the best method for solving it.

In our opinion, this has worked well, and has helped us maintain the flow without getting entangled in any one problem for too long.
6.2 Further Work
Certain elements in this project leave scope for further development. With almost any project, which includes a software component, a list of future enhancements could be endless. In this case, we will only highlight the general areas where extra work would benefit the project. Apart from the obvious inclusion of more formats into the system, the next step could be to include the kind of image processing options found in the likes of Adobe Photoshop, Erdas Imagine and Visio. This comes in the sense that the system peer will be identified by the image. Between the form and the database was established and working as expected. All these tests were carried out using sample data.

6.3 System changeover
This is the final stage in system implementation. It involves shifting from one information system to another by phasing out the old information system in favors of the new and improved system. This changeover is necessary especially if the two systems cannot co-exist together thereby demanding for the adoption of the better system. Since Uganda law courts made the manual system to archive their information system to another by phasing out the old information system in favors the manual transfers of important data to the new system by the developer. To do so the peer had to do some training on how to operate the system. After transferring all the data from the old system, to the new system, the transition will have concluded and the system ready for running.

6.4 Evaluation of the system
If the new court application is implemented, it will have several positive impacts to the court including: the system will control data redundancy within the court thereby optimizing the
performance. The system will also ensure data integrity within the organization since there will be only one single database to enhance security.

They court will increase the efficiency and effectiveness in its operations, allowing it to feed the needs of the soaring population of citizens. To accomplish this, the system will be dedicated and expected to have a recovery plan in place in case of emergency.

To add to its security features, the system will only permit only authorized peers (administrators) to update the data in the database whenever it is necessary. This will be achieved by use of passwords and usernames the system will be able to run on real time hence interaction with peer will be enhanced.
REFERENCES


New York Unified Court System: http://www.courts.state.ny.me


The American Bench: Judges of the Nation Reference KF 8700 .A19 A47

The Judicial Maze: The Court System in New York State (1990) KFN 5950 .Z9 1.4


Understanding the Federal Courts: http://www.mecourts.gov/
APPENDICES

APPENDIX A: BUDGET

Proposed budget for the research proposal scheduled to start on 3rd January 2012 and end on 29th March 2012.

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# APPENDIX B: TASK SCHEDULE

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</table>
APPENDIX C: RESEARCH INSTRUMENTS

A) Interview Guidelines Questions

Please we need short answers.

1) How efficient is the current system?

2) What have you experience from the current system?

3) What are the problems of the current system?

4) What type of solutions you can propose to solve the problems of the current system?

5) Which problems do you think are the major ones to be look at if the system is to be redesigned or rebuild?

6) What is your view or opinion by replacing or integrating the current system with a computerized one?

7) Do you think the computerized system will be the best and effective solution to replace the existing system?

8) What are the characteristics attributes, and amount of data the system will process, store, and maintain?

9) How do you need the system to look like? In addition, effects of the Graphical User Interface to the users and owner of the system?
B) Questionnaire

We kindly request that you only use short answers and a tick at the check boxes below.

1) How much time does it take to retrieve a file in your archives?

2) For how long do your clients have to wait before getting feedbacks based on the status of their cases?

3) How can you rate the level of satisfaction in your current system?
   - Satisfactory
   - Decent
   - Bad

4) Do you think the current court management systems in place are efficient and effective enough?

5) What do you think are the problems of the current court management systems?

6) Do you think the use of a computerized court management system would improve the quality of services offered in this sector?
   - Yes
   - No

7) What do you say about the introduction of a court management system?

Please tick your choice.
   - Excellent
   - Very good
   - Not bad
   - Bad