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Implementation of an Archives Information Management Systems

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Abstract

Archives Information Management Systems (AIMSs) are designed for capturing records of files in an organization, monitoring the employees borrow, use and return of files to the registry or records office. An employee will go to the records office to borrow files then the employee details such as names, designation, address, contacts are captured and stored into the system before they can take the file, a due date of when the file will be returned is captured as well, such that if another employee wants to borrow the same file and it has already been lent out the records officer can look at the due date the file is supposed to be returned then they can ask the borrower to come back on that specified date and if the file has been returned then they can as well borrow it. This paper provides a comprehensive survey of important existing protocols of borrowing files. The paper also discusses the strengths, limitations with the critical analysis of the current file based system used in many organizations today.

1.0 Introduction

Electronic Records Management involves a comprehensive and structured approach to the long term management of records as tools for the efficient and effective delivery of community and organizations. For an organization to manage its records efficiently all files owned by the organization must be stored somewhere and recorded in the organization's records management system, either manual or electronic. The Ministry of Trade, Industry and Cooperatives is still using the manual file based system to store their files. The Archives Information Management System is a computer based storage system for keeping important files. The manual system employed by the Ministry of Trade, Industry and Cooperatives involves the physical movement and storage of files into the registry and later to the national archive. This method

wastes time, and is characterized by errors and loss of files among others, so the researcher developed a system that can capture all file details before the files are sent to the national archive

The title of this study suggests that records and archives form an essential and significant part of an organization's information resources, and that programs for their management and use are, or should be, integral parts of the organizational information management system. The purpose of this study is to provide information to decision makers about the essential character and value of archives, and about the procedures and programs that should govern the management of both archives and current records. The study seeks to demonstrate the cultural, social, and economic benefits that can accrue to an organization through the preservation and use of its archives, and the significant economies and improved efficiency that will result from comprehensive records management systems and services. Records are a basic tool of administration. They are the means by which many operational processes and functions are performed. They include all recorded information created or received by an organization in the course of performing its business. Records often take the form of conventional documents on paper, but they may also be in microform, or on machine readable media such as computer tapes or disks, and they include photographs, sound recordings, motion pictures, and all other media on which information may be recorded or conveyed in the process of performing an organization's functions. Archives are non-current records that have been formally appraised, and found to have continuing or permanent values as evidence or for research purposes. They normally amount to only a small percentage of the great mass of records from which they are selected, but they are useful and valuable in an almost infinite variety of ways. They serve first of all as the organization's memory, and enable a society to plan intelligently for the future based on an awareness of past experience. Archives preserve a record of the obligations and commitments of the governments and evidence of the rights and entitlements of the citizens. Collectively, the archives contain a vast amount of information about people, organizations, social and economic development, natural phenomena, and events invaluable primary source material for writing about all facets of the organization's history or even a nation. As a source of national history the archives can become a powerful influence in fostering people's understanding of itself and in creating a sense of national identity. It should be noted that in France and other francophone countries like Rwanda etc. The term "archives" is used for all records, current records being designated as "administrative archives." However, the programs and procedures that are necessary to the proper management of governmental records and archives apply with equal validity to the records and archives of commercial enterprises and other non-governmental organizations and institutions. This study identifies and describes the elements that together comprise a comprehensive program for achieving economy and efficiency in the management of current records, thereafter to the archive and for systematically identifying, preserving, and encouraging the use of archives.

2.0 Justification of Study

- AIMS helped MTIC to be able to track records concerning the ministry and also for storage purposes of files details from the hard copies
- Time for users when searching for files was reduced which has helped the public and staff in easily acquiring the information they want
- Data has been kept secure from unauthorized users of the registry and non-registry employees this measure has helped secure the files for future use or research by the stakeholders
- Secure storage of file information

  The electronic system has helped with storing file information just in case there are fires the files details will have been kept secure

2.1 Hypothesis and their rationale

Due to the outcry of stakeholders about the loss of files handled manually GOU encouraged all ministries in the country to computerize all related information in handling files. A number of studies were taken and all procurement departments in the ministries were mandated to procure the computers to man the information systems and also manpower was recruited

However with all the efforts made by the GOU there was still a persistent loss of files and information in the MTIC, all computers were procured but still the loss of files was still persistent due to this fact, the researcher was motivated to study this phenomena

2.2 Review of related empirical studies

Records management practice is an essential component of office administration. An effective records management program allows the organization to render better customer service, provides legal defensibility and leads to improved profitability. Hence, it is necessary to award high priority to records management to avoid organizational problems that may arise owing to poor handling of office records (Robles & Langemo, 2016). Education institutions and business alike rely on information past and present to keep them running. In the case of education institutions records are vital, especially when it comes to students who have passed through these institutions and need to access their result records. And for the administrators who will be able to keep a true record of both current and former students.

Records can be categories by format, currency and subject as stated below, Edmonds (1992) advances only two forms of records and these are non- paper, Non paper records, these are captured on non- convectional media like audio cassettes, microfiche, roll films and optical media among others.

These can also be called electronic records. These are stored on electronic media that can be readily accessed or changed. A piece of equipment is required to view and read or listen to electronic records (Read and Ginn, 2007).

Paper records, these are captured and stored on paper media for example newspapers, pamphlets, journals, magazines, maps and textbooks.

The National Records and Archives Act (2001) categories records into three types, depending on their currency. These are current, semi- current and non- current records.

- **Current records**, these are records that are often referenced in the organization.
- **Semi- current records**, these not only referenced in the organization.
- **Non – current records,** these are records that are stored permanently in the organization due to their enduring legal, fiscal, administrative, historical and evidential values. They are therefore referred to as Archives. Archives provide primary source documents that have accumulated over the course of an individual or organization‘s life time and are kept for their enduring cultural, historical, evidential values and are from journals, magazines and books as they are un published (Kumar, 2011).

3.0 Method of Study

There are many forms of data collection methods depending on the research process and particular methods employed. With the primary method, the researcher engaged in the collection of raw data from the field and interviewed key informants. Secondary methods involved reading published and unpublished literature and government official documents

3.1 Questionnaire

The researcher distributed 100 questionnaires to the customers randomly, to gather data about the new system which enabled the researcher draw conclusions on how the new system can work or if there are any changes that need to be made to the system in the future

3.2 Interview

Quantitative data was collected through in-depth interviews which are described as a “conversation with a purpose.” Interview was composed of semi structured questions which allow for a precise and deep insight into the management of digital/electronic records. Interviews were conducted in the selected institution with a focus on ten registry staff, reason being the interviewed subjects was assumed to be knowledgeable about issues relating to the management of records also five ICT staff were interviewed because it also assumed that they were knowledgeable about issues relating to electronic systems development.

3.3 Observation

The researcher was able to observe the storage of files, borrowing of files and filling of the files in the cabinets the researcher used this method because the researcher was able to directly see what people do

rather than relying on what they say they do and draw conclusions on how best to improve the system to an electronic system

3.1.3 Details of sample/sampling techniques

The sampling technique that was used in the research was the purposive and sample random. The researcher specifically targeted general staff members and supervisors of the MTIC and used purposive sampling as well as simple random technique targeting customers out of the MTIC

Purposive sampling is one of the most cost effective and time effective sampling method available while random sampling was used because it is easier to collect data while targeting the customers in the public domain since they had no idea what happens at the MTIC

4.0 Results (Details of results).

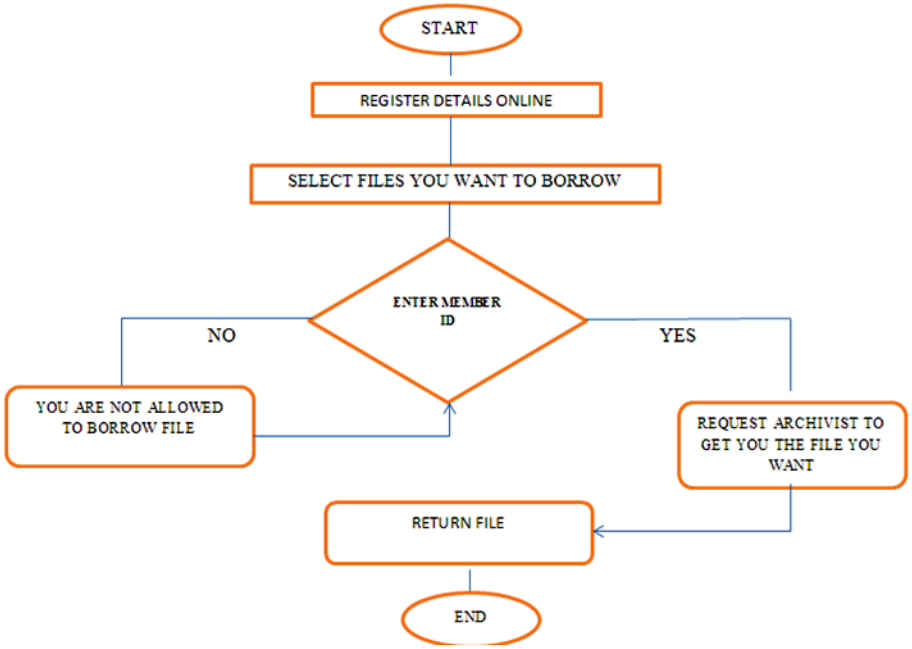
4.1 System design and implementation

This section describes the system architecture, the modular composition of the system and the interaction of the different modules. A data flow diagram and entity relationship diagram are used to show the flow of data in the new system and relationship between entities respectively The chapter also introduces the physical and logical design of the system first the chapter will begin with the conceptual design, entities and attributes and lastly the physical design among others

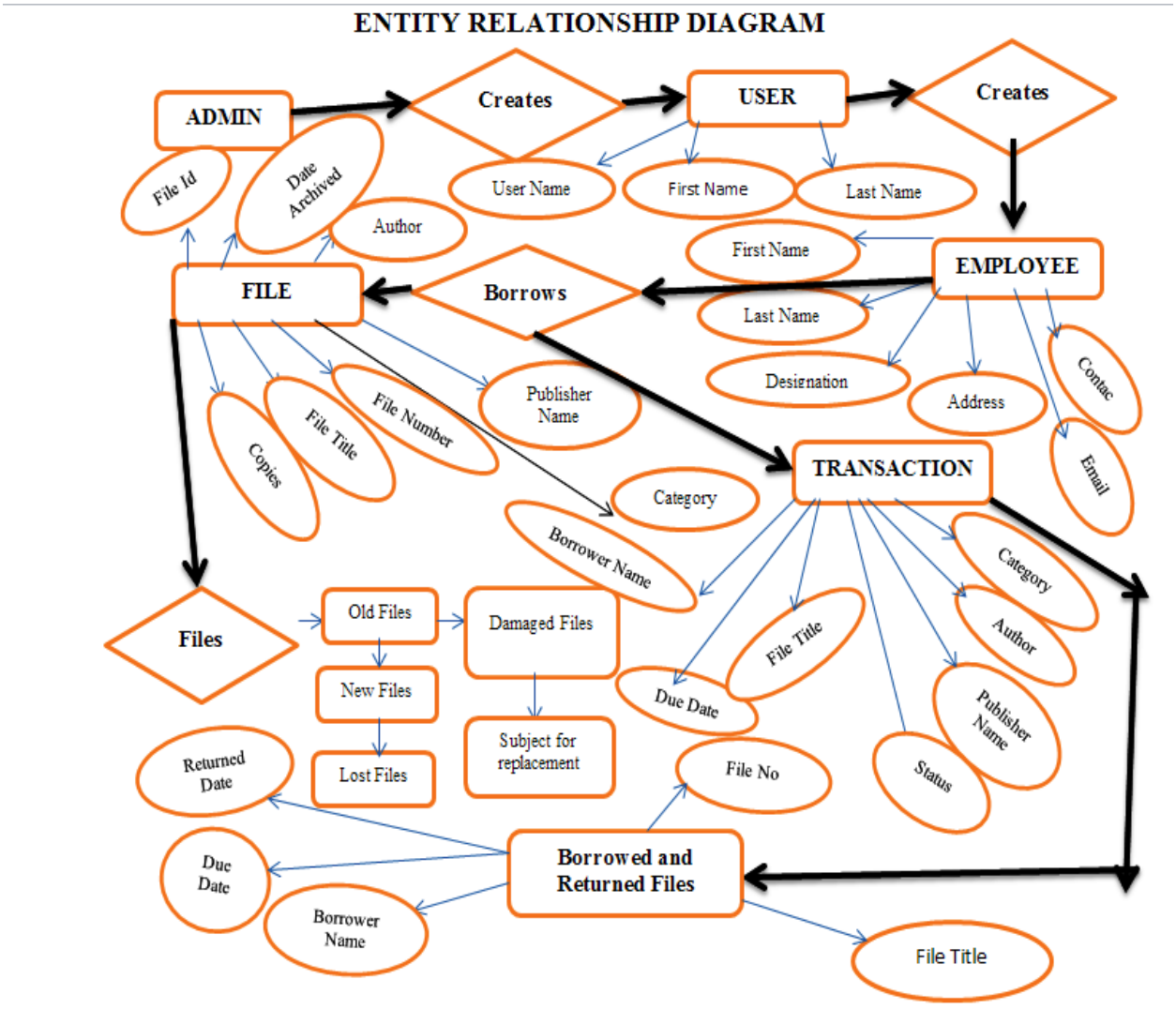
The system design shall be composed of:

- Conceptual design
- Entities and Attributes
- Physical Design

4.2 A Simple Flow Chart for the Borrowing Process:



4.3 Entity Relationship Diagram



4.4 Entities and Attributes

4.4.1 Authors Table

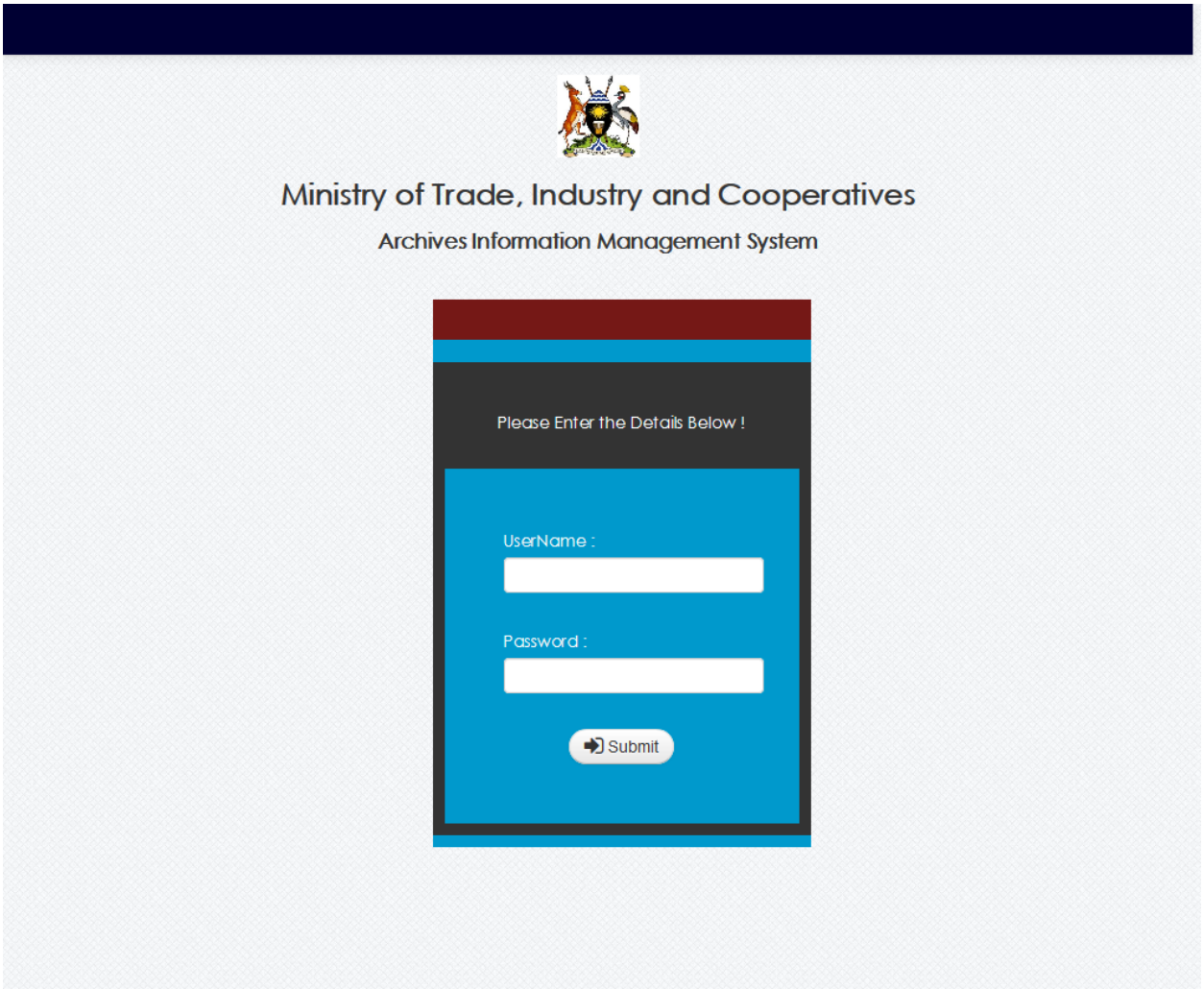
```
CREATE TABLE author (
firstname varchar(50),
lastname varchar(50),
id INT UNSIGNED NOT NULL AUTO_INCREAMENT KEY) engine MyISAM;
```

4.4.2 Employee Table

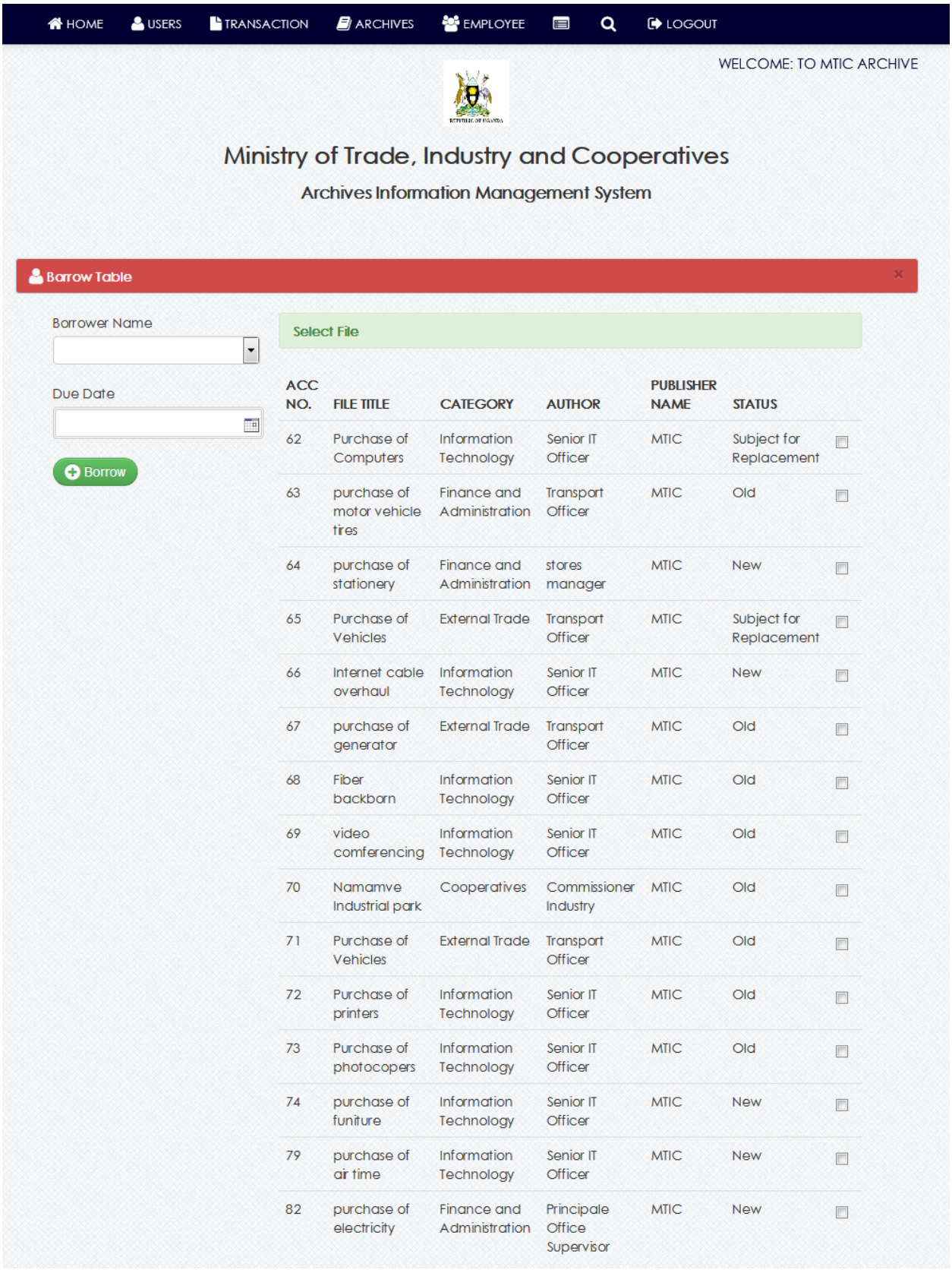
```
CREATE TABLE employee(
fisrtname varchar(50),
lastanem vatchar(50),
designation varchar(50),
email varchar(50),
phone vachar(10),
gendervachar(10),
id INT UNSIGNED NOT NULL AUTO_INCREAMENT KEY) engine MyISAM;
```

The code above was written in MySQL to create tables and attributes of the archive information management system

4.5 Data Entry Forms or Physical Design



The above interface shows the login form were the users login from.


HOME
USERS
TRANSACTION
ARCHIVES
EMPLOYEE
LOGOUT
WELCOME: TO MTIC ARCHIVE
Ministry of Trade, Industry and Cooperatives
Archives Information Management System
Borrow Table
Borrower Name
Due Date
Borrow
Select File
ACC NO.
FILE TITLE
CATEGORY
AUTHOR
PUBLISHER NAME
STATUS
62 Purchase of Computers Information Technology Senior IT Officer MTIC Subject for Replacement
63 purchase of motor vehicle tires Finance and Administration Transport Officer MTIC Old
64 purchase of stationery Finance and Administration stores manager MTIC New
65 Purchase of Vehicles External Trade Transport Officer MTIC Subject for Replacement
66 Internet cable overhaul Information Technology Senior IT Officer MTIC New
67 purchase of generator External Trade Transport Officer MTIC Old
68 Fiber backborn Information Technology Senior IT Officer MTIC Old
69 video comferencing Information Technology Senior IT Officer MTIC Old
70 Namamve Industrial park Cooperatives Commissioner Industry MTIC Old
71 Purchase of Vehicles External Trade Transport Officer MTIC Old
72 Purchase of printers Information Technology Senior IT Officer MTIC Old
73 Purchase of photocopers Information Technology Senior IT Officer MTIC Old
74 purchase of funiture Information Technology Senior IT Officer MTIC New
79 purchase of air time Information Technology Senior IT Officer MTIC New
82 purchase of electricity Finance and Administration Principale Office Supervisor MTIC New

The above interface shows the borrow process table it includes the files that are to be borrowed, the borrower name, the due date, and file details such as file title, category of the file eg finance and administration, author, publisher name and status of the file images are a work of the author

5.0 Conclusion

The purpose of this research was to develop an archive information management system for ministry of trade industry and cooperatives. The researcher collected data that enabled him to design a fully functioning archive information management system. It was done to completion and the researcher is confident that the system can be used at the ministry with no hindrances. Having collected data the researcher found some gaps in archive management at the ministry that is why he chose to design and develop a system that would eliminate these very gaps. In light of this the researcher has made the following recommendations.

5.1 Recommendations

The researcher recommends that the ministry acquires an archive information management system. This recommendation comes in light of finding out that the ministry does not have an electronic archive information management system. The ministry has a file based system that is manual. Files have to be kept in boxes and piled up in pubs, making retrieval cumbersome and time consuming.

Files are easily subjected to misplacement or theft. The solution to this unending problem would be to digitize the filing system within the ministry

The researcher recommends that action officers within the ministry should be trained in update of IT related document in archive management measures and systems. It would ease the migration from the manual system to the digitized system

The researcher recommends that the ministry should emphasize its need for such a system in budgetary terms. In other wards lobbying should not be only verbatim but should also be included in the ministry budget as a priority

APPENDICES/APPENDIX

APPENDIX A: TIME FRAME

This time table gave a clear portrait of the time duration of carrying out this research following all tracks down the research project

NO	ACTIVITY	NOVEMBER	DECEMBER	JANUARY	FEBRUARY
1	Writing the concept paper	✓			
2	Writing the project proposal	✓	✓		
3	Requirement analysis		✓		
4	System design		✓		
5	System implementation		✓		
6	System testing		✓		
7	Final testing and integration			✓	
8	Software documentation				✓

APPENDIX B: BUDGET ESTIMATES

Serial no.	Item	Amount(UGX)
Proposal		
1	Transport	200,000
2	Stationery	100,000
3	Photocopying of relevant material	50,000
4	Typing and printing of related documents	200,000
5	Typing and printing of first draft document	20,000
6	Printing the final proposal	30,000
7	Binding	10,000
8	Data analysis and processing	50,000
9	Airtime	50,000
10	Miscellaneous	200,000
Grand Total		**910,000**

Budget Estimate

APPENDIX D: ESTIMATED QUESTIONNAIRE

Archive Information Management System Questionnaire

Below is a list of questions that was established as high level project parameters for an archive information management system. The respondents were asked to give as much information as possible when complete; the researcher reviewed the questionnaire with the respondents and resolved any questions they might have hard.

1) Does the system respond to inputs fast enough?

   ……

   ……

2) Are the prompts and instructions fast enough?

   .....

   .....

3) Did the system at any one time stop unexpectedly?

   ……

   ……

4) How much time did it take for you to get familiar with system?

   ……

   ……

5) Is the task performance straight forward with the system or did you get lost?

   ……

   ……

6) Did you feel like you needed assistance while using the system?

   ……

   ……

7) Does the system follow the same procedure like when you are using other means of obtaining program information?

   ……

   ……

8) Have you experienced any problem working with the system and where in particular have you found them?

……

……

9) Are the error prevention messages adequate enough?

.....

.....

10) Is the user interface friendly enough?

……

……

11) How simple is it to navigate through the system?

……

……

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