**AN ONLINE SYSTEM FOR TAXI REGISTRATION IN UGANDA**

**CASE STUDY: KAMPALA CAPITAL CITY AUTHOURITY**

**BY**

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**A PROJECT PROPOSAL SUBMITTED TO THE DEPARTMENT OF COMPUTER SCIENCE IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF BACHELOR OF INFORMATION**

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# **DECLARATION**

I **Kamukama Isaac**, declare that the work presented in this proposal is my original work and has not been submitted to any university or institution for the academic work. All the work from the other authors has been fully and properly acknowledged.

Signature ………………………………. Date …………………………………….

**Kamukama Isaac**

# **APPROVAL**

This is to certify that this research project proposal titled “**An Online System for Tax Registration in Uganda”** has been carried out under my supervision and is ready for submission to my supervisor for approval on the continuation of the research and the final report.

Signature ………………………………… Date ……………………………….

**Mr. Taremwa Danson**

**Supervisor**

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# **LIST OF ACRONYMS**

WBMIS: Web-based Management information system

MIS: Management Information System

KCCA: Kampala Capital City Authority

DBMS: Database Management System

KCCP: Kampala Capital City Parks

DFD: Data Flow Diagram

ERD: Entity Relational Diagram

EARD: Entity Attribute Relational Diagram

HTML: Hypertext Mark-up Language

IMIS: Integrated Management Information System

Mysql: My Structured Query Language

PHP: Hypertext Preprocessor

SQL: Structured Query Language

URL: Universal Resource Locator

WWW: World Wide Web

CSS: Cascading Style Sheet

OSTR: Online System for Taxi Registration

NRTA: National Road Traffic Act

NRTR: National Road Traffic Regulations

RTIAs: Road Traffic Infringement Agencies

SABS: South African Bureau of Standards

ATMs: Automated Teller Machines

# **ABSTRACT**

A web based system for taxi registration in Uganda support the Management of the Ministry of Transport, Labor and Social Development through the Kampala Capital City Authority in accessing the required information very fast, improved security of information and production of required reports in the quickest time possible. The lack of user-friendliness, difficulty in updating information/records and insecurity of information among others have been some of the factors contributing to the occurrence of numerous road accidents whose causers are untraceable due to the registration system was manual and inefficient. A user-centered approach to software development where usability is a key consideration in the success of the product was used in the development of the project.

KCCA together with the Ministry of Transport, Labour and Social Development is still using the traditional information system, The Manual Information System. This system takes long to finish a single transaction, thereby leading to delayed work and time wastage. When reports are needed, especially about taxis and their owners, it takes a long time to produce a single report for Management to take decision. At times reports disappear and tracing them becomes a problem since the system is not automated. They are still using manual typewriters and even at the head quarter, manual typewriters are still in use. There are very few computers in use. Officially, the Department is not networked that makes the system difficult to be linked to other branches in the country and also at head office. This has created a lot of loopholes in the system because there is no tracking and/or monitoring of the system for the information available in the Department and there are no security measures in place. It necessitated automating the system to make it more efficient and effective.

There was close study of the existing manual information system that was in use, it was compared to the proposed online system for taxi registration in Uganda. A prototype of an Online System for taxi registration in Uganda was developed to ease data access and retrieval for instant report production after the administrator’s authority to access the system. A code was written using MySQL with PHP, CSS, JAVASCRIPT and HTML that produced buttons for the authorized users to access the system.

# **CHAPTER ONE**

# **INTRODUCTION**

In this chapter, we look at the Background of the study, Problem Statement, Objectives both General and Specific Objectives, the Scope of the Study, Significance of the study and the limitations of the study.

**1.1 Background of the Study**

(Wiki, 2011)[16] Web-based Management information system (WBMIS) is MIS that use internet web technologies to deliver information and services to users or other information systems or applications. They are software systems whose main purpose is to publish and maintain data by using hypertext-based principles’ web base MIS usually consists of one or more web applications, specific functionality-oriented components, together with information components and other non-web components. Web browser is typically used as front-end whereas database as back-end server. By providing a rich Web-based user interface on a powerful Web service platform, it is efficient and gives you the flexibility to choose how you access data. The term online system can be defined as those applications or services that are resident on a server that is accessible using a web browser and is therefore accessible from anywhere in the world through the web. Web based management information systems are combination of hardware and software used to process information automatically.

Harpreet (2002) [18] stated that it was a great necessity to have use the World Wide Web (www) or computer system since it enhances improvement and efficiency in organizational communication which therefore leads to effective service delivery. It was therefore needful to have a web-based computer system that could provide ease in registering and accessing taxi details online and wherever one could be at the time. This made it a requirement for KCCA to have a centralized database system which would create away for an online System for registering taxis in Uganda. The Kampala Capital City Authority (KCCA) had numerous methods of registering, storing and accessing taxi details most of which were the use of papers and files, type writers which necessitated automation of the system being used.

Kampala Capital City Authority is an organization that was set up to run Kampala City affairs. The City transport system comprises of Taxis, Bodabodas, Buses and many more. The Taxi drivers within the country have got stations for staging so that passengers board their taxis to be taken to their respective places of interest but at the end of the day they are to comply with their park administrators and the licensing authorities, but this is not an easy one for the management’s and administrators for the Uganda Taxis Operators and Drivers Association, Kampala Capital City and currently Kampala Capital City Authority.

The number of taxis has increased drastically over the years, over 20,000 taxis and over 30,000 drivers now operate on Kampala roads, excluding those drivers with personal vehicles.

This has posed a serious problem to Old Taxi Park Administration to manage the park, with serious difficulties in collection of taxi revenue, registration of new and old vehicles, identifying tax defaulters, out laying very old taxis that are a threat to passenger’s life and many more.

There is no centralized management information system for registering, storing and accessing taxi details in Uganda. Currently the administrators of taxi parks in Uganda Kampala Capital City Authority (KCCA) in particular are still using papers, receipts and file systems to register taxi information including revenue thereby endlessly causing difficulty in access and management of the taxi and taxi owners’ information. The current approach of registering, storing and accessing taxi information is totally rudimentary hence requiring extensive manpower, time and produces a lot of errors and this may lead to incorrect analysis, poor planning and difficulty in revenue management in future. Most especially, with the ever increasing number of taxis, a lot of documentation, storage and assessment will increase and this kind of paper work and manual management of data is not a user friendly way of registering, storing and assessing taxi information. This approach creates delay in generating reports most especially since it’s a tedious, monotonous and expensive exercise. It is against this background that an online system for Taxi registration that will allow automatic generation of Taxi information, centralized management and automatic generation of reports without errors is developed for Old Taxi Park Kampala.

**1.2 Problem Statement**

There is no web-based system for registering, storing, accessing taxi records in taxi parks in Uganda, the Kampala Capital City Authority (KCCA) in particular. Currently taxi records are stored in files and taxi registration or data collection is done manually by licensing officers. This always leads to the loss of taxi information, insecurity, data redundancy and inefficiency in access. Besides that, uncountable errors are made during registration of taxi data hence leading to the storage of incorrect taxi details. In addition, there are multiple difficulties in manually assessing taxi information.

It is for this reason that an online system for registering taxi information in taxi parks within Kampala was developed to enable KCCA management to immediately access details anywhere in the country, provide security by authentication, reduce redundancy, reduce the burden faced during registration and ease the process of information assessment and report generation.

**1.3 Objectives of Study**

* + 1. **General Objective of the Study**

The general objective of the study was to develop an online system for taxi registration to ease registration, enhance secure storage, easy access and assessment of taxi records.

**1.3.2 Specific Objectives of the Study**

1. To identify and analyze the strengths and weaknesses of the current methods.
2. To determine and specify the requirements for building an online results taxi registration system.
3. To design and develop an online taxi registration system for Kampala Capital City Authority (KCCA).
4. To implement test and validate the new system.

**1.4 Scope of the Study**

The study was conducted in Kampala Capital City found in central Uganda.

The project study focused on developing an online system for taxi registration using HTML, Javascript, Php and Mysql that will effectively store, retrieve and ease assessment of taxi information in Kampala Capital City. The study was conducted from May to July 2015.

Management will able to traverse through the system and retrieve the required reports instantly to be acted upon, The system will able to solve delayed registration of new Taxis, updating the system with current tax payments made by the taxi drivers or their owners. The system will be limited to provision of navigation features using a graphical user interface, capturing of the data necessary, authentication of the users to the system, provision of security features, able to output reports and accessible anywhere any time by the management with the help of internet.

The study will therefore help the researcher in achieving the study goal and management on improving the system. The methods that will be used for capturing information will be limited to observation, interviewing, questionnaires and report and or document analysis.

**1.5 Significance of the Study**

The significance of the study was to make an online system for Taxi Registration in Kampala Capital City Authority that processes and stores records beneficial to the following parties.

To the Kampala Capital City Authority Management, the system was be able to collect required Taxi information and reports for the effective management of the Taxis in Kampala.

Also the system was able to avoid cases of impersonation of the Taxi data by proper validation and authentication of the Taxi’s Identity.

To the government and Kampala Capital City Authority (KCCA), the system was useful in the management and storage of Taxi data hence allowing access to updated records for the Taxi Parks and this would ensure proper monitoring of the Taxis by the KCCA Taxi management.

To the records department and other workers, the system was to increase efficiency in the processing of Taxi related documents which would be finished by just a click of a button thus replacing the former long paper collection process.

# **CHAPTER TWO**

# **LITERATURE REVIEW**

This chapter deals with the analysis of existing relevant literature of web based systems used to register and keep taxi records in taxi parks, their benefits and limitations, it further stretches to the development of web based systems.

## 2.1 Web-based Systems

According to Santosh et al (2009)[45], a web based system is one that employs human knowledge captured in a computer to solve problems that ordinarily require human expertise. The web based system seeks and utilizes relevant information from relevant human users and from available reality knowledge bases in order to make recommendations.

**Advantages of web based systems**

According to Jalan (2004)[31], organizations are moving fast to deploy web based information systems in business solutions and engineering, so as to maximize the value of enterprise information, applications and resources. Those that are successful will be able to meet today’s higher customer expectations and rapidly changing business environment. In short, they will emerge as winners in the web-based marketplace. The benefits of using web based information systems include:

Enhancing productivity of information: The customizable Management Information System (MIS) enables users to tailor pages to suit role based, personal, or project-driven requirements.

Reducing integration costs: management information systems (MIS) facilitate quick, seamless integration of existing new business systems, solutions, and custom applications. This enables centralised access of information.

Speeding “time-to-knowledge”: Enhanced native search and categorization capabilities enable organizations to provide true “federated search” providing unmatched Search precision across both structured and unstructured enterprise sources in a single Query.

Maximizing security: MIS leverages an advanced security model to ensure the integrity of information, applications, and resources, that is, it provides single login authentication. Support for industry standards, allows organizations to easily carry over existing security profiles and meet even the strictest security requirements of enterprise information systems.

Simplifying administration: MIS solutions allow organizations to centralize enterprise wide administrative efforts and streamline software updates and maintenance.

**Limitations of web based information systems**

Complexity. The provision of functionality we expect of a good database management system (DBMS) makes the database system an extremely complex piece of software.

Size. The complexity and breadth of functionality makes the database management system an extremely larger piece of software requiring big size hard disk and substantial amount of memory to run effectively.

Higher impact of failure. The centralisation of resources increases the vulnerability of the system. Since all users and applications rely on the availability of the DBMS, the failure of any component can bring operations to a halt.

**2.2 Current Web based systems used for managing and tracking Taxis.**

**2.2.1 National Traffic Information System**

The NaTIS is the national register and asset that stores, records, manages and enforces the requirements of the National Road Traffic Act (NRTA) and the National Road Traffic Regulations (NRTR). It provides for the registration and licensing of vehicles. It manages and records applications for and authorizations of driving and learner’s licenses. It is a law enforcement tool which is used to ensure that the details of vehicles that are stolen are circulated and to prevent irregular and fraudulent re-registration of such vehicles. It serves as a register for recording the decisions of safety as provided by the South African Bureau of Standards (SABS). This process, where the SABS is linked to the NaTIS, ensures that only vehicles that meet our country’s stringent safety standards are allowed to be registered in this country.

NaTIS is seen “as a key resource to provide effective road traffic management”. It is used at more than 1 753 sites throughout the country to register, deregister and check the ownership of vehicles. It performs about 40 000 transactions per hour with a turnover of R3 billion per annum.

ENaTIS utilises state-of-the-art technology compatible with a variety of anticipated systems enhancements. This includes specialised transactions designed to limit visits by the public to traffic departments, by allowing transactions over the Internet and via automated teller machines. The system will also allow for the introduction of the administrative adjudication of road traffic offences system and online registration of vehicles by financial institutions.

**Benefits of Electronic National Traffic Information System**

The eNaTIS utilizes more up-to-date technology that will be compatible with a variety of anticipated systems enhancements. For example, the State wants to improve law enforcement capabilities and the eNaTIS will enable the use of a portable law enforcement terminal which is hand-held and battery-operated.

This terminal will provide real-time information on fraudulent driving or vehicle licenses.

As a strategic resource for the Road Traffic Management Corporation (RTMC) and Road Traffic Infringement Agencies (RTIAs) the eNaTIS will ensure that all infringements are centralized within the eNaTIS data base to provide improved service with regard to the payment of traffic fines, etc.

The eNaTIS will also be a means to record and read fingerprints (a future enhancement made possible by the technology), thereby also combating identity fraud.

The web-based capability of the eNaTIS will ensure that the key elements of Batho Pele (people first) are addressed. Road-traffic-related services can be made available on wider platforms such as automated teller machines (ATMs) and the Internet.

On inception the eNaTIS will already have new functionality that was not part of the NaTIS. The new driving license booking system will validate examiners, testing centers and appointments, and prevent unscrupulous officials from abusing the system by extorting money from the public in order to obtain driving license appointments.

Furthermore, the eNaTIS will now have functionality to control all face-value documents and future enhancements will also incorporate strict electronic tagging of documents to eradicate the continuous falsification of vehicle licenses, registration certificates and driving license cards.

**2.2.2 Taxi Management System (TMS)**

Mshah Tech launches TMS (Taxi Management System) for cab companies with full features. This application is a web-based application. It has modules like dispatch, booking, vehicle registration and driver management etc. This application helps the cab companies to manage their fleet hassle free. Once booking has been done, customer verification process has been started. Taxi dispatch agents finds nearest taxi from the customer’s pickup up address. After confirmation, booking details will be delivered to driver on phone or by SMS and dispatched taxi details will be delivered to customers mobile. It also helps establish excellent customer relationship management, making it an absolute essential for large taxi fleet operators, reduces customer waiting times and allows smooth flow of Taxis through the city.

Taxi Management System (TMS) helps offer a new level of customer service, aiding faster dispatch of vehicles, expenses, promoting driver productivity and ensuring no misuse, reduce customer waiting times and allows smooth flow of Taxis through the city. The GPS modules in the TMS provide functionalities such as map navigation and communication with drivers. This application also enhances customer's experience with various channels of booking (internet, SMS, mobile App and IVR) and faster dispatch of taxi.

Additional functionalities include vehicle maintenance tracking and speed reporting. Each tracking updates contains taxi’s GPS based location, taxi’s moving, idle, stop or lost GPS status, TMS also helps to monitor the taxi’s performance, driving behavior and can send real-time alert notifications. Now this application is available on cloud computing for use.

**Benefits Taxi Management System**

Complete cloud based application. Booking through multiple channels like Internet, IVR, Mobile App and call center. Analysis of the data. Increased control over taxi travel expenses. Detailed reporting (Such as Booking-by-agents, Dispatch and Driver Login/Logout Reports etc.). Keeps tracking of the taxi fleet. Decreased use and storage of paper rec.

**2.3 The Development of Web based Systems**

Pete McBreen [2002], The model that is mainly used for development of web based systems is the waterfall model, this model runs through the following phases; requirements definition, system and software design, implementation and unit testing, integration and system testing, operation and maintenance.

An overview of the process is shown in Figure below.

R

Implementation and Unit Testing

System and Software Design

Requirements Definition

Integration and System Testing

Operation and Maintenance

**Fig 2.1 Waterfall Model (adopted from Royce, 1970).**

Requirements Identification: In this phase, the needs of the customers are identified and documented on a high abstraction level. Thereafter, the requirements are refined so that they can be used as input to the design and implementation phase. The number of requirements selected depends on the available resources for the project.

System Design, Implementation and Unit testing: In the design phase the architecture of the system is created and documented. Thereafter, the actual development of the system takes place, during the system development, html, php, CSS and java script programming languages and MySql database are used. The developers also conduct basic unit testing before handing the developed code over to the test phase.

Integration and System Testing: In this phase the system integration is tested regarding quality and functional aspects. In order to make a decision whether the system can be deployed; measures of performance for example throughput are collected in the test laboratory. As the company provides complete solutions including hardware and software the tests have to be conducted on a variety of hardware and software configurations as those differ between customers.

Operation and Maintenance: After the product has been released to the customer it has to be maintained. That is, if customers discover problems in the product they report them to the company and get support in solving them. If the problems are due to faults in the product, packages for updating the system are delivered to the customers.

# **CHAPTER THREE**

# **METHODOLOGY**

The methodology focuses on the approaches to data collection, patterns of research, and techniques of analysis and tools that were used for designing and implementation of the system.

The methodology was in line with the specific objectives of the proposed and its inventory managing and tracking Taxis in KCCA.

The study employed both qualitative and quantitative approaches. It was qualitative in that opinions of the station officers and some criminals were sought and the researcher contextualized them according to his understanding. Quantitative data included annual criminal cases that are analyzed and interpreted using statistical packages. A case study design was used at Kampala Centrol Police Station (KCPS) in Kampala district in Uganda. The deep understanding of KCPS records will assimilate other police stations country wide. The existing system was studied to establish its weak and strong points. The information that was acquired from this study gave the basis for the design of the system. A number of steps, procedures and tools were employed.

Furthermore the following are the steps that were deployed to fully understand the current method that was used. These include; requirement identification; design, implementation and testing and validation. However, the development process was iterative, though it was depicted as comparing of phases.

Figure 3.1 that follows shows the system’s development methodology.

Testing and validation

Implementation

Design

Requirement identification

Requirements modification

**Figure 3.1: An illustration of a systems’ development methodology for a web based system for tracking criminal records in police stations.**

**3.1 Requirements identification**

To identify the requirements of the system, various approaches will be used as explained below.

**3.1.1 System study and investigation**

There was a thorough study of the existing systems in the Kampala Capital City Authority (KCCA) particularly taxi parks within Kampala in order to understand the loop holes before developing the web-based system for taxi registration in Uganda. This was achieved through interactions, use of questionnaires, interviews and observations.

#### 3.1.1.1 Interviews

Interviews are a way of talking to people in concern about your main point of interest, from which conversation you can get information about your area of interest. The interviewer asks questions and listens carefully to the concerned individuals. The questions may be structured, semi structured or unstructured according to the researcher,

Here research focused on stake holders, passengers, experts from the transport sectors, business men and women that normally use the Tax Services

The researcher’s interviews were both semi guided and unguided and contained both open and closed ended questions as we obtained data about operations of the existing systems, their problems ,strength, information flow and processing of the current methods.

**Benefits of interviews**

Interviews give the researcher the opportunity to motivate the interviewee to respond freely and openly to questions. Also allows the researcher to probe for more feedback from interviewee, interviews permit researcher to adopt or reward questions for each individual and quick responses from the respondent.

**Demerits**

Interviewing is time consuming since the interviewees give information according to their own understanding and therefore difficult to organise data according to their views and therefore costly, success of interviewer is highly dependent on the systems human relation skills and interviewing may be impractical due to the location of interviewees.

#### 3.1.1.2 Observation

The researcher moved around different taxi parks management authority offices and taxi driver licensing authority offices in Kampala Capital City to see how taxi data is being handled, how reports are being produced and what methods are in place for producing reports. Through observation the researcher found out how taxi data is collected and the methods used for producing reports.

**Advantages of observation**

It is a direct method for collecting data or information as it will help the researcher in studying how data is handled and kept. Data collected is always very accurate and very reliable. Problem of depending on respondents is decreased; this helps the researcher in understanding the verbal response more efficiently.

#### 3.1.1.3 Questionnaires

The techniques of using questionnaires helped researcher also to get needed information from the people of interest by asking them appropriate precise and concise questions .These people were be members of taxi parks management authorities and taxi driver licensing authorities.

**Advantages of questionnaires**

Questionnaires are answered quickly, people completed and return questionnaires at their convenience, questionnaires produce relatively inexpensive means of gathering data from a large number of individuals, questionnaires allow individuals to maintain anonymity and responses can be tabulated and analysed quickly.

**Disadvantages of questionnaires**

The number of respondents is often low, there is no guarantee that an individual would answer some or all questions, questionnaires tend to be inflexible. It is also not possible for the analyst to observe and analyse the respondent’s body language and there is no immediate opportunity clarify vague or incomplete answer to any question.

#### 3.1.1.4 Documentary Review

Some of the information was collected by studying documents from within and out of the taxi parks management authorities, taxi driver licensing authorities and KCCA offices. Information from Literature review clearly brings out the need for a computerized system to serve as a records management system and how critical information circulation should be in such an environment like a taxi park. However, most of the records have been printed on papers and could not be retrieved since they had already been lost. This clearly indicates the need for a web based system for taxi records in Kampala Capital City Parks and KCCA that can keep and retrieve such information on demand.

Documentary review helped the researcher to perceive the views of people elsewhere in the world towards web-based systems. The researcher’s findings clearly indicated that there was need for a web based system for taxi registration in Uganda particularly Kampala Capital City Authority which manages all City activities including transport operations under which taxis belong.

**3.2 System Design**

The analysis of the requirements was acquired in the requirements identification phase and led to the development of the web based system for tracking criminal records in police stations. The Database system will be developed using MYSQL and the programming frame work of the system was done using HTML, CSS, PHP, and JavaScript. There was removal of redundancies by normalization of the data in order to get the right material to be entered into the tables to be used for the system. There was a conceptual database design by having the Entity Relational Diagram and the Entity Relations. There was also the Logical design where entities, attributes, data lengths were made to remove the redundancies in the system and duplicates. This led to physical database design where MySQL with PHP script were used to design the system that enabled get the graphical user interfaces to be used by the system as it is free software. The system design objectives includes: Usability, performance, reliability, software architecture and package.

**3.4 System Implementation**

During system implementation, the system was able to run on windows XP and it was best suited for Pentium 4 computers or higher processors with a speed of at least 500MHZ considerable amount of Ram and 80GB hard disc space was required for proper functionality of the system. RAM of 512 MB and above was recommended and a computer monitor with a high resolution and a standard keyboard and mouse connected to the system.

**3.5 system testing and validation**

Software testing is a fundamental component of software quality assurance and represents a review of specification design and coding. Unit and module testing was used during the process. During unit testing, individual functions was tested to prove their functionality. This helped to reduce errors during module testing where units are combined as one to form a module. A successful testing resulted into a complete system that was tested as a whole to check for its capabilities and also techniques like black box testing was also employed so as to achieve the system’s final objective.

The validation process involved checking the implemented system whether it confirms inputs to the specifications. Several validation tests such as data and security were carried out to ensure that the system can validate data input from the users, reject any data which is supplied in wrong format and prevent unauthorised users from accessing the system resources.

# **CHAPTER FOUR**

# **SYSTEM ANALYSIS AND DESIGN**

In this section, weakness and strength of the current systems, analysis and detailed design issues, design requirements and system functionalities are all discussed within this chapter. It addresses the conditions that were necessary for the effective functioning of the system and also the tools that were used in the development and design of the new system.

**4.1 Study of the Existing System**

**4.1.1 Weakness**

The following were the limitations of the current methods used to assess students’ results in schools; Duplication of data since similar data is stored in different files and thus resulting into wasted space and potentially different values and or different formats for the same item. Also the method has poor security features and as result un authorized persons can be able to access data. The method requires very big room space with cabins available for storage. Finally very reliable personnel are required to be on standby to do the storing of files and that is expensive in terms of payment.

**4.1.2 Strength**

However the following were the advantages of the current methods used to store, manipulate and assess students’ results in schools; it enabled face-to-face interaction between teachers handling a particular subject during manipulation.

**4.2 System Study and Analysis**

The researcher studied the existing method to identify its strength and weaknesses. The information that was acquired from this study by employing a number of techniques and tools such as observation and interview guides gave the basis for the design of the new system. An interview guide with open ended questions was prepared and administered to the respondents so as to enable them give their views freely. This technique was chosen because it helped the researcher to get full range and depth of information. Observation was also used to gather accurate information about how the system actually operates, particularly about processes. Although the method was time consuming, it gave more detailed and context related information.

The researcher realized that the existing methods are manual whereby each staff on duty obtains a hand written report so as to follow for daily routines in Kampala Capital City Authority (KCCA). This method is associated with risks like loss of records that results into missing of some evidences for certain details. This has created a need for a system that will allow stake holders access records immediately anywhere in the country, provide security by authentication and also reduce redundancy.

**4.3 Requirements Specification**

The requirement analysis stage of a software engineering is the practice of obtaining, collecting and analyzing information that is used to identify the users’ requirement of the new system. The term elicitation is used in research to raise the fact that good requirement cannot just be collected from users as would be indicated by the name requirement engineering. Requirement elicitation is not trivial because you can never be sure that you will get all requirements from users by asking them what the system would do and it includes the process like interview, observation, workshop, brain storming and questionnaires.

Identifying the required functionality of the system is very important as a system with the incomplete functionality may lead to it being rejected. A description of the aim of the project is given here along with the details of the functional and non-functional requirements for the system.

**4.3.1 Functional Requirements**

The system was required to perform automation of the process of taxi details, taxi park transactions and reports made through quick retrieval of required reports basing on the set criteria. It ought to overcome the anomalies of the manual system.

**4.3.2 Non-Functional Requirements**

The new system ensures that:

A security system prevented unauthorized users from accessing the system. This was achieved by using usernames and passwords and privileges.

A user accessible catalog provided description of the data in the database.

A concurrency control system allowed shared access to the database. As the department linked with other authorities and parks throughout the country users, there would be concurrently accessing since it was of preferred support of a higher number of users and the enormous traffic.

An integrity system maintained the consistent users accessing the database.

**4.3.3 System Requirements**

These requirements are required by the system to be able to perform its expected functionalities efficiently and effectively. The following are required to run the system: -

**4.3.3.1 Hardware Requirements:**

1. The Client:A PC computer of at least 128Mb but 256Mb recommended of RAM (133MHZ).
2. CPU at least 20GB free Hard Disk space and
3. The CD ROM drive.
4. The server:256Mb of RAM but 512Mb recommended
5. A universal hard disk drive
6. Intel Pentium Xeon 2200 MHZ FC-PGA Processor.

**4.3.3.2 Software Requirements**

This specifies the software that will be used during system development. It is as shown below;

|  |  |
| --- | --- |
| **REQUIREMENTS** | **SPECIFICATION** |
| Web technologies | HTML, MYSQL, PHP, java script. |
| Language | PHP,MYSQL |
| Database | SQL Server 2005, wampserver5 1.6.4 |
| Operating system | Windows xp , windows 7, windows 8. |
| Hardware processor requirement | Duo core processor memory |
| Cache memory | 512 cache memory |
| Hard disk size | 40GB and above |
| RAM size | 256MB,1GB |

Table 3.4.1 showing software requirements

**4.3.4 Environmental Requirements**

1. Before use, there should be a staff capacity development to enable users adopt to the new system and learn its PROS and CONS and whatever they were required to do at whatever stage in processing information.
2. Some Computer table and good chairs.
3. A Server as a backup for the system.
4. A dust free environment and burglarproofed rooms for safety.
5. Power outlet sockets in the rooms.
6. Computer network set up all in place.

**4.4 Structured Requirements Analysis**

This section describes the flow of data or information between entities and the processes involved before the information reaches the destination which can be a data store or an entity. Context diagrams and DFDs were used to achieve this. There are mainly four components of a data flow diagram and are represented by the symbols as discussed below.

**4.4.1Data Flow Diagram**

A DFD is a diagrammatic representation of information flow within a system showing how information enters and leaves the system, what changes the information and where information is stored. DFDs assist to illustrate the possible overview of the system output, processes and outputs which correspond to the system model. DFDs graphically illustrate movement of data between external entities, the processes, data flows and data stores within the system. The researcher identified and analyzed the requirements of the proposed system. The following are symbols that were used to design the DFDs;

**External Entity Process**

**Data Flow**

**Data Store**

Dat

**Figure 4.1 Symbols Used**

**4.4.2 Context Diagram**

The external entity symbol represents sources of data to the system or destination of data from the system. The data flow symbol represents movement of data. The process symbol represents an activity that transforms or manipulates the data into information. The Timetabling Management Information system can be represented as shown below.

**The Context Diagram of the Develop System**

Register details, update and delete records

0

ONLINE SYSTEM FOR TAXI REGISTRATION

Added to the system

Taxi Owner

Registration and payments records

KCCA Management

View Database Details

**Figure 4.2: The Context Diagram for OSTR**

**Data Flow Diagram**

Employee Records Employee

­­­­

Employee Records Employee

D1 Employee

KCCA Employee

Tax Owner

D4

Payment Record Employee

KCCA Staff Login entry, update and deletion

Payment entry, update and deletion

Taxi Registration Record

D3

Tax owner and taxi registration, update and deletion

Employee Login Records

D2

**Data Dictionary of the Level 1 data Flow Diagram**

|  |  |
| --- | --- |
| **Entity** | **Description** |
| System user | A person who inputs the necessary information about the taxi and its owner, payments and employees. |

**Table 4.1 Data dictionary showing description of entities**

|  |  |
| --- | --- |
| **PROCESS** | **DESCRIPTION** |
| System Authentication | The process through which system users and administrators are authenticated. |
| Create user, update, delete and  Edit information | The process through which users of the system are created, and the information in the system is updated, edited and deletion of un necessary information. |
| Recording employees, taxi, payment details. | The staff members of the KCCA taxi management authority are recorded, the Owners and taxis of the city, the payments made by taxi owners are all recorded in this process. |

**Table 4.2 Data dictionary showing description of processes**

|  |  |
| --- | --- |
| **Data store** | **Description** |
| Accounts/Login records | Holds username, password and the role of the user(whether normal user or administrator). |
| System user and information records | Shows information about the system users and the information that are stored in the system. |
| Employee, Taxi, Payment records | Shows the information about all the employees/staff members of a particular KCCA branch office, the Taxis within that branch and the payments that have been made by the taxi owners. |

**Table 4.3 Data dictionary showing description of data stores**

**4.5 Database Design**

This section describes the process of creating a design for the database that supports the operation of the developed application. There are basically three phases that make up this process; the conceptual, logical and physical database designs.

The conceptual involves the creation of a theoretical data model of the part of the system that we are interested in. under this model, the relevant entities, tables, relationships, key attributes and entity relationship diagrams are clearly organized from the data collected.

Logical database design is the process of constructing a data model of information used in the system based on the specific data model but independent of a particular database management system. In this phase, normalization procedures and definition of integrity rules are properly applied. Tables and their relationships are clearly constructed as per the conceptual design.

Physical database design is the process of producing the description of the implementation of the database on a secondary storage media. It describes relations, file organization and indexes used to achieve efficient access to data and associated security measures and integrity constraints. In this case, actual programming of the database is done, taking into account the features and the limitations of the DBMS being used and clients.

Within this particular project, the relational data model was used. Data and relationships are represented as tables, each of which has a number of unique names also known as attributes, represented as tables, each of which has a number of unique names also known as attributes.

**4.5.1 Identification of Entities and Their Attributes**

|  |  |  |
| --- | --- | --- |
| **Entity** | **Description** | **Attributes** |
| Registration | A person who owns a taxi registering his taxi details. | regid(pk),fname, lname, sex, otelno, oaddress, nation. |
| Login | This allows the user or administrator to login the system | loginid(pk), role, Username, password, |
| Employee | These are the people who work in the KCCA office. | eid(pk), fname, lname, age, telno, address, sex |
| Payments | The various payments that are to be made by the taxi owners. | pid(pk), regid(fk) ,initialpay, finalpay. |

**Table 4.4 Entities and their attributes**

**4.5.2 Relationships between Entities**

Two forms of relationships were identified that is, one to one and one to many relationships. A one to one relationship represents a single Association between a sole entity occurrence and a single entity occurrence as shown below.

**4.5.2.1Mapping Entity Relations to Relational Schema:**

1..1

\*..1

Enrolls

Administrator

User

The relationship \*..1 means many employees can be enrolled by one system user and 1..1 means one employee is registered by one system user at a time.

1..1

\*..1

Registers

System User

Taxi

The relationship \*..1 means that many taxis are registered by one system user and 1..1 means one system user registers one taxi at a time.

1..1

\*..1

Registers

System User

Payments

The relationship \*..1 means that many payment record are registered by one system user and 1..1 means one system user registers one payment record at a time.

User Login details

1..1

\*..1

Enters

Administrator

The relationship \*..1 means that many login records are entered by one administrator and 1..1 means one administrator enters one login record at a time.

\*..1

1..1

Registers

System Login

KCCA records

The relationship 1..1 means one user can log into the system at time and \*..1 means that many users can log into the system at the same time.

**Entity Attribute Relationship Diagram (EARD) for OSTR**

Taxi Table

KCCA Employee

Payment Table

Eid(pk)

fname

lname

sex

age

telno

address

nation

regid(pk)

fname lname

sex

otelno oaddress nation numplate model regdate status

Pid(pk)

Regid(fk)

initialpay finalpay

Registered by

Enrolled by

KCCA Records Table

Kid(pk)

Loginid(fk)

Eid(fk)

Pid(fk)

regid(fk)

Recorded by

Login Table

Logs in

Loginid(pk)

Eid(fk)

role Username

Password

**Figure 4.4: Entity Attribute Relationship Diagram**

**Entity Relationship Diagram (ERD) for ORASRHS**

Employs

Enters

Administrator

Login Details

Registers

Taxi and owner

Staff/Employee

Records

Makess

Payments

**Assumptions**

A Taxi is registered by the owner .

A System user captures taxi and its’ owners’ details.

A Taxis’ due is paid by the taxi owner during registration.

An employee is enrolled by the administrator.

Management may check for a Taxi or not

**4.5.4 Tables of Entities and their Attributes**

This attributed to how the data types will be coded and appended to the entities in the Database. The structure of relations constructed in the database. This section presents the structure of the relations to be constructed in the database during implementation. The tables show the field name, data type and constraints of attributes of the different entities.

TAX REGISTRATION TABLE

|  |  |  |
| --- | --- | --- |
| ATTTRIBUTES | DATA TYPES | CONSTRAINTS |
| Regid | Int | Not null, primary key, auto\_increment. |
| Fname | Varchar(50) | Not null |
| Lname | Varchar(50) | Not null |
| Otelno | Varchar(20) | Not null |
| Oaddress | Varchar(100) | Not null |
| Nation | varchar(50) | Not null |
| Numplate | varchar(50) | Not null |
| Model | Varchar(40) | Not null |
| Regdate | Varchar(18) | Not null |
| Status | Varchar(50) | Not null |

PAYMENT TABLE

|  |  |  |
| --- | --- | --- |
| ATTTRIBUTES | DATA TYPES | CONSTRAINTS |
| Pid | Int(30) | Not null, primary key, auto\_increment. |
| Regid | Int(30) | Not null |
| Initialpay | Float(50) | Not null |
| Initialpay | Float(50) | Not null |

KCCA EMPLOYEE TABLE

|  |  |  |
| --- | --- | --- |
| ATTTRIBUTES | DATA TYPES | CONSTRAINTS |
| Eid | Int | Not null, primary key, auto\_increment. |
| Fname | Varchar(50) | Not Null |
| Lname | Varchar(50) | Not Null |
| Sex | Varchar(7) | Not Null |
| Age | Varchar(3) | Not Null |
| Etelno | Varchar(20) | Not Null |
| Address | Varchar(100) | Not Null |
| Nation | Varchar(50) | Not Null |

LOGIN TABLE

|  |  |  |
| --- | --- | --- |
| ATTTRIBUTES | DATA TYPES | CONSTRAINTS |
| Loginid | Int | Not null, primary key, auto\_increment. |
| Role | Navrchar(50) | Not Null |
| Username | Varchar(50) | Not Null |
| Password | Varchar(50) | Not Null |

# **CHAPTER FIVE**

# **SYSTEM IMPLEMENTATION**

**5.1 System Platform**

This chapter basically focused on converting the design procedures and diagrams to an executable code that constructs the necessary interfaces that enhanced user interaction with the system.

The system was designed using MYSQL RDBMS because of its ease and ability to store different data types and manipulate it. The researcher also used Wamp5, an inbuilt DBMS to implement the backend of the system, here the a graphical user interface is available which enables an administrator to create customized database objects such as tables in case he or she does not prefer using the SQL command prompt. The frontend of the system was implemented using the web pages in PHP programming and scripting, therefore the web pages are accessed using web browsers such as; internet explorer, Firefox and chrome. Using PHP programming and scripting, the application’s code was written to implement and ensure the system meets its complete functionality. Therefore this system has a graphical interface which has made it user friendly and easy to use. The system should also run on a computer platform that runs MYSQL Server software like Wamp5 server or an improved one.

**5.2 System Execution Sequence**

The system operates beginning with the Login page, system home page which contains a navigation bar with links to all other interfaces for manipulation performed by Administrators and other employees. These manipulations include add information, update data, view information (reports) and delete information in the database as shown below.

Logout

User Login Interface

Captures Data

Select Operations

Details

Payment Verification

Login Details

Payments

Registration/Taxi

Staff/Employee

View Subjects

View Candidates

Class

Details

View Performers

View Results

View Marks

Enroll Staff

Extraction of

For update

Reports

For Logout

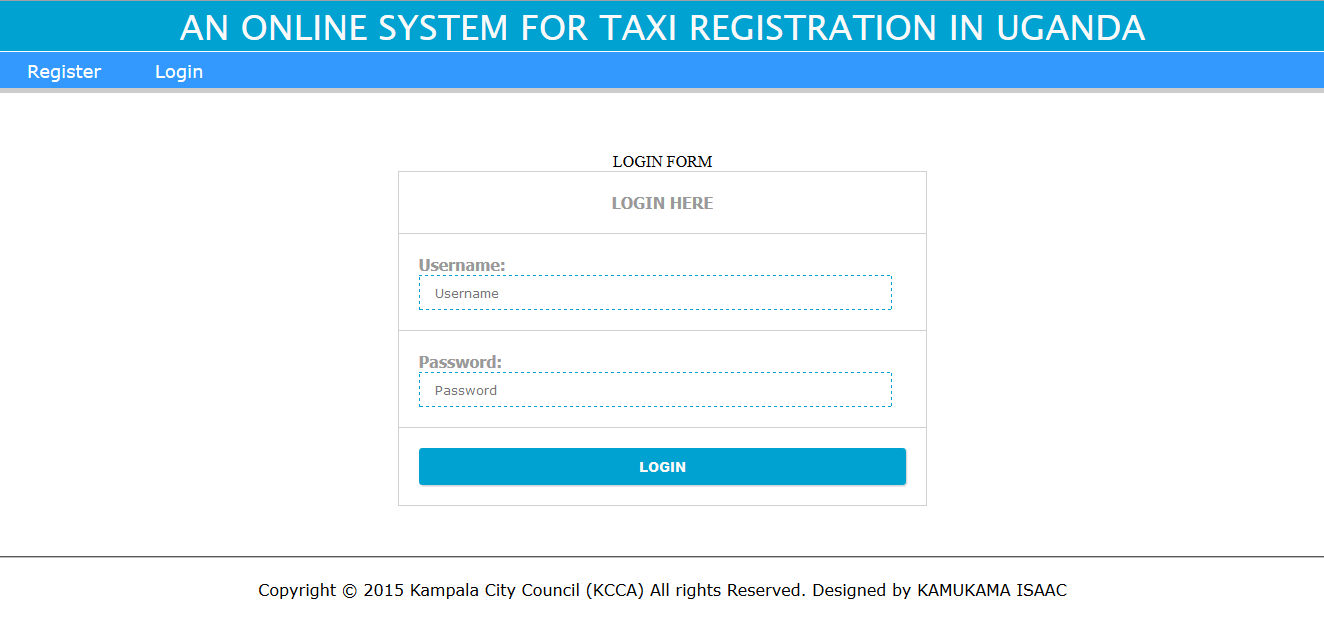
Payments

Registration/Taxi

Payment/Verification Details

**5.2.1 The Login Form**

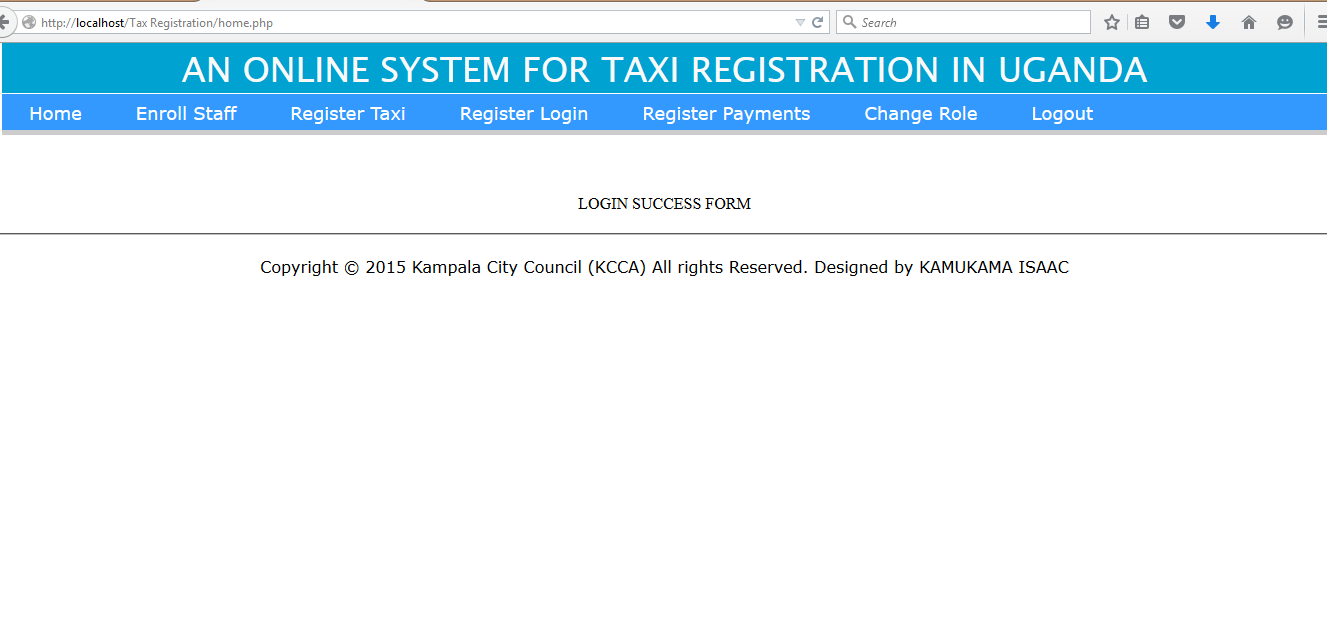
This is the first page of the system that is displayed when the system is loaded for use, it is called index.php. When the user in puts correct username and password, the page redirects to home.php which contains all the necessary links required for the system manipulation. When the user in puts wrong username or password, the system loads a javascript notification please enter the correct username and password which contains an “ok” button to the login form. This authenticates only registered user to login. The fig below illustrates the login form.



**Figure 5.2 Welcome Form**

**5.2.2 Login Success Form**

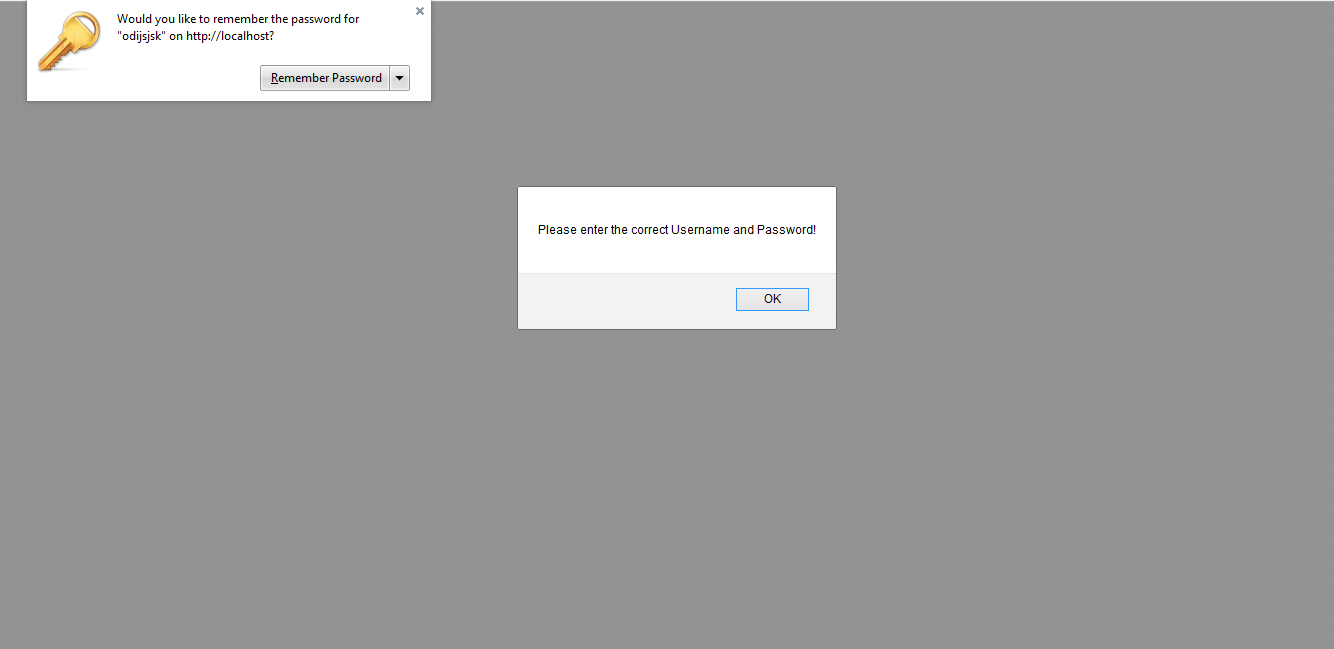
When the user in puts correct username and password in the login form, home form is displayed, this contains all the system manipulations that is to say CRUD which means Create or Add information, Read or View information, Update or Edit information and Delete information. Fig below is a log in success form.



**Figure 5.3 the Login Success Form**

**5.2.3 Login Failure Script**

When the user in puts incorrect username or password or both, a login failure script is displayed, this takes a user back to the login page by clicking the “ok” button. Fig below is of a login failure form.

****

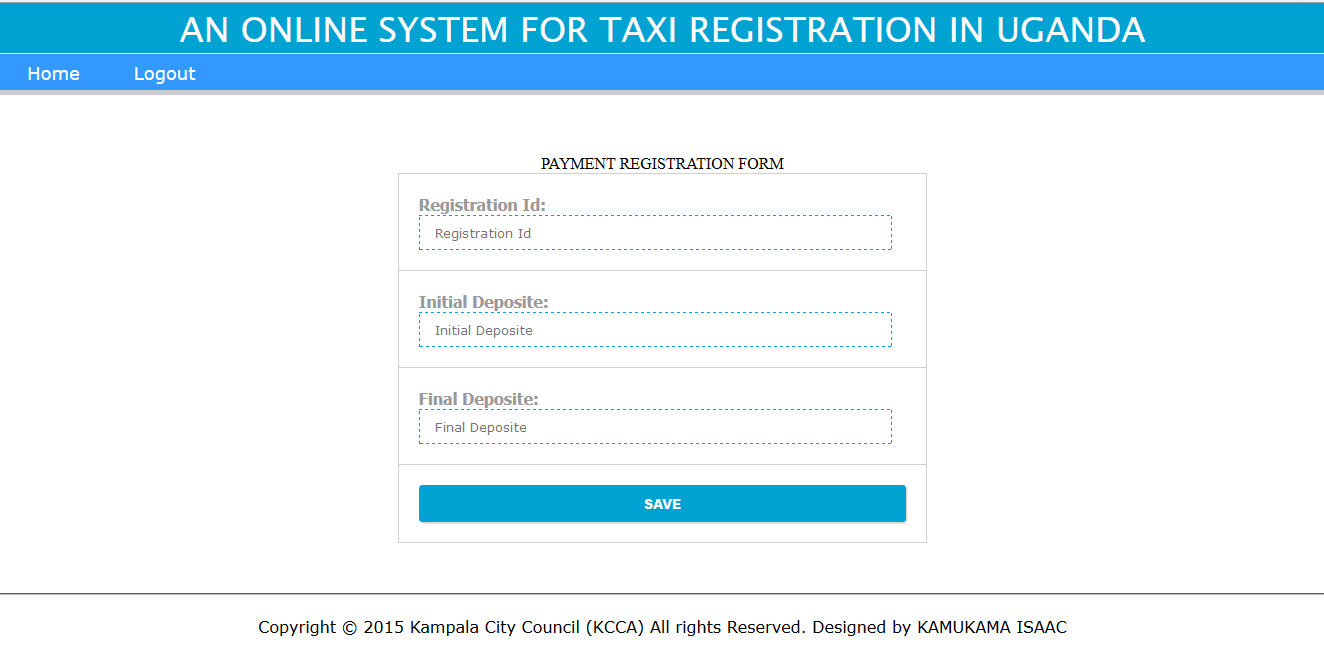
**5.3 Available Forms**

Various forms are available in the login success form after the user has successfully logged in, where users of the system can perform various manipulations that is to say, to add information, view or read information and delete the information that is no longer wanted from the database. Since all the forms for the available attributes that is the Staff, Payments, Taxi Registration and Login Details has forms that are arranged in order of Add data, View data, Update and Delete data and the manipulations performed are the same, the attribute Payment with the forms Register payments, view payments, update payments and delete payments was used to represent other attributes (Staff, Taxi Registration and Login) since they generally followed the same pattern.

**5.3.1 Add Information Forms**

The forms available for adding information in the database include Register payments form, Register staff form, Register Taxi form and Register login form. These forms have the fields that are necessary to capture the required information that is necessary to be stored in the OSTR database.

All these forms are represented by the Register Payments form, it has fields; registration id, initial deposit and Final deposit. The fig below shows registers payments form that is available in KCCA.

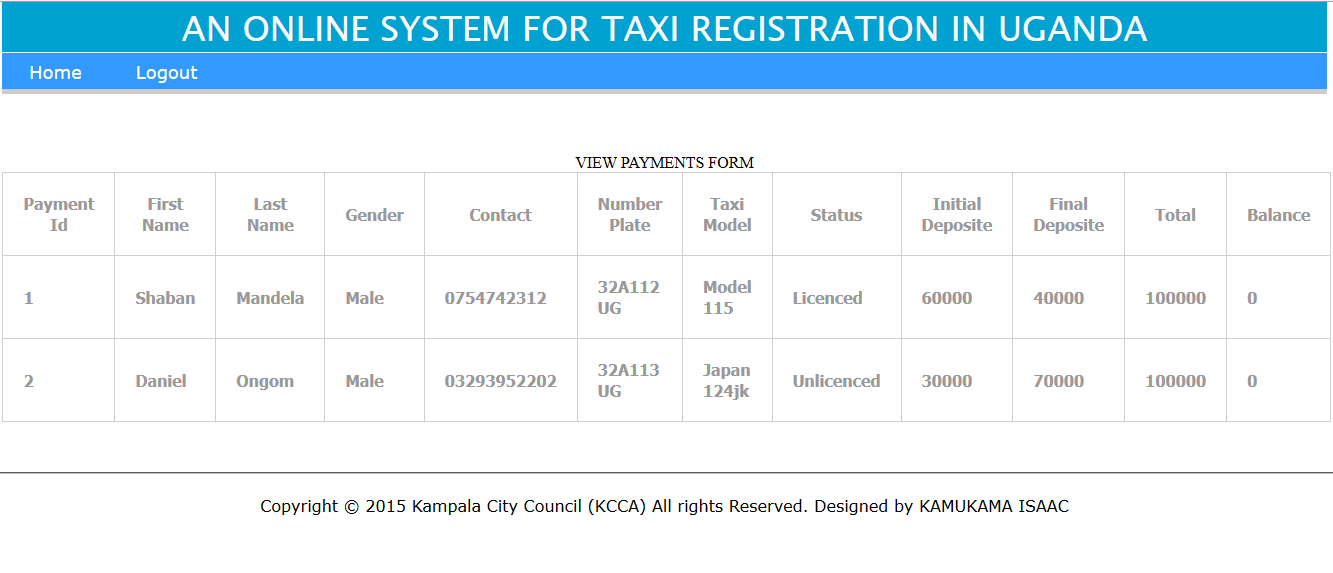


**5.5 The Payments Form**

**5.3.2 View Information Forms**

The forms available for viewing information in the database include view payments form, view staff form, view login form and view taxi form. These forms have the fields that are necessary to view the required information from OSTR database.

All these forms are represented by the view payments form. This form acts as a report form and it is essential to view all the information about the payments that is available in the OSTR database. The fig below shows the report of the payments that are available in KCCA.

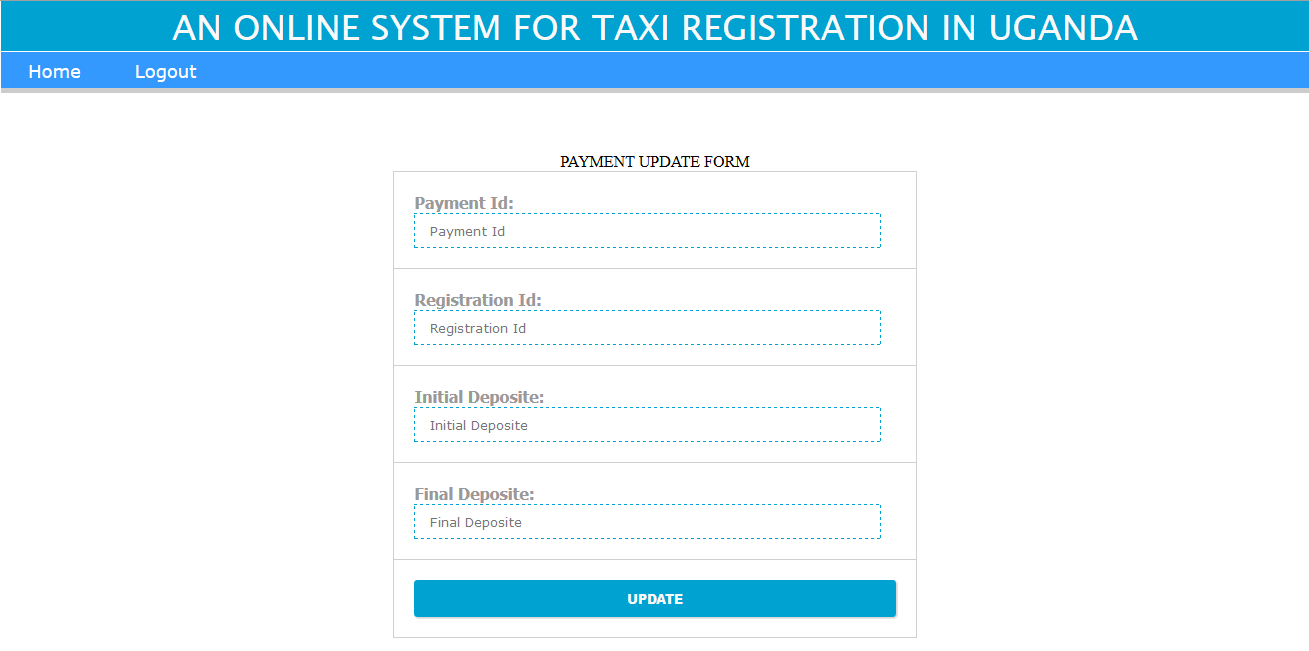


**5.6 The Payments Form**

**5.3.3 Update Payments Form**

The forms available for updating information in the database include update payments form, update staff form, update login form and update taxi form. These forms have the fields that are necessary to updating the required information from OSTR database.

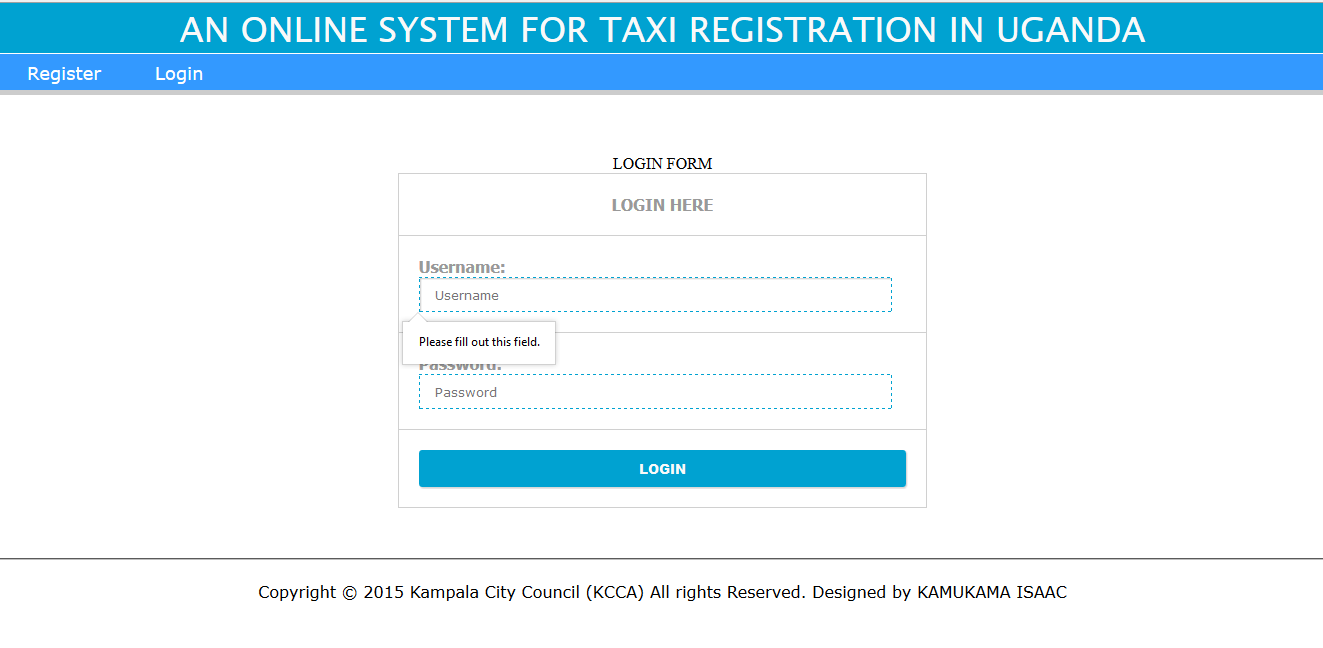
All these forms are represented by the update payments form. This form contains all the system manipulations for the form. These include update or edit, delete and register. This form enables the storage of well-organized data or information in the database. The fig below shows updates payments form with all necessary manipulations.



**5.7 The Update Payments Form**

**5.4 Register Form Verification**

All the forms for registering information have html5 code which does not allow to submit empty forms, that is to say all the fields must be filled first in order for the form to submit data to the database. The figure below illustrates an example.

****

**5.8 Illustration showing html5 verification.**

# **CHAPTER SIX**

# **DISCUSSION, CONCLUSION AND RECOMMENDATIONS**

This chapter examines how the objectives of the study were achieved using the system that was Developed. The outcomes and contribution of the study to evaluation of changes of the way taxi records in the KCCA are handled are discussed and conclusions are given below and also the recommendations.

**6.1 Discussion**

The designed system can capture, process and retrieve KCCA taxi reports easily. The KCCA transport department has increased the number of particulars captured against each registration. This was formerly neglected for fear of bulky processing. Now that the system can capture such details at once then only updates would be required. It has also been noted that delays have reduced to some extent unlike in the past where registration officers would relax and recklessly do their jobs due to the hectic task of manually registering taxis. This was partly due the difficulty of filling in paper forms, arranging them in order, manually manipulating transactions and many other challenges which led to wrong entries, lose some files and hence the record. This observation is in support with Inmon (2003) and Sam (1997) who assert that records management is paramount in bringing efficiency in any system.

Furthermore, software engineering principles were strictly followed making the software highly user friendly yet minimizing any undesirable trade-offs. Robustness, usability, interoperability, efficiency and platform neutrality are the major plus for the tool.

The home page consists of secure login, where the user gets the System Operations that have links to other pages that provides necessary information about the taxi reports, edit forms, delete the necessary information all necessary for updating the information. The logout menu exits the system. The login page is fully functional and only permits the system user to access the administrator page where administrative tasks are performed; it requires entering a valid username and password. The developed system module was implemented HTML, CSS, MySql, JavaScript and PHP. The system can be availed online by hosting it on a network server like on a LAN (Local Area Network) or internet. This will require it to be installed on a server platform running MYSQL server software and connected on an internet or LAN network.

**Significance of the system**

The proposed system registered significant degree of efficiency in records management. The records that were paper based were entered and the officers concerned observed that it is quite easier now to serve customers (i.e. taxi owners) in time. However it was also noted that further training of KCCA staff suffices. Given that KCCA officers are relocated regularly, the replacements usually made may not be IT savvy; thus a need for refresher courses. The former practices of bribery have been reduced in that file losses are no longer excuses. Donna (1999), Turban.et.al (2002) and Loudon (2005) think along the same line in that automated systems need patience if good results are expected out of them. The users must get acquainted with them first and further training would emphasize so.

**6.2 Conclusion**

This study was set out to develop a web-based system for taxi registration in Uganda using a user-centered approach to software development. The scope set at inception was restricted to developing a system for tracking records. The study led to design and implementation of a prototype for a web based system for tracking records. The system was tested and validated for functionality. The system was implemented using a 3-tier approach, with a backend database (specifically MYSQL database), a middle tier of Apache server and PHP, and a front end web browser (client). This report has also discussed each of the underlying techniques used to design and implement the application and the steps undertaken to achieve this.

The system developed can now provide means for the KCCA staff to handle various records. The system has removed delays which were experienced through the old system because cross checking through the KCCA taxi records has been time consuming. The KCCA staff has benefited from the new system because there are no longer delays in storing and retrieving the necessary records.

**6.3 Recommendations**

The findings of the study recommended adoption and usage of the developed system (online system for taxi in Uganda) to keep track of information in Uganda KCCP in particular, so as to improve on the security of the information, centralized access at the head offices and also easy update of information, reduce on time of identification of particular information as well as minimizing repair and maintenance costs. The following recommendations are to be ensured to enhance an organized, maintainable and robust system in place. The system administrator should be properly trained on how to use the system and also recommended to privately keep his or her authentication details that is; the user name and password well so to avoid intrusion into the system.

Prison departments could make an effort to secure some computers with windows XP and above, connect them to the internet and provide computer-training sessions to the intended users of the system such that they become acquainted with the developed system since it is internet based.

Furthermore, mechanisms enabling updates to the system would also be available so that the information stored in the system can be secured accordingly. This is because there might be a need to improve on the enhancement of the system such as integrating it with the biometric system. The wed based system for tracking records in KCCA developed can still be improved upon as discussed in the section that follows.

**6.3.1 Areas for Further Study**

It’s recommended that the following modules, be added to the developed system (online system for taxi in Uganda) so as to perform more tasks:

1. Barcode authentication system; This module would be used for capturing taxi owner identity cards for record purposes and easy identification in future.
2. The backup module should also be incorporated so as to ensure that the information that is kept is safe and to ensure that there is ready backup information in case the original information gets corrupted or lost.
3. The developed system component can have the capability to be used in different languages. Further work is recommended so that it can have the capability of being usable in local Languages like Luganda, runyankore, Alur and Swahili for the East African region.
4. The researcher also thus recommend that to beef up service delivery in the prison department, the designed system should be integrated with mobile applications that can run on cell phones so that the taxi owners can register on phones and retrieve data about their verification which will ultimately increase the handling of taxi records.

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# **APPENDICES**

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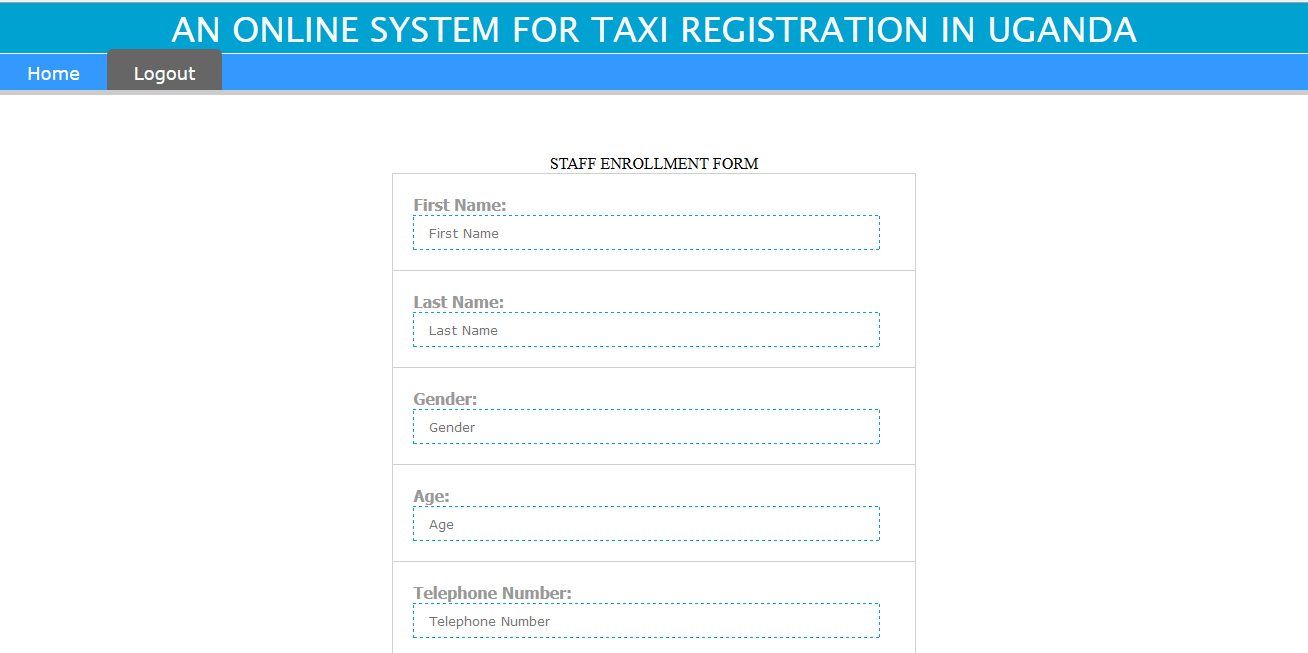
# **APPENDIX ONE: INTERVIEW GUIDE**

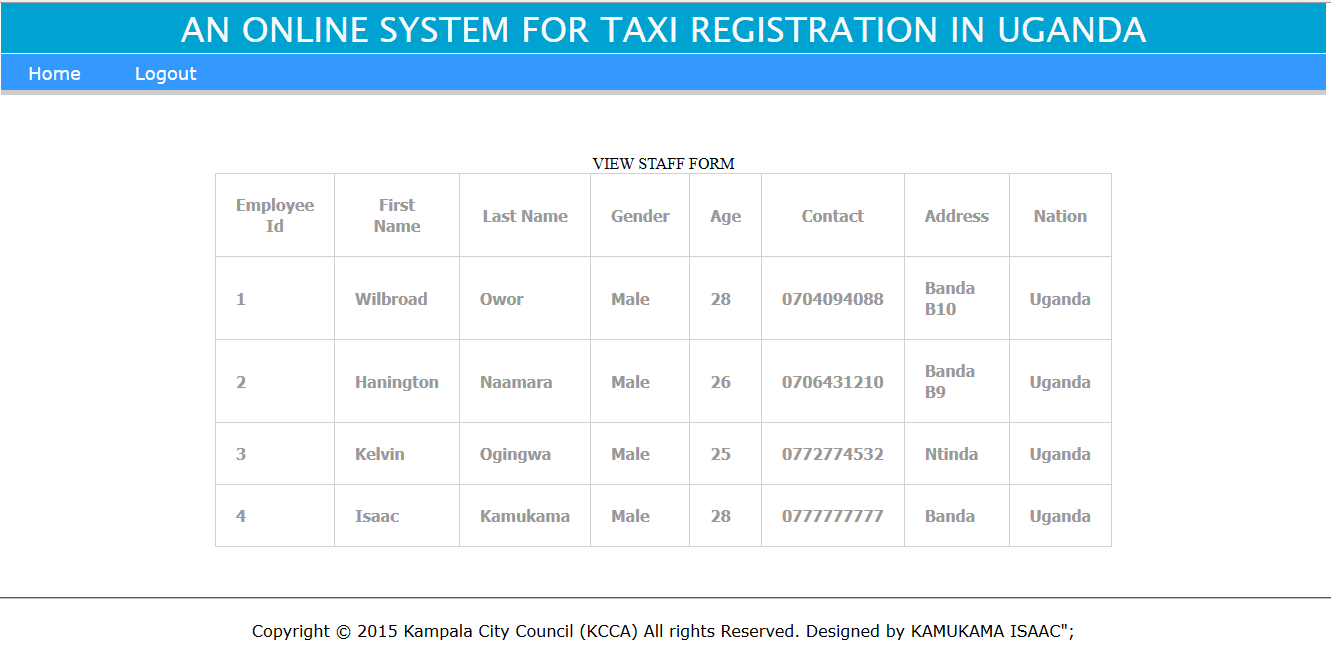
1. **FOR TOP KCCA ADMINISTRATORS**
2. Do you have a computer network?
3. How many computers are available?
4. How many people use computers?
5. What percentage of staff is computer literate?
6. How are reports produced and how frequently done?
7. What method is used?
8. How are reports presented?

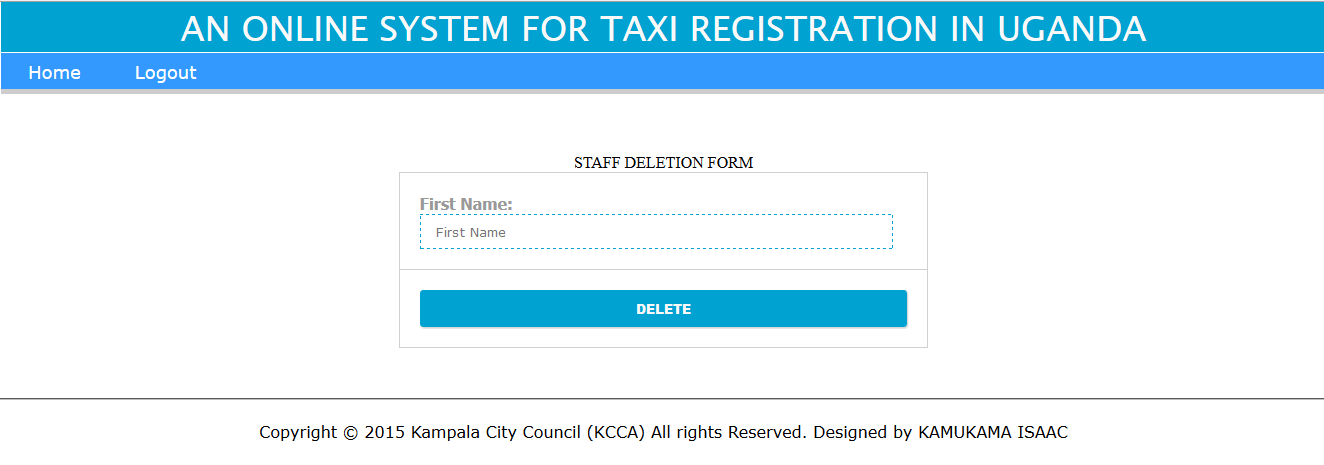
1. **TO THE KCCA STAFF**
2. What is your name sir or madam?
3. Are you a staff member under this KCCA office?
4. What services to do you get from the current KCCA records system?
5. What challenges do you face because of the current KCCA records system?
6. What benefits do you get from the existing KCCA records system?
7. What features would you like the system to be built to include?
8. How do you access data for reports production?
9. What method do you use to get your reports?
10. How often do you produce reports?
11. Is the information about taxi data readily available?
12. Are you able to meet deadlines?
13. Do you feel comfortable with the system used?
14. What aspects of the system do you think needs automation?

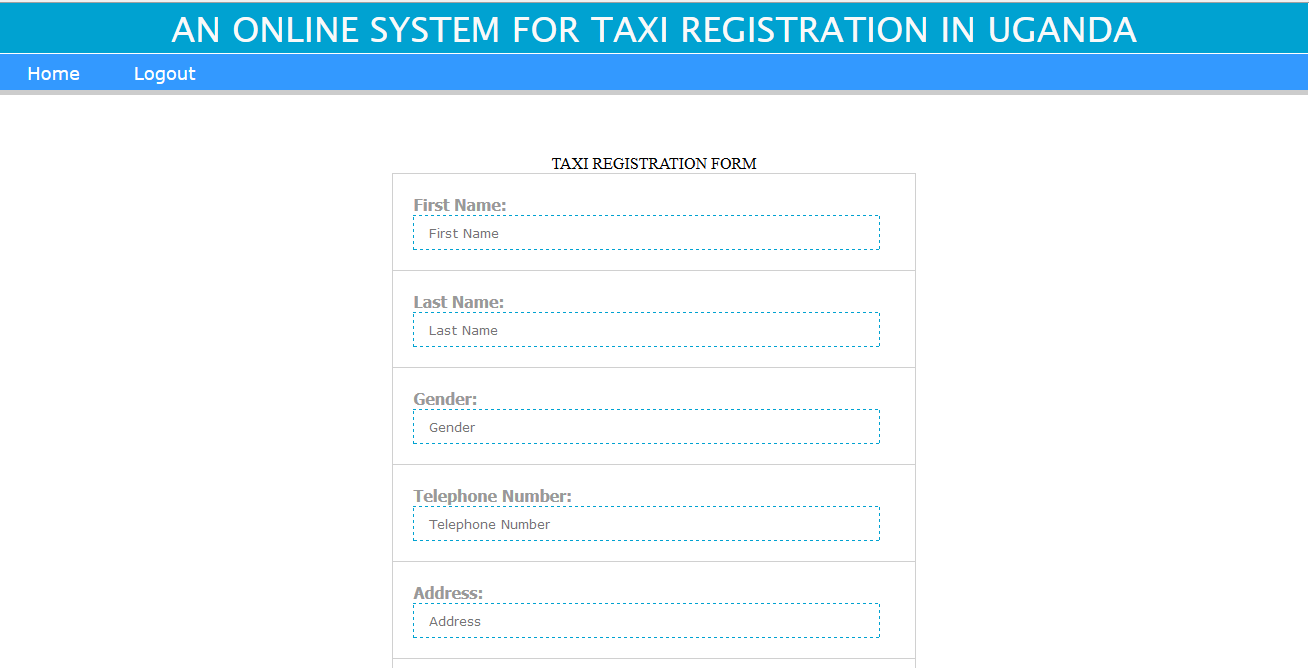
# **APPENDIX TWO: USER INTERFACES**

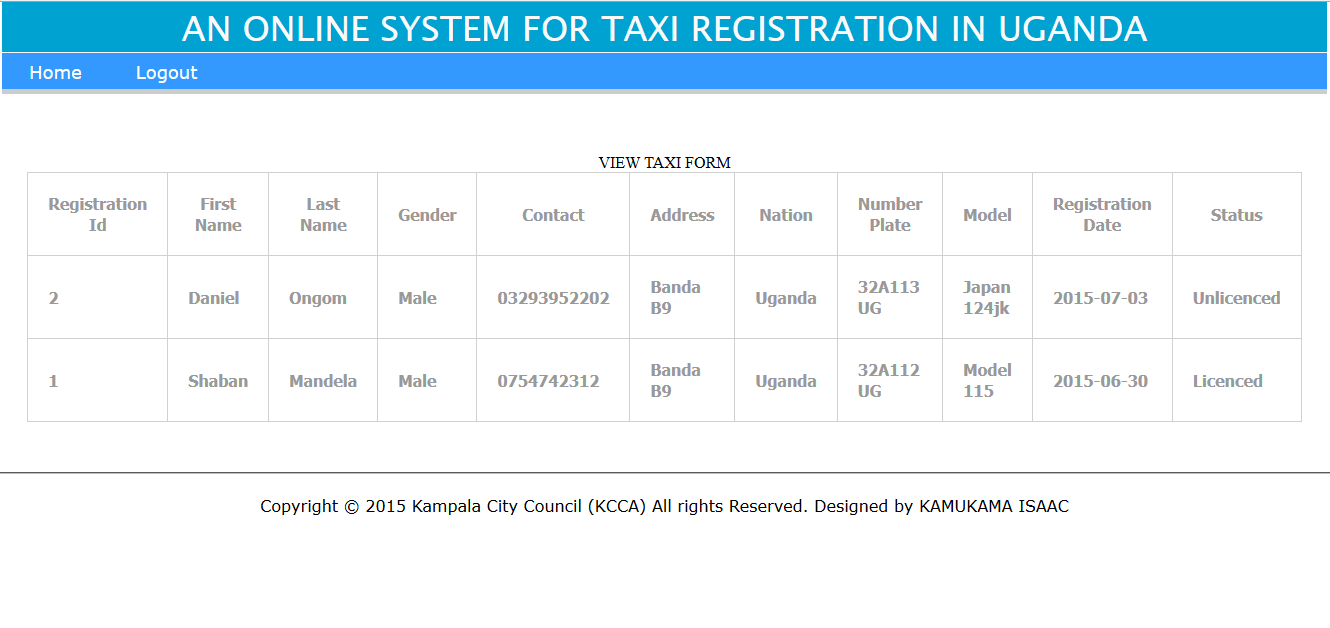
These are there to ensure user friendliness of the system and the ways the system responds to the users.

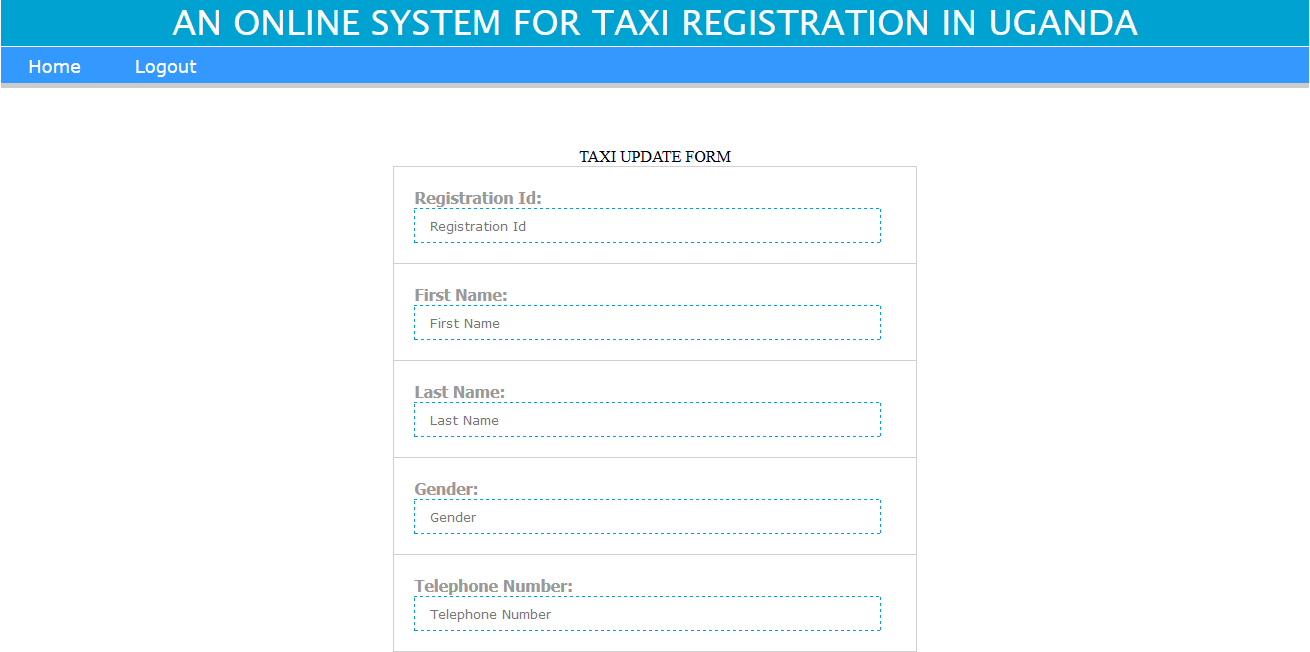


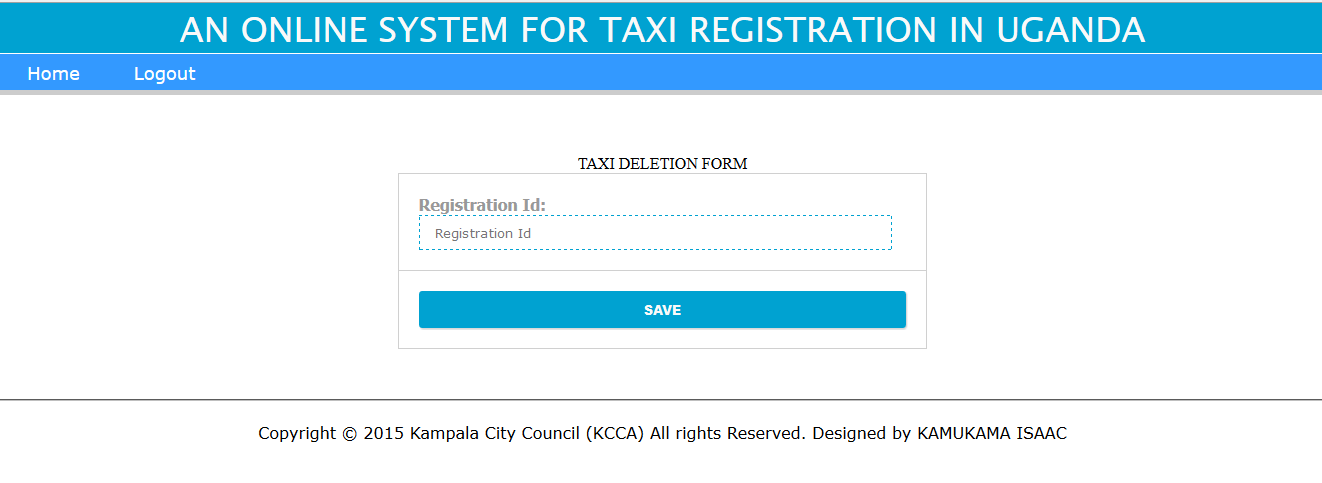


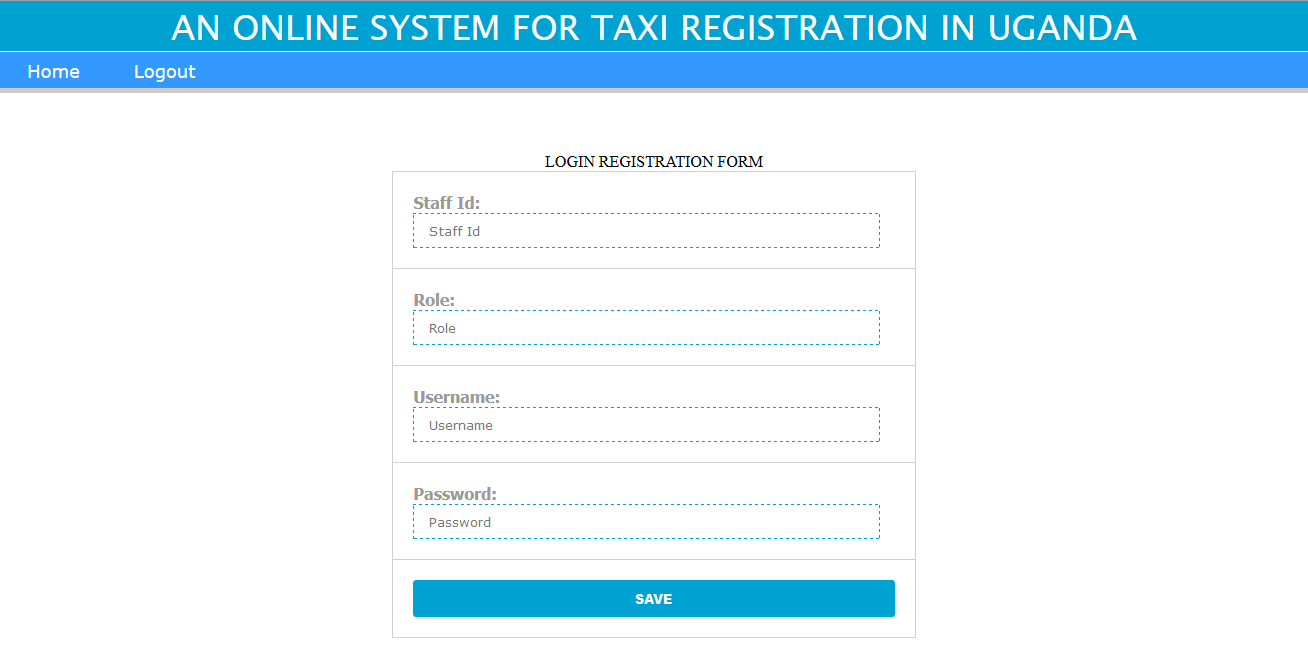


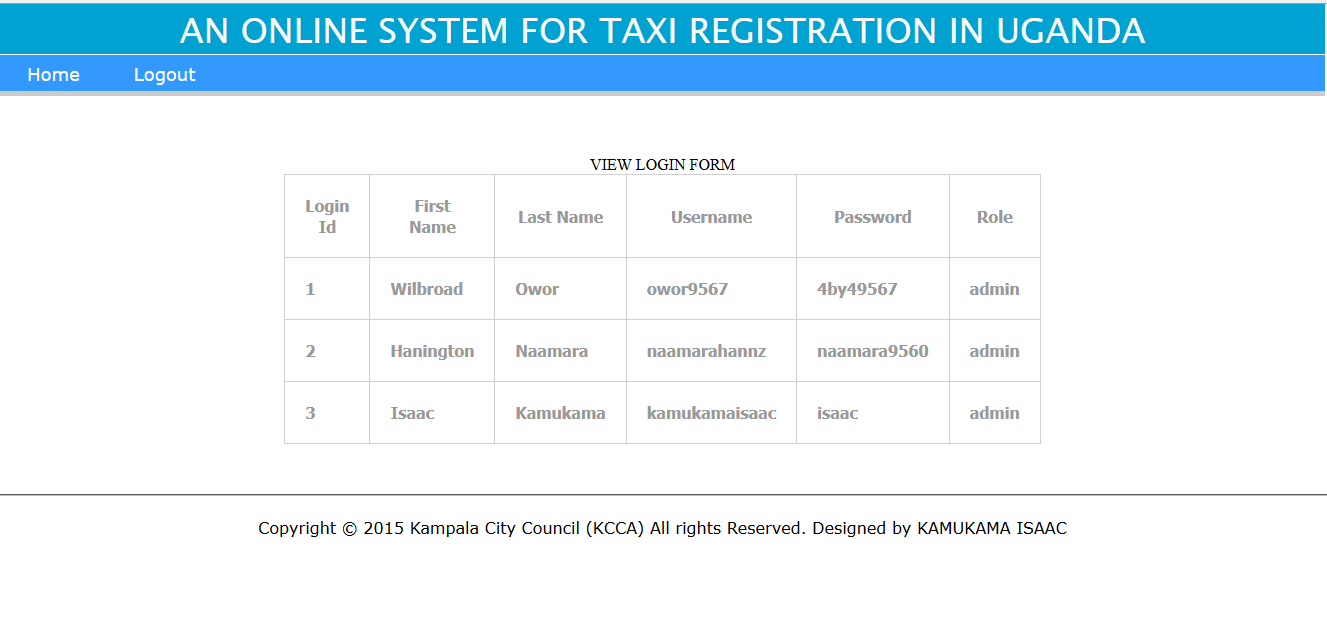


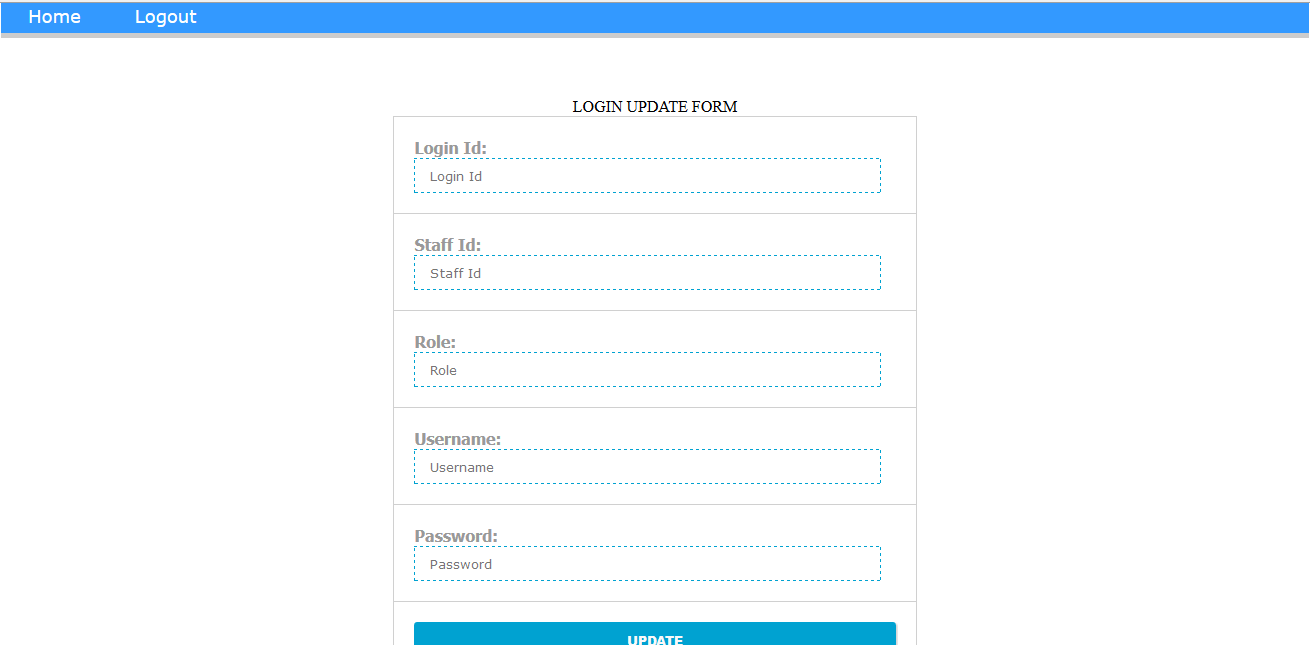


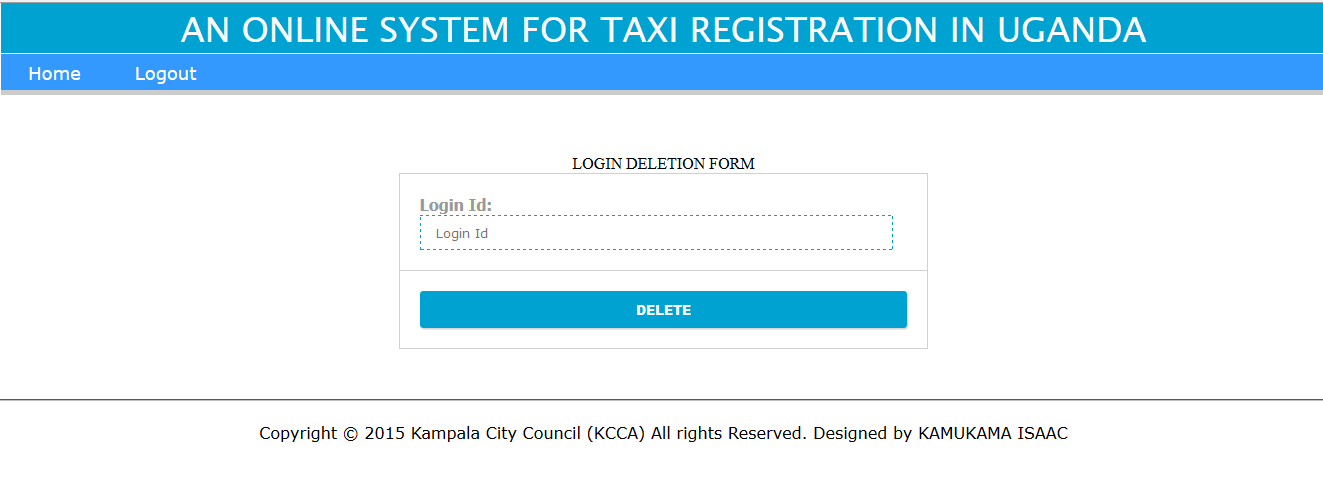


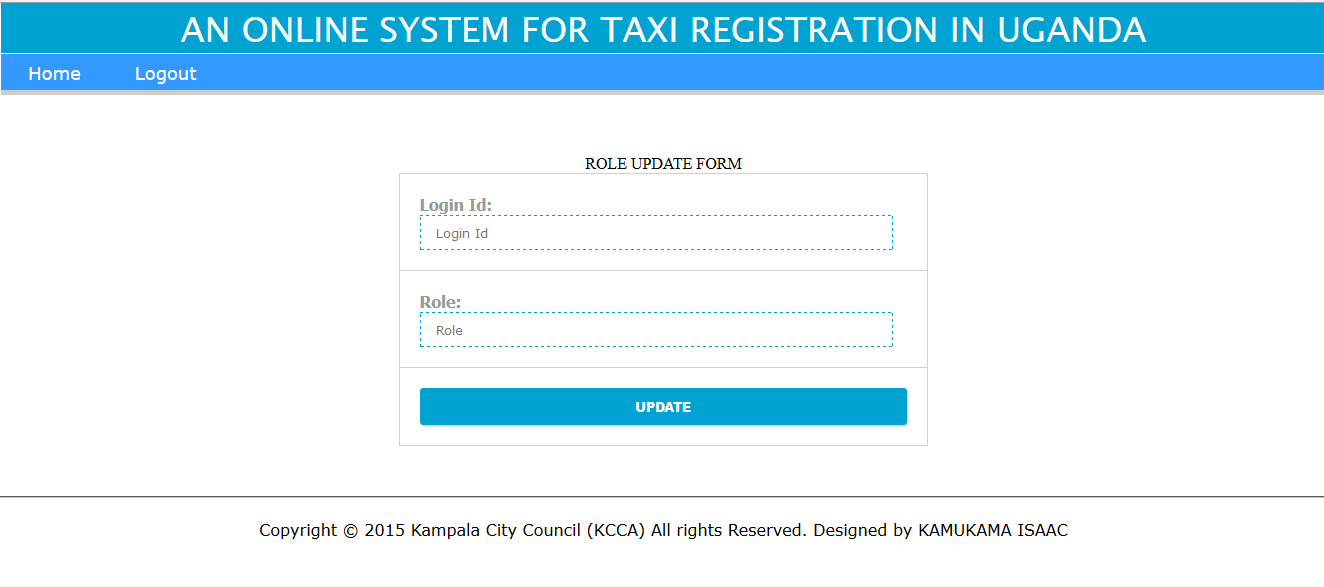
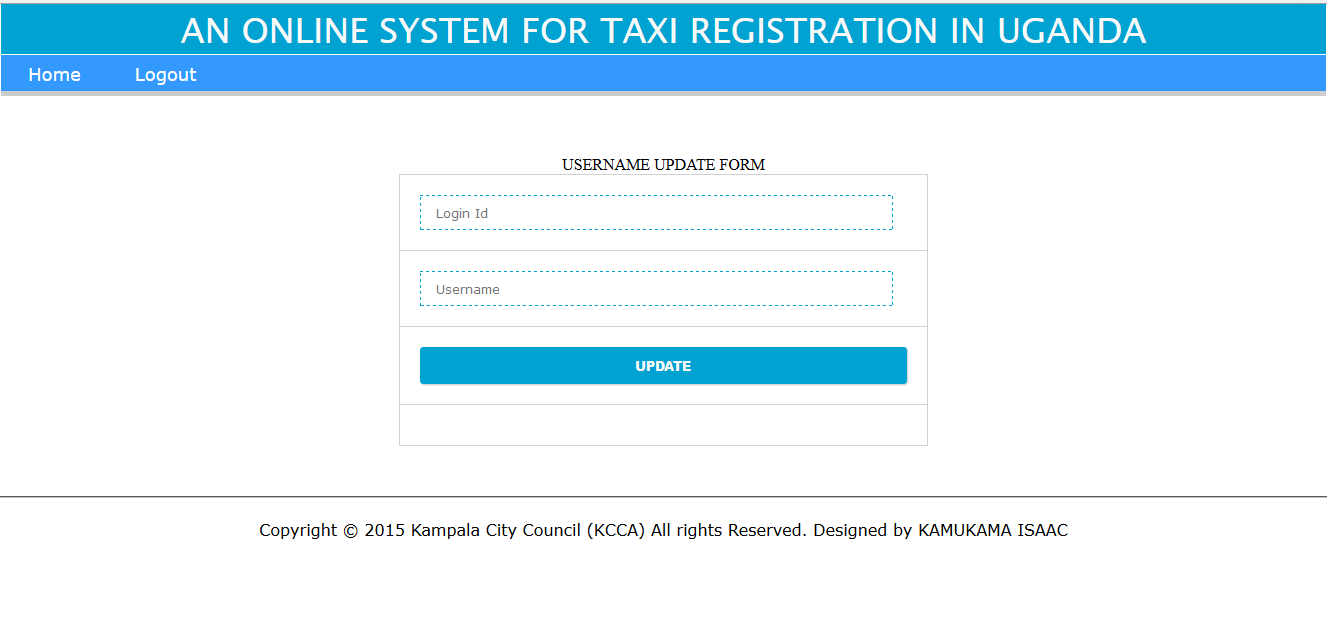


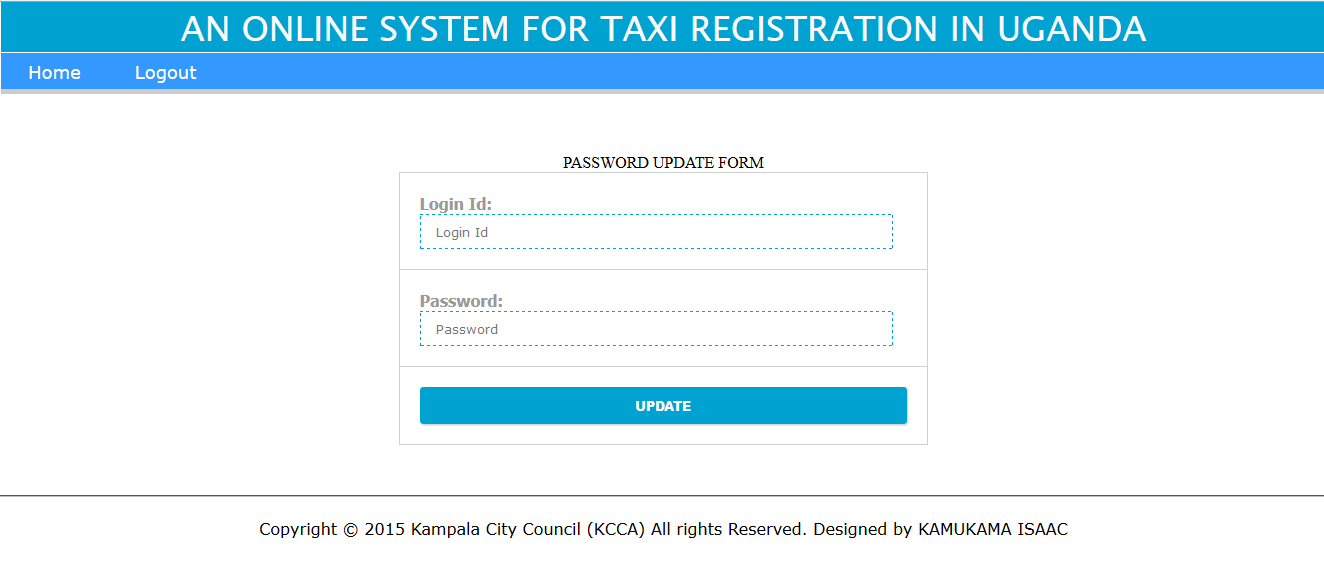










# **APPENDIX THREE: INSERTION CODE**

<?php

include\_once 'dbconnection.php';

//$con = new manipulations();

class insertions

{

function \_\_construct()

{

$this->sql=$sql;

}

public function insertEmployee()

{

if(isset($\_POST['emp-save']))

{

if(isset($\_POST['eid']))

$eid = $\_POST['eid'];

$eid =mysql\_real\_escape\_string($eid);

if(isset($\_POST['fname']))

$fname = $\_POST['fname'];

$fname=mysql\_real\_escape\_string($fname);

if(isset($\_POST['lname']))

$lname = $\_POST['lname'];

$lname =mysql\_real\_escape\_string($lname);

if(isset($\_POST['sex']))

$sex = $\_POST['sex'];

$sex = mysql\_real\_escape\_string($sex);

if(isset($\_POST['age']))

$age = $\_POST['age'];

$age = mysql\_real\_escape\_string($age);

if(isset($\_POST['telno']))

$telno = $\_POST['telno'];

$telno =mysql\_real\_escape\_string($telno);

if(isset($\_POST['address']))

$address = $\_POST['address'];

$address =mysql\_real\_escape\_string($address);

if(isset($\_POST['nation']))

$nation = $\_POST['nation'];

$nation = mysql\_real\_escape\_string($nation);

$sql = "INSERT INTO employee VALUES('$eid','$fname','$lname','$sex','$age','$telno','$address','$nation')";

if (mysql\_query($sql) === TRUE) {

?>

<script>

alert('Record inserted successfully...');

window.location='add\_employee.php'

</script>

<?php

//echo "Record successfully inserted";

} else {

?>

<script>

alert('error inserting record...');

window.location='add\_employee.php'

</script>

<?php

//echo "Error in record insertion: " . $conn->error;

}

}

}

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

public function insertTaxi()

{

if(isset($\_POST['reg-save']))

{

if(isset($\_POST['regid']))

$regid =mysql\_real\_escape\_string($\_POST['regid']);

if(isset($\_POST['fname']))

$fname =mysql\_real\_escape\_string($\_POST['fname']);

if(isset($\_POST['lname']))

$lname =mysql\_real\_escape\_string($\_POST['lname']);

if(isset($\_POST['sex']))

$sex = mysql\_real\_escape\_string($\_POST['sex']);

if(isset($\_POST['otelno']))

$otelno = mysql\_real\_escape\_string($\_POST['otelno']);

if(isset($\_POST['oaddress']))

$oaddress = mysql\_real\_escape\_string($\_POST['oaddress']);

if(isset($\_POST['nation']))

$nation = mysql\_real\_escape\_string($\_POST['nation']);

if(isset($\_POST['numplate']))

$numplate = mysql\_real\_escape\_string($\_POST['numplate']);

if(isset($\_POST['model']))

$model = mysql\_real\_escape\_string($\_POST['model']);

if(isset($\_POST['regdate']))

$regdate = mysql\_real\_escape\_string($\_POST['regdate']);

if(isset($\_POST['status']))

$status = mysql\_real\_escape\_string($\_POST['status']);

$sql = "INSERT INTO registration VALUES('$regid','$fname','$lname','$sex','$otelno','$oaddress','$nation','$numplate','$model','$regdate','$status')";

if (mysql\_query($sql) === TRUE) {

?>

<script>

alert('Record inserted successfully...');

window.location='add\_taxi.php'

</script>

<?php

//echo "Record successfully inserted";

} else {

?>

<script>

alert('error inserting record...');

window.location='add\_taxi.php'

</script>

<?php

//echo "Error in record insertion: " . $conn->error;

}

}

}

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

public function insertPayments()

{

if(isset($\_POST['pay-save']))

{

if(isset($\_POST['pid']))

$pid =mysql\_real\_escape\_string($\_POST['pid']);

if(isset($\_POST['regid']))

$regid =mysql\_real\_escape\_string($\_POST['regid']);

if(isset($\_POST['initialpay']))

$initialpay =mysql\_real\_escape\_string($\_POST['initialpay']);

if(isset($\_POST['finalpay']))

$finalpay = mysql\_real\_escape\_string($\_POST['finalpay']);

$sql = "INSERT INTO payment VALUES('$pid','$regid','$initialpay','$finalpay')";

if (mysql\_query($sql) === TRUE) {

?>

<script>

alert('Record inserted successfully...');

window.location='add\_payments.php'

</script>

<?php

//echo "Record successfully inserted";

} else {

?>

<script>

alert('error inserting record...');

window.location='add\_payments.php'

</script>

<?php

//echo "Error in record insertion: " . $conn->error;

}

}

}

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

public function insertLogin()

{

if(isset($\_POST['login-save']))

{

if(isset($\_POST['loginid']))

$loginid =mysql\_real\_escape\_string($\_POST['loginid']);

if(isset($\_POST['eid']))

$eid =mysql\_real\_escape\_string($\_POST['eid']);

if(isset($\_POST['role']))

$role =mysql\_real\_escape\_string($\_POST['role']);

if(isset($\_POST['Username']))

$Username =mysql\_real\_escape\_string($\_POST['Username']);

if(isset($\_POST['Password']))

$Password =mysql\_real\_escape\_string($\_POST['Password']);

$sql = "INSERT INTO login VALUES('$loginid','$eid','$role','$Username','$Password')";

if (mysql\_query($sql) === TRUE) {

?>

<script>

alert('Record inserted successfully...');

window.location='add\_login.php'

</script>

<?php

//echo "Record successfully inserted";

} else {

?>

<script>

alert('error inserting record...');

window.location='add\_login.php'

</script>

<?php

//echo "Error in record insertion: " . $conn->error;

}

}

}

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

public function select()

{

//$res=mysql\_query("SELECT \* FROM users");

//return $res;

}

}

// data insert code ends here.

?>