

# **KENYA COURTS FILES STORAGE/ACCESS SYSTEM(KCFSAS)**

A software project submitted in partial fulfillment for the requirement of the award of Bachelor of Science in Information and Communication Technology Degree of Laikipia University.

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**On**

17<sup>th</sup> APRIL, 2020

## **DECLARATION**

This software project is my original work, except where otherwise stated and has not been presented for a degree in any other University or any other award.

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## **CERTIFICATION**

The undersigned certify that he has read and hereby recommend for acceptance of Laikipia University a software project entitled “KENYA COURTS FILES STORAGE/ACCESS SYSTEM(KCFSAS)”.

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Mr. Alex Kibet

Date

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## **DEDICATION**

I dedicate this project to God Almighty my creator, my strong pillar, my source of inspiration, wisdom, knowledge and understanding. He has been the source of my strength throughout this program and on His wings only have I soared. I also dedicate this work to my Mother; Hannah Njuguna and to my brothers and sisters who has encouraged me all the way and whose encouragement has made sure that I give it all it takes to finish that which I have started.

Thank you. My love for you all can never be quantified. God bless you.

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## **ABSTRACT**

Access to justice has become an important issue in many justice systems around the world. Increasingly, technology is seen as a potential facilitator of access to justice, particularly in terms of improving justice sector efficiency (Lupo, 2014). The major functionalities covered in court works are registration, indexing and follow up of cases. Case management is the key success factor in judicial system. Systematic, efficient and organized case management system provides comprehensive information for courts to guarantee unbiased decision and transparency information system to hinder the misuse of power or corruption, case postponement and delays in decision making. It also reflects the good image in judiciary (Haider, 2011) .

This project is about Kenya Courts Files Storage/Access(KCFSAS) which is developed to make the functional areas in Judicial Service more efficiency and effective. One of the main intension of this project is to control and allow complete registration of all court cases and tracking of case current status and location; to enhance public access avoiding client to go to court and also needs to follow up daily after filing of case. This study also considers the adoption of the case management system as an important component in the delivery of service to their clients.

The methodology I used for the project development is the Agile Development Methodology. This methodology was used because the project is needed to deal directly with the clients and users so that we the developers will know what they really want and how they want the system to function from the feedback they give after each iteration.

The 21st century has witnessed so many great inventions in science and technology that have led with great potential to solve existing problems.

## TABLE OF CONTENTS

<b>DECLARATION.....</b>	<b>ii</b>
CERTIFICATION.....	iii
<b>COPYRIGHT .....</b>	<b>iv</b>
<b>DEDICATION.....</b>	<b>v</b>
<b>ACKNOWLEDGEMENT.....</b>	<b>vi</b>
<b>ABSTRACT.....</b>	<b>vii</b>
<b>List of figures.....</b>	<b>x</b>
<b>CHAPTER ONE .....</b>	<b>1</b>
<b>INTRODUCTION.....</b>	<b>1</b>
1.1 Background to the study .....	1
1.2 Problem Definition.....	2
1.3 Description of the current system.....	3
1.4 Proposed solution .....	3
<b>CHAPTER TWO .....</b>	<b>5</b>
<b>LITERATURE REVIEW .....</b>	<b>5</b>
2.1 Introduction .....	5
2.2 Case studies of similar systems.....	5
2.2.1 Russia.....	6
2.2.2 Brazil .....	6
2.2.3 Australia.....	8
2.2.4 Venezuela .....	8
2.2.5 Kenya.....	10
2.3 The research gap to be addressed by the proposed system .....	11
2.3.1 Cost of digitalized court management system .....	11
2.3.2 Employee job satisfaction using digitalized court management system .....	12
2.3.3 Security of court data in digitalized court management system .....	13
2.3.4 Fraud/Corruption .....	13
<b>CHAPTER THREE .....</b>	<b>15</b>

<b>METHODOLOGY .....</b>	<b>15</b>
3.1 Introduction .....	15
3.2 Software Process Model Adopted .....	15
3.2.1 Strengths.....	17
3.2.2 Weaknesses .....	17
3.3 Requirement Gathering Tools .....	18
3.4 System Requirements .....	18
3.4.1 Hardware Requirements .....	18
3.5 Software Requirements .....	18
<b>CHAPTER FOUR.....</b>	<b>19</b>
<b>SYSTEM ANALYSIS AND DESIGN.....</b>	<b>19</b>
4.1 Introduction .....	19
4.2 Requirement Analysis .....	19
4.2.1 Functional Requirements.....	20
4.2.2 Nonfunctional Requirements.....	20
4.3 Architectural Design .....	21
4.3.1 Model – View – Controller(MVC).....	21
4.4 System Analysis .....	24
4.4.1 Context diagram .....	24
4.4.2 Domain Analysis .....	25
4.4.3 Use Case Model .....	27
4.5 System Design.....	28
4.5.1 Class Diagram .....	28
4.5.2 Sequence Diagram.....	29
4.6 Database Design .....	36
<b>CHAPTER FIVE .....</b>	<b>37</b>
<b>SYSTEM IMPLEMENTATION AND TESTING .....</b>	<b>37</b>
5.1 Introduction .....	37
5.4 Testing Regime .....	56
5.4.1 Screen shots of selected tests .....	59
5.5 Conclusion.....	65
5.6 Recommendation.....	65
<b>REFERENCES.....</b>	<b>66</b>
<b>APPENDICES .....</b>	<b>71</b>

Appendix 1: System code.....	71
Appendix 2: Installation Guide .....	86

## **List of figures**

Figure 1 Software process model adopted .....	16
Figure 2 Model View Controller .....	22
Figure 3 Browser model view controller .....	24
Figure 4 Context diagram .....	25
Figure 5 Use case diagram.....	27
Figure 6 Class diagram .....	28
Figure 7 Admin registration.....	29
Figure 8 Admin login.....	30
Figure 9 Add category .....	31
Figure 10 User registration sequence diagram.....	32
Figure 11 User login sequence diagram .....	33
Figure 12 Filing case sequence diagram .....	34
Figure 13 View cases sequence diagram .....	35
Figure 14 Database design .....	36
Figure 15 User registration .....	41
Figure 16 User login .....	42
Figure 17 User homepage .....	43
Figure 18 User view case category wise.....	44
Figure 19 Case details.....	45
Figure 20 User filling a case .....	46

Figure 21 User hiring a lawyer.....	47
Figure 22 Kenyan Constitution 2010.....	48
Figure 23 The court process.....	48
Figure 24 Admin registration.....	49
Figure 25 Admin login.....	50
Figure 26 Admin homepage .....	51
Figure 27 Admin court operations .....	52
Figure 28 Admin case operations .....	53
Figure 29 Admin add case .....	54
Figure 30 View edit and delete case .....	55
Figure 31 User registration test.....	59
Figure 32 User login test.....	60
Figure 33 User case search by court test.....	61
Figure 34 User case search test.....	62
Figure 35 Admin registration test .....	63
Figure 36 Admin login tests.....	64

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background to the study**

The Judiciary is the system of courts of justice in a country, the arm of government charged with the responsibility to administer justice. It is independent from other government functions and provides a forum for the just resolution of disputes in order to preserve the rule of law and to protect the rights and liberties guaranteed by the Constitution of Kenya 2010. The Kenya Judiciary consists of Superior courts made up of the Supreme Court, Court pf Appeals, High Court, Industrial Court, Environment and Land Court. The subordinate courts consist of Magistrate Court, Court Martial and Kadhi Court. The purpose and scope of this project aims at creating an automated digitalized system where a client can file a case and as well be updated on the various case status without physically having to go to the court.

The advancements of the 21<sup>st</sup> century have led to an emergence of many disciplines with great potential to solve existing problems. One such potential field is Technology, which has over the years been increasingly adopted in many processes to avert the problems of ineffective and inefficient service delivery (Chrisphine, 2012). One of the key areas of interest is automation of the judicial processes. Many challenges have been faced in the process of attaining justice including delays due to misplacement of the case files at the registry when reference is ought to be made. As legal practice has become more technologically advanced, pressure mounts on the courts is to join the flow of technological progress in order to provide a good service delivery. In addition, to emphasis on government transparency, to build public trust and confidence in judicial institutions (Slowes, 2012).

Electronic case management systems provide support and automation in case management. In order to support or automate case management, it is necessary to understand the components of case management as a management support. A typical process in court consists: (a) receive documents; (b) administrative preparation; (c) content preparation; (d) court decision-making; (e) content elaboration; (f) administrative completion; (g) send and archive (Rooze, 2010).

## **1.2 Problem Definition**

Currently, the Kenya judicial system stores its file in containers where access and tampering with evidence presented to the court is very high, secondly files stored in a container are more prone to natural hazards like fire and floods finally cases that are registered are printed out and pasted on the notice board to enhance public access. The courts print out the cases that will be held in that particular week and keeps the outdated cases that have already been held in excel on the desktop. Due to this clients need to come back to the court to confirm the day their case will be held and sometimes leads to frustrations.

This project seeks to control and allow complete registration of all cases related to court activities to enhance reduction of time and eliminating manual works. The System delivers core functionality that is to provide meaningful benefits to the courts, such as more efficient data entry, more effective data retrieval, better tools and enhanced bar and public access, thus the public can have access to files anytime and anywhere.

Well developed and implemented “Kenya Courts Files Storage/Access System(KCFSAS)” make it possible for a court to stick more closely to a published standard

schedule and timetable, which the court can track cases better, and controls the use of resources and notify and inform all on what has been decided and what is to be expected.

### **1.3 Description of the current system**

Records management in the Kenyan Judiciary faces several challenges such as backlogs of cases; lost, misfiled or damaged files; delays in registering cases; locating records and filling documentation. The absence of systematic record keeping and controls leaves scope for corruption and collusion between court officials and lawyers.

### **1.4 Proposed solution**

The aim of this project is to develop and implement an Electronic Court Case Management System to control and allow complete registration of all court case which are related to the court by the domain user thus registrar, who can register, update, delete, and search case and create report. The flow of information provides communication and notification between the courts and public.

#### **1.4.1 Justification**

Automated court files storage process will be less time consuming and thus speeding up the processing of serving justice to the court clients. As the system will be digitally accessed many people will be more informed about the court process and their rights especially when in a court of law. Corruption and biased evidence will be done away with. The system will enable client or individuals to get access to a case details anywhere and anytime by going online to visit the webpage, which shows the details of a case such as the sitting date, the suit number, the name

of the judge who will handle the case, the courtroom which the case will be held, the names of both plaintiff and defendant, etc.

### **1.4.2 Objectives**

#### **a) General Objectives**

- To develop friendly user interfaces combined with intuitive layouts.
- Meet the different needs of each case.
- Eliminate unnecessary expenses.
- Provide just and timely resolution.

#### **b) Specific Objectives**

- To implement digitalized case management system for case registration which are related to courts, and creation, modification and updating through user interface.
- The software will allow information to be entered by users, control information in the system and tracking of current case status to enhance public access.
- The system “Event” and “Scheduling” is to determine new case arrivals, session appointments, case deadline, reservation of courtroom and the judge who will head the case.
- To create a database to store, manage and backup case records.
- To create an administrator page that will show statistical analysis.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter explains global, African and Kenya and local perspective in the use of Information Technology (IT) and electronic court case management in the delivery of justice. A reliable and accurate case system is fundamental to the effectiveness of day-to-day court operations and fairness of judicial decisions. The maintenance of case records directly affects the timeliness and integrity of case processing. There is a pressing need for a clear definition of legal framework (Johare ,2007).

Apparently, the web has been a major driving force in almost every sector relating to business, banking, health, education and many others. However, it emerges as a very effective platform where people communicate, transact business, learn or acquire information all over the world. According to the Internet live statistics, as of August 07, 2015 there was an estimated 4, 536, 248, 808 internet users worldwide. The number of internet users represents nearly 46% of the world's population.

The internet has been a contributing factor to the growth of Kenya's economy due to the fact that most Government agencies, companies, businesses, hospital etc. rely on the internet as a medium for running their day to day activities e.g.: transacting business, collecting data etc.

#### **2.2 Case studies of similar systems**

Many countries have embraced information technology use in their court systems. Transparency and effectiveness are emphasized as two positive consequences of the use of

information and communication technologies (ICT) in courts. It has expanded the possibilities of access to information and judicial decisions (Filho, 2009).

Court automation is not a new phenomenon in many national judiciaries, but the scope and level of development varies tremendously even among more advanced industrialized countries. To date, only a few countries have attempted comprehensive integration and automation of court case records, case management, document management, and electronic transmission and receipt of records. Many courts claims some progress, but few have succeeded (Michael and Gary Bockweg ,2012).

### **2.2.1 Russia**

When the internet reached Russia in mid-1990s, Russian judicial chiefs actively embraced the idea of having a solid presence of national judiciary on the web. The judges in Russia believes that, having court web sites would improve public awareness about Russian courts and relieve overloaded court clerks from answering mundane questions about the location of courthouses, judge who will be taking the case, schedule of hearings, and so on (Solomon, pp. Solomon 2003,2004, Trochev, 2006). However, the development of court system in Russia helps individual to access case details online on web to avoid client physically go to court and also need to follow up daily after case filing.

### **2.4.2 Brazil**

Brazilian court system used to be manual in nature; the decisions used to be written as if they is of cases related to mass litigation. For a client to know the contents of the litigation, one had to physically go to court. A daily follow-up of every case was required in order to avoid

surprises such as the missing of deadlines. The process used to be time consuming but since they embraced ICT, all the previous challenges have been eliminated.

The Brazilian system has the following features and uses;

i. **The general public knows what is going on through Technology based web services**

Veronese et al 2006 reports that every court has its web page that provides different services to the general public. Moreover, their autonomy allows every web page to have a design of its own.

ii. **Technology links public bodies and judiciary in public service agreements**

A common database linking together different public services has been developed and reduced the time period initially taken for a decision to be made. Transformational Government calls on the public sector to standardize and share commodity services such as human resources, finance and customer service call centers (Barder, 2006).

iii. **Transformation of the profession**

Technology is definitely changing the practice of law in Brazil (Filho, 2009). The legal profession is changing and is increasingly adopting Technology in its operations. The intermediation provided by a judge's work is thus no longer limited to the building of an accepted decision by the parties, but it has become a very complex task where other functions have been integrated (Filho, 2009). Technology provides new input to its actions as well as enhancing its accessibility and transparency. But as it also reshapes the role of lawyers

(Susskind, 2008), it exposes the existence of a professional digital divide between lawyers and among different Brazilian courts and regions.

### **2.2.3 Australia**

#### **Innovation in Australia**

In Australia there is still work to be done to integrate ICT. Many courts still operate independent systems. Currently, Victorian courts and tribunals use 11 different case management systems. Of particular concern is the fact all Supreme Court filings are required to be in hard copy. For ecourt use, those documents have to be reprocessed manually to be put in electronic format and then resubmitted. Partial case management systems have been implemented in some of the other Victorian courts and tribunals, all varying use and extent. The integrated Courts Management .

System Project currently being undertaken in Victoria (Integrated Courts, n.d) will integrate all existing case management systems into one standard system, delivering case and financial management, e-filing, scheduling and reporting, and online access to lawyers and the public (Martínez, 2008).

### **2.2.4 Venezuela**

The Venezuelan judicial branch is headed by the Supreme Tribunal of Justice and also consists of lower courts, including district courts, municipal courts, and courts of first instance. The State has taken steps towards the modernization of the Justice Administration System in order to improve the quality, efficiency and effectiveness of the management of judicial processes

(Fabri et al., 2001). Conventionally, courts operated with little or no technological support but now all is changing fast. According to Fabri and Contini (2001) the focus of the reform effort includes legal changes, transparency enhancement, organizational efficiency and user access which have a seamless integration of ICT applications. The ICT measures are both directed at the Supreme Court and lower court levels in jurisdictional and administrative areas.

In July 1999, the judiciary implemented a new Organizational Model and an integrated ICT Management System, *Juris 2000* that had a number of specific functions (Fabri et al., 2001). It serve as an aid to case processing by facilitating the production of interactive documents, the automatic integration of information stored in databases, as well as feedback to the databases of new information. It allows for the automatic “capture” of information once it has been entered into the System, thus avoiding the need for multiple or repeat data entries. The system also supports the judicial decision process as it serves as a warehouse of information on legislation, doctrine and jurisprudence, including information produced in other parts of the judiciary (Fabri et al., 2001). The documentary database permits a rapid compilation of documents using various sources and/or information captured from databases. Furthermore, the system has an integrated warning system that alerts judicial administrators about case delay. It also provides information on the current caseload, allowing for a better-rationalized distribution of cases. Information can also be sent between judicial offices and institutions. Finally, the System can produce statistical or other reports in a variety of formats. It is also designed to accommodate future information needs. Salient technical features of the *Juris 2000* are its: (i) integrated capability where every office of judicial support has its own IT module within the single entity of the system; (ii) adaptability

whereby the system can be used for a single court or a group of courts, and is adjustable to legislative reforms without need for system changes; (iii) visual interface and user friendly screen operation that allows staff with little or no training run the system; (iv) consistency in ensuring homogeneity in judicial procedures, within and across the courts; (v) self-sufficiency as information can be entered directly and immediately into the System, without need for further steps (fabri et al., 2001)

## **2.2.5 Kenya**

Kenyan judiciary has embarked on a modernization program aimed at improving the service delivery to the general public. Kenyans are hoping for first-class service and technology will accelerate that, as well as improve efficiency in the judiciary, the attorney general's chambers and the National Council for Law Reporting (Wanjiku, 2008). ICT is expected to reduce the incidences of corruption in the judiciary that had been highly prevalent before the famed judicial purge of 2003, spearheaded by justice Ringera (Sitienei, 2010). According to Gallup poll, (2009), public confidence in the judicial system and in the moral authority and integrity of the judiciary is of the utmost importance in a modern democratic society. At present, the Kenyan judicial system faces a number of significant challenges that affect the efficiency and effectiveness of the administration of justice. These include: large backlog of cases, lack of sufficient and sustainable funding, shortage of judges and magistrates and lack of effective case management (International Bar Association [IBA], 2010). All these have greatly contributed to the loss of public confidence in the judiciary.

The use of Information, Communication and Technology (ICT) is considered as one of the key elements to significantly improve administration of justice. This has been evident in countries

like Brazil, Australia, Mexico and Venezuela. The rapid development of technology opens up new opportunities that were unthinkable only a decade ago (Velicogna, 2007). The influence of ICT in any judiciary however, needs to be measured and evaluated accordingly. This is to avoid white elephant projects, as automation is a great consumer of resources.

Success can be measured in many ways: the degree of adoption by courts, legal community, and the public; the volume and extent of usage both transmitting documents to and from the courts; the reliability, validity and dependability of the service; the efficiency and effectiveness of the service and productivity of staff; and improvements in the overall quality of justice.

### **2.3 The research gap to be addressed by the proposed system**

Judicial service delivery is viewed from both the eyes of its employees as well as the perception of the public. Efficiency in service delivery in Kenya is crucial towards the realization of the transformed judiciary. Several factors influence service delivery in the Kenya judiciary. Among them: cost of ICT, employee job satisfaction, and security of court data.

#### **2.3.1 Cost of digitalized court management system**

The two positive consequences of the use of information and communication technologies (ICT) are emphasized on transparency and effectiveness. Technology has enhanced and expanded the possibilities to access information and judicial decisions. The implementation of ICT in the judiciary has enable the judiciary to carry out its judicial functions in a timely and efficient ways.

The use of ICT in judiciary helps to identify the long-term goal of reducing repetitive tasks and the duplication of efforts. It also save resources in the sense that there will be no need for judicial service to employ workers to gather all case files at archives and put them in an

electronic format for future use and reference. For instance, as the court has an automated system of recording case information, a clerk enters certain data into the computer system let say the details of the parties to the case. This entry of data into the computer system enables storage, retrieval and reuse of the information for many purposes. The tracking of the case information, generating reports and the compilation become easier inorder to save resources, not hiring an external contractors to get things done.

Provides enhanced case statistics, evaluation and monitoring. For instance a reports generated by a case information system can tell the most frequent crimes and even connect the people who are involved but not yet caught. The judiciary is able to conduct sophisticated case monitoring, compilation of reports and statistical analysis. The judges use this analysis to improve their performance and address their lapses (Dubgyur, 1999)

### **2.3.2 Employee job satisfaction using digitalized court management system**

Using new technologies such as Case Management System, a Court Records Management System (CRMS) and Digital Audio Recording (DAR) and the Internet can give companies, organizations or government entities an edge. (Shollei, 2012) . New technologies can result in employees “working smarter” as well as providing high-quality products and more efficient services to customers. For job satisfaction employees need to know what is expected of them and receive timely, regular feedback on how they are doing. At all levels of an organization, employees want to be kept informed and recognized for their accomplishments. For employees to be satisfied, they need to know that the work they do is important and their tasks contribute meaningfully to the common purpose. They are also motivated to do well if they are given the appropriate freedom and authority to carry out their work in the best way possible. Employees

become more satisfied when they supported and encouraged to grow and develop their abilities on the job (Brian et al., 2005)

Companies that have realized the greatest gains from new technology have human resource management practices that support the use of technology to create what is known as high performance work systems. Work, training, programs and reward systems often need to be reconfigured to support employees' use of new technology (Noe et al, 2006).

### **2.3.3 Security of court data in digitalized court management system**

Court data security is very crucial since data entering the system influences the integrity of the process of determining a dispute. Implementation of such systems ensures that users of the system are assigned specific rights of accessing it. (Murungi, 2011). The system is designed which limit user to register new case and update the status of that particular case which falls in the divisions He/she is working. An executive officer on the other hand can be able to view more cases from all the divisions of the high court and also generate daily, weekly, monthly or even annual reports. The system also tracks the details of all completed tasks by case and user so at any time you can audit the workflow history of the case. This means that any manipulation of the data can be.

### **2.3.4 Fraud/Corruption**

Fraud and corruption are a great impediment to the administration of justice in any jurisdiction. Public sector bribery, fraud, and corruption have become leading concerns for legislators around the globe, as the diversion of public funds undermines parliamentary control of the public purse (Dye, 2007) In Kenya, based on a report that was a culmination of investigations carried out by the Integrity and Anti-Corruption Committee of the Judiciary formed after the

2002 General Elections to: Investigate and report on the magnitude of corruption in the judiciary, Identify the nature, forms and causes of corruption, Find out the level of bribery in monetary terms, Report the impact of corruption on the performance of the judiciary, Identify corrupt members of the Judiciary and recommend disciplinary or other measures against them, Recommend strategies for the detection and prevention of corruption in the judiciary; and Address other related matters. The Committee held in-camera hearings all over Kenya, received hundreds of written memoranda and representations and submissions from 952 persons (Sitienei, 2010).

They found out that out of 3,234 officers as at 30th August 2003, consisting of 11 Judges of Appeal, 44 Judges of the High Court, 254 Magistrates, 15 Kadhis (Judges of the Islamic Courts) and 2,910 paralegals, 152 judicial officers were implicated in corruption. Out of the 152 judicial officers implicated, 5 Court of Appeal Judges (56%), 18 High Court Judges (50%), 82 Magistrates

(32%) and 43 paralegals (1.5%) were implicated in judicial corruption, misbehavior or want of ethics (Sitienei, 2010).

Among the recommendations that the committee put across to curb corruption and fraud was automation of court proceedings and registries, expansion of courthouses and increasing number of judicial officers (Sitienei, 2010). Thus, the implementation of the Eldoret Court station Case Management system in 2010 January cannot be gainsaid.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Introduction**

This chapter presents the methodology used to develop Kenya Court Files Storage/Access system.

#### **3.2 Software Process Model Adopted**

The nature of the project recommended agile model of System Development Life Cycle (SDLC).The agile model process starts with a simple implementation of a subset of the software requirements and iteratively enhances the evolving versions until the full system is implemented.

The agile methodology gives the need to develop a system based on the requirements of the users, and enable to add up various units of the system pertaining the various feedbacks received from the users. At each iteration and increment, design modifications are made and new functional capabilities are added. And the phases includes; Identifying Problems, Opportunities and Objectives, Determine Human Information Requirement, Analyzing System Needs, Designing the Recommended System, Developing and Documenting Software, Testing and Maintenance of the system.

Observation at the Kenya Court Systems showed that the Court had traditional ways with managing administration tasks, such as case registrations, viewing the case list (Cause list) to the public and scheduling of cases. The courts sometimes struggle with tracking cases since their system is a desktop based system. This problem presented itself as an opportunity that can be built upon. The public sometimes complains they had to come far away from their

destination to check when a case will be held and the courtroom. People visiting the first time get frustrated since he/she will pass through many processes sometime wait for long to know the time a case will be held.

Obtaining this information a system will be designed that will meet the requirement of all the users both the Domain users and the public. In the design phase, every user interface will be designed for each section of the web application. Each user interface will be designed based on the principles of the User Experience (UX).

### The Agile Software Development Lifecycle Model

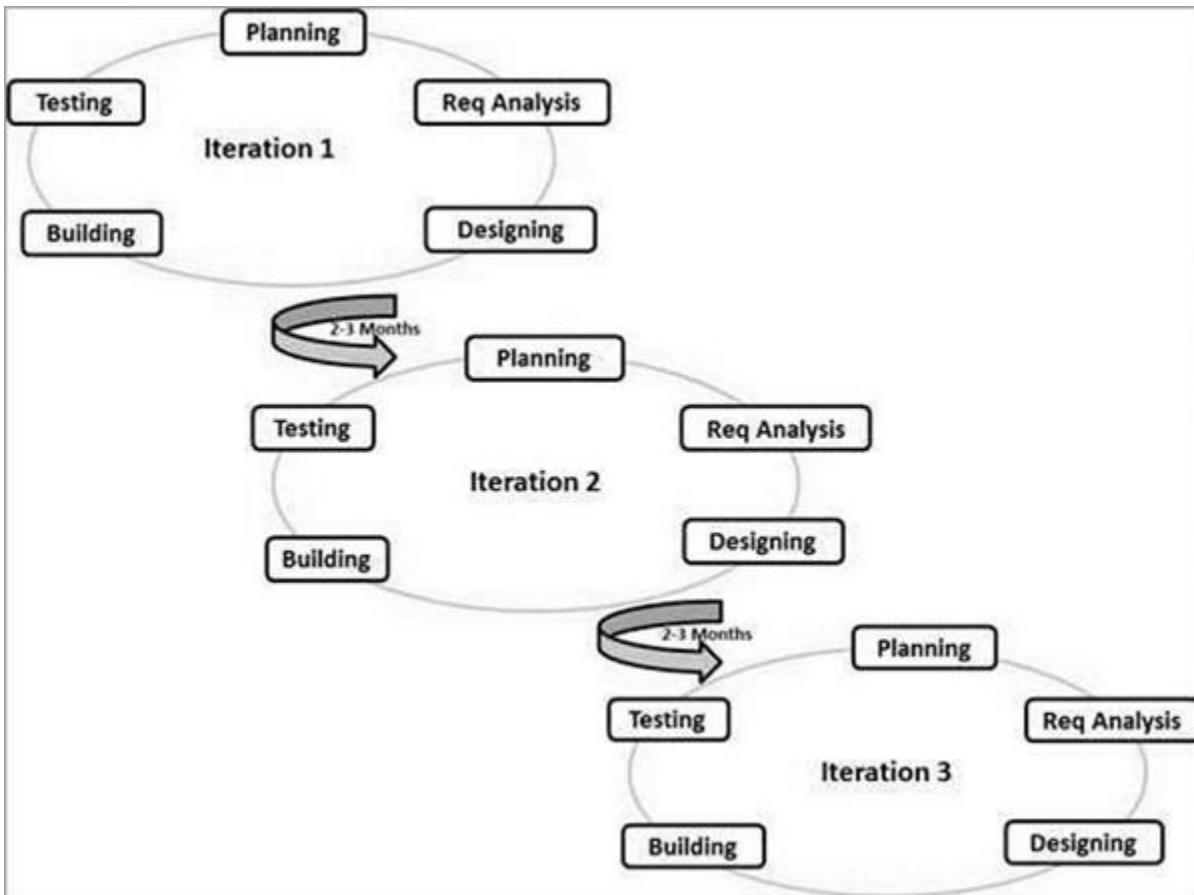


Figure 1 Software process model adopted

Source([https://www.tutorialspoint.com/sdlc/sdlc\\_agile\\_model.htm](https://www.tutorialspoint.com/sdlc/sdlc_agile_model.htm))

### **3.2.1 Strengths**

- Is a very realistic approach to software development.
- Promotes teamwork and cross training.
- Functionality can be developed rapidly and demonstrated.
- Resource requirements are minimum.
- Suitable for fixed or changing requirements
- Delivers early partial working solutions.
- Good model for environments that change steadily.
- Minimal rules, documentation easily employed.
- Enables concurrent development and delivery within an overall planned context.
- Little or no planning required.
- Easy to manage.
- Gives flexibility to developers.

### **3.2.2 Weaknesses**

- More risk of sustainability, maintainability and extensibility.
- An overall plan, an agile leader and agile PM practice is a must without which it will not work.
- Depends heavily on customer interaction, so if customer is not clear, team can be driven in the wrong direction.

### **3.3 Requirement Gathering Tools**

- i. General observation of the court's file storage and retrieval of case files in Kenya Judicial System.

### **3.4 System Requirements**

#### **3.4.1 Hardware Requirements**

- a) Processing speed of 1.2 GHZ and above.
- b) RAM of 1GB and above.
- c) HDD of 30GB and above.
- d) Operating system: Linux, Windows operating system from windows 7 and above.

### **3.5 Software Requirements**

This project is build based on PHP, which is a very popular language. Most modern web hosts support PHP and MySQL, and while languages like Python on Django are gaining popularity, at the moment hosting for them is not as common. Generally the following software requirements need to be pre-installed before getting started with Kenya Courts File Storage/Access System:

- **XAMMP:** stands for Cross-Platform (X), Apache (A), MariaDB (M), PHP (P) and Perl (P). It is a lightweight Apache distribution that makes it extremely easy for developers to create a local sever for testing and deployment purposes. It includes server application (Apache), database (MariaDB), and server scripting language (PHP).
- **MariaDB Server:** is a database server. MariaDB is used because is fast, scalable and robust, with rich ecosystem of storage engines, and plugins which can be connected to other database server. It's serves as a backup server in this project.
- **MySQL:** is a relational database management system (RDBMS). MySQL was used

because of its consistent fast performance, high reliability and ease of use.

- **PHPSTORM:** is a platform IDE for PHP. It provides a great editor for PHP, HTML and JavaScript and also provides codes analysis, error prevention and automated restructuring for PHP and JavaScript.
- **SUBLIME:** It is also a text editor for PHP, HTML, JavaScript, Pearl, Java etc.
- **BROWSERS:** is a computer program with a graphical user interface for displaying HTML and PHP files. The following browser Google Chrome, Mozilla Firefox, Opera, Safari and explorer were used to test the server GUI and web application.

## **CHAPTER FOUR**

### **SYSTEM ANALYSIS AND DESIGN**

#### **4.1 Introduction**

This chapter tackles the approaches that were used to achieve the objective of the project. It also demonstrates mainly the techniques to be used to capture user requirements and specification.

#### **4.2 Requirement Analysis**

A requirement is a formal definition for the functionality of a system. It contains conditions about the performance and functionality of the entire system. The functionality can be classified into two main groups;

- Functional Requirement
- Nonfunctional Requirement

#### **4.2.1 Functional Requirements**

The functional requirement describe how the system will work in terms of its inputs, the behavior, and outputs. The functional requirements of the system for users are:

- ❖ **Login Module:** This shall be developed to have a centralized rights and authentication facility to ensure only authorized users have access to the system providing a security standard to protect vital information.
- ❖ **Adding and Removing Cases:** This will provide the registrar the authority to add new cases and to terminate cases if they pass away.
- ❖ **A Database Facility:** This shall be developed to store, record, information about users, (date, suit number, plaintiff, defendant, judge etc.)
- ❖ **Edit or Update Module:** This shall be developed to ensure easy corrections of mistakes. Only registrar can access this feature.
- ❖ **Reporting Facility:** At the end of every day's activities a report will be printed out. So as to keep track of events.
- ❖ **Backup:** This shall be develop to backup data periodically.

#### **4.2.2 Nonfunctional Requirements**

Non-functional requirement describe how a system should behave and what limits there are on its functionality.

- ❖ **Performance:** The system shall allow several case registration at the same time without downgrading performance.

- ❖ **Availability:** The system shall be available to all court and can be access anywhere.
- ❖ **Usability:** The system shall be easy to learn and use by all users including registrar and clients.
- ❖ **Reliability:** The system have low system failure occurrence and low risk. And will not take much time to resolve it.
- ❖ **Accuracy:** The system shall work accurately without high failure or error.
- ❖ **Security:** each user is required to login. The system shall allow people with assigned user names and passwords. The system shall be designed to make it impossible for unauthorized people to login without valid usernames or password.

### **4.3 Architectural Design**

This project focuses on the plaintiff and defendant who are involved in the case, the date which the case will be held, the judge who will be taking the case and the court which the case will be held.

There are a number of design and architectural patterns that were designed to help provide some general, good practices and solutions to common problems within software design but in the case of KCFSAS, it is developed under Model-View-Controller design pattern (MVC)

#### **4.3.1 Model – View – Controller(MVC)**

The **Model-View-Controller (MVC)** framework is an architectural pattern that separates an application into three main logical components Model, View, and Controller. Hence the abbreviation MVC. Each architecture component is built to handle specific development aspect of

an application. MVC separates the business logic and presentation layer from each other. It was traditionally used for desktop graphical user interfaces (GUIs). Nowadays, MVC architecture has become popular for designing web applications as well as mobile apps.

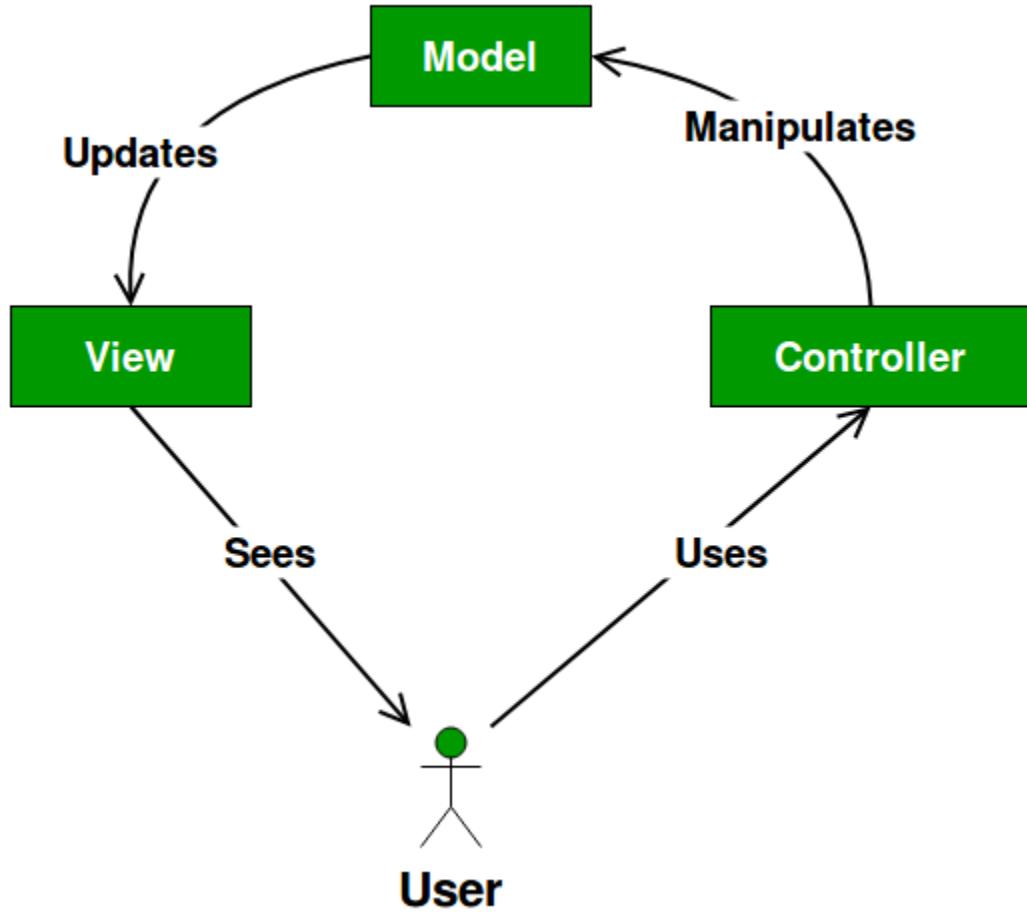


Figure 2 Model View Controller

Because the project is created for use with websites and web applications, the MVC pattern representation is further extended to reflect implementation in the project.

Three important MVC components are:

- Model: It includes all the data and its related logic .

- View: Present data to the user or handles user interaction.
- Controller: An interface between Model and View components.

## **View**

A View is that part of the application that represents the presentation of data. Views are created by the data collected from the model data. A view requests the model to give information so that it represents the output presentation to the user. The view also represents the data from chats, diagrams, and table. For example, any customer view will include all the UI components like text boxes, drop downs, etc.

## **Controller**

The Controller is that part of the application that handles the user interaction. The controller interprets the mouse and keyboard inputs from the user, informing model and the view to change as appropriate. A Controller send's commands to the model to update its state(E.g., Saving a specific document). The controller also sends commands to its associated view to change the view's presentation (For example scrolling a particular document).

## **Model**

The model component stores data and its related logic. It represents data that is being transferred between controller components or any other related business logic. For example, a Controller object will retrieve the customer info from the database. It manipulates data and send back to the database or use it to render the same data. It responds to the request from the views and also

responds to instructions from the controller to update itself. It is also the lowest level of the pattern which is responsible for maintaining data.

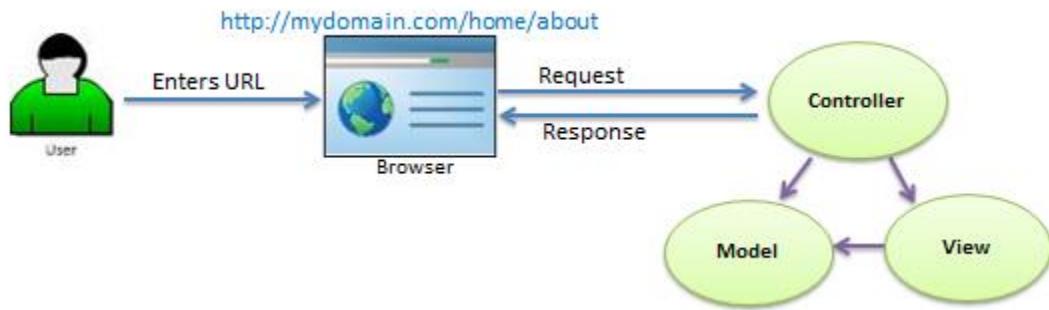
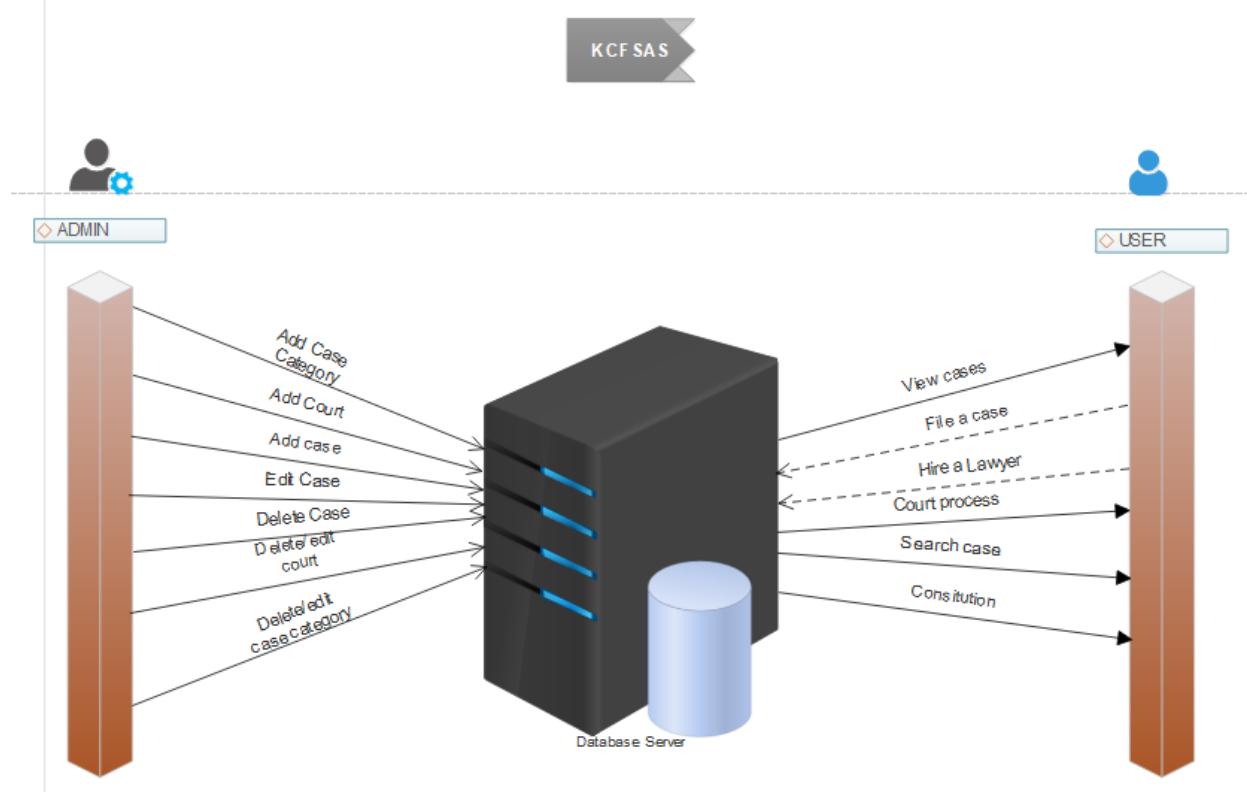


Figure 3 Browser model view controller

## 4.4 System Analysis

### 4.4.1 Context diagram



*Figure 4 Context diagram*

#### **4.4.2 Domain Analysis**

Domain analysis is the process where information used to developing software is identified, structured and organized for further reuse. After looking at some popular Court Systems, KCFAS obviously needs some key features. It needs the ability for users to browse cases, within different courts and different categories. Visitors to the site obviously need to be able to view cases, which lead to the need of cases viewing page where every taped case can be easily be viewed and other related cases with a return to the main page option available. Furthermore one case hire a lawyer, view hired lawyers, have a view on the Kenyan constitution and the court process .KCFAS is built upon these core features.

#### **Overview of Databases**

The application that will be developed has aspects of managing and storing data of the cases which are brought to the court, there is a need to deploy a database that will be of immense benefit, to store their records. Database technology has a major impact on the growing use of computer. A database is a collection of related data organized in a way that the stored data can be easily accessed, managed and updated.

For example, the storage of case records such as date, suit number, plaintiff, defendant, name of court, name of judge who holds case etc. on the application. A Database Management System (DBMS) is a software that allows creation, definition and manipulation of database. The DBMS has a number of advantages as compared to traditional computer file processing approach. The database administrator must keep in mind the benefits or capabilities of DBMS during designing databases, coordinating and monitoring the DBMS. Some of these benefits are as follows:

- **Controlling Data Redundancy:** In the traditional way of managing records, books were used to store record changes and updates of cases. This may cause the duplication of copies of the same data but in the proposed system all the data will be integrated into a single database. The data is recorded at only one place in the database and it is not duplicated.
- **Data Consistency:** By controlling the data redundancy, the data consistency is obtained. If a data item appears only once, any update to its value will be done only once and that updated value will be available to authorized users
- **Data Sharing:** In DBMS, data can be shared by authorized users of the clinic. The database administrator manages the data and gives rights to users to access the data. Many users can be authorized to access the same set of information simultaneously. The remote users can also share same data. Similarly, the data of same database can be shared between different application programs.

## User

The system will be used for case registration and data processing (data storage and data retrieval) it involves creation, modification and updating information through user interface. The user will be required credentials that is needed to control the access of the application in terms of security.

## Public access

The KCFAS will show new case arrivals, session appointments, case date of start, Reservation of courtrooms and the judge who will take the case, which the public can view the details on the web and search for a case.

#### 4.4.3 Use Case Model

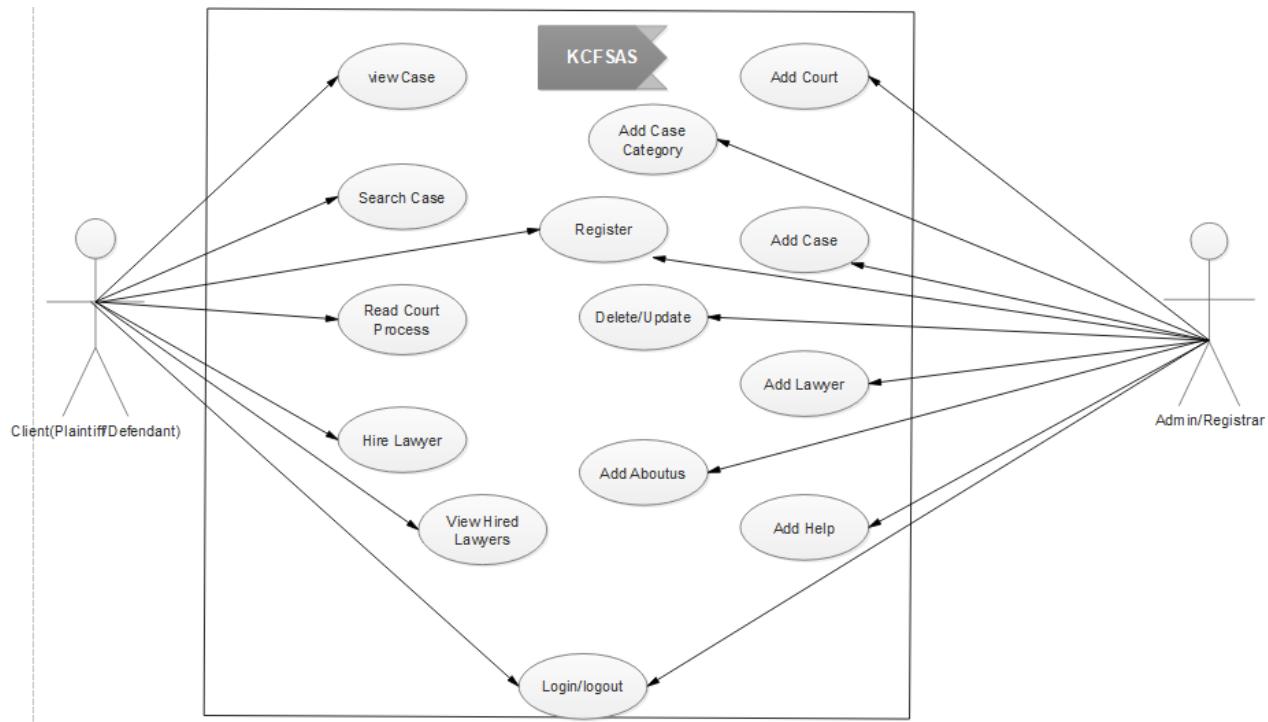


Figure 5 Use case diagram

## 4.5 System Design

### 4.5.1 Class Diagram

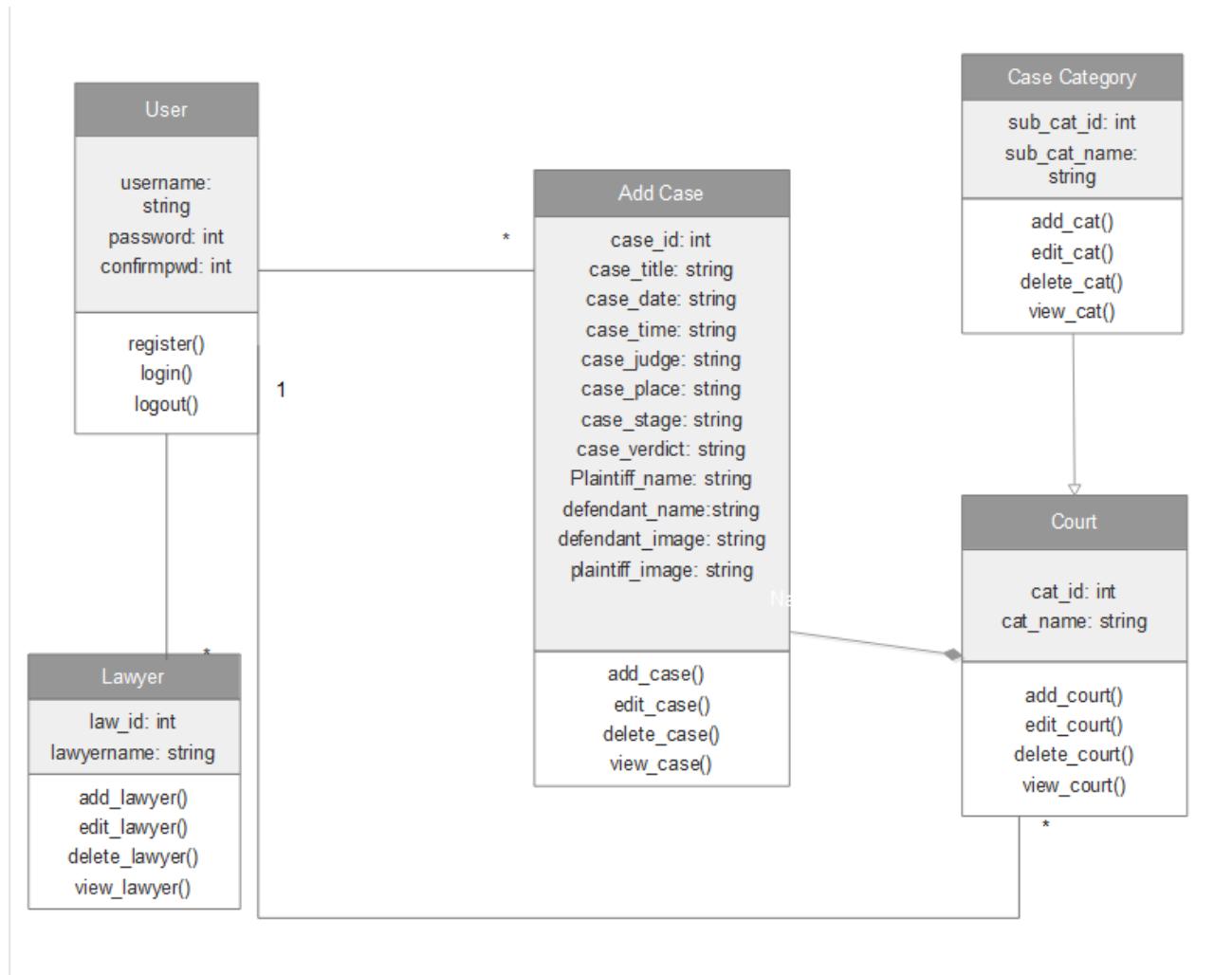


Figure 6 Class diagram

## 4.5.2 Sequence Diagram

### Admin Register

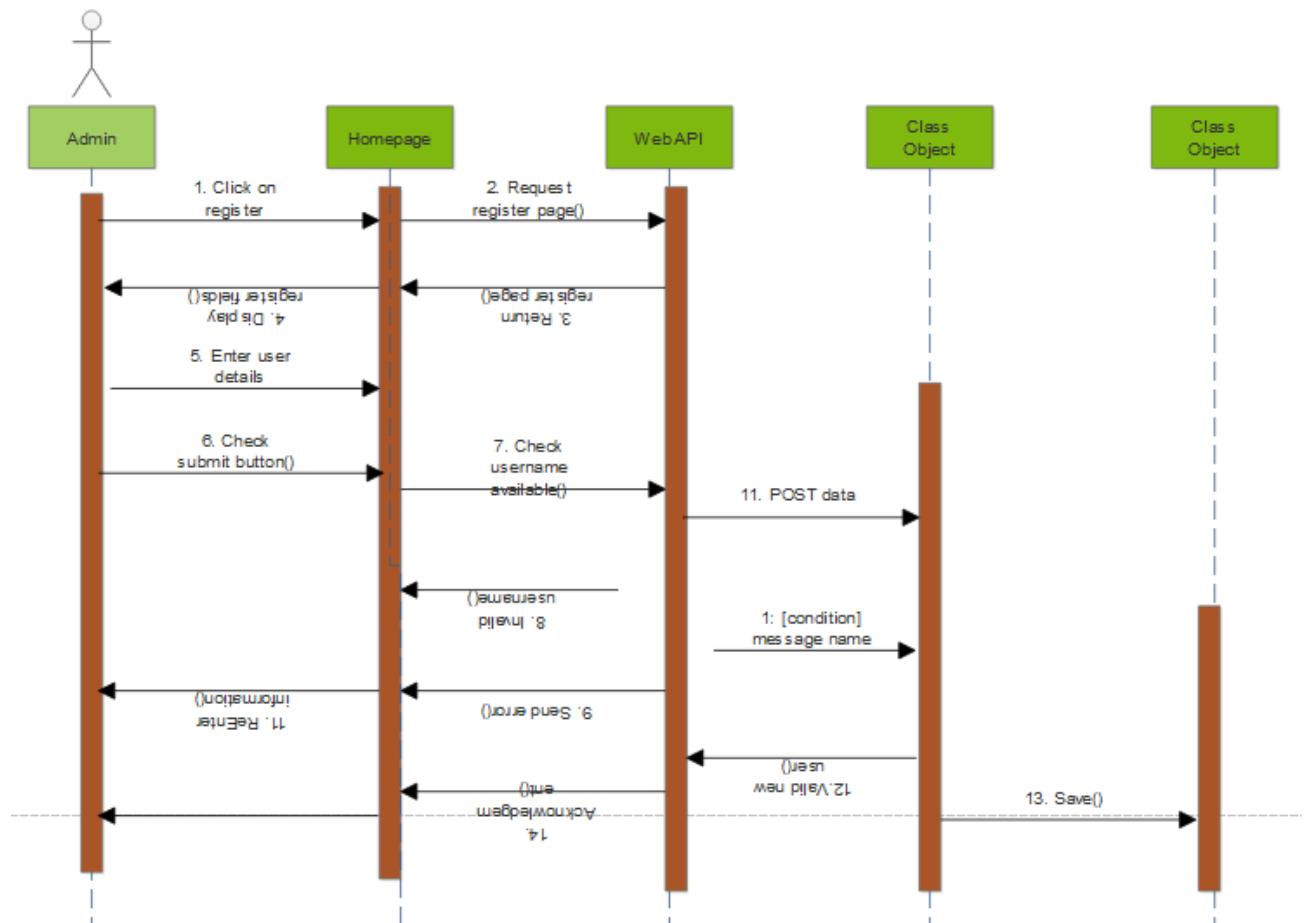


Figure 7 Admin registration

## Admin Login

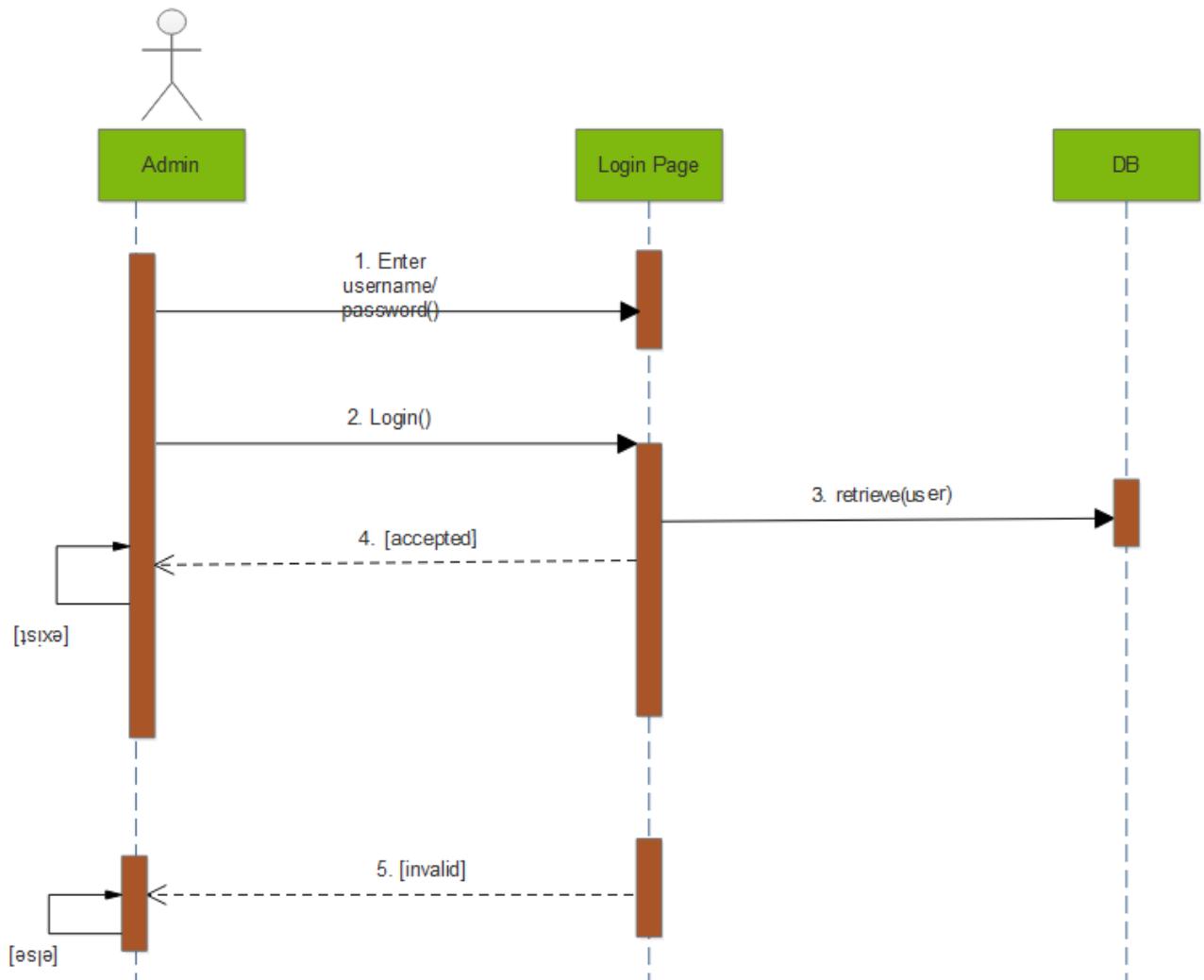


Figure 8 Admin login

## Admin Add Category Sequence Diagram

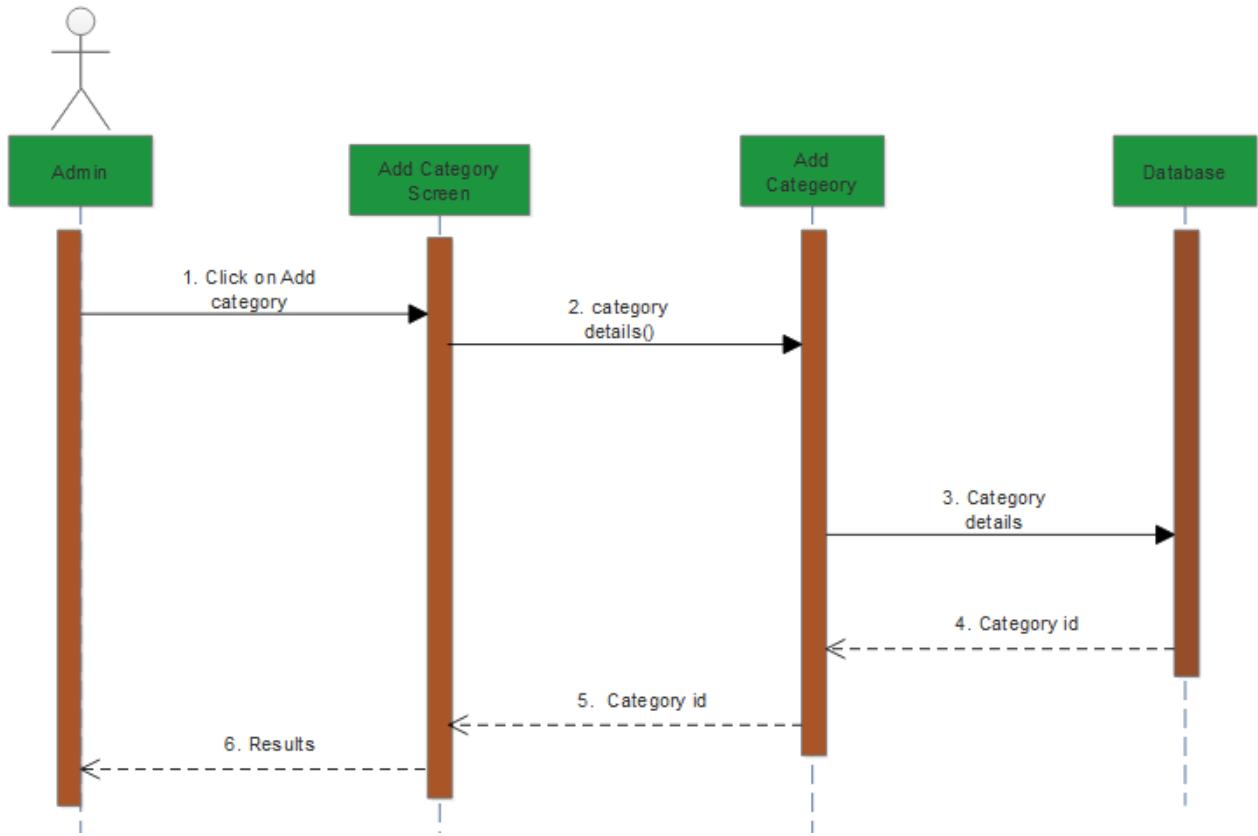


Figure 9 Add category

## User Register Sequence Diagram

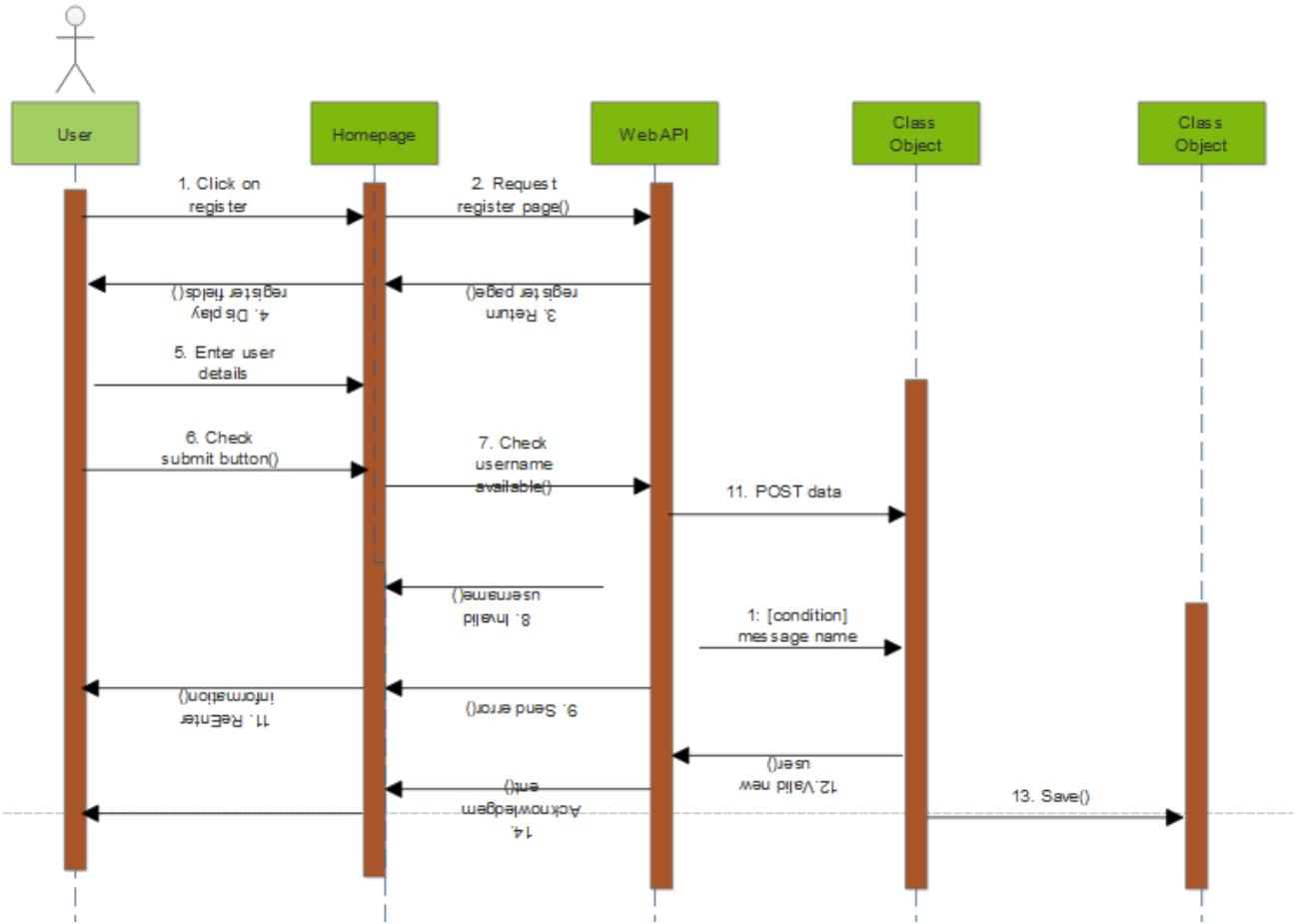


Figure 10 User registration sequence diagram

## User Login

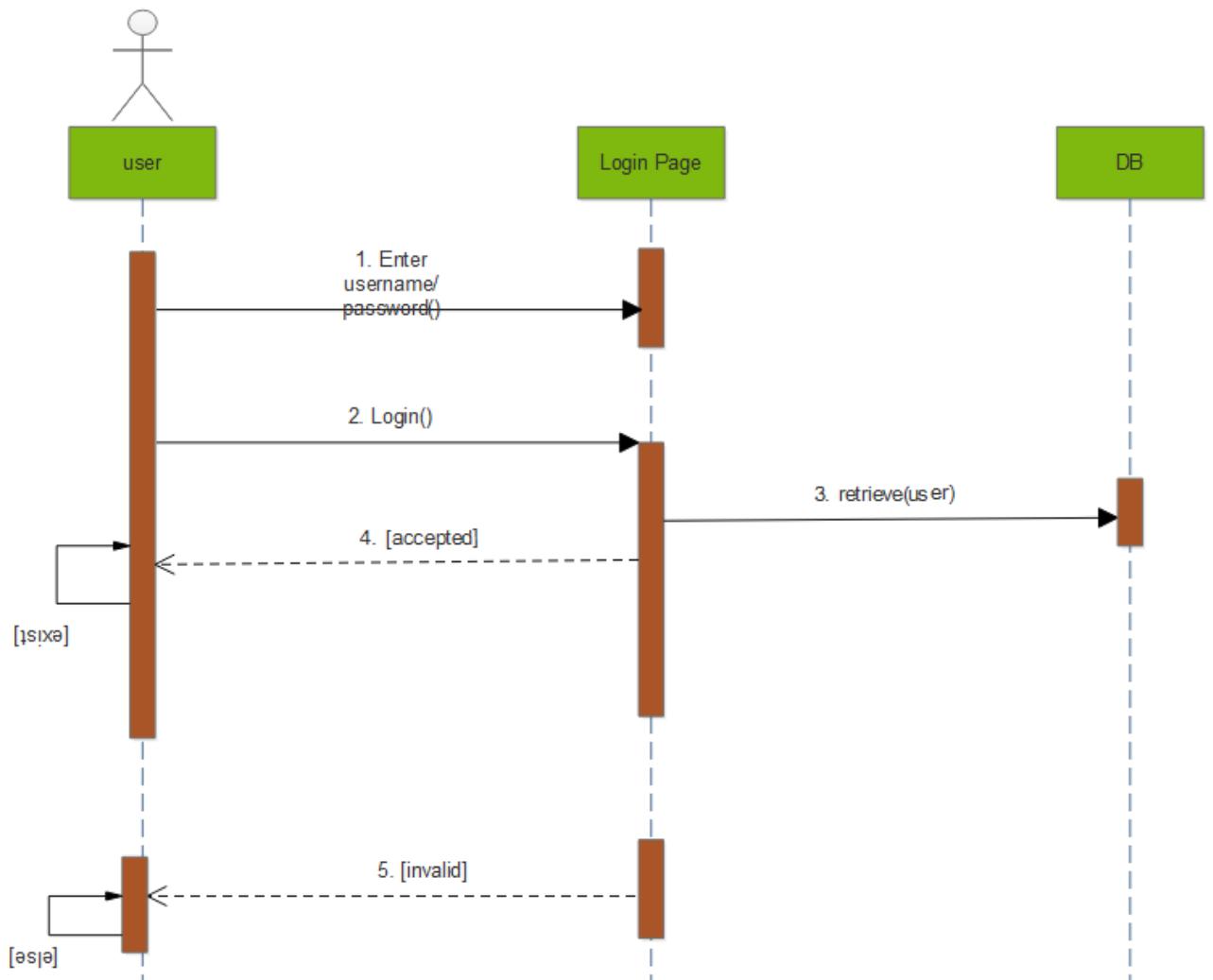


Figure 11 User login sequence diagram

## User File Case Sequence Diagram

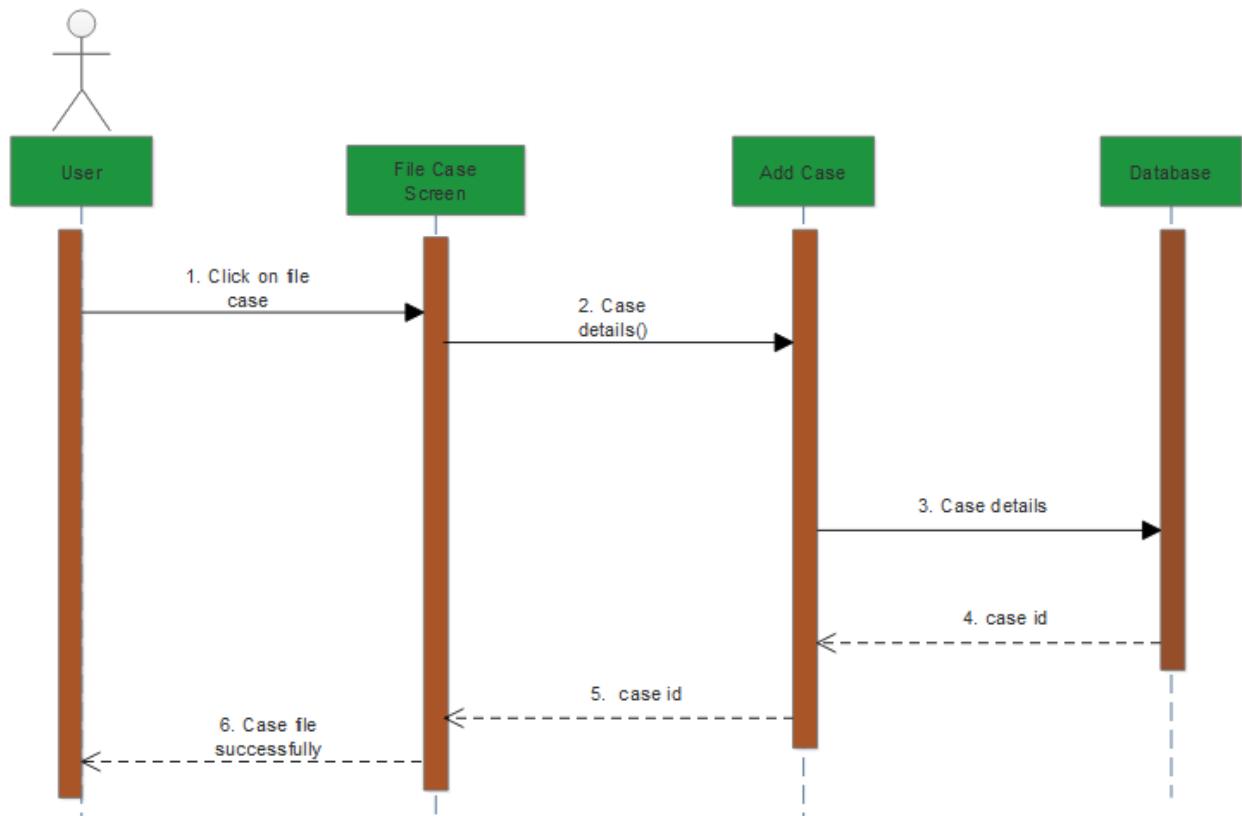


Figure 12 Filing case sequence diagram

## User view Case(s) Sequence Diagram

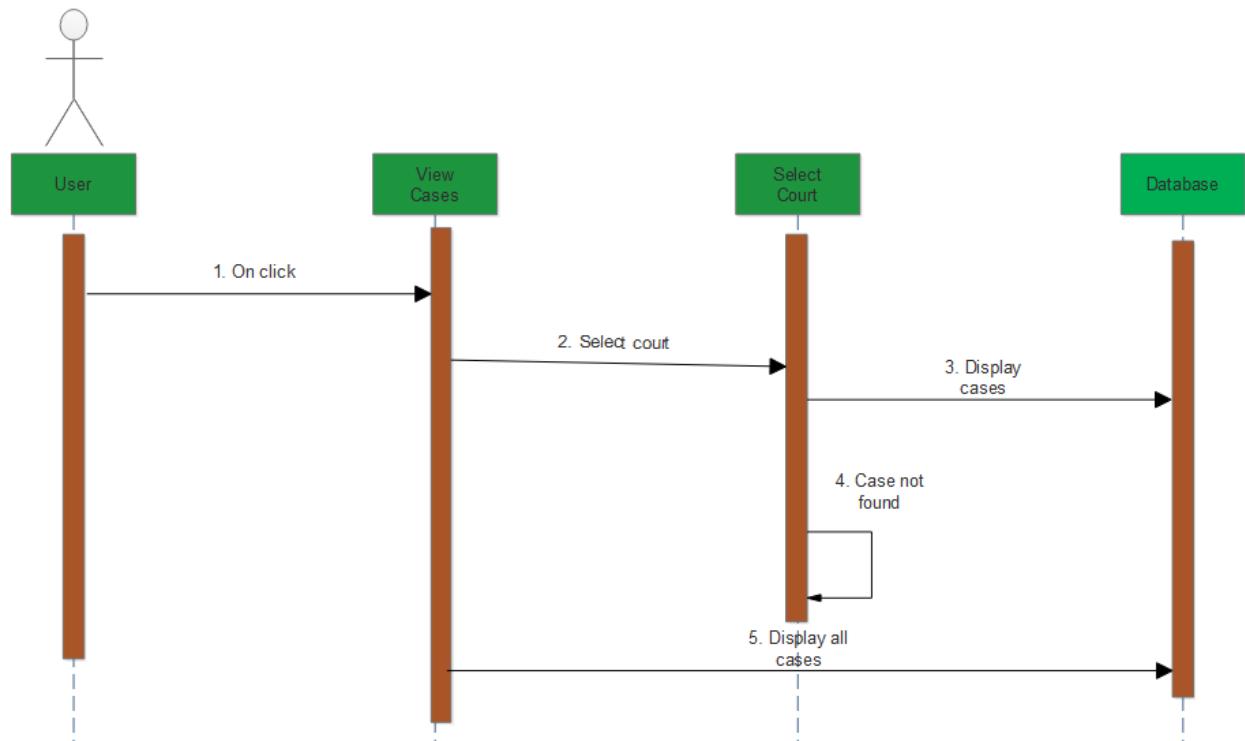


Figure 13 View cases sequence diagram

## 4.6 Database Design

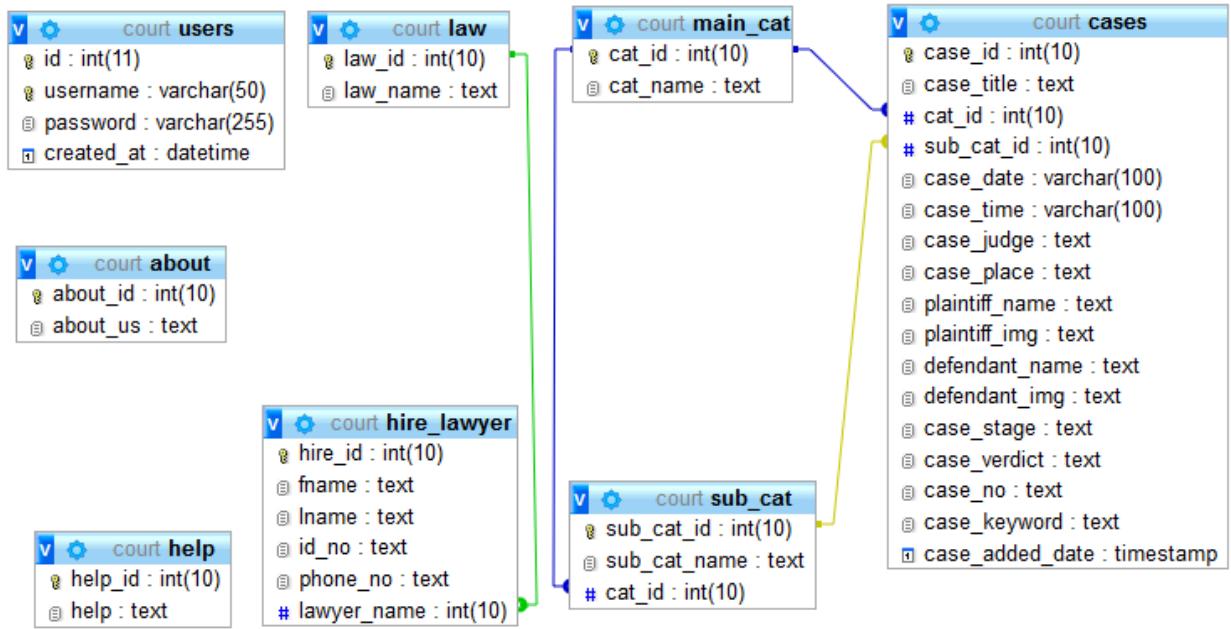


Figure 14 Database design

# CHAPTER FIVE

## SYSTEM IMPLEMENTATION AND TESTING

### **5.1 Introduction**

This chapter focuses on the implementation of the developed web court case system which shows the case list to the clients thus the date the case will be held, the plaintiff and defendant, the Judge who the case is assigned to and the courtroom the case will take place on the web. At this stage (System Implementation), major components of the web based application would be tested to know each unit functions and the emerging of the total system functionality.

The development tools are programs which were used in combination with other tools to accomplish this project. This tools helps in the creation, debugging, testing and maintenance of the program. The following tools are used in the development of the project;

- **XAMMP:** Stands for Cross-Platform (X), Apache (A), MariaDB (M), PHP (P) and Perl(P). It is a lightweight Apache distribution that makes it extremely easy for developers to create a local sever for testing and deployment purposes. It includes server application (Apache), database (MariaDB), and server scripting language (PHP).
- **MariaDB Server:** Is a database server. MariaDB is used because is fast, scalable and robust, with rich ecosystem of storage engines, and plugins which can be connected to other database server. It's serves as a backup server in this project.
- **MySQL:** Is a relational database management system (RDBMS). MySQL was used because of its consistent fast performance, high reliability and ease of use.
- **MySQL Workbench:** Is visual tools for creating, executing, and optimizing SQL queries. The SQL Editor provides color syntax highlighting, auto-complete, reuse of SQL snippets, and

execution history of SQL. The Database Connections Panel enables developers to easily manage standard database connections to database server and web server.

- **PHP:** Means Hypertext Preprocessor, is a web server scripting language which are executed on the server and the result is returned to the browser as a plain HTML. PHP is a backend program which handles data between the server and the web application such as insertion, deletion, data manipulation etc.
- **PHPSTORM:** Is a platform IDE for PHP. It provides a great editor for PHP, HTML and JavaScript and also provides codes analysis, error prevention and automated restructuring for PHP and JavaScript.
- **SUBLIME:** It is also a text editor for PHP, HTML, JavaScript, Pearl, Java etc.
- **HTML & CSS:** Stands for Hyper Text Mark-up Language (HTML5), it's the language used in creating the webpages and its contents with the help of Cascading Style Sheets (CSS3). CSS is a language for describing the presentation of the webpages, including colors, layout, and fonts.
- **BROWSERS:** Is a computer program with a graphical user interface for displaying HTML and PHP files. The following browser Google Chrome, Mozilla Firefox, Opera, Safari and explorer were used to test the server GUI and web application.

## 5.2 Summary of the modules

### Login pages

The login page is the page where users enter their credentials for the system to authenticate and ensure only authorized users to access the system providing a security standard to protect

vital information. The system has two login pages one for the User and the other for the court Admin, they are the users of the system.

### **Admin home page**

After a successful login by the Admin the home page of the application shows up, where the Admin clicks on the button labelled Click here to proceed. From there the Admin can have access to view case, register case, updates case, delete case etc.

### **User home page**

After a user is successfully login into the system he/she is provided with a display screen where on can search for a case, view case according to a given court , file a case and hire a lawyer.

#### **View cases**

The application also has a feature that makes it possible for Admin to view the cases which enable them to search, update and delete a case after registering a case.

#### **Search for a case by the Admin and the User**

It gives the Admin and the user the ease of looking for a case in the system. Since the database has stored the record of cases. It makes their work easier and faster than going through the whole list of registered cases, since they get the results displayed immediately.

#### **The update function**

This function enable the Admin to update a case after registering a case. Some of the things that can lead to updating a case are wrong sitting, suit number, the name of the plaintiff and defendant, nature of the case and also the stage of the case.

## **Delete a case**

The application enables Admin to delete a case. Some cases are deleted when they have already been held and given verdict or when it has been postponed or other dispute resolution mechanisms were used. Before a registrar delete a case, he's being prompt whether he's sure he wants to delete that particular case.

## **File a case**

This module is used by the User of the system after successfully being granted access to the system through the login module. The user then proceeds to files a case that is later updated by the Admin.

## **Hire a lawyer**

The user can hire a lawyer by providing his or her personal details like first name last name, ID number, phone number and finally selecting the lawyer he or she wishes from the available list of lawyers provided.

### 5.3 Summary of how the system works(screenshots)

#### User registration

The image shows a user registration form titled "Sign Up" for the "Kenya Courts Files Access System". The form is set against a dark background with a wooden texture. It includes fields for "Username", "Password", and "Confirm Password", each with an associated input field. A "Submit" button is located below the password fields. At the bottom left, there is a link "Already have an account? [Login here.](#)". The top of the page features a header with the system's name and a descriptive subtitle: "WELCOME TO KENYA COURTS FILES ACCESS SYSTEM" and "THIS IS THE SYSTEM THAT CONTAINS ALL THE INFORMATION PERTAINING ACCESS TO JUSTICE IN KENYA". The footer contains a copyright notice: "Copyright 2020 © ™ Peter Maina Njuguna Bsc ICT Laikipia University".

Figure 15 User registration

## User Login

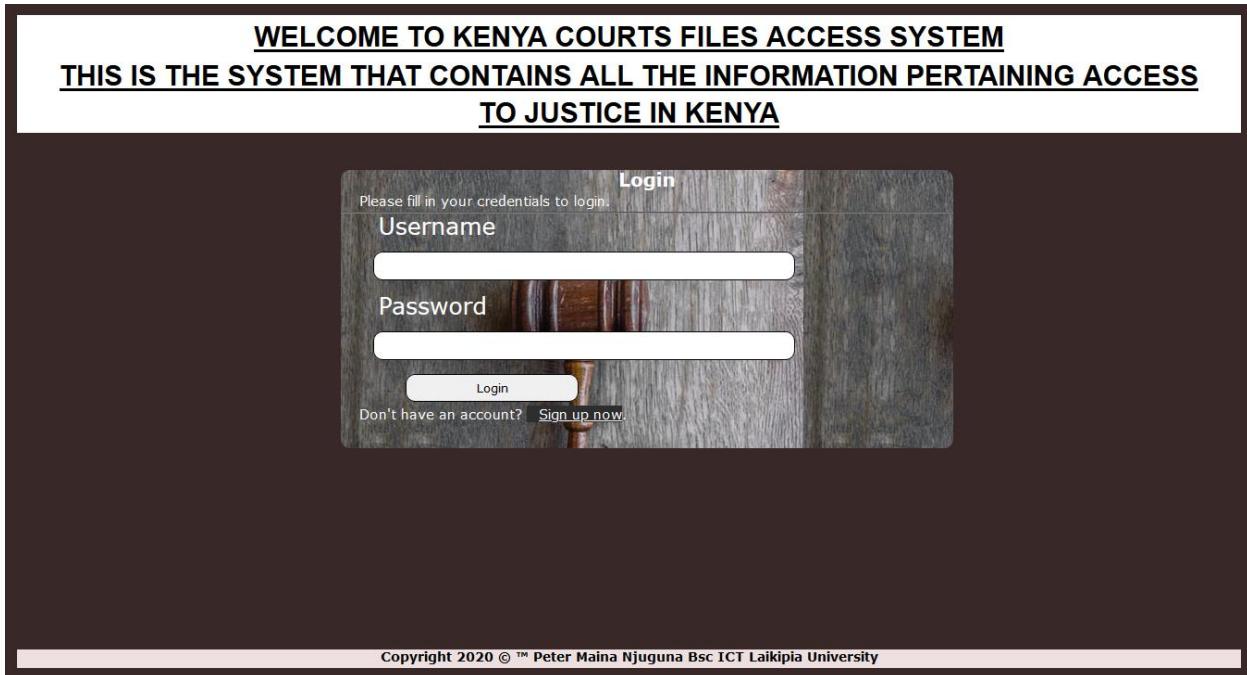


Figure 16 User login

## User homepage



Figure 17 User homepage

## View case by a specific court

**WELCOME TO KENYA COURTS FILES ACCESS SYSTEM**  
**THIS IS THE SYSTEM THAT CONTAINS ALL THE INFORMATION PERTAINING ACCESS**  
**TO JUSTICE IN KENYA**

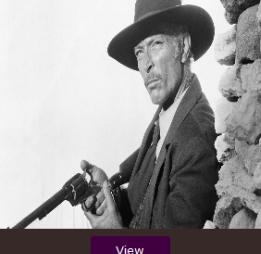


Search Hi, Duda [Sign Out of Your Account](#) [Reset Your Password](#)

COURTS CONSTITUTION COURT PROCESS FILE A CASE HIRE A LAWYER ABOUT US HELP HIRED LAWYERS

**Nakuru High Court**

Overspeeding



View

**Case Categories**  
Road

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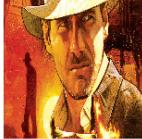
Figure 18 User view case category wise.

## [View case](#)

**WELCOME TO KENYA COURTS FILES ACCESS SYSTEM**  
**THIS IS THE SYSTEM THAT CONTAINS ALL THE INFORMATION PERTAINING ACCESS**  
**TO JUSTICE IN KENYA**

 Search From Here...  Hi, Duda  
[Sign Out of Your Account](#) [Reset Your Password](#)

COURTS CONSTITUTION COURT PROCESS FILE A CASE HIRE A LAWYER ABOUT US HELP HIRED LAWYERS

<b>Case Title:</b>	Overspeeding
<b>Plaintiff Name:</b>	Peter Munene
<b>Plaintiff Image:</b>	
<b>Defendant Name:</b>	John Othiambo
<b>Defendant Image:</b>	
<b>Case Date:</b>	2020-02-20
<b>Case Time:</b>	12:00 AM
<b>Case Judge:</b>	Nduma Nderi
<b>Case Place:</b>	Nakuru High Court Court Block C
<b>Case Stage:</b>	Evidende Collection
<b>Case Verdict:</b>	Overspeeding and road accident still remains a great challenge to human life in the modern day kenya. Tp counter this perential threats stiff measures and actions have to be put in please to end this national disaster once and for ever.

**Related Cases**

  
Overspeeding

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Figure 19 Case details.

## Filling a new case

**WELCOME TO KENYA COURTS FILES ACCESS SYSTEM**  
**THIS IS THE SYSTEM THAT CONTAINS ALL THE INFORMATION PERTAINING ACCESS**  
**TO JUSTICE IN KENYA**



Hi, Duda  
Sign Out of Your Account Reset Your Password

**File New Case From Here**

Enter Case Title:	<input type="text"/>
Select court:	Court Martial
Select Category Name:	Land Grambing
Enter Plaintiff Name\ID No:	<input type="text"/>
Select Plaintiff Image:	Browse... No file selected.
Enter Defendant Name\ID No:	<input type="text"/>
Select Defendant Image:	Browse... No file selected.

**File Case**

**Back**

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Figure 20 User filling a case.

## Hire lawyer

**WELCOME TO KENYA COURTS FILES ACCESS SYSTEM**  
**THIS IS THE SYSTEM THAT CONTAINS ALL THE INFORMATION PERTAINING ACCESS**  
**TO JUSTICE IN KENYA**



Hi, Admin1

Search | Sign Out of Your Account | Reset Your Password

Please fill in your credentials to Hire a Lawyer.

**Hire Lawyer**

First Name

Last Name

ID NO

TelePhone No

Lawyer Hired

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Figure 21 User hiring a lawyer.

## Kenya constitution

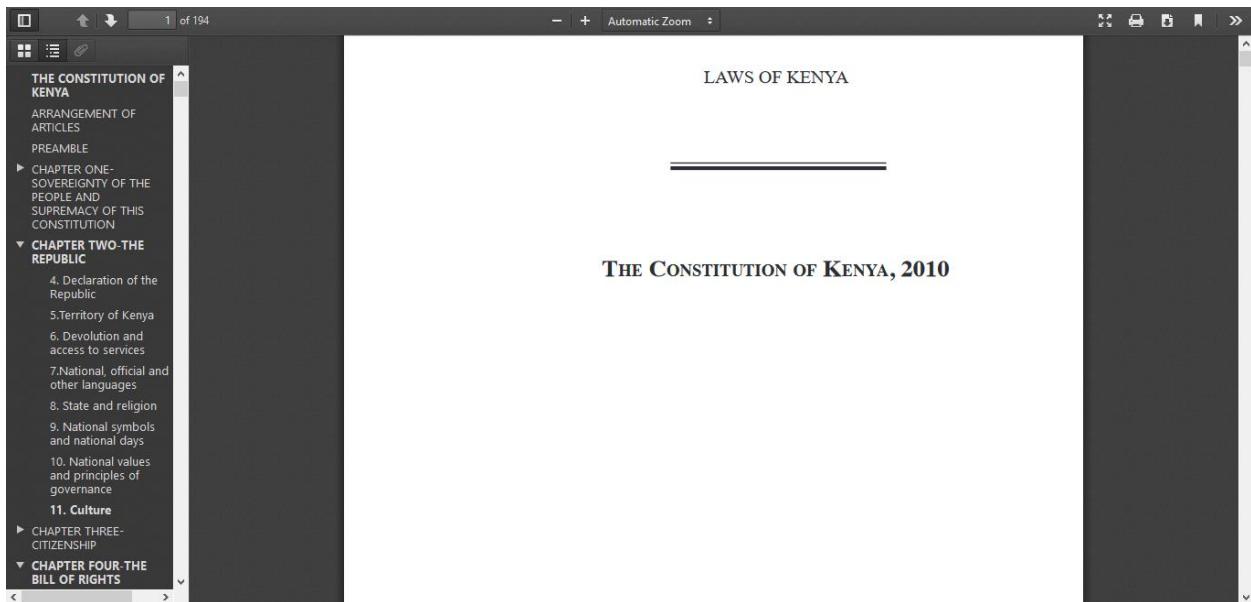


Figure 22 Kenyan Constitution 2010.

## The court processes



Figure 23 The court process.

## Admin register

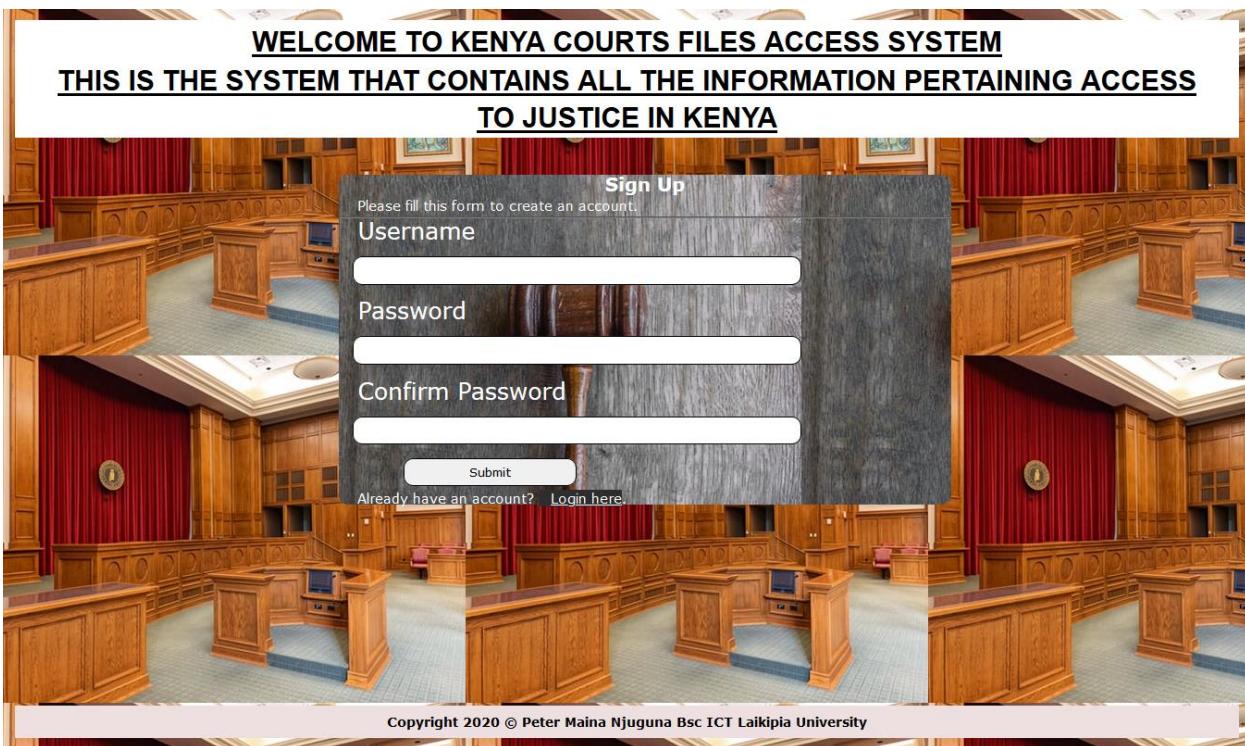


Figure 24 Admin registration.

## Admin login

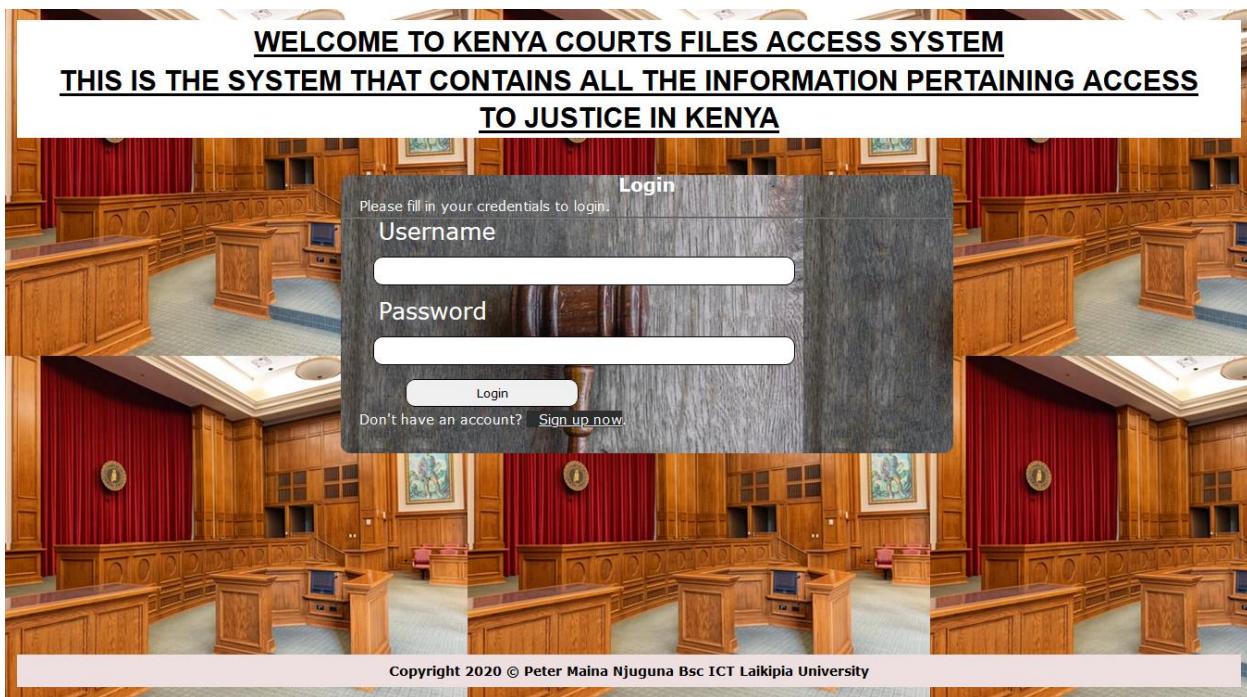


Figure 25 Admin login

## Admin home page

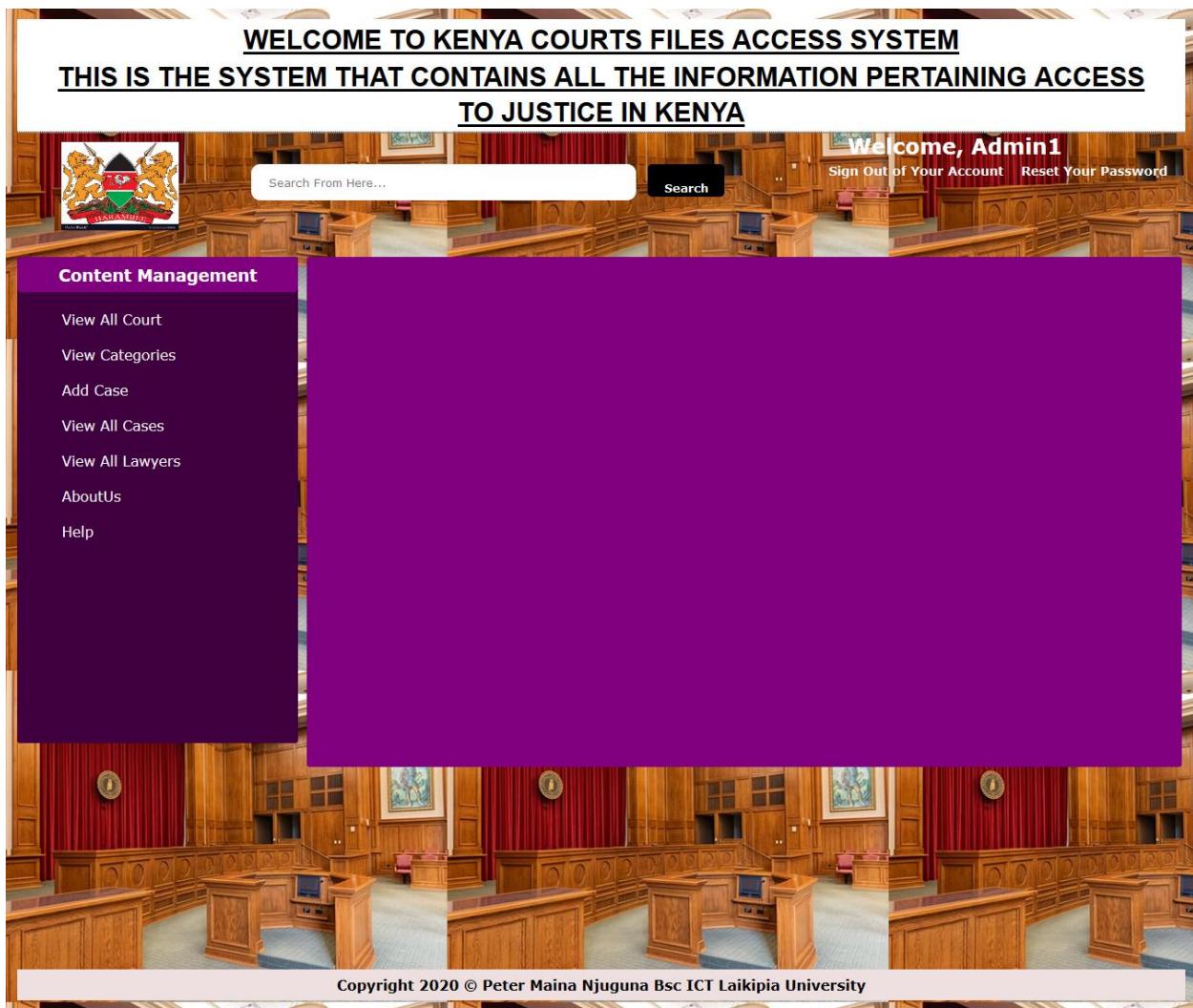


Figure 26 Admin homepage

## Admin add, edit, delete and view court

The screenshot shows the 'View All Courts' section of the system. On the left, a sidebar titled 'Content Management' lists various administrative options. The main area displays a table with 10 entries, each representing a court with its name and edit/delete buttons. Below the table is a form for adding a new court.

Sr No.	Court Name	Edit	Delete
1	Court Martial	Edit	Delete
2	Industrial Court	Edit	Delete
3	Kadhi Court	Edit	Delete
4	Kilifi Magistrate Court	Edit	Delete
5	Kilimani Law Courts	Edit	Delete
6	Naivasha Law Courts	Edit	Delete
7	Nakuru High Court	Edit	Delete
8	Nyahururu Law Courts	Edit	Delete
9	Pangani High Court	Edit	Delete
10	Supreme Court Of Kenya	Edit	Delete

**Add New Court From Here**

Enter Court:

Add Court

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Figure 27 Admin court operations

## Admin add, edit, delete and view case category

The screenshot shows the 'Viewall Case Categories' section of the system. On the left, a sidebar titled 'Content Management' lists various administrative options. The main area displays a table of case categories with columns for Sr No., Case Category Name, Edit, and Delete. Below the table is a form for adding new categories, and at the bottom, there is a copyright notice.

Sr No.	Case Category Name	Edit	Delete
1	Exams Malpractice	Edit	Delete
2	Illegal Land Purchase	Edit	Delete
3	Killing	Edit	Delete
4	Land Grambing	Edit	Delete
5	Road	Edit	Delete
6	Unroadworthy Vehicle	Edit	Delete

**Viewall Case Categories**

**Add New Case Category From Here**

Select Court: Court Martial

Enter case Category:

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Figure 28 Admin case operations

## Admin add case

The screenshot shows the 'WELCOME TO KENYA COURTS FILES ACCESS SYSTEM' homepage with a banner: 'THIS IS THE SYSTEM THAT CONTAINS ALL THE INFORMATION PERTAINING ACCESS TO JUSTICE IN KENYA'. The top right shows 'Welcome, Admin1' with links for 'Sign Out of Your Account' and 'Reset Your Password'. A search bar is at the top.

**Content Management** sidebar:

- View All Court
- View Categories
- Add Case
- View All Cases
- View All Lawyers
- AboutUs
- Help

**Add New Case From Here** form:

Enter Case Title:

Court Name:  Court Martial

Select Case Category Name:  Land Grambing

Enter Case Hearing Date:  dd / mm / yyyy

Enter Case Hearing Time:

Enter Enter The Name of The Presiding Magistrate:

Enter Presiding Place:

Enter Plaintiff Name:

Select Plaintiff Image:  Browse... No file selected.

Enter Defendant Name:

Select Defendant Image:  Browse... No file selected.

Enter Case Stage:

Magistrate's Verdict:

Enter Enter Case No:

Case Keyword:

**Toolbar:**

**Buttons:** Add Case

**Copyright:** Copyright 2020 © Peter Maina Njuguna Bsc ICT Laikipia University

Figure 29 Admin add case

## Admin view, edit and delete a case

The screenshot shows a web-based application titled "WELCOME TO KENYA COURTS FILES ACCESS SYSTEM". The main header includes the title, a "Download" button, and links for "Sign Out of Your Account" and "Reset Your Password". A search bar with placeholder text "Search From Here..." and a "Search" button are also present. The top navigation bar features the Kenyan coat of arms and the text "Welcome, Admin1".

The left sidebar, titled "Content Management", lists various administrative functions: View All Court, View Categories, Add Case, View All Cases, View All Lawyers, AboutUs, and Help.

The central content area is titled "View All Cases From Here" and displays a table of cases:

Sr No.	Edit	Delete	Case Title	Case Hearin...
1.	Edit	Delete	Land Grabbing At Naivasha	2020-
2.	Edit	Delete	Land Deforestation At Maraligushu plot Block C100	2020-
3.	Edit	Delete	Land Deforestation At Maraligushu plot Block C100	2020-
4.	Edit	Delete	Land Deforestation	2020-
5.	Edit	Delete	fdcghvjbk	2020-
6.	Edit	Delete	Examinations Malpractices	2020-
7.	Edit	Delete	Examinations Malpractices	2020-
8.	Edit	Delete	Murder	2020-
9.	Edit	Delete	Overspeeding	2020-

At the bottom of the page, a copyright notice reads "Copyright 2020 © Peter Maina Njuguna Bsc ICT Laikipia University".

Figure 30 View edit and delete case

## **5.4 Testing Regime**

Testing the application was expedient as it ensured that the intended system generated the required output given the necessary input. Also to determine if the system is able to complete actions in relation to its functional and non-functional requirement. I actually execute the system to verify that it was free of errors and function as required. The thorough testing of the system before its release needs to be done via the various test cases and modules so that the software becomes devoid of bugs and uses minimum space requirements as well as a minimal time to perform, however software testing process begins when the application is developed, the documentation and related data structures are designed. During the software test and implementation, the software as a whole is tested to ensure that all its components work well together otherwise the application or the project cannot be said to be complete. If the test is successful, the software is then sent to the user to evaluate the software against their acceptance criteria. If the software satisfies these criteria, the application is put to use. Since I developed a web application I had to go through various web application testing methods.

Test id	Description	Test data	Expected results	Actual results
1	User login	Input correct login details, i.e user name and password	If inputs are invalid return;  The Username field must contain a valid name.	As expected

			<p>The password field must be at least 6 characters in length.</p> <p>If inputs are valid.</p> <p>Redirect the user home page.</p>	
2	User Registration	Fill in all the required fields then submit	If all fields are correctly filled, redirect the user to the login page.	As expected
3	Check for a case by a specific court	Check for a case category wise from the given specific court	If check appropriately the specific case should be available.	As expected
4	Searching for a case	User of keywords relating to a case.	If there is any matching keyword the case is displayed otherwise a message with 'no case with	As expected.

			such keyword was found'.	
5	Admin login	Input correct login details, i.e. username and password	If inputs are invalid return;  -Invalid Username/Password  If inputs are valid redirect the admin to the home page.	As expected
6	Admin Registration	Fill in all the required fields then submit	If all fields are correctly filled, redirect the admin to the login page.	As expected

### 5.4.1 Screen shots of selected tests

#### User Registration

**WELCOME TO KENYA COURTS FILES ACCESS SYSTEM**  
**THIS IS THE SYSTEM THAT CONTAINS ALL THE INFORMATION PERTAINING ACCESS**  
**TO JUSTICE IN KENYA**

**Sign Up**

Please fill this form to create an account.

**Username**

This username is already taken.

**Password**

Password must have atleast 6 characters.

**Confirm Password**

...

**Submit**

Already have an account? [Login here.](#)

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Figure 31 User registration test

## User Login

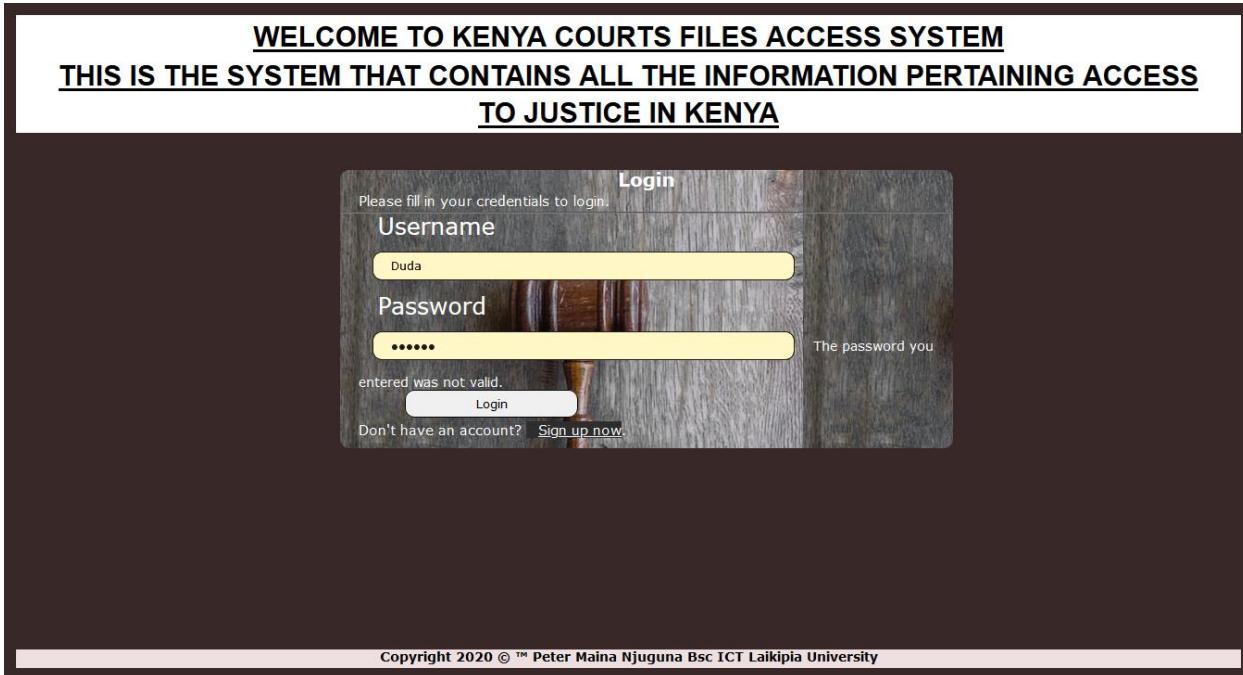


Figure 32 User login test

## Checking for a case by specific court

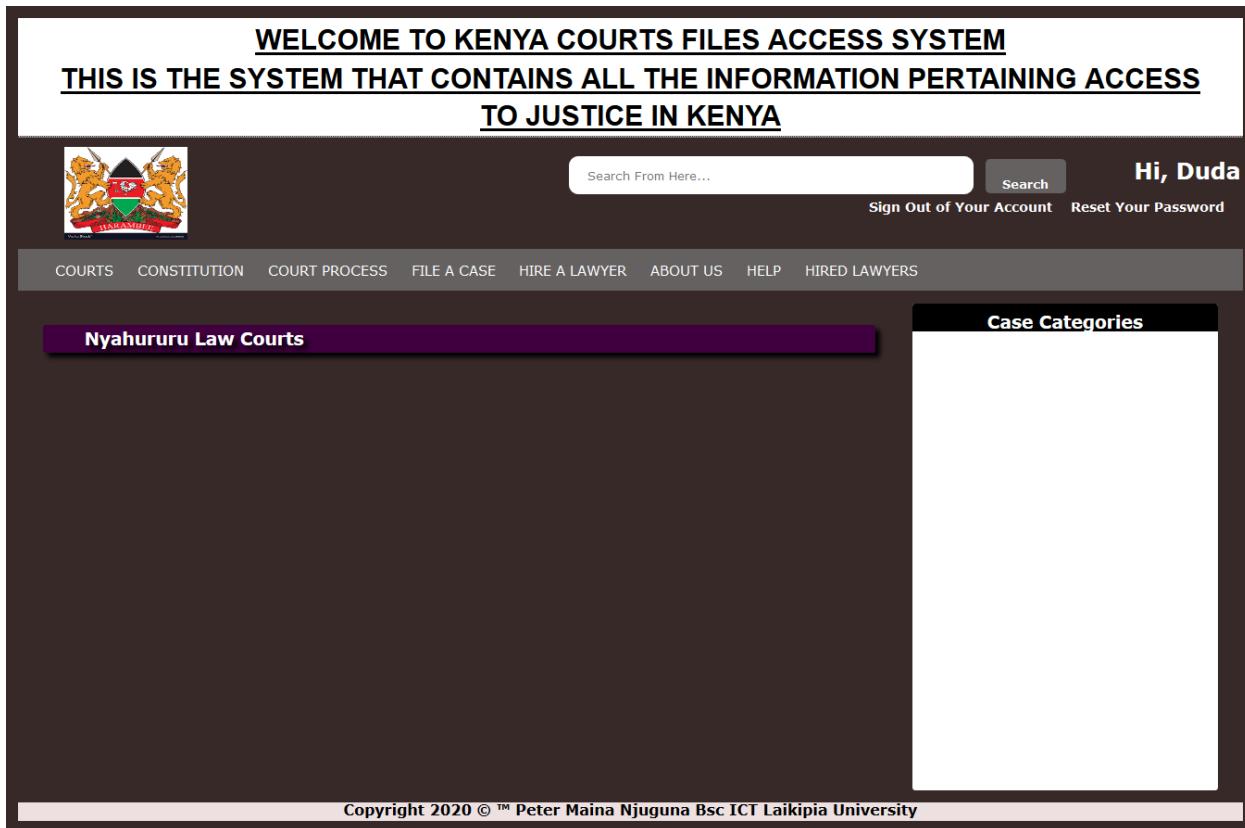


Figure 33 User case search by court test

## Searching for a case

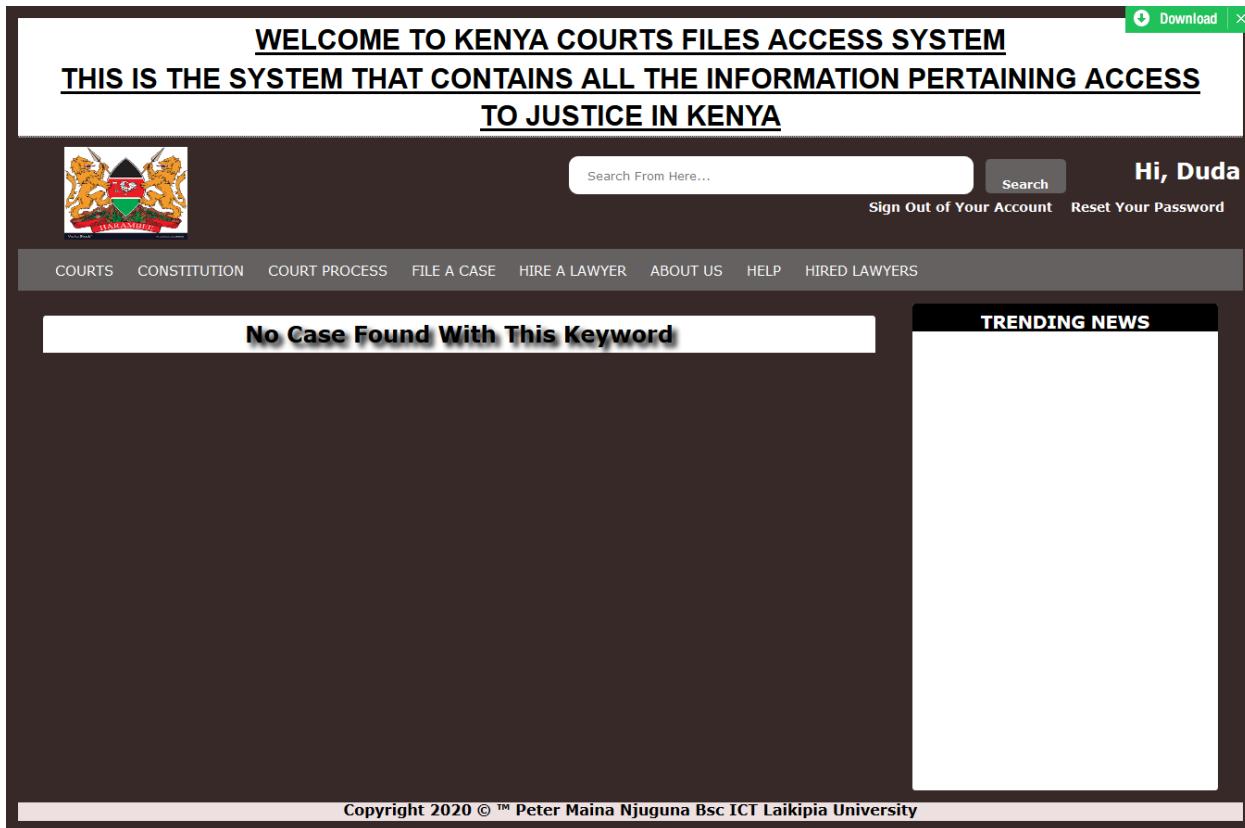


Figure 34 User case search test

## Admin Registration

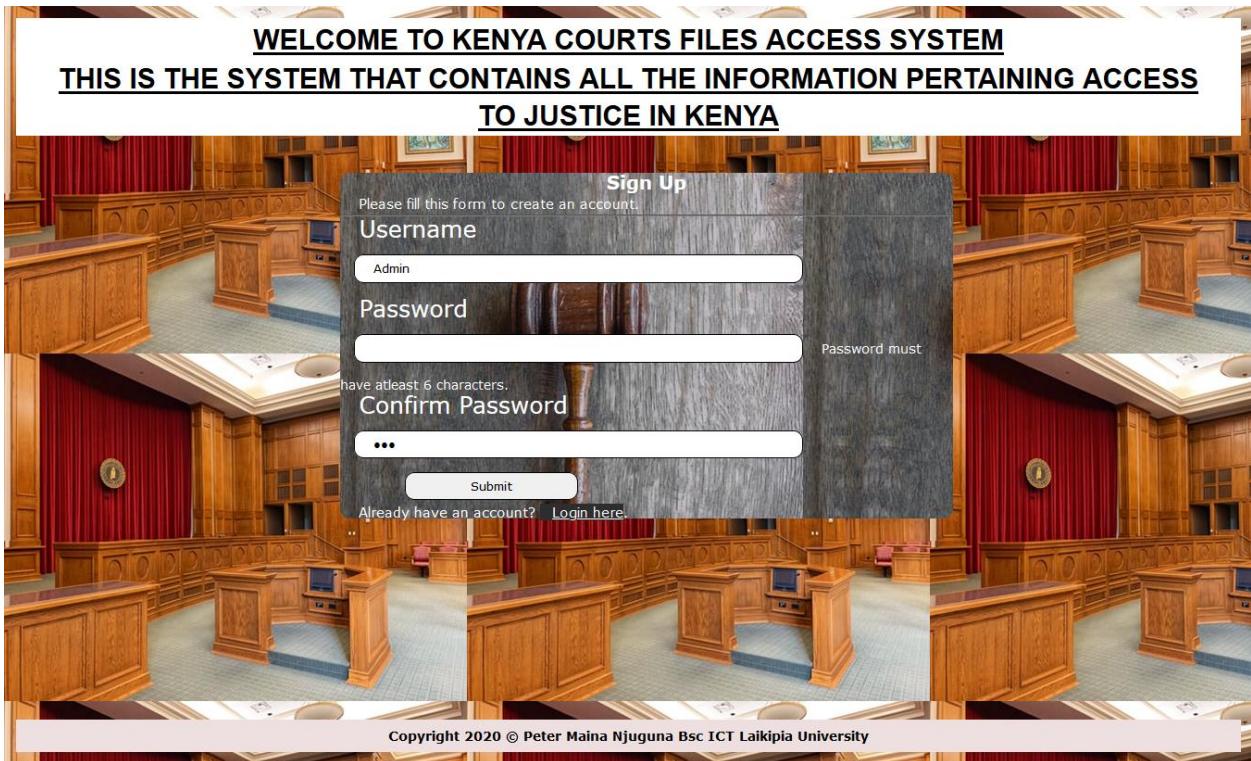


Figure 35 Admin registration test

## Admin Login

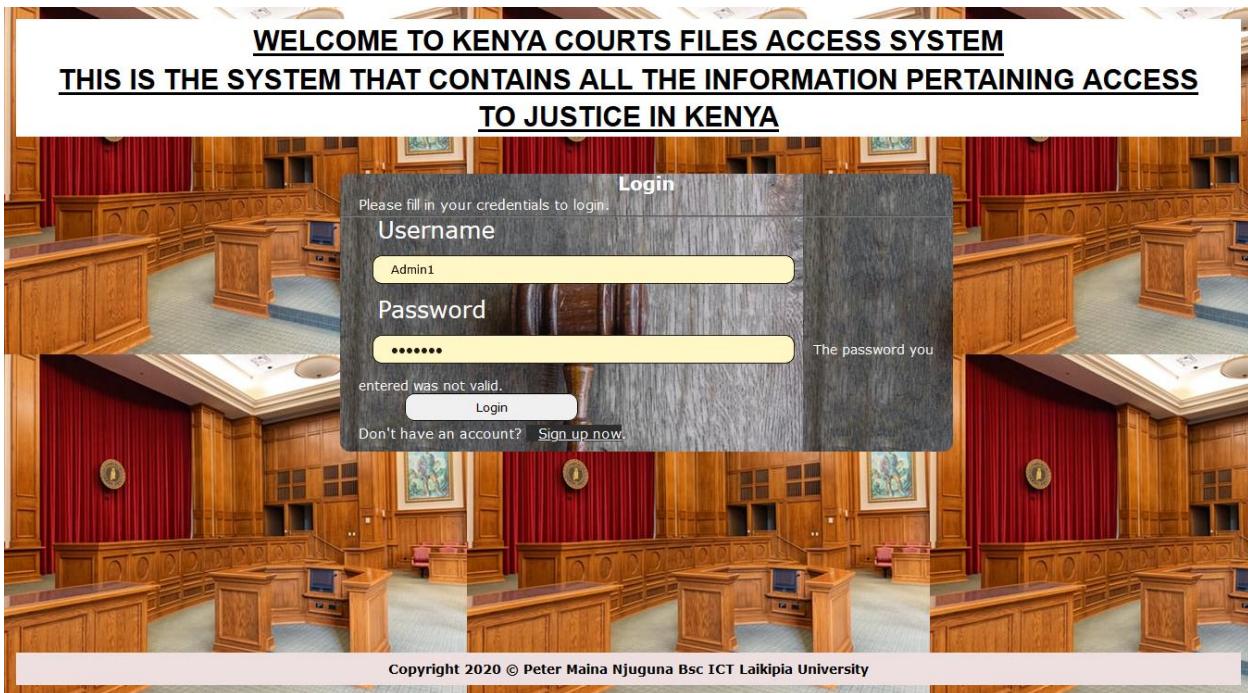
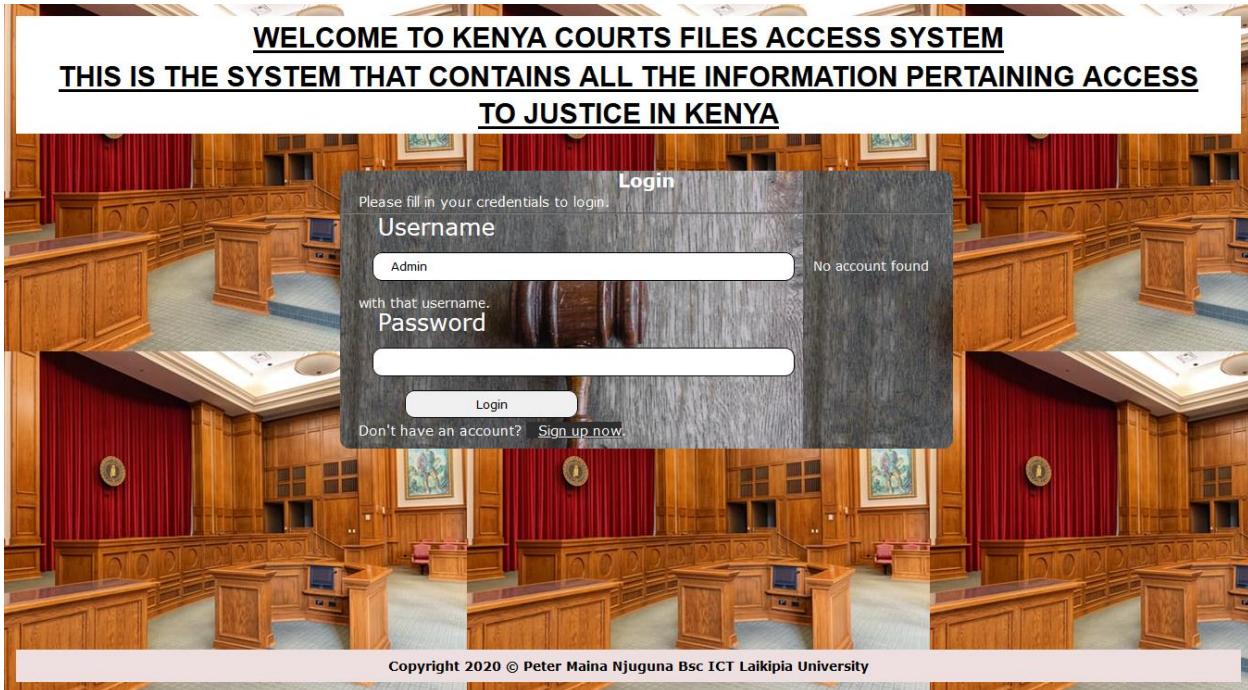


Figure 36 Admin login tests

## **5.5 Conclusion**

It was a wonderful learning experience for me while working on this project. This project took me through the various phases of project development and gave me real insight into the world of software engineering. I have developed a web-based based application to control and allow complete registration of all court case which are related to the court by the domain user thus admin/registrar, who can register, update, delete, and search case and create report. The flow of information provides communication and notification between the courts and public, in which the client or public can access status of a case online.

I did my best so that this project meets the stated aim and looking back at the aim it can be seen that the project has been completed given that it has met the aim.

## **5.6 Recommendation**

Technology is a solution to the many challenges facing people of the world. One of such challenge is delayed access to Justice in the legal system. KCFSAS I believe can be the much needed solution to Justice access in Kenya and other parties of the world that have not implemented electronic model of case judgements.

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## APPENDICES

### Appendix 1: System code

#### Add Case

```
function add_case(){

    include("conn.php");

    if(isset($_POST['add_case'])){

        $case_title=$_POST['case_title'];

        $cat_id=$_POST['cat_name'];

        $sub_cat_id=$_POST['sub_cat_name'];

        $case_date=$_POST['case_date'];

        $case_time=$_POST['case_time'];

        $case_judge=$_POST['case_judge'];

        $case_place=$_POST['case_place'];

        $plaintiff_name=$_POST['plaintiff_name'];

        $plaintiff_img=$_FILES['plaintiff_img']['name'];

        $plaintiff_img_tmp=$_FILES['plaintiff_img']['tmp_name'];

        move_uploaded_file($plaintiff_img_tmp,"..../images/case_imgs/$plaintiff_img");

        $defendant_name=$_POST['defendant_name'];

        $defendant_img=$_FILES['defendant_img']['name'];
```

```

$defendant_img_tmp=$_FILES['defendant_img']['tmp_name'];

move_uploaded_file($plaintiff_img_tmp,"./images/case_imgs/$plaintiff_img");

move_uploaded_file($defendant_img_tmp,"./images/case_imgs/$defendant_img");

$case_stage=$_POST['case_stage'];

$case_verdict=$_POST['case_verdict'];

$case_no=$_POST['case_no'];

$case_keyword=$_POST['case_keyword'];

$add_cat=$conn->prepare("insert into
cases(case_title,cat_id,sub_cat_id,case_date,case_time,case_judge,case_place,plaintiff_na
me,plaintiff_img,defendant_name,defendant_img
,case_stage,case_verdict,case_no,case_keyword,case_added_date)
values('$case_title','$cat_id','$sub_cat_id','$case_date','$case_time','$case_judge','$case_pla
ce','$plaintiff_name','$plaintiff_img','$defendant_name','$defendant_img'
,'$case_stage','$case_verdict','$case_no','$case_keyword',NOW())");

if($add_cat->execute()){

echo "<script>alert('Case Category Added Successfully !!!')</script>";

}

else{

```

```
echo "<script>alert('Case Category Not Added Successfully !!!')</script>";
```

```
}
```

```
}
```

```
}
```

## Update Case

```
function edit_case(){
```

```
include("conn.php");
```

```
if(isset($_GET['edit_case'])){
```

```
$case_id=$_GET['edit_case'];
```

```
$fetch_case=$conn->prepare("select * from cases where case_id='$case_id'");
```

```
$fetch_case->setFetchMode(PDO::FETCH_ASSOC);
```

```
$fetch_case->execute();
```

```
$row=$fetch_case->fetch();
```

```
$cat_id=$row['cat_id'];
```

```
$sub_cat_id=$row['sub_cat_id'];
```

```
$fetch_cat=$conn->prepare("select * from main_cat where cat_id='$cat_id'");
```

```

$fetch_cat->setFetchMode(PDO::FETCH_ASSOC);

$fetch_cat->execute();

$row_cat=$fetch_cat->fetch();

$cat_name=$row_cat['cat_name'];

$fetch_sub_cat=$conn->prepare("select      *      from      sub_cat      where
sub_cat_id='$sub_cat_id'");

$fetch_sub_cat->setFetchMode(PDO::FETCH_ASSOC);

$fetch_sub_cat->execute();

$row_sub_cat=$fetch_sub_cat->fetch();

$sub_cat_name=$row_sub_cat['sub_cat_name'];

echo "<form class='form' method='post' enctype='multipart/form-data'>

<table>

<tr>

<td>Update Case Title:</td>

<td><input type='text' name='case_title' value='".$row['case_title']."' required>

</td>

```

```

<tr>

    <td>Update Category Name:</td>

    <td>

        <select class=" name='cat_name'>

            <option value=". $row['cat_id']. ">". $cat_name."</option>

        ";

        echo viewall_cat();

        echo "</select>

    </td>

<tr>

    <td>Select Sub Category Name:</td>

    <td><select class=" name='sub_cat_name'>

        <option value=". $row['cat_id']. ">". $sub_cat_name."</option>

    ";

    echo viewall_sub_cat();

    echo" </select>

    </td>

```

```
<tr>

<td>Update Case Hearing Date:</td>

<td><input type='date' name='case_date' value="'. $row['case_date']. '" >

</td>

<tr>

<td>Update Case Hearing Time:</td>

<td><input type='text' name='case_time' value="'. $row['case_time']. '" >

</td>

</tr>

<tr>

<td>Update The Name of The Presiding Magistrate:</td>

<td><input type='text' name='case_judge' value="'. $row['case_judge']. '" >

</td>

</tr>

<tr>

<td>Update Presinding Place</td>

<td><input type='text' name='case_place' value="'. $row['case_place']. '" >

</td>
```

```

</tr>

<tr>

    <td>Update Plaintiff Name:</td>

    <td><input type='text' name='plaintiff_name' value="" . $row['plaintiff_name']. "" >

    </td>

</tr>

<tr>

    <td>Update Plaintiff Image:</td>

    <td><input type='file' name='plaintiff_img' value=" >

        <img    src='./images/case_imgs/' . $row['plaintiff_img']. ""    style='width:150px;
height:150px;' />

    </td>

</tr>

<tr>

    <td>Update Defendant Name:</td>

    <td><input          type='text'          name='defendant_name'
value="" . $row['defendant_name']. "" required >

    </td>

</tr>

```

```

<td>Update Defendant Image:</td>

<td><input type='file' name='defendant_img' value="" >

<img src='./images/case_imgs/'.$row['defendant_img'].'" style='width:150px;
height:150px;' />

</td>

</tr>

<tr>

<td>Update Case Stage:</td>

<td><input type='text' name='case_stage' value='".$row['case_stage']."' required>

</td>

</tr>

<tr>

<td>Update Magistrate's Verdict:</td>

<td>

<textarea input type='text' rows='18' cols='52' style='border:groove 3px black;
padding: 1%;' name='case_verdict' required >".$row['case_verdict']."
</textarea>

</td>

<script src='./ckeditor/ckeditor.js'></script>

```

```

<script>

CKEDITOR.replace('editor1');

</script>

</tr>

<tr>

<td>Update Enter Case No:</td>

<td><input type='text' name='case_no' value='".$row['case_no']."' required>

</td>

</tr>

<tr>

<td>Update Case Keyword:</td>

<td><input type='text' name='case_keyword' value='".$row['case_keyword']."' required>

</td>

</tr>

</table>

<center>

<button name='update_case'>Update Case</button>

</center>

```

```

</form>";

if(isset($_POST['update_case'])){

$case_title=$_POST['case_title'];

$cat_id=$_POST['cat_name'];

$sub_cat_id=$_POST['sub_cat_name'];

$case_date=$_POST['case_date'];

$case_time=$_POST['case_time'];

$case_judge=$_POST['case_judge'];

$case_place=$_POST['case_place'];

$plaintiff_name=$_POST['plaintiff_name'];

if($_FILES['plaintiff_img']['tmp_name']==""){ }else{

$plaintiff_img=$_FILES['plaintiff_img']['name'];

$plaintiff_img_tmp=$_FILES['plaintiff_img']['tmp_name'];

move_uploaded_file($plaintiff_img_tmp,"../images/case_imgs/$plaintiff_img");

$up_plaintiff_img=$conn->prepare("update cases set plaintiff_img='$plaintiff_img'

where case_id='".$case_id"');

$up_plaintiff_img->execute();

}

$defendant_name=$_POST['defendant_name'];

```

```

if($_FILES['defendant_img']['tmp_name']==""){ }else{

$defendant_img=$_FILES['defendant_img']['name'];

$defendant_img_tmp=$_FILES['defendant_img']['tmp_name'];

move_uploaded_file($defendant_img_tmp,"..../images/case_imgs/$defendant_img");

$up_defendant_img=$conn->prepare("update cases set

defendant_img='$defendant_img' where case_id='$case_id'");

$up_defendant_img->execute();

}

$case_stage=$_POST['case_stage'];

$case_verdict=$_POST['case_verdict'];

$case_no=$_POST['case_no'];

$case_keyword=$_POST['case_keyword'];

$up_case=$conn->prepare("update cases set

case_title='$case_title',cat_id='$cat_id',sub_cat_id='$sub_cat_id',case_date='$case_date',case_time='$case_time',case_judge='$case_judge',case_place='$case_place',plaintiff_name

='

plaintiff_name',defendant_name='$defendant_name',case_stage='$case_stage',case_verdict='$case_verdict',case_no='$case_no', case_keyword='$case_keyword' where case_id='$case_id'");


```

```

if($up_case->execute()){

echo "<script>alert('Case Updated Successfully !!!')</script>";

echo "<script>window.open('home.php?viewall_cases','_self')</script>";

// else{

// echo "<script>alert('Case Not Updated Successfully !!!')</script>";

// }

}

}

}

```

## Delete Case

```

function delete_case(){

include("conn.php");

$delete_case_id=$_GET['delete_case'];

$delete_case=$conn->prepare("delete from cases where case_id='$delete_case_id'");



if($delete_case->execute()){

echo "<script>alert('Case File Deleted Successfully !!!')</script>";


```

```
echo "<script>window.open('home.php?viewall_cases','_self')</script>";  
}  
}
```

## Search Case

```
function search(){  
  
include("conn.php");  
  
if(isset($_GET['search'])){  
  
$user_query=$_GET['user_query'];  
  
$search=$conn->prepare("select * from cases where case_title like '%$user_query%' or  
case_place  
like '%$user_query%'");  
  
$search->setFetchMode(PDO::FETCH_ASSOC);  
  
$search->execute();  
  
echo "<div<ul>";  
  
if($search->rowCount() == 0){  
  
echo "<h2 style='text-shadow: 5px 5px 5px #000;  
border-top-left-radius: 3px; border-top-right-radius: 3px;  
width: 100%;
```

```

height: 40px;

text-align: center;

background: #fff;

color: black;

line-height: 40px;">No Case Found With This Keyword</h2>';

}

else{

$i=1;

while($row=$search->fetch()):

echo "<tr>

<td>".$i++. "</td>

<td><a href='home.php?edit_case=".$row['case_id']."'>Edit</a> </td>

<td><a href='delete_cat.php?delete_case='".$row['case_id']."'>Delete</a> </td>

<td style='min-width:250px'>".$row['case_title']. "</td>

<td>".$row['case_date']. "</td>

<td>".$row['case_time']. "e</td>

<td>".$row['case_judge']. "e</td>

<td>".$row['case_place']. "</td>

```

```

<td>".$row['plaintiff_name']."</td>

<td>

<img src='./images/case_imgs/'.$row['plaintiff_img']."' />

</td>

<td>".$row['defendant_name']."</td>

<td><img src='./images/case_imgs/'.$row['defendant_img']."' /></td>

<td>".$row['case_stage']."</td>

<td style='min-width:350px'>".$row['case_verdict']."</td>

<td>".$row['case_no']."</td>

<td>".$row['plaintiff_name']."</td>

<td>".$row['case_added_date']."</td>

</tr>";

endwhile;

}

echo "</ul></div>";

}

}

```

## **Appendix 2: Installation Guide**

- ❖ Extract the project in the zipped folder.
- ❖ Copy the extracted project into the root directory of either Xammp server to a folder named htdocs or in Wamp server to a file name www.
- ❖ Create a database named court and import a file named court.sql
- ❖ Using Firefox web browser copy and paste the following command 'localhost/court/index.php'.

For technical support you can reach me through:

Email: njugunapm23@gmail.com, technophile@programmer.net

Or call +254702913043