

**UNIVERSITY OF NAIROBI**

SCHOOL OF COMPUTING AND INFORMATICS

**RIGHTS OF WOMEN INFORMATION SYSTEM**

**REQUIREMENT ANALYSIS AND DESIGN REPORT**

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**REQUIREMENT ANALYSIS REPORT**

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**Chapter 1: Introduction**

* 1. **Background**

Women rights are the rights and entitlement claimed for women and girls of many societies worldwide. In Kenya, these rights are institutionalized, that is, are supported by the law in the new Kenyan constitution. Women rights differ from the broader notions of human rights through claims of inherent historical and traditional bias against the exercise of rights by women and girls in favor for men and boys.

Some of these rights that women seek to have recognized outside the purview of general human rights can broadly be categorized as follows: political rights, rights to economic independence and equality, access to education, the right to control their sexual and reproductive lives, rights to children and property both within marriage and upon divorce, and rights to safety in workplace, at home and in public places.

Despite the provision of these rights women in Kenya are still vulnerable to male aggression, violence and discriminations neither do they know their land rights or rights of inheritance. Women are still not aware of their rights some is due to ignorance, others is illiteracy and some due to lack of information and misinformation.

“Another crucial area of concern is awareness by women of their rights. A right whose content is not known by the holder is at best a paper right. Legal awareness should be part of the task of achieving change in the legal status of women. Education of women on the content of their rights and modes of exercising those rights is a must if law reform is to achieve its stated objectives. “

(Mbote 2003)

My main motivation to develop this system was when I realized so many women both literate and illiterate are unaware of the existence of rights that protect them as well as other organizations that may provide them with the help they need.

* 1. **Problem Definition**

Although the new Kenyan constitution has explicitly stated the rights of women, very few women actually know their rights and what the law says since the information is scattered in various documents, libraries, publications and specialized websites, hence this information is not easily accessible. Therefore, there exists a need for an open forum to access information, get links to relevant organizations, address their problems and seek professional guidance all in one place.

* 1. **Project Goal**

By the end of this project I should have a fully functional prototype of the system that will be used to provide information to users on various rights of women and offer advice on women rights issues hence inform, educate and empower them through knowledge of their rights.

* 1. **Project Objectives**
     1. **Research objectives**
* To determine how the development of a website with information on women rights would create awareness on women rights.
* To identify the rights that is specific to women.
* To determine frequently asked questions on issues affecting women rights.
  + 1. **Systems development objectives**

1. To develop a repository that contains specific categories of women rights and links to other websites that addresses specific issues on women rights.
2. To provide a search mechanism that will query the database containing women rights and displays the information.
3. To provide an interactive module that will enable interaction between users and a professional to discuss and seek assistance on legal matters.
4. To develop a repository with frequently asked questions about women rights and law.
5. To provide a module that will integrate the system with social media hence bridge the gap between the information and the target group.
   1. **Project Justification**

In Kenya today several organizations and websites that fight for women rights exist, however none exists that offers an information system complete with a search engine for women rights as well as links to organizations that advocate for women rights and also provide an online advice line. Therefore, the system I am developing will be one of a kind and will be a great tool to empower women and hence achieve vision 2030.

* 1. **Project Scope**

The rights of women information system is a web based information system targeting women and girls in Kenya. The system will enable users to search for relevant information they want on women rights. The rights addressed will be broadly categorized as follows:

1. Nutrition, healthcare and reproductive rights
2. Rights relating to marriage and divorce
3. Violence against women
4. Women and education
5. Women and employment
6. Women and property rights
7. Others

It will also enable users to click on links to other organizations’ website that may help. Also, the system will enable users to have an interactive online chat session with a professional. In addition, users may check in frequently asked questions to see what many women ask and how they have been answered. And finally, it will enable a user to post a legal issue and allow others to comment on the issue hence get advice and guidance. The system will be integrated with social media such as Facebook in order to bridge the gap between the information and the target group.

* 1. **Constraints**

However, the scope of the project will be limited by a few constraints. Only selected sections of women rights in the constitution will be considered since the rights are too many and some too technical. Also considering that the time is limited to do a full research and compile all the rights concerning women as addressed in the constitution. The available database resource as well as financial constraints will limit the amount of data in the database.

**Chapter 2: System Analysis**

**2.1 Methodology**

The methodology adopted for undertaking this project will be modified waterfall approach which is a structured system analysis method (SSAM).It is a systematic step by step approach that begins at requirement finding and progresses through analysis, design, coding, testing and maintenance .

**2.2. Feasibility Study**

Feasibility study was carried out to determine how beneficial or practical the development of the system will be to the target audiences and organization. The following feasibility tests were done;

1. Operational feasibility:

The system was found to be operational feasible as the target users and owners had basic knowledge about computers and also the use of the internet.

1. Technical feasibility:

There was sufficient tools and technology to enable me to implement all functional requirements of the project. Being a web application (client-server) there were a number of technologies both for client-side and server-side programming which are open-source software.

1. Economic feasibility:

The cost required to develop the system was minimal since most of the software needed are open-source.

In summary, it was seen that the proposed system was to be a feasible undertaking that would resolve the problems associated with the existing systems.

**2.1. Requirement Elicitation**

This is the stage at which requirements are collected from users of the system; they are analyzed to determine whether they are achievable and also validated.

**Research Methods**

The research methods used to gather information for this project were interviews, site visit and review of existing systems and documents.

**Site visit**

A visit to FIDA was conducted in order to observe how the organization operated and to carry out interviews.

**Interview**

An interview is a formal face-to-face meeting arranged by a systems analyst with users in order to gather information. Open-ended interview was chosen for this particular interview. The interviewee was Ms. Alice Maranga the awareness officer at FIDA-Kenya.

It was found out that at Fida Kenya, which is a key organization that fights for women rights and create awareness on rights of women, there was no existing automated information system. All activities are done manually. For instance, if a person has a problem say has been beaten by the husband; the person had to go to the organization to seek help. Women have to physically go to them for information. All existing documentations are unpublished and one has to get access to their resource center to search for any information.

Some of the institutions that Fida refers its clients to depending on the problem are Law enforces (police), chiefs, religious leaders, Government offices such as Ministry of Gender and Equality and NGOs such as CLEAR, Kituo cha Sheria to name but a few. However, the referral is by word of mouth as no website links are given to clients.

Some of the frequently asked questions included family, divorce, violence, social injustices and property rights. Those are what many women want to know what the law says and what their rights are.

**Review of existing documents**

This is another tool that was used during the requirement gathering stage. I reviewed existing documents such as the Constitution of Kenya, various journals and documentations that discuss the rights of women and awareness of the rights.

**2.2. Requirements Analysis**

**2.2.1. Functional requirements of the system**

All functional requirements of the system were established during this stage.

The system shall be required to:

* + 1. Store specific rights of women in the database.
    2. Enable users to search for a particular right and display the results.
    3. Provide links to other organizations and institution that are concerned with a particular issue concerning women.
    4. Handle posts by users on an issue and allow others to comment on the posted issues.
    5. Integrate with social media such as face book.

**2.2.2. Non-functional requirements of the system**

The system shall be:

1. User-friendly for a great user experience
2. Highly reliable and efficient in searching for an item specified
3. A secure system to ensure users’ confidentiality.

**2.2. Tools for Analysis**

**Use Cases**

A use case is an objective(s) a user wants to achieve with the system. It shows the actors that interact with the system. Below is one use case description that was used.

Use case name: Posting a question

Actors:

* User
* Lawyer
* Admin

Use case description: After user who is registered has logged in, she may post a question. Only the members can comment on the post. The signed up user can ask a private question and have a conversation with the lawyer. The lawyer sees the post and comments on it.

The use case model below contains the interactions.

*Figure 2.1*

User

Lawyer

login

Ask question

post question

search

Admin

comment

view post

view question

comment

view post

login

post event

Add information

Decision

**CHAPTER 3. SYSTEM DESIGN**

**Introduction**

This stage of software development is tied to system analysis. Hence, it provides a way of realizing the requirements specification by incorporating the functionalities that shall satisfy the user requirements. The design process translates requirements into a representation of the software that can be assessed for quality before coding begins. During design different modules were designed.

This includes the following:

* Conceptual design
* Logical design
* Database design
* Interface design

**Conceptual design**

The conceptual design was used to show how the system generally works, major entities, how they relate and major data flows between them. Use cases were used at this stage as well.

**Logical Design**

The logical design of a system pertains to an abstract representation of the data flows, inputs and outputs of the system. This was conducted by modelling in terms of drawing data flow diagrams to show how different system would interrelate.

Context diagram

0

Rights of

Women

Information

system

Lawyer

Organisation

link to

Visitor

Respond

result

query

*Figure3.1*

**Level 1 DFD**

3

Handling

questions/post

s

1

Register and

process

visitor details

2

Searching for

Information

4

Connecting

to organisation

website

Visitor

id

Lawyer

id

Organisation

id

id

id

id

id

sign in

feedback

query

store

question

view

question

post question

display

results

visitors details

store

organisation links

store

Questions

store

link

retrieve links

store links

Rights of women rights store

respond

Query

result

search link

get link

Visitors details

Retrieve visitors

details

start session

retrieve

*Figure 3.2*

**Database design**

During the design of the database redundancies were removed to ensure efficiency by normalizing it to the third normal form after examining relationships between attributes and determining the contents of the tables in the database.

Below are the tables in the database:



Health\_Rights

health\_id

title

content

interpretation

site\_id



Social\_rights

social\_id

title

content

interpretation

site\_id



Economic\_right

s

econ\_id

title

content

interpretation

site\_id



Political\_rights

political\_id

title

content

interpretation

site\_id



sites

site\_id

name

url



faqs

faqs\_id

question

answer



posts

post\_id

title

body

author

date



comments

comment\_id

post\_id

body

author

date



users

user\_id

first\_name

last\_name

username

password

email\_address



parent\_child\_relation

ship

id

table\_name

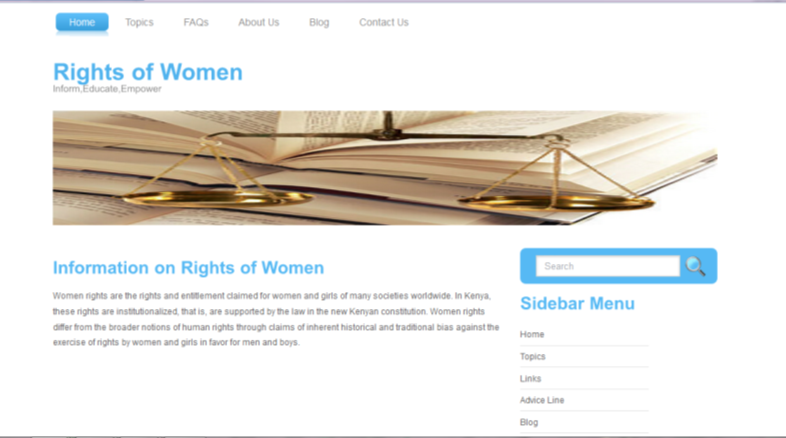
parent\_id

*Figure 3.3*

**User Interface Design**

The user interface was designed to be easy and simple to use. The interface was designed using HTML and CSS.

Sample



*Figure 3.4*