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**22549**

**Web technology Project Final exam**

**Software Requirement Specification**

**ZONING REGULATIONS**

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# Introduction

## Background

The government in Rwanda recently established housing development Zoning Regulations which provide a clear mechanism for the implementation of the updated Kigali City Master Plan and direct public and private sector development to follow a clear set of development objectives, definitions, regulations, and guidelines that reflect the vision and concept proposed in the Master Plan.

The Zoning Plan is meant to provide landowners, developers, and stakeholders with a clear picture of what can and cannot be developed on any parcel of land. It stipulates the permitted, conditional, and prohibited uses, location of a building on any plot, the overall maximum intensity, the required density as well as the building height on any plot.

# Problem statement

The Government of Rwanda decided to digitize constructions permitting services and inspection services to guarantee sustainable development of comfortable and safe settlements on the national territory. However, there is no system to integrate the zoning regulations with the current BPMIS and still hard in the permitting office to get the newly updated or edit the zoning regulation whenever there is a change as well as information matching their UPI. Because it still requires them to enter the land information manually from pdf format which are less engaging.

# PURPOSE

The purpose of digital zoning regulation is to automate the Zoning Plan and master plan in Rwanda to encourage and guide Public Institutions, Private Sector, National and International Organizations and Citizens in the implementation of the Master Plan in the harmonic and balanced development.

# Scope

Currently, zoning regulation are done manually and there is no data that matches with the updated master plan The system will provide a tools to assist in automating the related zoning regulation information of predominant land use or building form, the desired intensity, building height and density of the land and match it with the update master plan so that whenever an UPI is entered it will verify and show what is planned on that location and they won’t be enters from pdfs any more.

# Goals and objectives

To automate existing methods of zoning regulation to improve productivity and save time of operations.

# Definition, acronym and abbreviation

**UPI:** Unique Parcel Identifier

**CoK:** City of Kigali

**HA:** hectare

# The Overall Description

## Product Perspective

The Zoning regulation system will be a web-based application that will contain all zoning regulations details. The system will be able to communicate with other systems through API and it will also provide a high level of managing the regulations such as add new and update the existing.

## Product features

## 

Digital Zoning regulates the types of uses, the development intensity of uses, the required density, the setting, and height of buildings on any plot. This software serves as an effective planning tool to guide development in a logical and orderly fashion. It will enable the user to edit, update, add and view the Zoning Plan and provide a clear picture of what can and cannot be developed on any parcel of land in Rwanda.

## Specific requirement

### Functional requirements

**General requirement**

* Accounts creation
* User/admins login
* Password reset
* User/admins logout
* Users’ privileges and access rights

**Specific requirement**

* New Zone Form
* List of Zones form
* Edit Zones Form
* Remove Zones Form
* System notifications

## Nonfunctional requirements

* **Usability**: The system should be easy to use.
* **Reliability**: System results should be measured using existing data.
* **Correctness**: System should be accurate
* **Availability**: the system should be available 24/7
* **Security**: The system will be secure and accessible to authorized users.

## User Characteristics

The user should be familiar with concepts such as login, registration, form filling, and so forth in order to utilize this system. They must also know how to operate a computer network and the internet.

For this system, the user must have a fundamental knowledge of online platforms as well as a very basic understanding of access.

## User Stories

1. As a **user** I need to **login** to the system so that **I can be able to manage zoning regulations.**
2. As a **user** I need to **view** the list of all zoning regulations so that **I can make sure they are all there.**
3. As a **user** I need to **see** the details of a specific zoning regulation so that **I can ensure it is all there.**
4. As a **user** I need to **add** new zoning regulation so that **we have the latest update list of zoning regulations.**
5. As a **user** I would like to **update** the detail a specific zoning regulation so that **we have the latest update list of zoning regulations.**
6. As **user** I would like to **delete** a specific zoning regulation so that **I can keep the latest updated list of zoning regulations.**

## Use Case Analysis

1. Use cases

* **Log in**
* **Reset password**
* **View**
* **Add/Edit**
* **Update**
* **Remove**
* **Logout**

1. Use Cases diagram

