DEBRE BIRHAN UNIVERSITY

COLLEGE OF COMPUTING

DEPARTMENT OF COMPUTER SCIENCE

Group_9

Course: CoSc4181 - Selected Topics in Computer Science

Group assignment.

Group member

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1. Introduction

Land Administration Systems (LAS) are an important infrastructure that facilitates the implementation of land policies in both developed and developing countries. Land administration is the process of determining, recording, and disseminating information about the ownership, value, and use of land when implementing land management policies. So it is better to be computerized in order to improve security and make it easier to manage.

Land administration is important for resolving conflicts concerning the ownership and use of land and for taxation. Land administration functions may be divided into four components: juridical, regulatory, fiscal, and information management. These functions of land administration may be organized in terms of agencies responsible for surveying and mapping, land registration, land valuation, and land revenue generation. So land administration is important in many ways, but managing it manually is time-consuming and expensive, requiring a lot of money, time, manpower, and work overload. The aim of this project is to develop a computerized system for the Debre Birhan City Land Administration Office.

2. Objective of the study

The General objective of the project is developing web-based land administration system for Debre berhan City.

3. Existing System

3.1. Overview

With the current system, all actions in the Debre Berhan land administration office are performed manually; there is no digital system such as a database or a website. all activity done by human hand. All Function of the system like prepare landowner's specification book or certificate for owner of land, registering land according to its usage like investment land, residential land additionally storing, moving, and processing files from one part to the next this all actions are process in manual way. As a result, there is a security vulnerability. It is quite difficult to access any record information in the current system since different records are written on paper or in agendas.

3.2. Users/Actors of the system

- Land administration officer
  - He/she is Responsible for
    - Recording landowner information
    - Recording land detail
    - Search landowner
    - Search land
    - Delete land and landowner
    - Update land information and landowner information

4. Proposed System

4.1. Overview

After observing the current manual land administration management system in Debre Berhan City and evaluating all of the problems that occurred during each activity on the existing system, the project team decided to design a web-based land administration system where the administrator, officers, and landowners or any user can access information at any time and from any location. The new planned system was designed to save landowners and the organization time and money. Officers will be able to find landowner information quickly with the new suggested system. The new proposed approach is appropriate for a landowner information register. The new method made it possible to store more data in a smaller amount of space. The proposed system will use the major functionality of the existing system able to advance accordance with speed of performance, security and reliability of the system, by using different object oriented techniques in order to overcome the current problems.

4.2. Functional Requirements

A **Functional Requirement** (FR) is a description of the service that the software or the system must offer. Since we are going to develop a web based application for online, land administration system for Debre berhan city the system will have some functionality.

- Register the landowner information.
- Register land
- Search, delete, update, view landowner information.

- Update, search, delete, view land information.

4.3. Use Case Model

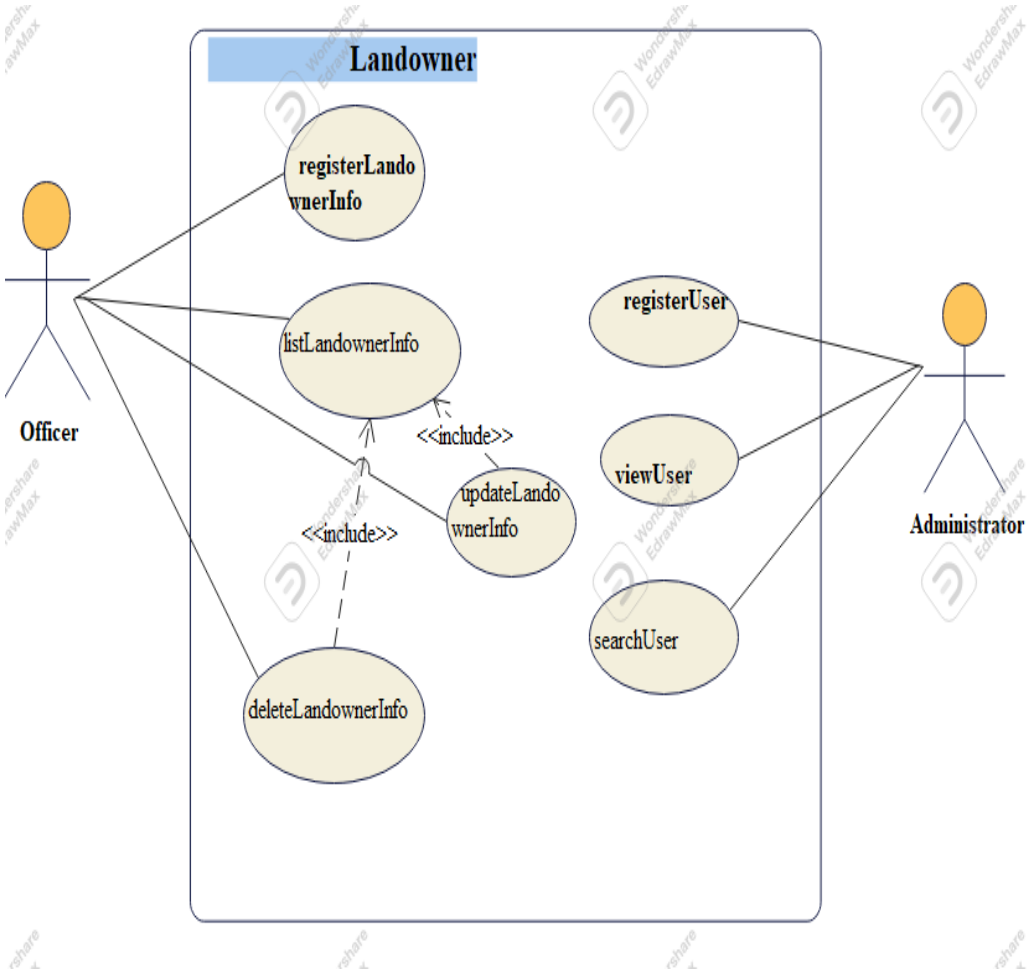
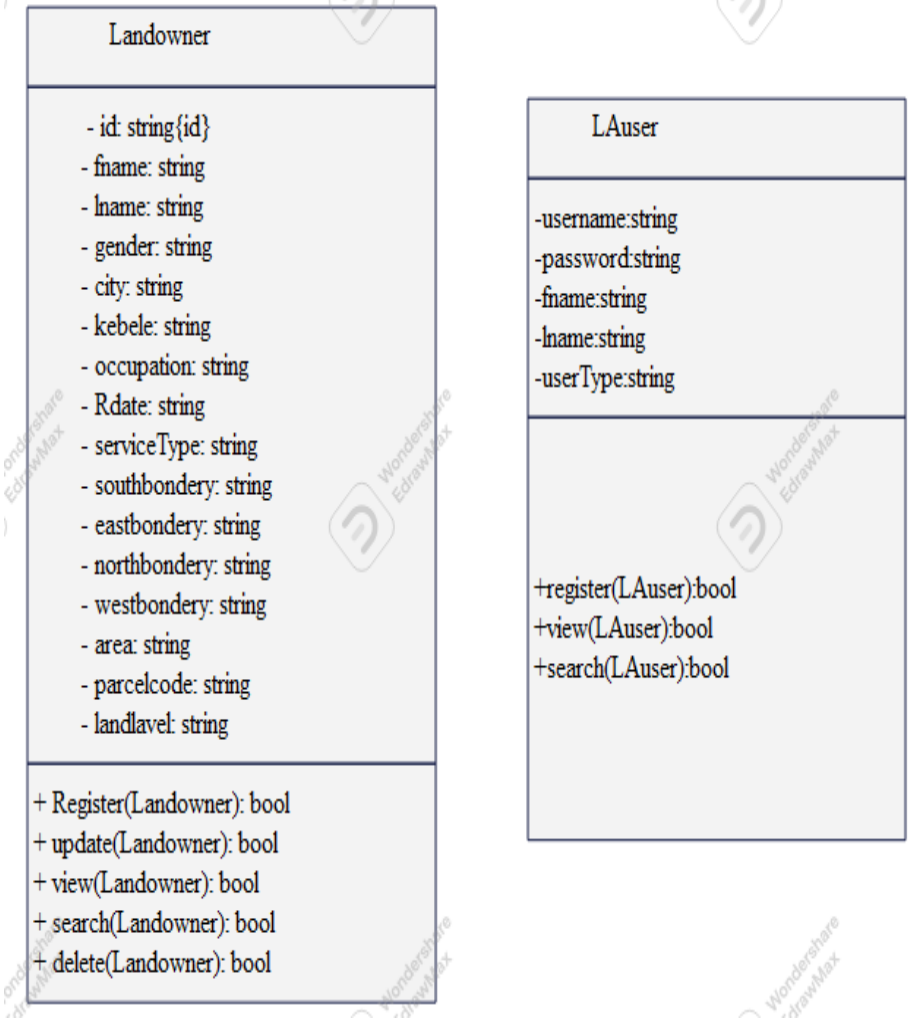
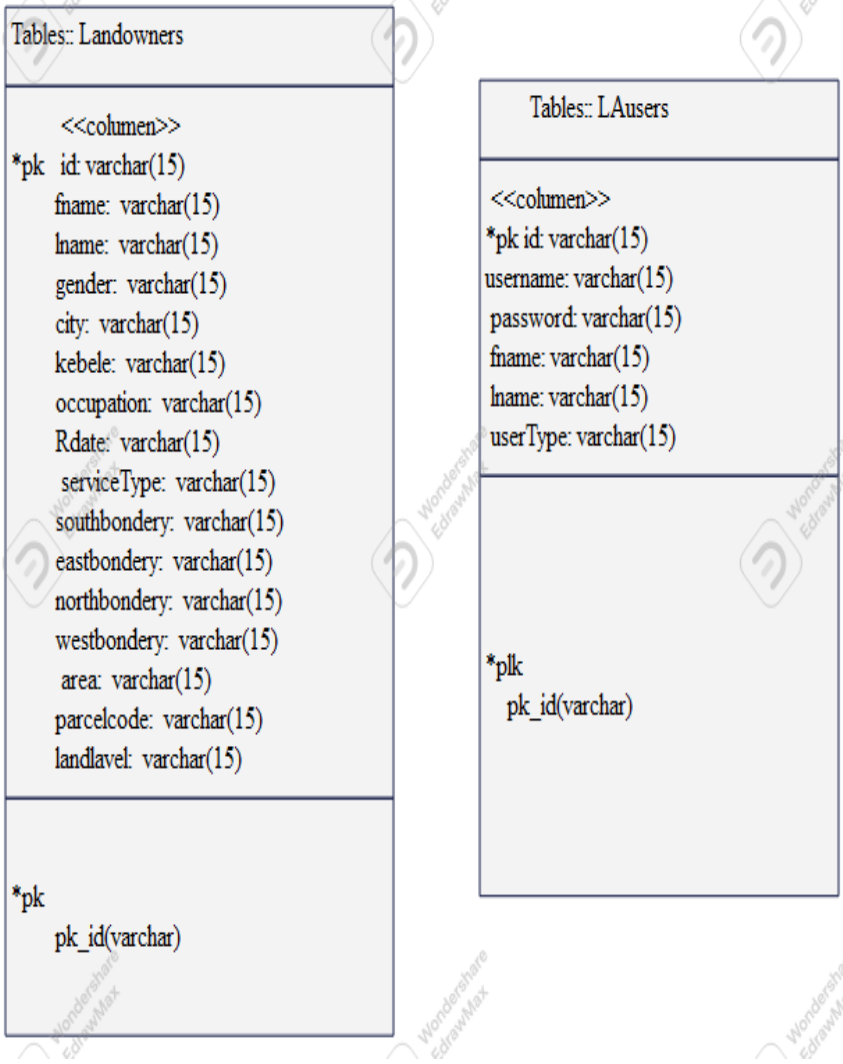


Figure 1.1. use case diagram for landowner management.

4.4. Class Diagram



4.5. Database Design



4.6. User Interface

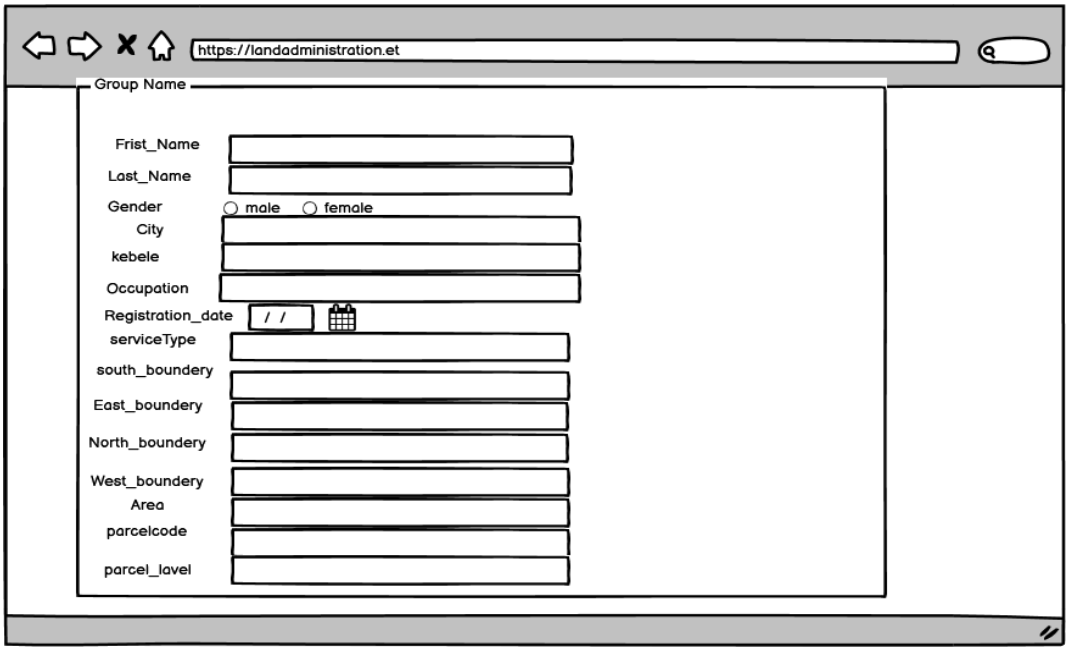


Figure 1.2. User interface for register landowner information

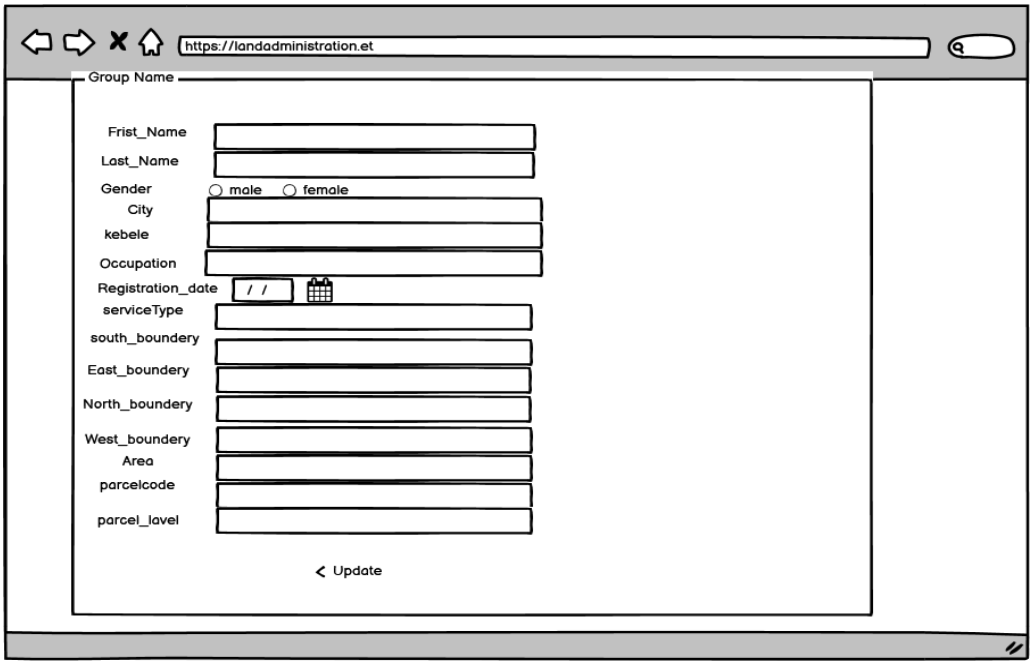


Figure 1.3. User interface for Update landowner information

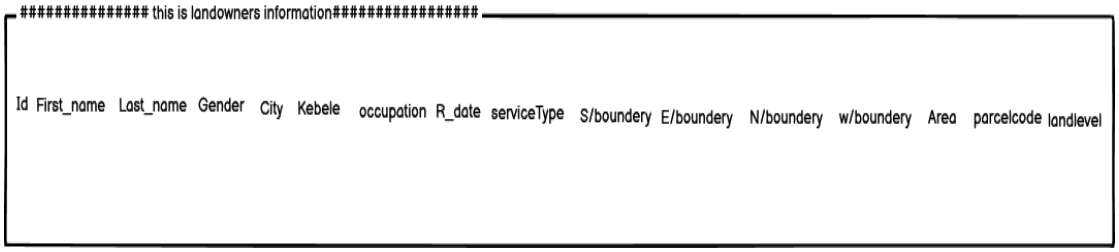


Figure 1.4. user interface for view the detail information for landowner.

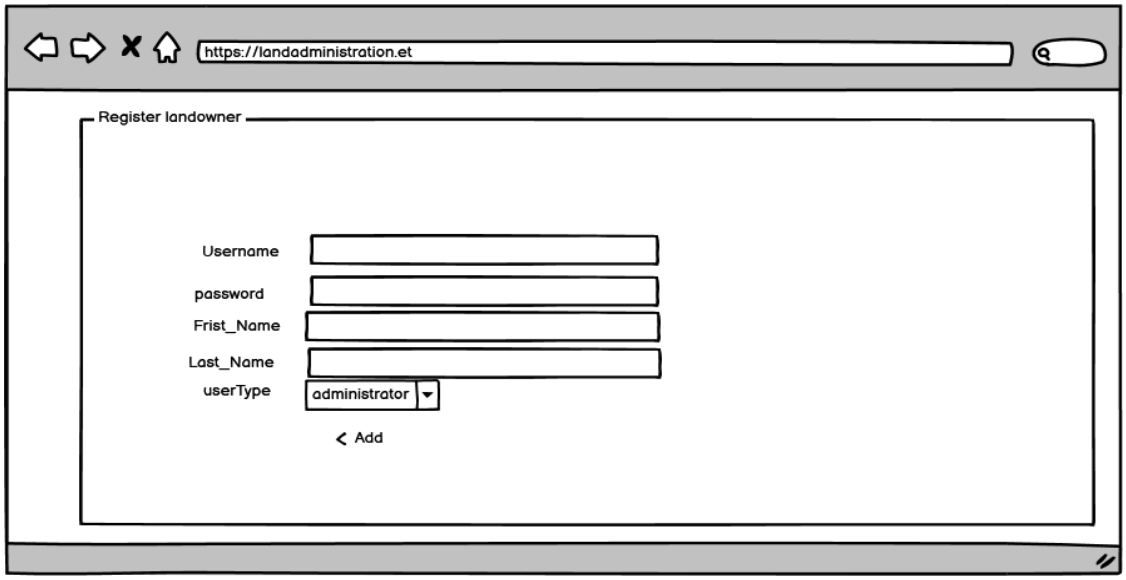


Figure 1.5 user interface for register user.