**SOFTWARE**

**REQUIREMENT**

**SPECIFICATION**

**FOR**

**CATTLE MANAGEMENT**

**SYSTEM**

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**1. Introduction**

**1.1 Purpose**

The project is about to handle all the information of the student regarding admission and

examination. Also it manages resources which were managed and handled by manpower

previously. The main purpose of the project is to integrate distinct sections of the organization

into consistent manner so that complex functions can be handled smoothly by any technical or

non-technical persons.

This document describes the Software Requirements Specification for the Cattle Management System . The Purpose of this document is to provide guidelines for the development of the Cattle Management System. It will explain the purpose and features of the system, the interfaces of the system, what the system will do, the constraints under which it must operate and how the system will react to external stimuli. This document is intended for both the stakeholders and the developers of the system

* 1. **Scope**

Cattle Management System is developing for general purpose and used to replace traditional selling methods. It provides a mechanism to edit the student information form which makes the system flexible. Any college/school can use this system as it is not client centric. All admission and examination related work for the student can be done using this system.

* 1. **Overview**

Cattle Management System (CMS) is a web-based application that tracks current cattle’s information. It maintains details of cattle that can be readily access by the buyer , seller , farmer or admin. The Cattle management System has been modularized into Login Module, Administrator Module and User Module.

**1.4 References**

IEEE. IEEE STD 830-1998 IEEE Recommended Practice for Software Requirements Specifications. IEEE Computer Society, 1998.

**2.General Description**

**2.1 Product Perspective**

The proposed system shall be developed using client/server architecture and be compatible with Microsoft Windows Operating System. The front end of the system will be developed using VS Code and backend will be developed using MS SQL Server.

* 1. **Product Functions**

The primary function of the Cattle Management System web server is essentially to save the whole system information in sequentially into database server. The buyer and seller will have access to whole system environment and that can be managed as per their needs. The architecture of whole system is made easy that user can login to system and use the functions.

* 1. **User Characteristics**

· Qualification: At least matriculation and comfortable with English.

· Experience: Should be well versed/informed about the online selling and buying methods.

· Technical Experience: Elementary knowledge of computers.

* 1. **Constraints**

Cattle Management System can be accessed successfully from any client location and it’s necessary that every user must register only once , so that there are no duplicate registrations. So the system is designed such a way that the database will keep updated by administrator and there is better security options available on the server.

1. **External Interface Requirements**

**3.1 User Interfaces**

The Cattle Management System web server must provide a user interface that will be accessible through any internet browser, the major ones being Google Chrome and Internet Explorer.

* 1. **Hardware Interfaces**

All components able to be executed on personal computers with Windows OS platforms and other platforms like Linux, Unix.

* 1. **Software Interfaces**

Processor : Intel Dual Core or above

Processor speed : 2 GHZ or above

RAM : Atleast 2GB

OS : Window 10

Language : React,SQL queries

Database: MS SQL

Editor: VSCode

1. **Functional Requirements**

**4.1 Log-In Module (LM)**

User (admin, buyer,seller and farmer) can able to load the Login Module in the internet browser. The LM shall support the user to log into the system. The login panel contain fields to contain a user name and a field for password. The password field must be masked with symbols when the user types. It must also contain a button labelled as Login. When the user clicks on Login button the username and password will be verified by database administrator and then only the user will able to use the system functions.

* 1. **Users Module (UM)**

After successful login, user can be able to continue navigating through the website and view their information. Using CMS, sellers can easily add the cattle information , and the buyers can view the cattle information along with cost of the animal. The CMS provides farmers with a account to manage the cattle details such as treatments and owners of cattle.

**Administrator Module (AM)**

After successful login, system will display administrative functions. Administrative function id to store and update. When administrator clicks on the add button, system shall display a section where administrator can remove inactive buyer or seller. When administrator clicks on update button, system will display a section where administrator can update buyer or seller details and view the cattle details. When administrator adds, updates or delete an entry, the AM module will send the request to the Server Module which will do the necessary changes to the DB.

1. **Non-functional Requirements**

**5.1 Performance**

The Cattle Management System shall be built upon the web development technique and put on the web server online. The system and the server must be capable of handling the real- time error functionality occurs by the defined users. In addition, the system must be safety critical. All failures reported by the server side must be handled instantaneously to allow for user and system safety.

* 1. **Reliability**

The system is safety critical. If it moves out of normal operation mode, the requirement to drop or down the server and fix it as soon as possible and open it again. This emergency behaviour should not occur without reason.

* 1. **Security**

There must be a strong security mechanism should be place in the server side of the system to keep unwanted users to hack or damage the system. However, all users of the system give and store the details of privacy related to personal information and many other. However, our system can be accessed online so we need very secured system as far as security is concerned.

* 1. **Maintainability**

There must be design documents describing maintenance of the software and database used to save the user details as well as the daily updated and modification done in system. There shall be an access on the control system by the admin to maintain it properly at the front end as well as at back end.

1. **Other Functions**

**6.1 Preliminary Schedule and Budget**

The time duration required for the project to complete is about 3 months (approx). It requires a budget of nearly 25k and maintenance cost should be paid separately .

