Livestock Ownership Database

Sahul Hameed M[1], Sathish Kumar V[2], Vishali S[3], Dr. B Vinodhini[4]

[1, 2, 3] U.G. students, Department of CSE, SNS College of Technology, VazhiampalayamPirivu, Coimbatore
[4]Professor, Dept.of Computer Science and Engineering, SNS College of Technology, VazhiampalayamPirivu, Coimbatore
Corresponding author: Sahul Hameed M

ABSTRACT: Livestock is an important wealth for a country therefor livestock data is required for a country to keep maintain and track of that. Livestock ownership database is an application which facilities for the government to manage the relationship between owner and livestock and also avail livestock resource from the birth to death. This prototype enables the government to manage the livestock records of any particular location. Agile methodology has been incorporated in LSODB development, that suits the rapid web-based system. This system is to be used by the administrator and staff, who is the government and livestock officer. This is a e-governance based application. This system incorporates GIS system for tracking the places and owners.
KEYWORDS: livestock, GIS, e-governance, birth, death, sales, web app

I.   INTRODUCTION

Livestock plays an important role in the socio-economic life of the country. It is a rich source of high-quality food such as milk, meat and eggs and more. They are an important component of many farming systems and they are the good income of the number of farming families. They are also one of good income for a country.

Livestock ownership database system which going to handle the master database where the whole country, livestock and breeds in the country and user authentication data all collected and handled by an administrator. Then the tracking of the owners i.e. farmer who having livestock which is taken by the government officials through this application in the tracking module. only the government officer who is appointed by the government for this collecting details is authorised to go the tracking module.

The application provides with analytic reports, through those report section we can analyse the needed information and take action according to it. This application helps the government in the best way to track the farmers in the country and their livestock with their birth and death details. The world is turning everything to digitalization so that is system could help the government in such a way they can analyse the details at anywhere by any one. The livestock are the ones country wealth so by this we can save the many livestock live during time of flood or any other natural calamities. The system is a low-cost, high-efficiency management system. The results of a check performed using this device are transmitted to a remote database. The management software integrates a graphical user interface and a cloud database. A manager or farmer can easily search and update the information about owner and their livestock through the network. The advantages of the system include reducing the risk of loss of data while in needed time.

II.   EXISTING SYSTEM

The existing system offers in the particular area. Which means the farmer who is having a big farm can have control of their livestock.so that, only the farm know about their livestock and each farmer can care about it. This system does not have the sale and birth death or tracking any of this. Only focused on particular livestock live cow and the process around that.

III. PROCESSEDSYSTEM

The processed system is the whole country which can get benefited through this software. The whole country which has what kind of breed and all other detail of the owner selling and buying details have been gathered from this system. This system can be suitable for any country. Based on the government need we can generate reports through this system. This have a strong database to more contents. The world is turning everything to digitalization so that is system could help the government in such a way they can analyse the details at anywhere by any one. The livestock are the ones country wealth so by this we can save the

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IV. OVERVIEW OF THE PROJECT

The project is a web app that allows users to access a very capable, real time database served by mongo dB, which is used to store project information. There are three main entry to the project they are as followed master file maintenance, tracking of livestock, report of livestock. These entries have individual authentication process and only the authorise person can be enter the each dashboard. The authentication is handled by firebase technology. Once the user is authenticated then appropriate dashboard will log in. The master file dashboard is for maintenance of major data of the product. Here the data can be collected in the following ways, livestock details, livestock breed details, ownership details, country details. The tracking module will have the details of livestock owner tracking and their livestock and their birth and death and also sales tracking. The report dashboard module which show the data in the graphical representation in such a way of any kind of graphs like pie chart, graphs etc., the report can be generated on based on criteria like geographical location, new count, death report, sales report, owner report, breed report etc., so based on report the government can take needed works any fields they needed.

V. FUNCTIONAL FLOW

The Flow diagram is description of the working of the project . The first step is to start the program. There are three main entry to the project they are as followed master file maintenance, tracking of livestock, report of livestock. These entries have individual authentication process and only the authoriseperson can be enter the each dashboard. The authentication is handled by firebase technology. Once the user is authenticated then appropriate dashboard will log in. The master file dashboard is for maintenance of major data of the product. Here the data can be collected in the following ways, livestock details, livestock breed details, ownership details, country details. The tracking module will have the details of livestock

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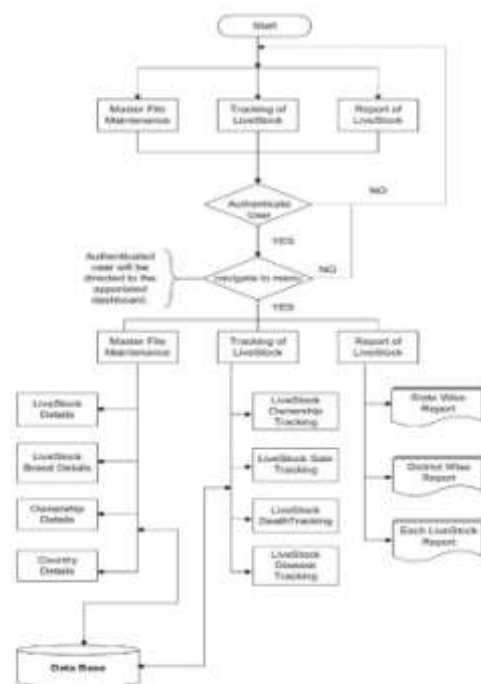
Flow diagram

VI. ENTRY POINT

The entry point of the system is very simple the operation pages will be placed such as master file maintenance, tracking of the livestock, report generation. The each operator of this is different. The administrator only have the access to enter the master file. The government officer who is appointed for the livestock detail maintenance can be access the tracking of livestock dashboard. The report can be viewed by administrator or any higher government officer.

Landing Screen

VII.   AUTHENTICATION MODULE

The Authentication module which have three ways to authenticate. Those three ways are Masterfile maintenance, livestock tracking, livestock reports. Only the permitted user can be access this to reach respective dashboards. This authentication system used here is through fire base. The fire base cloud is used to store the date of users and only the user and the rights given in the fire base data can be permitted to enter the other states. If any user is not permitted the pop up will throw an error. Not only the fire base cloud have the data about the user also the master file with keep record of that.

Login Screen

VIII.   MASTER FILE DASHBOARDMODULE

Masterfile Maintenance module can be accessed by the administrator. This module only has the main database and here only database requirements are collected. This module dashboard is as following:

Livestock Details
This dashboard collects the details of the livestock and have the total breed count of that.

Breed Details
This dashboard collects the details of the livestock breeds.

Breed Entry According ToLivstock

Country Details
This dashboard collects the details of the geographical location such as state, district, village, town, pin-code details.

User Data
User Details
This dashboard collects the details of the users who can access the all dashboard.

IX. TRACKING LIVESTOCK DASHBOARDMODULE

Tracking livestock module which is to track of owner details, owner livestock count, and their livestock life span.

Owner Detail Tracking
Owner tracking tab have adding of owner and collecting data of their life stock. The owner data collection used with Pincode India API for pincode verification and leaf let for showing map and nominatimopenstreetmap API for gathering details of latitude and longitude, state, district, country, pincode verification.

Owner Detail Form

Owner's Livestock Tracking

The owner's livestock tracking is with main two fields which comes from the master database. Those fields are livestock and livestock breeds information. This page collect the livestock and their breed count. The owner can add as many as livestock and their count.

Owner Location Though GIS

Owner's Livestock Life span

Livestock life span is all about tracking of their birth and death details. This page first get the place information through the map search which uses algolia API. By choosing the place on map the list of owners located on that area will be gathered from the backend, so they easily pick the owner and then enter the details of their livestock birth and death.

Owner Livestock Tracking Through GIS

X. REPORT OF LIVESTOCK DASHBOARDMODULE

The report dashboard module which show the data in the graphical representation in such a way of any kind of graphs like pie chart, graphs etc., the report can be generated on based on criteria like geographical location, new count, death report, sales report, owner report, breed report etc., so based on report the government can take needed works any fields they needed.

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