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Farm Management System

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ABSTRACT

"Password Authentication Using Gaze Based Eye Tracking" is a system used for eye(retina) tracking using Haar cascade algorithm, Facial Landmark Algorithm. used for password authentication. A mounted camera will track eye movement and by eye movement and eye blinks it calculates gaze ratio and blinking ratio which are two mains to lock and unlock the system, this is aimed to make the system highly securable and to avoid cybercrimes like shoulder surfing or thermal tracking.

Keywords : - Haar Cascade Algorithm, Facial Landmark Algorithm.

I. INTRODUCTION

The "Farm Management System" was created to address the issues that plagued the traditional manual system. This programmer is designed to remove or, in some situations, minimize the difficulties that this device currently faces. Furthermore, this framework is tailored to the company's specific requirements for smooth and efficient operations.

To prevent data entry errors, the programme is kept as simple as possible. When entering invalid data, it also displays an error message. The consumer does not need any formal knowledge to use this method. As a result, it demonstrates that it is user-friendly. As previously stated, a farm management system can lead to an error-free, stable, efficient, and fast management system.

It will help the consumer focus on their other tasks rather than keeping track of their records. As a result, the company would be able to make greater use of its capital.

Any company, large or small, faces difficulties in handling information about equipment, crops, pesticides, system users, and customers. Since each Farm Management System has unique crop specifications, we create custom employee

management systems that are tailored to your managerial needs.

This is intended to aid strategic planning and ensure that your company has the right amount of knowledge and data for your long-term objectives. Our systems also provide remote access capabilities for those busy executives who are constantly on the move, allowing you to handle your employees at any time. You will eventually be able to bet using these systems.

II. Objective

The main goal of the Farm Management System Project is to keep track of the specifics of crops, equipment, insecticides, pesticides, and customers. It keeps track of anything related to Crops, System Users, Customers, and Crops. The project is totally built at administrative end and thus only the administrator is guaranteed the access. The purpose of the project is to build an application program to reduce the manual work for managing the Crops, Equipment's, System User, Insecticides. It tracks all the details about the Insecticides, pesticides, Customer.

III. System Analysis

The process of collecting and analyzing facts, diagnosing issues, and gathering knowledge about the Farm Management System in order to make recommendations for system improvements is known as system analysis. It's a problem- solving task that necessitates a lot of interaction between device users and developers.

Any system development process should begin with a system review or report. The device is thoroughly investigated and analyzed. The system analyst assumes the position of interrogator and delves deeply into the current system's operation.

The system as a whole is examined, and the system's inputs are defined. The various processes are linked to the organizations' outputs.

The goal of system analysis is to become aware of the problem, define the relevant and decisional variables, analyses and synthesize the various factors, and come up with an optimal or at least satisfactory solution or plan of action.

Various methods, such as interviews and questionnaires, must be used to conduct a thorough investigation of the operation. To reach a conclusion, the data gathered by these sources must be scrutinized. The end result is a better understanding of how the mechanism works.

The current system is the name given to this system. Now that the current structure has been thoroughly examined, problem

areas have been found. The designer now takes on the role of problem solver, attempting to resolve the company's issues. The solutions are presented as suggestions.

The proposal is then compared to the current system and the best option is chosen. The consumer is presented with the proposal for his or her approval. On user request, the proposal is reviewed and appropriate changes are made.

This is a loop that ends when the consumer accepts the proposal. The method of collecting and analysing facts in order to use the information in further device studies is known as preliminary research. Preliminary research is a problem-solving practise that necessitates close collaboration between system users and developers.

It conducts a variety of feasibility studies. These studies provide a rough picture of the system's

operations, which can be used to make decisions about the methods to use for successful system research and review.

IV. Implementation Methodology

Model View Controller or MVC as it is popularly called, is a software design pattern for developing web applications. A Model View Controller pattern is made up of the following three parts:

• Model - The lowest level of the pattern which is responsible for maintaining data.

• View - This is responsible for displaying all or a portion of the data to the user.

• Controller - Software Code that controls the interactions between the Model and View.

MVC is popular as it isolates the application logic from the user interface layer and supports separation of concerns. Here the Controller receives all requests for the application and then works with the Model to prepare any data needed by the View. The View then uses the data prepared by the Controller to generate a final presentable response. The MVC abstraction can be graphically represented as follows.

MVC (Model View Controller Flow) Diagram

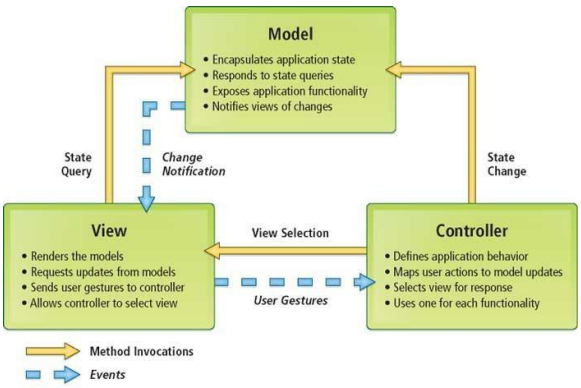

Fig 1

DATA FLOW DIAGRAMS

PERT CHART (Program Evaluation Review Technique)

PERT chart is organized for events, activities or tasks. It is a scheduling device that shows graphically the order of the tasks to be performed. It enables the calculation of the critical path. The time and cost associated along a path is calculated and the path requires the greatest amount of elapsed time in critical path.

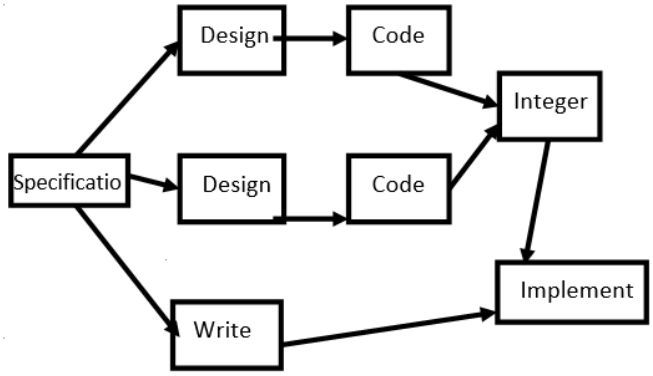

Fig 2 :-PERT Chart representation

V. Results

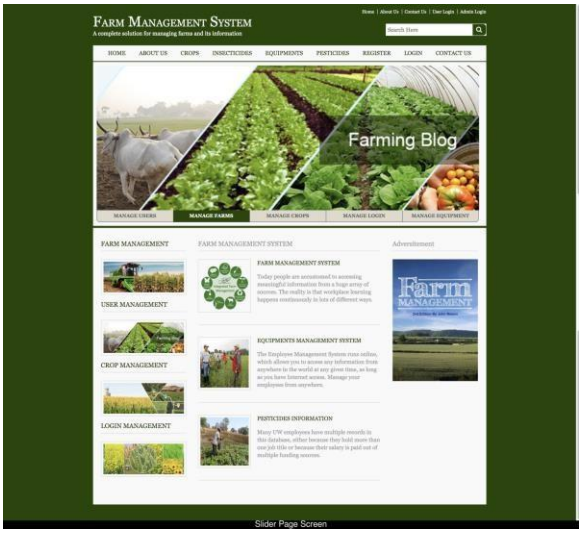

Fig 3:- Home page.

Fig 4:- About us.

Fig 5:- contact us.

Fig 6:- change password.

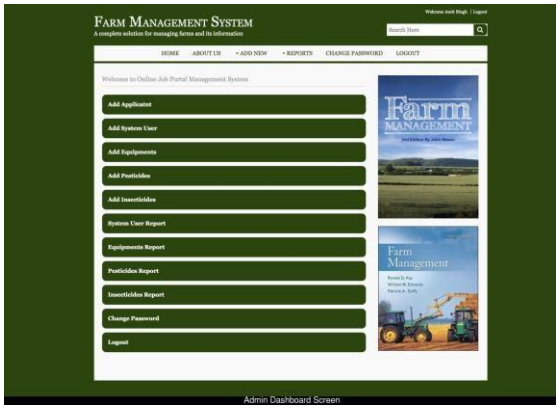

Fig 7:- Admin Dashboard Screen.

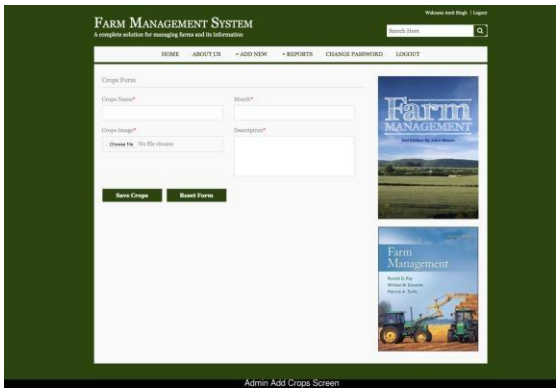

Fig 8:- Admin Add crops Screen.

Fig 9:- Admin Add Equipment Screen.

Fig 10:- Admin Add insecticide Screen.

Fig 11:- Admin Add pesticide Screen

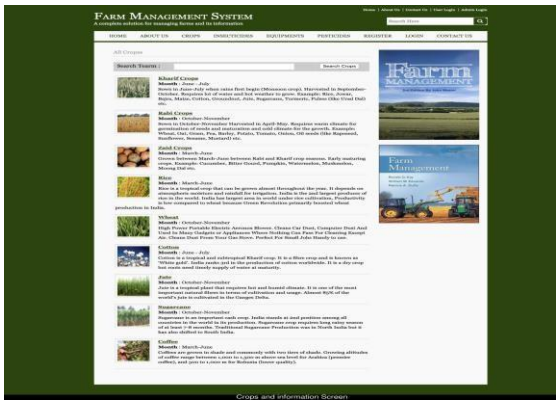

Fig 12:- Crops and information Screen

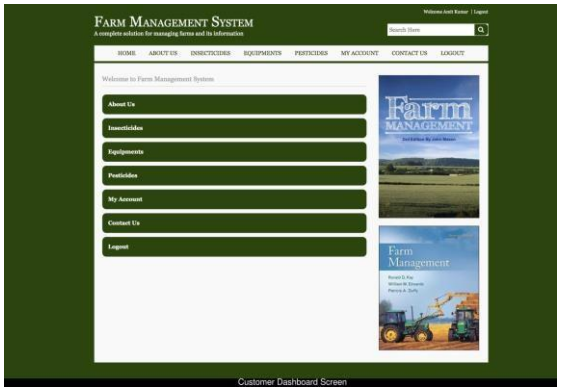

Fig 13:- Customer Dashboard Screen

Fig 14:- Customer login Screen

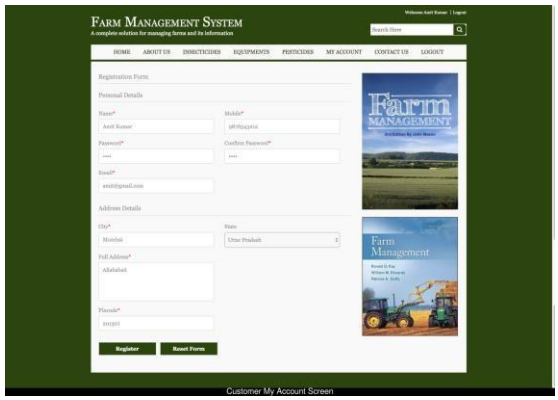

Fig 15:- Customer Dashboard Screen

Fig 16:- Customer Registration page Screen.

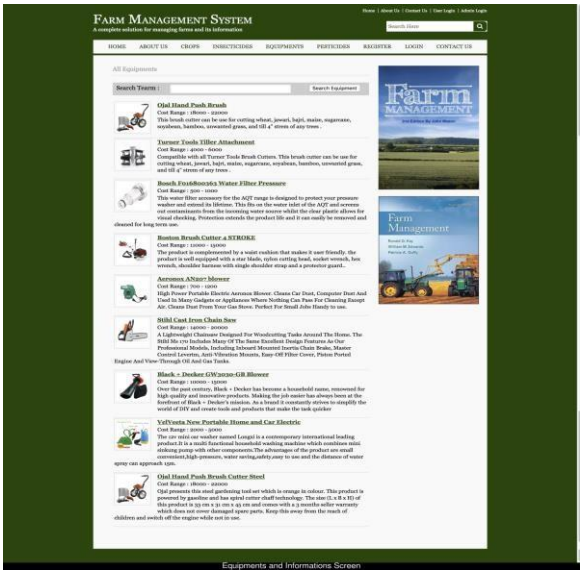

Fig 17:-Equipment's and information Screen.

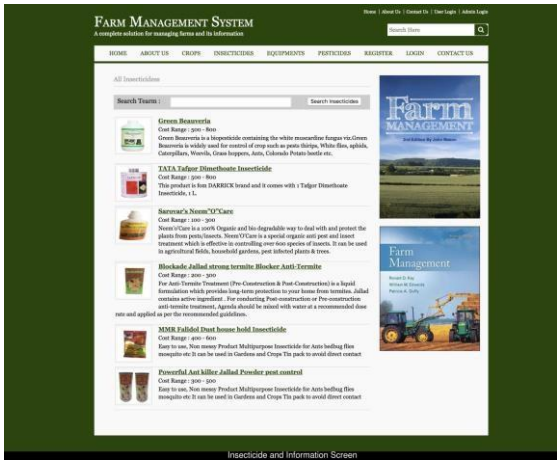

Fig 18:-Insecticide and information Screen.

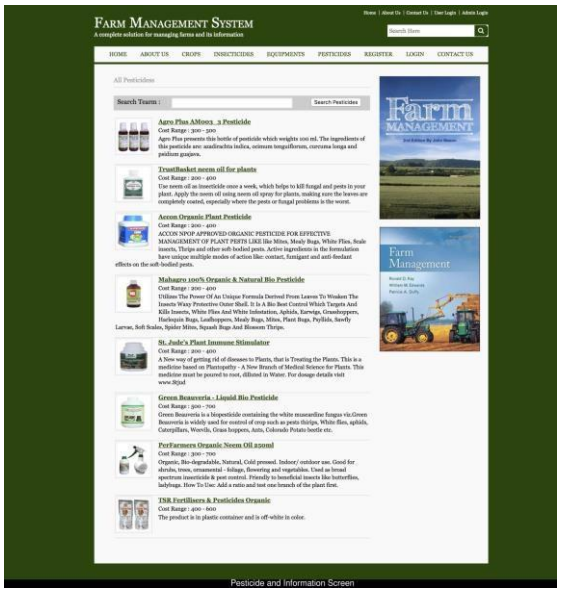

Fig 19:-Pesticide and information Screen

- We will host the platform on online servers to make it accessible worldwide
- Integrate multiple load balancers to distribute the loads of the system
- Create the master and slave database structure to reduce the overload of the database queries
- Implement the backup mechanism for taking backup of codebase and database on regular basis on different servers

The points listed above are improvements that can be made to improve the project's applicability and use. We can keep track of crop and equipment records here. Furthermore, as can be seen, today's players are adaptable, implying that there is room for implementing a method to sustain the Farm Management System. Enhancements should be made to keep all of the crops and equipment in good shape.

We've left all of the options available so that if the user has any additional requirements for the system's improvement

Future Scope of the Project:

In a nutshell, the project's future scope revolves around the preservation of knowledge pertaining to:

- We can add printer in future.
- We can give more advance software for Farm Management System including more facilities

in the future, they can be implemented. Finally, we'd like to express our gratitude to anyone who was directly or indirectly involved in the creation of the system. We hope that the project will achieve the goal for which it was created by highlighting progress.

VI. Limitation of Project on Farm Management System

Despite my best efforts to make the app versatile and easy to use, I cannot rule out the possibility of limitations. While the programmer provides a wide variety of options to its users, some complex options were unable to be included, partly due to logistical constraints and partly due to a lack of sophistication. Due to a lack of time, it was impossible to create software that was both foolproof and dynamic. Due to a lack of time, I was also forced to overlook certain aspects, such as archiving the candidate's previous results.

Efforts have been made to make the software easy to use even for those who are not familiar with computers, but it is acknowledged that a layperson may find it difficult to use at first. To make working with the software easier for the user, assistance is provided at each step.

List of limitations which is available in the Farm Management System:

- Excel export has not been developed for Crops, Equipment's due to some criticality.
- The transactions are executed in off-line mode, hence on-line data for Insecticides, Pesticides capture and modification is not possible.
- Off-line reports of Crops, Customer, and Insecticides cannot be generated due to batch mode execution.

VII. Conclusion of the Project Farm Management System

Our project is merely a modest endeavor to meet their project management needs. Several user-friendly coding styles have also been adopted. This package will prove to be a powerful package in meeting all of the school's requirements.

The goal of software planning is to provide a framework that allows the manager to make reasonable estimates within a limited time frame at the start of the software project. This framework should be updated on a regular basis as the project progresses.

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