**Farm Management System**

**ABSTRACT**

The amazing developments in science and technology have raised the bar for human living standards. Without these improvements, the entire planet will be physically congested. Compared to other projects now in existence, this project is innovative in that it simplifies the process of getting farming. Java has been used to implement this project. The project's goal is to create an application software to lessen the human labour involved in keeping track of the farming of different crops consumed by people and getting farming on different ways based on

seasonal wise. The fast changing environment, including difficult market conditions and a high exposure to financial risks are major reasons for changing production policy. Farm Management Systems appear to be a powerful tool to deal with the new conditions. However, farmers still rely more on their intuition than on proper management tools, when it comes to running a farm business. Many farmers do not use Farm management for various reasons, like lack of knowledge and the complexity of many available farm managements. In particular for small to medium-sized farms and for multifunctional farms appropriate farm management hardly exist.

**Keywords:** Farming, Crops, Products , Admin, Customer, Orders etc.

**INTRODUCTION**

Nowadays people are putting more and more emphasis on quality of life. The food safety concern and attention are also increasing. The dairy products health security as an important part of food safety, has been on the agenda. Therefore, how can guarantee food safety has become an important research subject. Dairy farming has always been a traditional industry, but the industry development is uneven. Large dairy farms purchase foreign equipment and production experience to manage the zap, but due to limits on various aspects of funds, small or remote areas will not be able to introduce advanced equipment, they still adopt the traditional way to zap daily management. This way influence cow production management and technical support, in this context, we urgently need a reliable and advanced management methods to manage the zap.

This paper is organized as follows. In section 2, the Control Scheme And Design Of The System is presented. In section 3, according to the principle of the system, the Overall Design is given. The Hardware Design Of Actuator System is introduced in section 4. And in section5, Software Programming is completed. Finally, our work of this paper is summarized in the last section.

**LITERATURE REVIEW**

Literature review is the most important step in software development process. Before developing the tool it is necessary to determine the time factor, economy n company strength. Once these things r satisfied, ten next steps are to determine which operating system and language can be used for developing the tool. Once the [programmers](http://www.blurtit.com/q876299.html) start building the tool the programmers need lot of external support. This support can be obtained from senior programmers, from [book](http://www.blurtit.com/q876299.html) or from websites. Before building the system the above consideration are taken into account for developing the proposed system.

1. **Bryant, L. (1999): Computers on the Farm. Farmers’ usage patterns and impact on the farm management, A report for the Rural Industries Research, RIRDC Publication,no.99.13.**

Accurate and easy to use Farm Management Information Systems (FMIS) are of fundamental importance for a successful operational farm management. However, still today many farmers do not use FMISs for various reasons, like lack of knowledge and the complexity of many available FMISs. In particular for small to medium-sized farms and for multifunctional farms appropriate FMISs hardly exist. This paper aims on the deduction of a concrete FMIS from a general FMIS. The concrete FMIS has to focus on the needs of medium-sized and multifunctional farms. This means that the farmer has to be empowered to allocate the scarce resources of the farm. Therefore, we picked a German farm from the state North Rhine Westphalia as a case-study to apply a system analysis. The case study farm helps to identify and to analyze relevant material and information flows, production processes, and their interconnections and synergies

**2. Grubb, J. (2010): A Low Cost Automated Livestock Tracking System, Appalachian State University, 2010.**

Successful farming has always required intense manual labor and acute management skills. The technological advancements of two agricultural revolutions reduced the quantity of manual labor required but human direction is still necessary (Rasmussen, 1962). In the last recent years, the level of automation in farming processes has increased significantly. A main component of these new strategies is livestock monitoring information. Animal tracking provides valuable information including recent location, movement and feeding patterns, and land usage. The collection and storage of this information as well as actions based upon the information are becoming more automated. Technologies such as global positioning system (GPS), radio frequency identification (RFID), wireless networking, and mobile computing systems are being utilized to target specific needs of farmers (Barbari, Conti, & Simonini, 2010). This research will develop and evaluate a prototype data acquisition system for tracking livestock. Open source, freely distributed technologies will be utilized whenever possible in an effort to reduce cost. This study will evaluate the performance and cost of this livestock management system.

**3. Cerosaletti, P.E., Fox, D.G., Chase, L.E. (2004): Phosphorus Reduction Through Precision Feeding of Dairy Cattle, Journal of Dairy Science, Vol. 87, no. 7, pp. 2314–2323**

A study was conducted on 4 dairy farms in the Cannonsville Reservoir Basin (Delaware County, NY) to identify feeding strategies in commercial dairy herds that will reduce manure phosphorus and mass farm phosphorus balance. Lactating cow diets on all 4 farms were evaluated monthly for 28 mo using the Cornell Net Carbohydrate and Protein System. Milk production and herd reproductive performance were measured monthly. Manure phosphorus content was measured every 6 mo. Reduced phosphorus diets (precision feeding) were implemented in 2 of the herds. Mean herd phosphorus intakes in the 4 herds ranged from 107 to 165% of requirement. Dietary phosphorus intakes in the 2 herds where diets were modified were reduced from 153% of requirement to 111%, an average reduction of 25%. Predicted phosphorus intakes and manure excretions were reduced 11.8 kg/yr per cow. After dietary adjustments in the 2 herds, fecal phosphorus concentrations decreased 33%. Milk production was not adversely affected by reduced phosphorus diets. Whole farm mass phosphorus balances (amount of phosphorus remaining on the farm) on the 2 farms were reduced 49%, with the percentage of imported phosphorus remaining on the farm reduced to less than 45%. Achieving feed phosphorus reductions similar to those of this study on all of the estimated 7000 to 8000 mature dairy cattle in the Cannonsville Basin could reduce feed phosphorus imports and manure phosphorus excretions more than 64,000 kg/yr. This would slow the rate of phosphorus accumulation in agricultural soils in the Cannonsville Basin, which over time could reduce the 50,000 kg/yr average total phosphorus loading of the Cannonsville Reservoir.

1. **Kuhlmann, F., Brodersen, C. (2001): Information technology and farm management: developments and perspectives, Computers and Electronics in Agriculture, Vol. 30, no. 1, pp. 71–83.**

Our aspirations are pessimistic for the fast diffusion of complex and demanding information technology (IT) aids and decision support systems (DSSs) among farmers. This view arises from some results of the new institutional economics, recent results of empirical decision research, data from farmers applications of decision models, as well as experiences introducing farm-level DSSs by our own working group at Giessen. For some areas of decision making, one can only hope that the use of models heightens problem awareness by the user, thus providing additional insights into the usually complex decision space. If, however, farmers want to increase the economic efficiency of their production and marketing processes by decreasing waste and friction, then we must continue to develop and refine knowledge-based DSSs. Problem selection, however, should be driven by new results of empirical decision research. Because imperfect knowledge exists regarding the input-output relations of agricultural production systems, as well as about the time- and space-variant uncontrollable input variables, close co-operation with the biological disciplines of agricultural science is needed. Multi-disciplinary research and end user orientation seem to be the key factors for further progress.

**EXISTING SYSTEM**

People now a days use a manual process for buying products and required things, due to some reasons. They have got used to the manual process and they can go along with it even though there are concerns associated with it. They are reluctant to change their current process since it will be an extra effort. The farm management for a new solution. However, the customers face immense problems with the current procedure of using this manual process to getting formation items.

**Disadvantages:**

* Required Manual efforts
* Requires more time

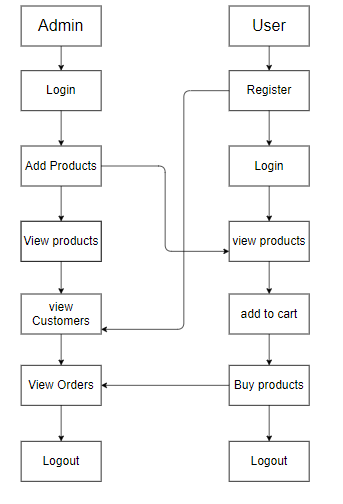
**PROPOSED METHOD**

To overcome the problem with an existing system, we are implementing an application called farm management system using java. Using this application customers can get all the products information via through his own accounts. After that customer can able to add products to the cart and buy the required things through online.

**Advantages:**

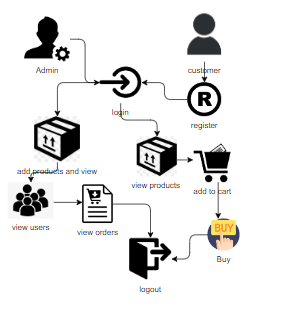
* Manual process not required
* Requires less time

**Block diagram:**

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**Fig 1. Block diagram of proposed method**

**ARCHITECTURE**

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**Fig 2. Architecture diagram**

**MODULES**

This project contains 2 modules namely,

Admin

User

1. **Admin:**

Admin must login with valid default credentials, Admin will add the products and he can able to view all added products. He can able to view all the registered customers and admin can maintain the customers , view all the orders ordered by customers

1. **User:**

User can register with his required details and must be login with valid credentials. He can able view all the products which are added by admin, add to the cart which are required and buy from cart.

**SYSTEM REQUIREMENTS SPECIFICATION**

**Functional and non-functional requirements:**

Requirement’s analysis is very critical process that enables the success of a system or software project to be assessed. Requirements are generally split into two types: Functional and non-functional requirements.

**Functional Requirements**: These are the requirements that the end user specifically demands as basic facilities that the system should offer. All these functionalities need to be necessarily incorporated into the system as a part of the contract. These are represented or stated in the form of input to be given to the system, the operation performed and the output expected. They are basically the requirements stated by the user which one can see directly in the final product, unlike the non-functional requirements.

Examples of functional requirements:

1. Authentication of user whenever he/she logs into the system
2. System shutdown in case of a cyber-attack
3. A verification email is sent to user whenever he/she register for the first time on some software system.

**Non-functional requirements**: These are basically the quality constraints that the system must satisfy according to the project contract. The priority or extent to which these factors are implemented varies from one project to other. They are also called non-behavioral requirements.  
They basically deal with issues like:

* Portability
* Security
* Maintainability
* Reliability
* Scalability
* Performance
* Reusability
* Flexibility

Examples of non-functional requirements:

1. Emails should be sent with a latency of no greater than 12 hours from such an activity.
2. The processing of each request should be done within 10 seconds
3. The site should load in 3 seconds whenever of simultaneous users are > 10000

**SYSTEM SPECIFICATIONS**

**SOFTWARE AND HARDWARE REQUIREMENTS:**

Operating system : Windows 7 or 7+

Ram : 8 GB

Hard disc or SSD : More than 500 GB

Processor : Intel 3rd generation or high or Ryzen with 8 GB Ram

Software’s : Java 8 or high version, Visual studio, Eclipse.