Milk Dairy Management System with Data Security Using RSA Algorithm

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Abstract: The application can be used by all people. This app provides a simple interface for maintenance of customer's, employer's information and also to place the orders of milk and its products. It will handle all type of customer's details, product-order details, payment details, employee's information, product details, dairy details too.

Keywords: Dairy management system, dairy business, managing dairy data, milk product, RSA algorithm.

I. INTRODUCTION

 The aim behind this Dairy Management System is to create awareness between the people and the dairy management system. By promoting the dairy products in the application and taking the online orders through this proposed system. For the admin proposed system application act as single web app where they manages all the records. Employees and all the people who contributes to the dairy business there data can be manage by admin. Managing all the data of dairy members who contributes means that updating the details records about Dairy members on the dashboard, according to individual's needs. Add product category, add product, update manufacturing details (everyday), view manufactured product quantity (per day), view booking (payment details), view sales statistics (with in group), view distributor request (authentication).

II. EXISTING SYSTEM

In this, we were analyzing how to overcome with the problems which we are facing now. Managing about problems which we facing and how they are dealing with it. Manual work is done in existing system. And manual system is hard to handle and has some disadvantages which are mentioned here.

Title: "A new super-efficiency dual- role procedure an application in dairy cold chain for vehicle selection"
Authors: Amir Shabani
In this existing system it uses Cold chain manage for system products and transportation system. It uses the DEA algorithm in propose system. In feasibility of DEA ranking model for certain data. In this paper, a new procedure is developed to rectify the mentioned shortcomings. The proposed procedure, which utilizes free disposal hull (FDH) technology, is a super-efficiency approach to provide a full ranking of efficient DMUs in the presence of dual-role factors. A case study illustrates application of the proposed procedure.[1]

Title: "Using a Dairy Management Information System to Facilitate Precision Agriculture: The Case of the AfiMilk (R) System"
Authors: Ron Berger
Now a days Agriculture adopts information technology for building useful application in that field. In this existing system they have used S.A.E algorithm to make application. This system checks the product defect, quantity, and manages all the records.[2]

Title: "A New Software Programmer for Data Management in Dairy Farms resistance"
Authors: Vasile Maciuc and Livia Vidu
In this system they have used SGBD concept in database where the dairy data is manage with high efficiency. And all the data in database is must follow some structure to make efficient use of it. This concept helps to aces the data very fast and provides good security. And this SGBD interact with database for information with accurate manner.[3]

**Drawbacks of existing system:**
1. The manual system requires more time for processing.
2. It requires more critical work.
3. The manual system is more error causing.
4. Difficult to maintain.
5. Manual system is costly.
6. Immediate response to the queries is difficult and time consuming.
7. More men power needed.
8. Manual system show of the particular place.

III. PROPOSED SYSTEM

Proposed system consist of three modules admin, employee and distributor the admin manages and update all the details about milk production quantity and view distributors request and process according to that the distributor books the order and employee delvers the accepted orders, view orders and update the status of the order.

Advantages of Proposed System:

1. The proposed system consume less time to complete the work.
2. The proposed system has less chances of inaccuracy.
3. The proposed system gives rapid results and accurate output.
4. The proposed system saves the duration and workforce.
5. The proposed system is friendly to access and any one can handle it easily who has computer knowledge.
6. Computerized data entry is done in proposed system.
7. The proposed system helps in Maintaining Dairy information, distributors, managers and employees.

IV. SYSTEM ARCHITECTURE
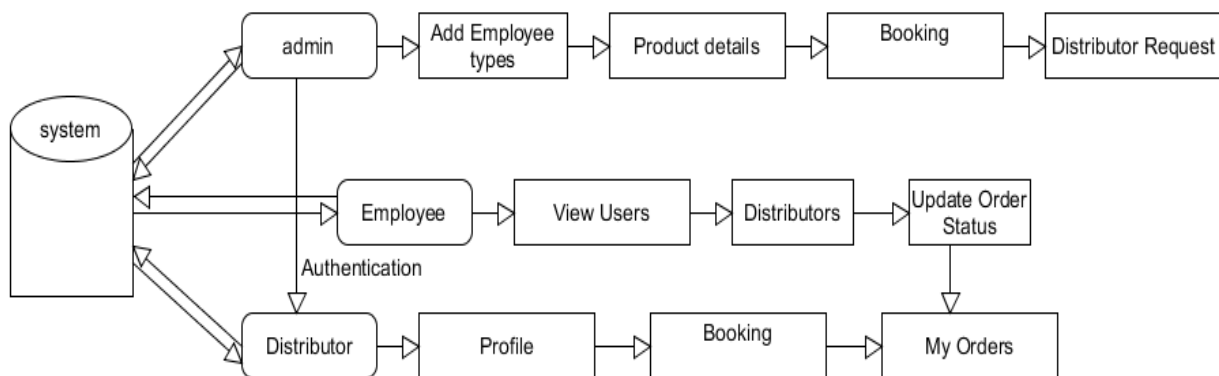
Fig. 1 Architecture of Classified Info Sharer

V. MODULES

A. ADMIN :

1. **Login :** Admin is login the system by entering password and username.
2. **View:** Admin can view profile**.**
3. **Update:** Admin can update his/her profile.
4. **Booking:** On this page distributor does booking, the admin can accept and reject it.
5. **Add Employee type:** Admin can add employee's type to the system.
6. **Add Product Category:** Admin can add product category and can update changes at any time.
7. **Distributor request:** On this page, admin accepts or rejects the distributor request for the products.
8. **View sales statics:** Here the admin can see the sales details and other how are there in the group can view the details.

B. EMPLOYEE :

1. **Login:** Employee is login the system by entering password and username
2. **View:** Employee can access profile.
3. **Update:** Employee can update his/her profile.
4. **View Distributor:** Employee can view the Distributor.
5. **Update Order Status:** Here the employee updates the order status.

C. MANUFATURE:

1. **Login:** On this page, admin updates the details manufacturing details every day.
2. **View:** Manufacturer can view profile
3. **Update**: Manufacturer can update his/her profile
4. **View Manufactured Products:** Manufacturer can view the products which are ready or manufactured and also he can update the data.

D. DISTRIBUTOR :

1. **Register:** Distributor register to the system and the data is encrypted using RSA algorithm.
2. **View:** Distributor can view profile.
3. **Update:** Distributor can update his/her profile.
4. **View** My Orders: Distributor can check his order history**.**
5. **View Product:** Distributor view the manufactured product list with cost**.**
6. **Payment:** As Distributor Order he has a payment mode to pay the bill.

E. ENCRYOTION USING RSA ALGORITHM:

1. In this process the data which has been entered by the distributor while registration is encrypted.
2. That encrypted data uses a public key to encrypt and that data is stored in database.
3. This public key in the RSA Algorithm is under the RSA Cryptography.

F. DECRYPTION USING RSA ALGORITHM:

1. In this process the data which is stored in database is decrypted using a private key.
2. The data which stored in database is in encrypted form but while accessing that data then it will be in the form of decrypted.

VI. CONCLUSION

Improved dairy management system contributed four times higher household income as compared to traditional dairy farming system in the study area. More educated people are taking up improved dairy as a regular and attractive source of income adopting improved management technology. With farmers adopting improved dairy management system the milk production had increased and adverse impact on environment had reduced. The proposed system provides a very easy GUI for admin, employee and distributors to access the system and to update the details. The admin can check and update the details about product and quality and even can accept the request from distributor, more efficient system is provided.

VII. FUTUTRE ENHANCEMENT

1. The Application can be upgraded to add new products and new modules can be added without disturbing existing system.
2. In future our project can be build using machine learning and also with using other technologies.
3. Not only in milk system management this project can be used with various different sectors to build application and parallel we can make use of this concept.

VIII. REFERENCES

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