Innovative Agriculture Application For Maximizing Profit Of Allied Business

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Abstract : The agriculture Project's objective is to increase rural income and simulate the rural economy through rural entrepreneurship. To achieve these objectives, the project focuses on improving factor productivity and competitiveness of agricultural products by providing assistance for the: : a) privatization of rural lands; b) improvement of human resources skills for entrepreneurship in rural areas; c) introduction of new farming technologies consistent with transformed private agriculture; and d) improvement in food quality. Project components include: i) Goat Farming; ii) Apiculture; iii) Cashew Processing**.**

IndexTerms - Monitoring, Databases, Information management Fodder & Supplier Management, Apiculture.

I. INTRODUCTION

Agriculture continues to play a major role in Indian Economy. Agriculture sector is changing the socio-economic environment of the population due to liberalization & globalization. About 75% people are living in rural areas and are still dependent on agriculture. About 43% of India's geographical area is used for agricultural activity. Our project is in the support of the farmer who is struggling for the betterment of our daily luxuries, as the Indian economy is increasing day by day. The aim of the project is to capture all the details of Goat Farming Apiculture. Our Farming app thinks differently about the technology in agriculture, were we believe in the world where farmers can easily capture their data. This paper identifies the objectives, constraints and needs on the two major allied Businesses and their management which are Goat Farming, Apiculture and Cashew Processing. We will be building the complete information management system for all above three modules. With the help of system analysis and software design techniques, the user can manage his business effectually and promote the economy significantly. Goat farming has been the livelihood of many rural families. We have included the calculation of no. of goats on basis of their age category, record on the basis of their genetics, their fodder management etc. We will be also focusing on Apiculture(beekeeping) where we will be adding modules for production per month per colony, date of extraction of honey, types of honey, net profit & net profit annually.

Apiculture or Beekeeping is the commercial production of honey. Apiculture is practiced form centuries and it is essential as well with lot of profit with it. Honey has been an important element in the diet of human-beings. Honey is produced by the honey bees. Apiculture is breeding honey bees for the production of bees wax and honey using the commercial as well as modern scientific methods. Bee culture practices throughout the world and in India it is most practiced in the North and South India. We are developing a complete Apiculture Management system where admin can create the colony information with all details like No. of colony, duration of colony, quantity of honey collection, labor management, what kind of labor they are skilled or unskilled. As per the honey collection from particular colony calculating the daily and yearly wages of skilled and unskilled labors.

Cashew Processing is also been an increasing business now a days. The demand for cashew nut is gradually increasing, whereas its supply is limited. India is the largest producer, processor, consumer and exporter of cashew nuts in the world. As it is very difficult to consume raw cashew and cashew apple, thus, both of them need processing before consumption. Cashew nuts, which is one the famous dry fruits, involves processing of raw cashews.

II. PROBLEM STATEMENT

We are developing a complete Web application for Goat Farming, Appiculture and Cashew processing management system,where the admin can fill in all the details of goat,beekeeping also the details of cashew processingsystem for the purpose of provding the details to the customers to maximize the profits of allied business and experience the benefits in less efforts.

III.OBJECTIVE

Develop a vision and interest of agriculture related allied business from the perspective of the project team and build the better understanding of how to develop their business on one click of button. Analyze & Specify the requirement of the related allied business and make aware how to use the system. Produce a set of specification that can be used to define flexible, dynamic and reliable working of their business.

III. NEED OF PROJECT

The System that we are developing plays an essential role in developing the allied businesses, which gives the ease of maintaining all the activities efficiently .We want to have complete automation system which will give the proper and correct output. .As we had said there is no such system available which has integration of all two systems, that's why we had decided to create such a system.

V. EXISTING SYSTEM

The traditional system is formed up pastoral system and agro pastoral system.However, some semi-intensive system,ranching and intensive husbandry are unit encountered. Many of the Non Government organizations help the rural people through network in order to give awareness about farming. They run websites by providing information which is essential for a farmer such as information about how to grow the breeds, how to use the equipments,articles of different technologies used for farming different countries. Most of the farmers in India are illiterate and since they do not know how to acces internet, they are able to utilize the facilities these NGO's are providing.

VI. DRAWBACKS IN EXISTING SYSTEM

There are many existing websites which gives loads of information about agriculture and the latest technologies. But still there arise problems in the existing system. One such reason is illiteracy. Illiteracy in India leads to many such constraints. They are as follows:

1. As many of the rural people in India are illiterates, they are unable to access the internet's and gather information about agriculture.
2. Due to lack of interaction among the people, the farmers are un aware about the camps that are held in different villages.
3. There is lot of manual work to be done.

VII. PROPOSED SYSTEM

The project will have a strong management system which is user friendly Information system for the user which fulfill the requirements of the users Targets: Mainly on Goat Farming, Apiculture and Cashew Processing

1. Developing an user friendly management Information System for the user which fulfill the requirement of the users.
2. Provide all the information for the Research Institutes, Buyers, suppliers and Investors.
3. Database updating can be done by authenticated users
4. Generating reports for the specific information what user wants.
5. Monitoring and Baking up Database and Users details for future use.
6. Provide all the information for the Research.

VIII. MODULE DESCRIPTION

Our project focuses on the modules:

1. Goat farming.
2. Apiculture.
3. Cashew Processing

In our Agricultural Management System, we had focused on the allied business which farmers are doing. We are taking care of these major allied businesses and their management

We will be building the complete information management system for above three modules. In case of Goat Farming we will take care of about why Goat Farming. Then calculation of no. of goats on basis of their age category, record on the basis of their genetics, their Fodder Management, Supplier Management etc. We will be also focusing on Apiculture i.e. beekeeping where we will be adding modules for production per month per colony, date of extraction of honey, types of honey, net profit & net profit annually. For Cahsew Processing we will be taking care of sale of cahew, Profits gained, calculations which includes salaries of the employee's. Java will be used to create the front end for the system and MY SQL Server will be used to create the back end. The graphical user interface of the front end uses Java AWT, Swings and access the back end MYSQL Server Database using embedded SQL Queries for the retrieval and updating the data.
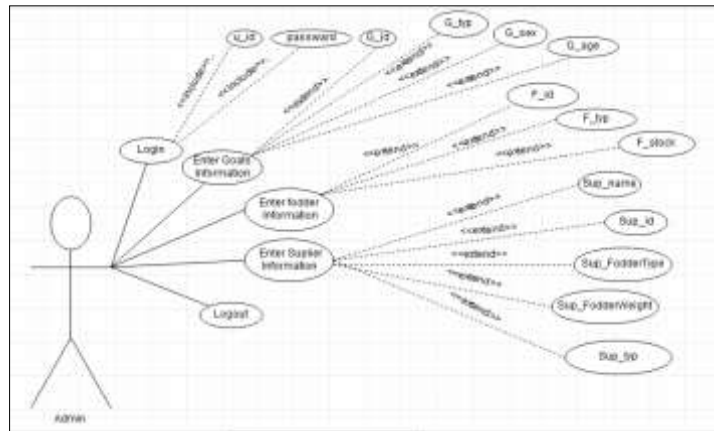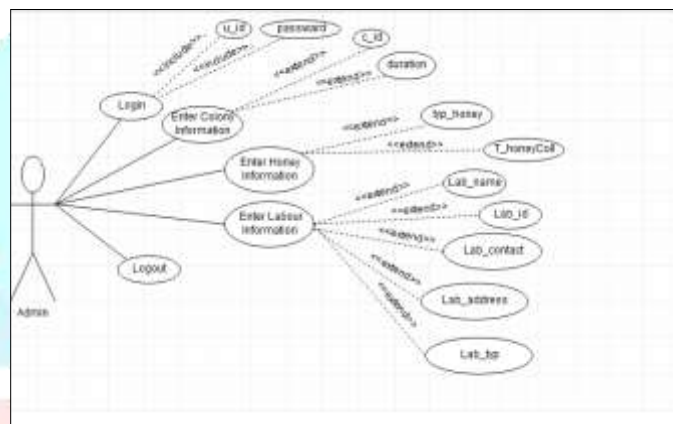
FIG.: USE CASE - GOAT FARMING

FIG.: USE CASE - APICULTURE

IX. SYSTEM ARCHITECTURE

A system architecture can comprise system components, the expand systems developed, that will work together to implement the overall system.
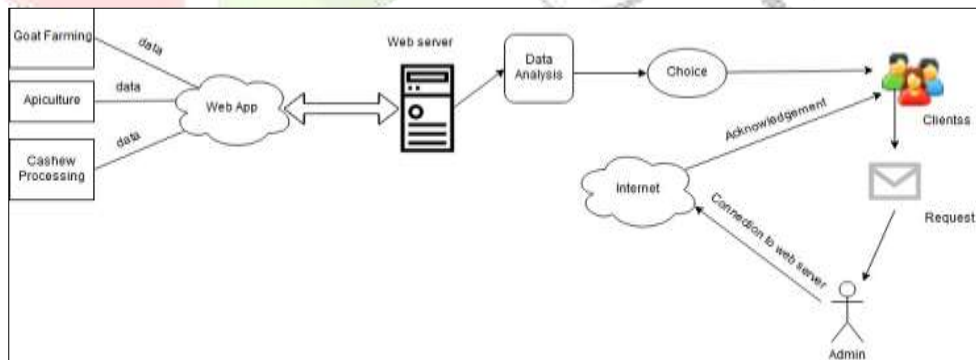

FIG.: SYSTEM ARCHITECTURE

X. MATHEMATICAL MODEL

1.LOGIN FORM

- *Input***:** admin, password
- *Procedure***:** Authenticate and authorize user check whether the user name and password is matched   with existing username and password in database

- *Output:* if admin is authorized then login successful otherwise show message "insert valid name or password".

2. GOAT INFO

- *Input*: id, gender, weight, type, birth date, Age Calculation,
- *Procedure:* Registered goat information and confirm the details of the info and add the details of these info in database.
- *Output:* On the basis of display the age of all goats in category wise that are, 1-3 Months, 3-6 Months, 6 Month-1yr,Above 1 yr.

3. FODDER MANAGEMENT INFO

- *Input*: f_id, f_name,goat_id(Foreign key), f_type
- **Procedure:** Fodder requirement per month=?
- Hydroponic production per capital/per day/ per month/ per year=?
- Stock of hydroponic seeds=?
- Fodder per capital(calculate green/dry fodder for total number of goats? per day)
- Vaccination- % of vaccination
- **Output:** Display DOB of goat, gender, Specialization of particular goat

4. APICULTURE (BEEKEEPING) INFO

- *Input:* Colony_id, Honey_type, Labor_id, etc.
- *Procedure*: No of colonies?
- Production per month per colony=?
- Total honey collected=?
- Man skill labours cost for e.g. 5000*12=60000
- *Output*: Display the net profit annual.

5. CASHEW PROCESING INFO

- **Input:** Sup_record, Labour, Customer, Cashew entries.
- **Procedure:** Take data of cashew
- Data processing
- Stock in kg
- Calculate Cashew process per day
- Calculate rate per kg
- Calculate the utilization
- Calculate the profit
- *Output:* display the net profit of business

## XI. IMPLEMENTATION

1. LOGIN PAGE:
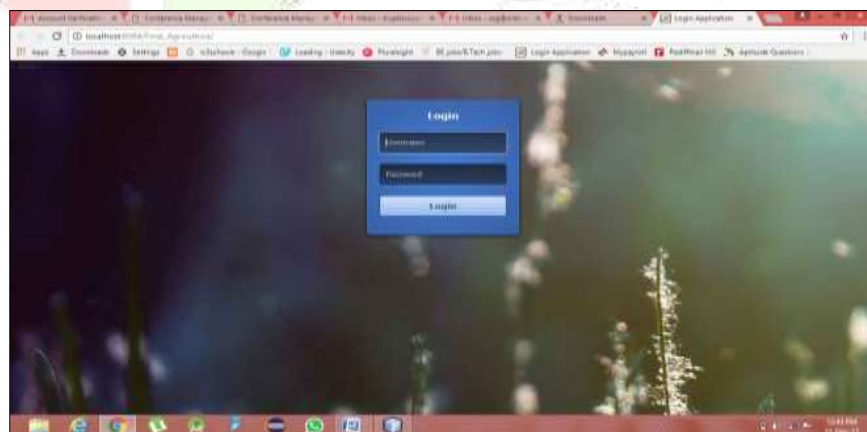
- Here the admin log's in using a specific "user _id" and" password"
- When login is successful a alert message pop's up saying "successfully logged in

2. Second page

- Her we display our main the modules included in project i.e. Goat farming, Apiculture, Cashew Processing.
- User can opt for any of the one that he wishes to enter in.

3. Module-1:Goat Farming
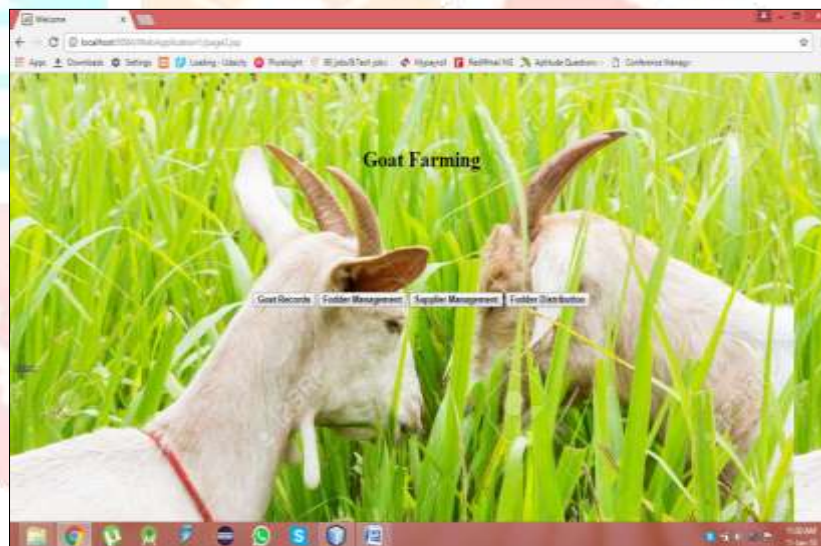
- Here we enter into the 1st module i.e. Goat Farming, it includes four sub-modules namely Goat records, Fodder Management, Supplier Management, Fodder Distribution.
- User can opt for any of the one that he wishes to enter in.

4. Goat Information-Insertion table for Goat information
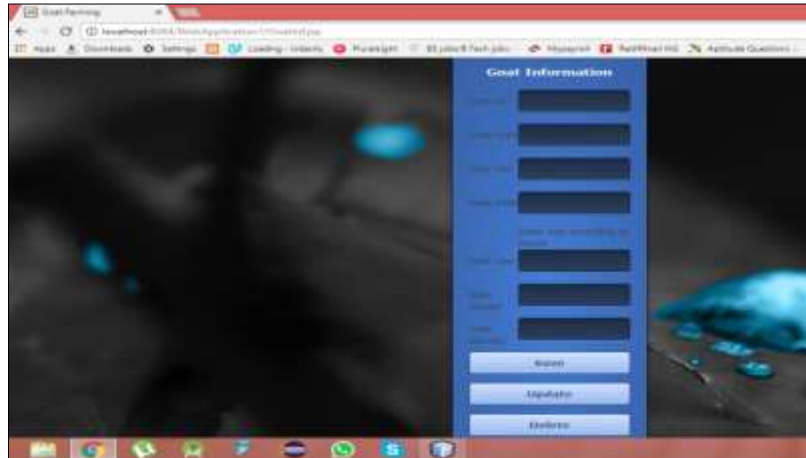
- Here we fill in all the detailed information about the Goat which includes Goat ID, Goat Type, Goat sex, Goat DOB, Goat Age, Goat Weight, Goat Genetics.
- Its also include the operations like Save which saves the filled details, Update is used to update the Goat information, Delete operation is used to delete the records of particular goat, View is used to see all the records that are present in table.

5.) Goat Display

- Here all the records which are entered in the Goat information page is displayed in the form of table
- It also displays the calculations and count of particular input.

6.)Fodder Management - Insertion table of fodder management details
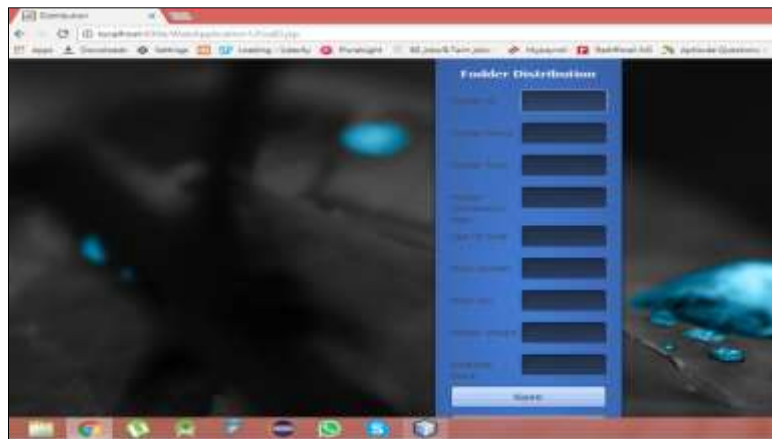
- Here we fill in all the detailed information about the Fodder Management which includes Fodder ID, Fodder Name, Fodder Type, Fodder Distribution Status, Goat sex, , Goat Age, Fodder Weight, Goat Genetics, Available Stocks.
- Its also include the operations like Save which saves the filled details, Update is used to update the Fodder information, Delete operation is used to delete the records of particular of Fodder, View is used to see all the records that are present in table.
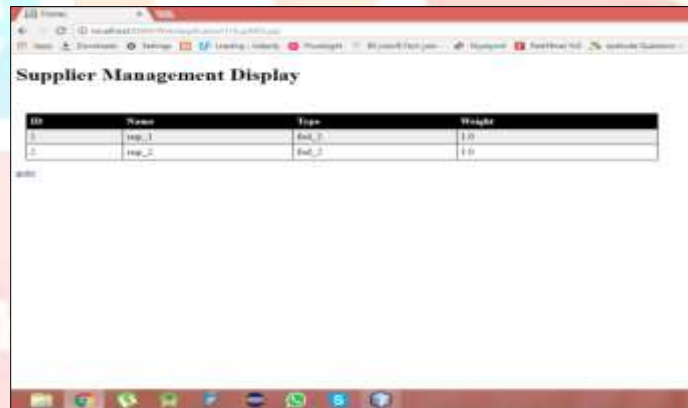
7.) Fodder Management Display

- Here all the records which are entered in the Fodder management page information is displayed in the form of table
- It also displays the calculations and count of particular input.

8.) Supplier Management - Insertion table supplier details

- Here we fill in all the detailed information about the Supplier Management which includes Supplier ID, Supplier Name, Supplier Fodder Name Supplier, Fodder Weight.
- Its also include the operations like Save which saves the filled details, Update is used to update the Supplier information, Delete operation is used to delete the records of particular Supplier, View is used to see all the records that are present in table.

9.) Supplier Management Display

- Here all the records which are entered in the supplier management page information is displayed in the form of table

10.) Fodder Distribution - Insertion table for Fodder Distribution
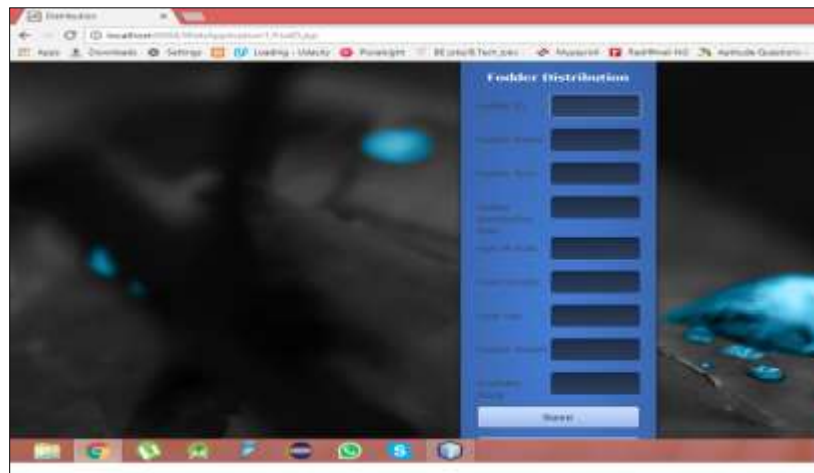
- Here we fill in all the detailed information about the Fodder Management which includes Fodder ID, Fodder Name, Fodder Type, Fodder Distribution status, Fodder Weight, Age of Goat, Available.
- Its also include the operations like Save which saves the filled details, Update is used to update the Fodder information, Delete operation is used to delete the records, View is used to see all the records that are present in table.
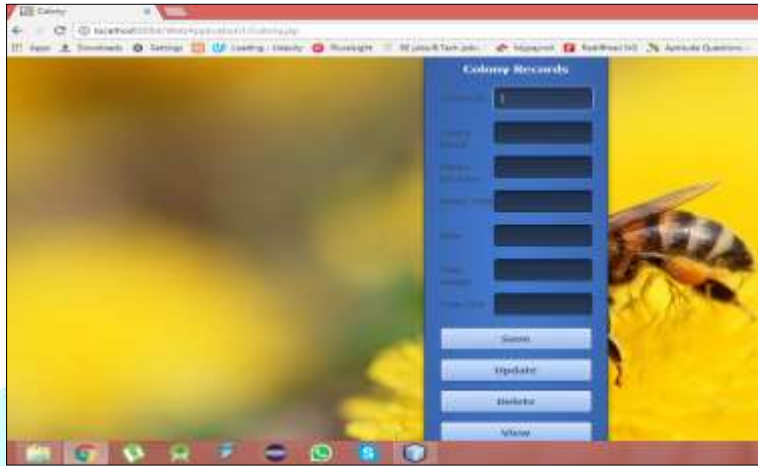
11.) Fodder Distribution Display

- Here all the records which are entered in the Fodder management page information is displayed in the form of table

12.)Module 2- Apiculture

- Here we enter into the 2nd module i.e. Apiculture, it includes three sub-modules namely Colony Records, Honey Collection, Labor Details .
- User can opt for any of the one that he wishes to enter in.

13.)Colony Records - Insertion table for colony details

- Here we fill in all the detailed information about the Colony which includes Colony ID, Colony Name, Colony Duration, Honey Type, total Weight.
- Its also include the operations like Save which saves the filled details, Update is used to update the Colony information, Delete operation is used to delete the records of particular Colony, View is used to see all the records that are present in table.
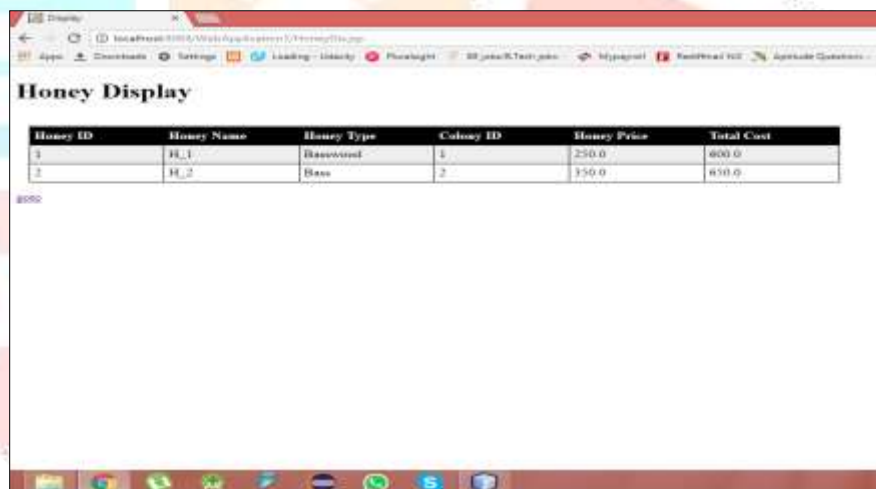
14.)Colony Display

- Here all the records which are entered in the Colony Record page information is displayed in the form of table.

15.)Honey Collection- Insertion table for Honey collection

- Here we fill in all the detailed information about the Honey Collection which includes Honey ID, Honey Name, Honey Colony ID, Honey Type, Total Honey Cost
- Its also include the operations like Save which saves the filled details, Update is used to update the Honey information, Delete operation is used to delete the records, View is used to see all the records that are present in table

16.)Honey Displa

- Here all the records which are entered in the Honey Collection page information is displayed in the form of table.

17.)Labor Detail - Insertion table for Labor Details

- Here we fill in all the detailed information about the Labor which includes Labor ID, Labor Name, Rate, Labor Type, Total Labor Cost, Migration Cost, Feed Charges, Total Expenses.
- Its also include the operations like Save which saves the filled details, Update is used to update the Labor information, Delete operation is used to delete the record of particular Labor, View is used to see all the records that are present in table

18.)Labor Display

- Here all the records which are entered in the Labor details page is displayed in the form of table
- It also displays the calculations and count of particular input.

19.)Module-3: Cashew Processing

XI. CONCLUSION

The agricultural sector is of vital importance for the region. Agricultural development is a complex process of interaction between the physical input-output relations, to avail easy system for the user we are developing application for increasing the profits in a more interactive way. As we had said there is no such system available which has integration of all three systems, that's why we had decided to create such a system. We want to have complete automation system which will give the proper and correct output.

XII. FUTURE SCOPE

Maintaining backup servers for efficient on line service modifying database according to user request .Developing whole information system which is a automation system to give convenient service. More User Attraction : We can include current market price of the products This project may also lead in making for a mobile App. The report which will be generated will be self-explaining and will help the user to have better control on the management of all this units. Any user can retrieve data form the Information System.

Authenticated users in each major Institute are given permission to insert information though the internet but not to delete. Only data administrator can delete unnecessary information and modify the database. Generating all reports for goat farming and apiculture which will help the user of system to manage the information system properly and generate maximum revenue from that unit.

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