CHAPTER 1

1. Introduction

1.1 Background

In Nepal dairy Development activities begin in organized way in 1952 with the introduction of Swiss alpine cheese making technology to the high mountains experimental production of Cheese, which led to the establishment of Yak Cheese factory in Langtang of Rasuwa district, with financial assistance from New Zealand and technical assistance from Food and Agriculture organization (FAO) assistance in 1953 [1]. According to [5] Dairy development activities by His Majesty's Government (HMG) in 1952 a dairy development section was established under the Department of Agriculture (DOA) and also a small scale milk processing plant was started on experimental basis in Tusal, a village in Kavre Palanchowk district. In 1955, a Diary Development commission was formed.

In 1956, a central dairy plant with an average milk processing capacity of 500 LPH was established in Lainchaur, Kathmandu. At the same time, Nepal's second mini milk processing plant was established at kharipati, in Bhaktpur district. The plan started processing of milk and marketing activities from 1958. By 1960 pasteurized milk in aluminum foid-capped bottles was on sale in Kathmandu [4,5].

According to [1,2], The Dairy Development Commission converted into the dairy development board in 1962 and in order to meet the growing milk demand in Kathmandu, this board was converted into the Dairy Development Corporation (DDC) in july 1969 under the corporation Act 1964. Its major objectives are to:

- ❖ Provide a guaranteed market for milk to the rural farmers with fair price.
- ❖ Supply pasteurized milk and milk products to urban consumers.
- ❖ Develop organized milk collection system to meet increasing demand for pasteurized milk and milk products and
- ❖ Develop an organized marketing system for milk and milk products in urban areas.

A skimmed Milk Power Plant (SMP) was established in Biratnagar in 1991 which relieved DDC from problem of "Milk Holiday" (the day on which milk is not procured from the farmers by the DDC). The DDC gradually established various milk supply schemes to meet the growing demand for processed milk and milk products [10,11]. They are:-

Kathmandu Milk Supply Scheme(KMSS) in 1978

Biratnagar Milk Supply Scheme(BMSS) 1973

Hetauda Milk Supply Scheme(HMSS) in 1974

Dairy product Production and sales and distribution scheme:-Produces only milk products such as cheese, Paneer, mozzarella, Chhurpi etc and does not sales milk. In 1979

Pokhara Milk Supply Scheme (PMSS) in 1980

Lumbini Milk Supply Scheme (LMSS)

Janakpur Milk Supply Scheme (JMSS)

Nepaljung Milk Supply Scheme (NMSS)

These schemes were involved in both the collection and processing of milk and milk products. In 1981 under the DDC, Milk Producers' Associations (MPAs) were established to increase the participation of farmers in dairy development in an organized way. Later the MPAs were transformed into Milk Producers' Cooperatives (MPCs). Presently there are about 1000 MPCs and their milk sales in 1998-99 were 1778829 litres [11].

Nepal is a net importer of milk and milk products. In the past decade the private sector increased its presence in a dairy industry which was dominated by the state owned DDC. Farmers are still facing "milk holidays" and milk and milk product imports are not decreasing. According to [3], to sustain and further improvement of the dairy processing industry in Nepal, it must become competitive in terms of cost of production, quality and quantity [1, 2].

1.2 Diaries in Private sector

As in [1] the private sector started getting involved in the dairy-processing sector from late 1970s with very small-scale operations in Kathmandu. Today, there are many private dairies (including cooperatives) of various sizes both within and outside the Kathmandu

valley. Many large and small dairies have been established in the private sector. The Nepal dairy was the first dairy established in Katmandu, followed by the Himalayan Dairy of lalitpur. Prominent among the private dairies with modern milk processing facilities are Nepal Dairy, Himalaya Dairy,Sitaram Dairy, Anmol Dairy, Kathmandu Dairy, Adhunik Dairy etc in Kathmandu Valley;Sujal Dairy in Pokhara Valley, and Kamdhenu Dairy in Sunsari. These dairies produce pasteurized milk and other dairy products such as yoghurt, ice-cream, butter, ghee and the like. Besides, there are many small scale mechanized dairies and numerous cottage type dairies handling limited quantity of milk for producing different milk products particularly pasteurized milk, ghee, ice cream and yoghurt. Similarly, the private entrepreneurs have also involved in producing cheese in the mid and high mountain regions from cow. According to available information, altogether 250 dairies of varying scale are operating in the country After that other private sector dairy organization are established to full fill the requirements of milk and its product [24]. The processing facilities and working conditions in these private dairies vary widely from simple cream separator dairies to well-established dairies with a collection network and processing facilities. These private companies are adding the challenges to manage its production. The private dairies have distribution and sales system similar to those of the DDC, with booths located in urban areas as well as direct sales from their plants. Some dairies compete with the DDC on milk routed and secure quality milk by paying a premium price [22]. The small private dairies pay contractors to collect their milk and some have their own dairy farms. It is believed that about 35% of the market share is controlled by private dairies. The private dairy entrepreneurs have established an association called Nepal Dairy Association (NDA) in 1998. It has 136 small, medium and large scale member dairy industries throughout the country. The main objectives of the association are to work for common causes of the dairies in Nepal and make technical support available to its members. Its commitments are to support dairies for their processional development, explore new technologies and transform these among its members [24].

1.3 Milk Collection

At present, the DDC has a milk collection network in 36 districts throughout the country. DDC is engaged in commercial activities of collecting milk from rural areas, processing it to milk and milk product and distributing them to urban consumers [4]. It is also the leading agency of fixing the price of milk and milk product. The main problem facing DDC is the shortage of good quality raw milk whereas demand for its milk and milk products in the urban areas is increasing. In an effort to fulfilling the increasing demand for milk and milk products, DDC has expanded its milk collection network in distant rural areas [10]. However, DDC is not engaged in executing neither milk production programs by providing technical as well as financial supports to the rural milk producers nor milk Quality improvement programs in its milk shed areas. Its activities are limited only to milk collection [11].

1.4 Dairy Product Consumption Pattern

[1,2], In earlier days when there were no organized dairies, demand for milk was fulfilled by raising cows/buffaloes by the people themselves or through the direct supply from the professional milk producers. These producers used to go house by house and deliver the required quantity of milk to the households. Dahi (youhurt) filled in clay containers were produced by some traditional dahi makers and milk-based sweets were prepared by the traditional sweet makers (haluwain). But after the advent of DDC, the scenario began to gradually change with the increasing supply of pasteurized milk and modern dairy products such as cheese, butter, ice cream etc. Many new sweet shops also started to emerge. Now, particularly in the urban areas, the situation has completely changed because many dairies in the organized sector have come up with varieties of dairy products. Besides, different dairy products are also imported to cater the consumers' demand.

[10,17] Fluid milk consumption among households in urban areas is widespread. About 88% of urban households consume fluid milk regularly and another 7% occasionally. the habit of drinking milk regularly has not yet been developed in Nepal. Milk is drunk regularly by family members of less than 20% of households. Even among children, the percentage of regular consumers of milk is low at 18%. In urban areas, the use of milk for

tea is popular; about 94% of households use milk for tea whilst 60% drink it as milk. [FAO], Various brands of the locally produced as well as imported modern and traditional milk products of varying categories are sold in the urban markets of Nepal. Kathmandu valley is the main market of the milk products. The major milk products available in the markets are imported Skim Milk Powder (SMP), Full Cream Milk or Whole Milk Powder (WMP), infant milk formula, diary whitener, cheese, butter, sweetened condensed milk, ice cream and ghee; and locally produced cheese, butter, ghee, ice cream, paneer and yoghurt. Milk products from more than 20 countries from Asia, Europe, Australia and North America compete in the Nepalese market. Different varieties with various sizes and from ordinary to advanced packaging are available for most of the products. Milk products being available in the local urban markets indicate that there is ample demand for the modern as well as traditional dairy products. The demand for dairy products in the urban markets is expected to grow in the future mainly due to the increasing population and rise in income. Additionally, exposures to outer world mainly through the TV have particularly attracted the educated younger generation to consume the modern dairy products. Moreover, their demand is also expected to rise due to the increasing establishment of hotels and restaurants. Some years ago many people even in the urban are as did not hear the name of Pizza. But now it has become a popular food item among the younger generation resulting in high demand for mozzarella cheese. Similar is the case with ice cream and paneer.

[3] The DDC is a major manufacturer of products for domestic consumption. Institutional sales account for some 80 percent of SMP and 50 percent of butter and cheese sales. Major institutional buyers are 210 hotels, 220 trekking agents, and the military and paramilitary forces. Mainly the public and private dairies to raise SNF content of liquid milk use the milk powders. Other users of milk powders were ice cream manufacturers, bakeries, confectioneries, and the military and paramilitary force. The institutions are conscious of quality as well as of price. Hotels and restaurants want packaging convenient to their volumes of sales; trekking agencies prefer consumer packs. . Cheese production and consumption is largely found in the hills and mountains. Yak milk cheese is the major product. DDC does have facilities to produce cheese from Yak, Chauri, Cow and Buffalo milk and, during 1997-98 manufactured approximately 175 tons.

CHAPTER 2

Production management System

2.1 Introduction

According to [12, 13], Production may be defined as conversion of inputs-men, machine, money, methods and management into output through a transformation process. Production includes the steps of conversion of one input into another useful product through chemical or mechanical process. So production is an organized activity which transforms the various inputs into useful outputs. Out put may be goods produced or services rendered. Production is a scientific process which involves transformation of raw material (input) into desired product or service (output) by adding economic value.
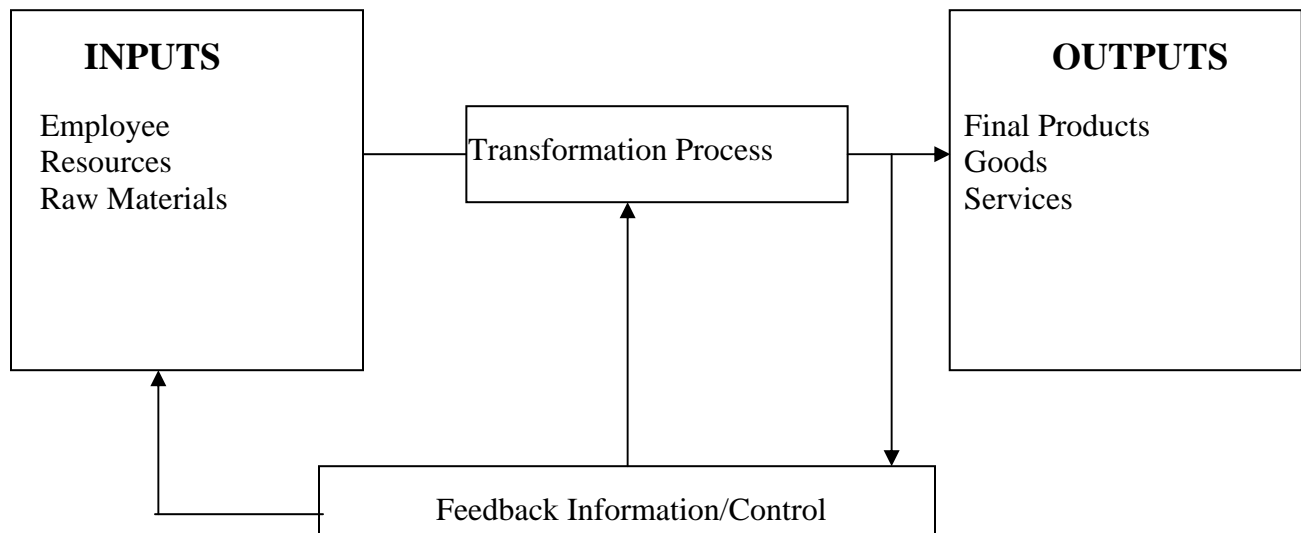
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┌─────────────────┐        ┌──────────────────────┐        ┌─────────────────┐
│    INPUTS       │        │ Transformation Process│        │    OUTPUTS      │
│                 │───────▶│                      │───────▶│                 │
│ Employee        │        └──────────────────────┘        │ Final Products  │
│ Resources       │                                        │ Goods           │
│ Raw Materials   │                                        │ Services        │
│                 │                                        │                 │
└─────────────────┘        ┌──────────────────────┐        └─────────────────┘
        ▲                  │ Feedback Information/ │
        └──────────────────│      Control          │
                           └──────────────────────┘
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Figure 1: - Production Function

The above figure explains the systems aspect of production function of an organization. Inputs are indicated on the left hand side and convert them into useful product using the transformation process. In the process of conversion, definitely, there will be some deviation in the product's attributes like quantity, size, shape and number of units produced. It is highly essential to communicate these deviations to the input stage in the form of feedback for making necessary corrections, like change in the production plans,

like increase or decrease in volume of production, check on the incoming raw materials quality etc.

Input	Transformation Process	Output
Elements	Conversion	Useful Products
Materials	Machines	Products
Data	Interpretation	Knowledge
Energy	Skill	Services
Variable cost	Fixed cost	Revenue

Table 1: - Production System

Production function shows the relationship between the input and the output of an organization. By the study of production function, the maximum output which can be achieved with given inputs. The production function can be represented by the simple mathematical equation which relates the outputs as the function of inputs, that is

$$Y = f(X1, X2, …., Xn)$$

Where Y = units of output, which is the function of the quantity of two or more inputs

X1= unit of labor, and

X2 = unit of machinery, and so on.

Some quantities of production are assumed as fixed, that is not varying with change of output, and such quantities never enter in the equation.

2.2 Production Management System

Production Management [3], involves the planning, organizing and controlling of the whole production process. The interrelation of these activities and operations involved in producing the goods and the services is called a production system. Production management is may be defined as management function which plans, organizes, co-ordinates, directs and controls the material supply and Processing activities of an enterprise, so that specified products are produced by specified methods to meet an approved sales programme. Thus production management is concerned with the decision making on the basis of cost, productivity, efficient utilization of resources regarding the

7

production of goods and services at minimum cost according to the demands of the customers through the management process of planning organizing and controlling. Production management database is prepared by accounting Production quality, Material required, Rejection quantity, Breakdown details, Power requirements and Work load entities. Information on machine, Worker or process data is a query in production management i.e. loads status on machines, standard products and processes etc. Repot can be generating in different formats which is required for record and analysis purpose. Reposts are also useful in deciding strategy of organization.

2.3 Used Production Management System

Production management mainly associated with the factory management as the problem of production can be removed with the development of factory system. The objectives of the production management are "to produce goods services of right quality and quantity at the right time and right manufacturing cost".

Right Quality

The quality of product is established based upon the customers needs. The right quality is not necessarily best quality. It is determined by the cost of the product and the technical characteristics as suited to the specific requirements

Right Quantity

The manufacturing organization should produce the products in right number. If they are produced in excess of demand the capital will block up in the form of inventory and if the quantity is produced in short of demand, leads to shortage of products.

Right Time

Timeliness of delivery is one of the important parameter to judge the effectiveness of production department. So, the production department has to make the optimal utilization of input resources to achieve its objective.

Right Manufacturing Cost

Manufacturing costs are established before the product is actually manufactured. Hence, all attempts should be made to produce the products at pre-established cost, so as to reduce the variation between actual and the standard (pre-established) cost.

2.5 Objectives:-

❖ To maintain the quality of product with right manufacturing cost.

❖ To satisfy customer with excellent response time.

❖ To help to manage the utilization of available resources.

CHAPTER 3
Research Methodology

3.1 Literature Review

The DDC and private dairy runs with a traditional production oriented approach [7] without a quality focus, care of response time and consumer satisfaction. Both the DDC and the private dairy sector have concentrated on manufacturing basic dairy products, such as pasteurized milk in plastic pouches, and butter and ghee from the excess milk fat etc. production management system can be take some decision like, forming new technology department , buying new software, new product planning etc. So far, the dairy sector in Nepal has made little effort to find new markets for existing products. The private sector lacks manpower, new technology and without used Information Technology for product diversification. Whatever has been done is based on experience rather than on the basis of formal technical training. Product diversification needs investment and high quality raw materials; accordingly, many dairies find it a problem. Development of human resources and training is an important factor of the development of the dairy sector.

According to [8], 58% of the total milk production at a dairy farm is retained at home for consumption. Estimates of projected milk supply and demand were made based on assumptions about growth rates of the population, incomes, and income elasticity of milk demand until 2015. Most of the demand for milk is in urban areas where approximately 15% of the population currently lives and where average income and population growth rate are higher than in rural areas. The milk consumed in rural areas is the non-purchased, produced at the smallholders' dairy farms in rural areas, whereas much is consumed in the major urban areas, in particular Kathmandu Valley. In the absence of an assured market, the producers do not have an incentive to invest in good breeding stock, feeds, or veterinary medicines and services. Without these inputs, it is difficult to raise productivity and profits. Similarly, because of the low purchasing power of the consumers, the effective demand for milk locally is also low, necessitating transportation to major urban areas for marketing. At the same time the price the DDC pays to farmers

does not match growing feed prices [10]. The price paid by the government is not determined by market mechanisms and this creates difficulties for private entrepreneurs to compete effectively with the DDC. Although the private sector is not bound to follow the DDC's pricing policy, its prices act as a reference point for buyers. Consequently, private dairies are seen to operate and expand only in those market segments not reached by the DDC.

[8], the problem of milk quality worsens when there are deliberate attempts to reduce milk quality made with the intention of monetary gains. At some units, raw milk is exposed to various kinds of adulteration; substances are added to change the chemical composition of the milk to increase payments. At each point in the chain, quality control and monitoring activities are not performed effectively. Most dairy farmers keep their animals under poor management conditions; they milk their stock and store raw milk within the farm premises in unhygienic conditions, then transport the produce in unhygienic ways, which affects its quality. The problem of quality in milk collection will be solved to a greater extent if chilling of milk can be performed as close to the milk production point as possible. Consumers have the tradition of boiling their milk, they are aware that the quality of milk is low and that they need to repeatedly boil their milk during the day due to the lack of the information about the processed milk. There is a need to improve the safety of milk. The share of milk consumed by children and elderly people seems to be low. For this reason, it is necessary to adversities and promotes the nutritional qualities for fresh milk for key age groups of consumers. Children would be an important target group. For milk products, consumption is primarily concentrated on traditional product like ghee (45% of households) and yoghurt (33% of households). Overall milk and modern dairy product consumption in the urban are as of Nepal is low mainly because milk being primarily used for tea and traditional food habit does not include modern dairy products. Moreover, high prices of milk and milk products have also restricted common Nepali people to consume these products. The measures to promote domestic market should include launching of a massive generic advertisement program regarding advantages of milk and milk products so as to increase awareness on the usage of good quality milk and milk products, targeting milk consumption for schoolchildren, campaigning to vulnerable groups through health programs, quality

improvement, emphasizing product development including packaging. Efforts should me made for keeping the price of milk and milk products within the reach of general consumers.

[5], Milk holidays refers to days in the week when public or private dairy organizations do not buy milk from their regular suppliers, are largely a phenomenon of the flush season (September to March) during which the supply of milk is four times greater than in the lean season. The large seasonal difference in milk production in the country is attributed to short supply of green fodder to buffalo, which calve during August to September. Existing milk pricing systems also give higher value to buffalo milk (on a milk-fat basis) than to cow milk. The import of cheap skimmed milk powder is cited as another key reason for milk holidays. The BMSS skimmed powder plant helped reduce the severity of the milk holiday. Skimmed milk powder is entering the country at a price of less than, far less than even the production cost in Nepal. BMSS was unable to sell skimmed powder to the private sector, they use of the imported product. Lack of development of the dairy industry in Nepal is also because of the uncontrolled use of milk powder.

CHAPTER 4

System Analysis

4.1 Study of Existing System

The old system in the Dairy Production Management System to write each and every a record in file. The product and used raw materials are entered in a record manually. For each and every product, they are entered, data in record files. Till date, all such information was stored in the form of paper. Hence it becomes difficult to manage such information by the current manual system. Also the information stored on paper is not reliable and hence retrieval of any data becomes inconvenient and time consuming. This leads to wastage of a lot of time, effort and space.

The defects in the existing system:-

- ❖ Lack of proper information storage.
- ❖ Lack of proper searching mechanism.
- ❖ Lack of reporting in time.
- ❖ Lack of proper communication between employee and manager.

4.2 System analysis

The analysis of Dairy Production Management System in this project uses the well defined principle of structured analysis. In this conventional method of software engineering practice using the context diagram and the data flow diagram the overall model of the system is presented. To complete the model the preliminary analysis has been done, where basically communicating with the dairy technologist and with the reference with dairy product manual, to gain the complete insight of the process. The details of communications are not considered here in this report. The figures show the detailed analysis model of the system that is proposed.

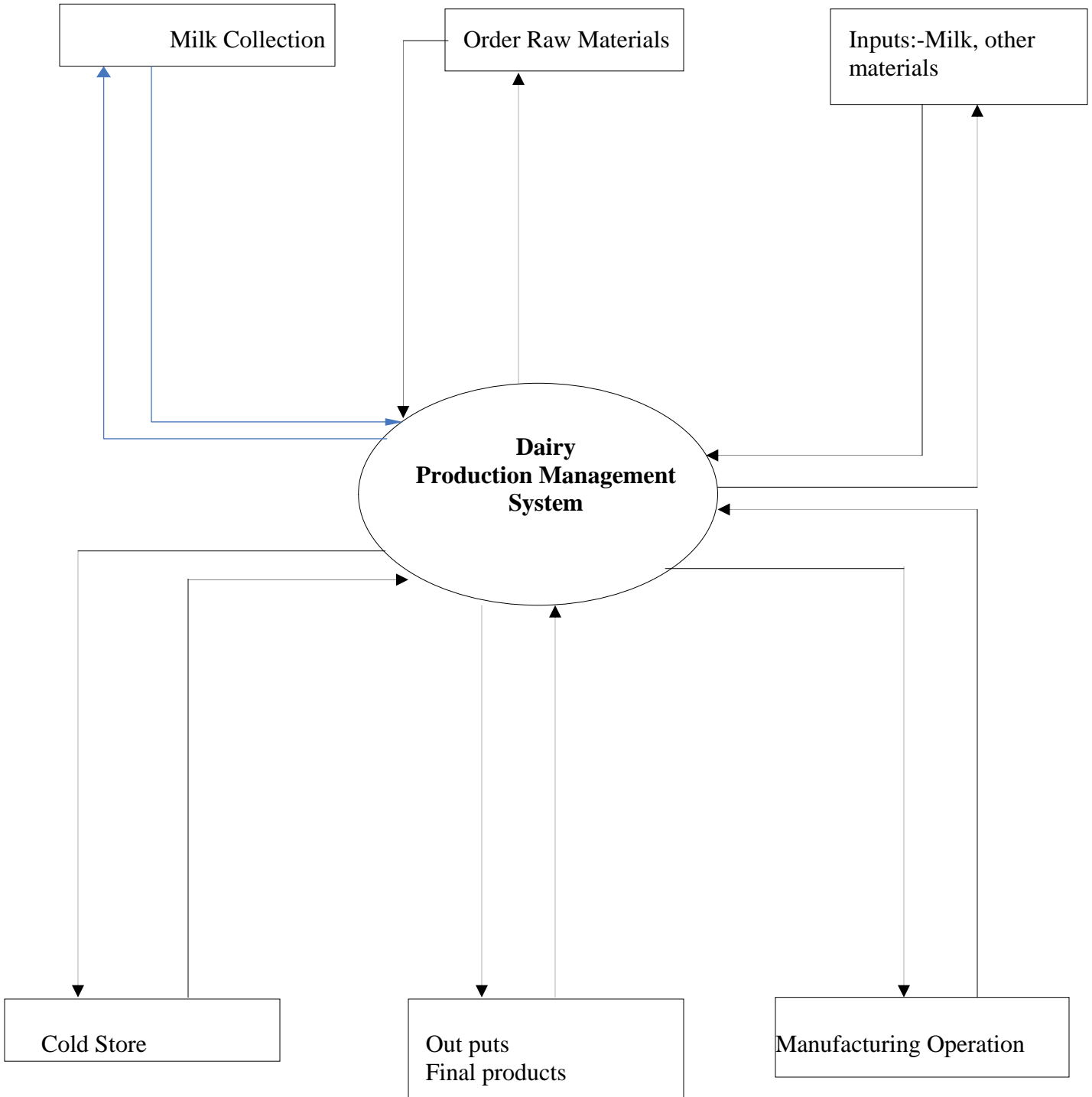## 4.3 Context Level Diagram

Figure 2:- Context Diagram of Production System

The context level diagram figure-2 shows that the system consists six external entities namely; Milk Collection, Order Raw Materials, Inputs, Manufacturing Operation, Outputs, Cold Stores. First of all the system collect milk by using different method, this milk is now treated as raw materials for dairy product. In dairy industries milk is not only one raw material, they used other raw materials like maida, suger, different flavors of chemical etc. Some previous requirements of different materials including quantity of milk for the product is predicated in third stages of this system so called inputs. After given required inputs manufacturing operation are operated. This manufacturing operation gives the final products. This final diary product is sent to cold store.

4.4 Data Flow Diagram

Login operation of this dairy production management system is described by Data flow diagram as shown in below. In the figure previous defined user name and password are used to open this software. If any one of these two does not match, it gives the error message to the user. If user name and password are valid it opens the welcome page of the diary production management system.
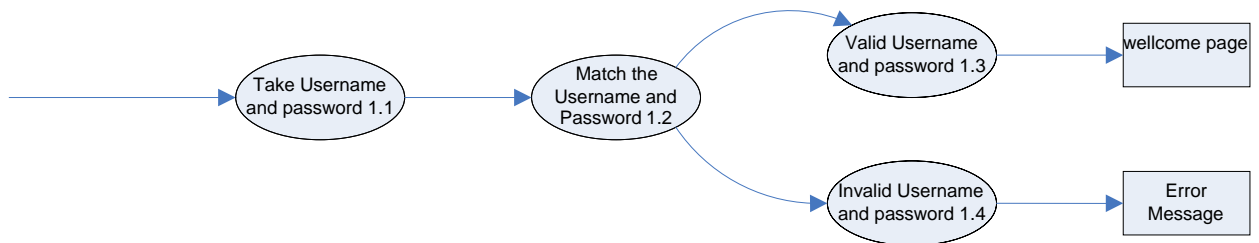

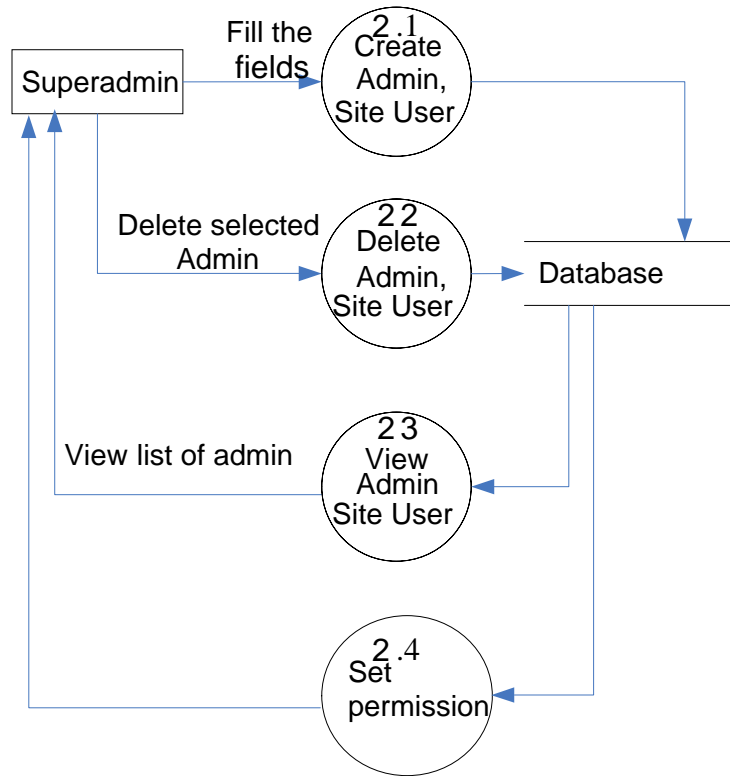**Figure 3: DFD for log in operation**

Figure 4: DFD for admin operation

The admin operations are divided in four sub-processes namely create admin/site user, delete admin/site user, view admin/site user and set permission for these user. The functionalities of all the processes are described in the next section of this project.
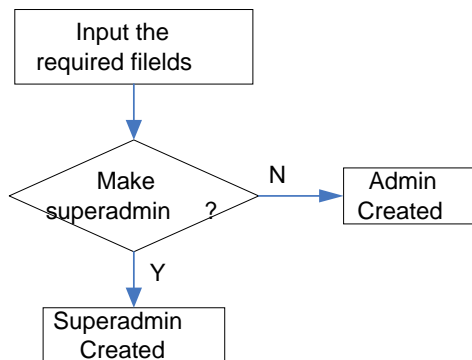

Figure 51: Flowchart for creating admin

The figure 5 describes the process of creating super admin/admin for this system. A unique user name, email, address and password are required for creating super admin/admin, after that decides the level of the user i.e. super admin, admin or site user if choose super admin then it is created.
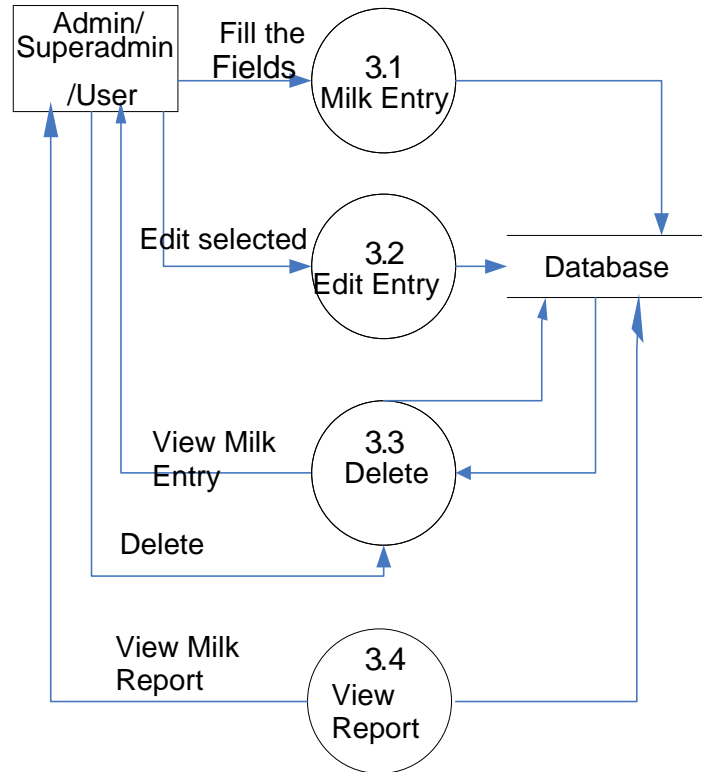

Figure 6: DFD for Milk Entry

Milk entry process is described the figure 6, in this process all user can be enter data into this if permission is allowed. First stages of this process are entering the required data into this system, also it can be edit and delete enter data. At last stage of this process is generating the report using various functions.
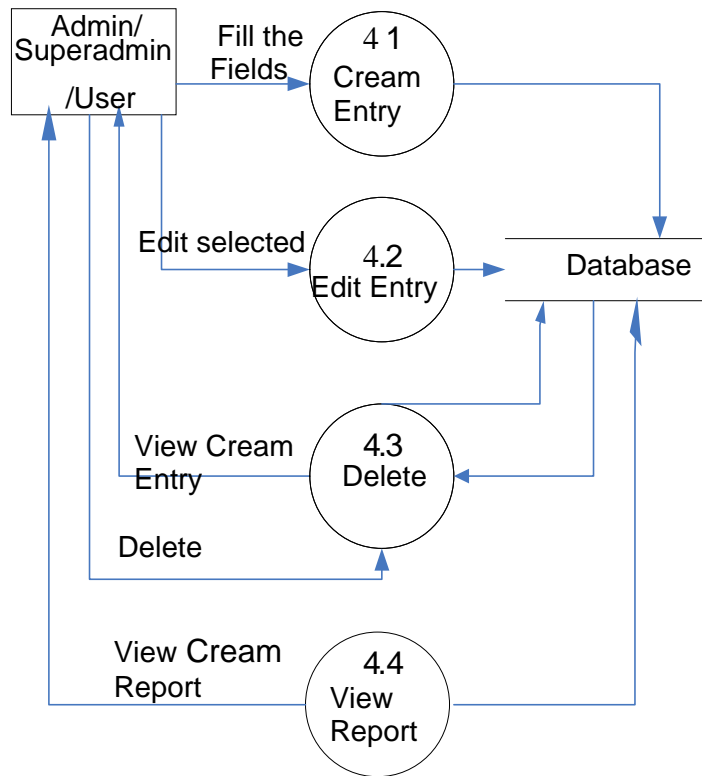
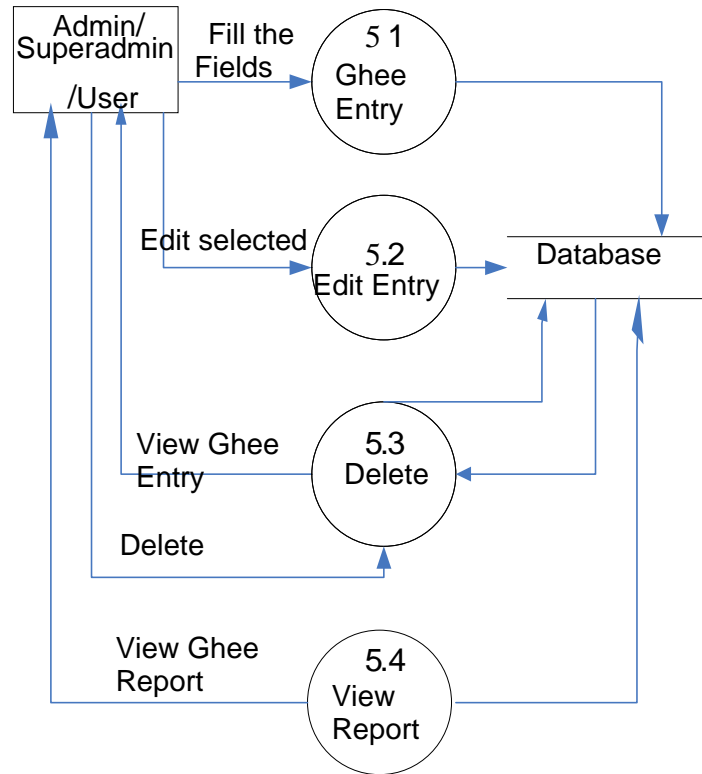**Figure 7: DFD for adding Crem/Makhan Entry**

Figure 8: DFD for adding Ghee Entry

4.3 Functionalities of Different Processes

Milk Collection: - Milk Comes from various Sources is given by the user.

Order Raw Material: - The required Raw Materials for the milk product are order.

Input: - Milk required is given by the user.

Manufacturing Operation:- In this step all inputs are converted into the specific out.

Out put: - This step describes the final product with the manufacturing loss and Norms.

Cold Store: - Here the final product is submitted to the cold store.
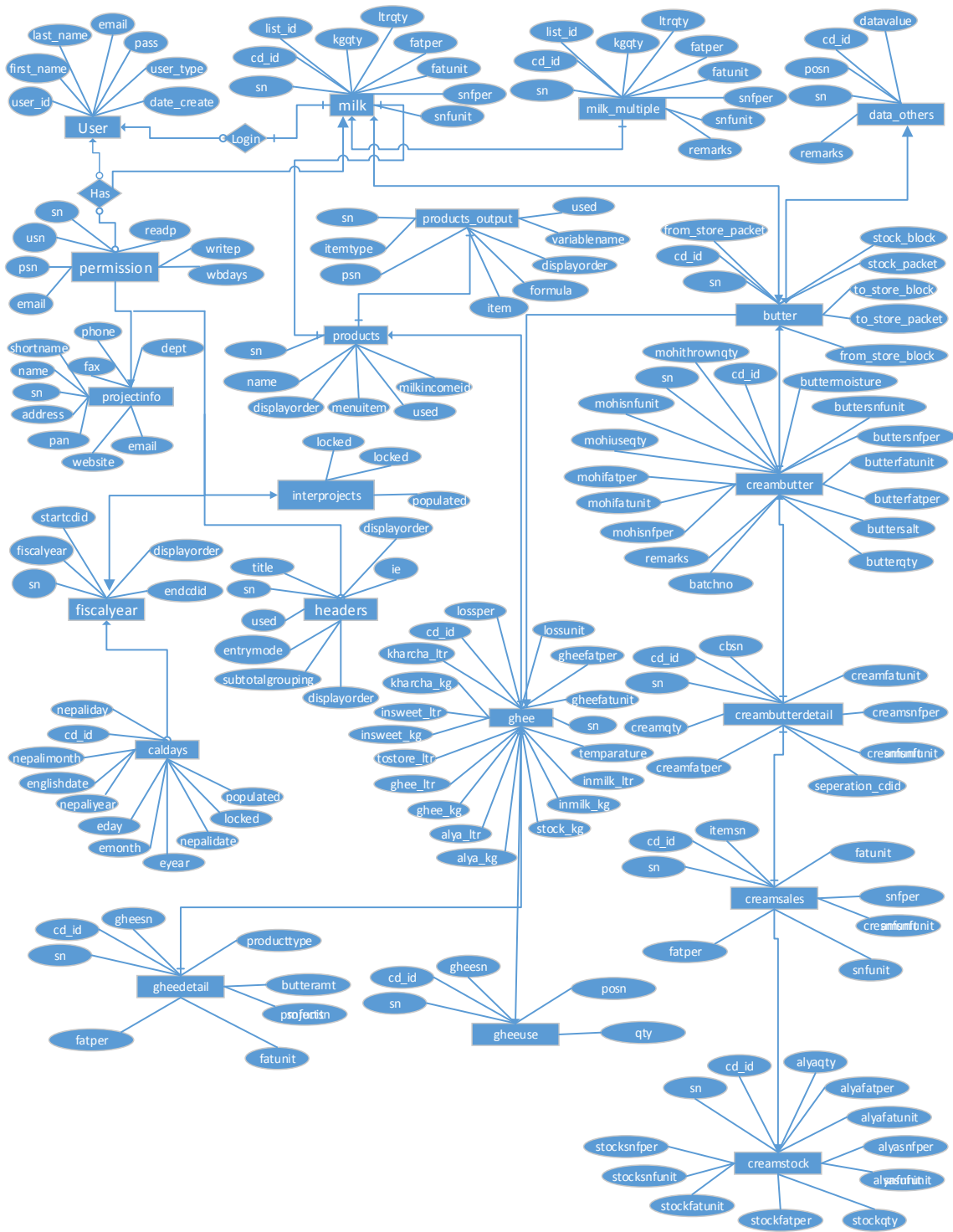
4.4 E-R Diagram

Figure 9: ER Diagram

CHAPTER 5

System Construction

5.1 Introduction

System construction is the development of system components. The main purpose of the system construction is construction of the new system and the delivery of that system into production that fulfills business or organizational design requirements. The major aspect of this activity is coding (programming). To construct software system different software packages should be installed and tested. After installation and testing, these software packages are used to construct databases, programs, and interfaces.

5.2 Architectural Design

An architectural design is concerned with the general skeleton of the program structures that can be derived from the DFD. The figure   shows the program structure obtained from the DFD given for the system. In this design the transform mapping mechanism has been used to derive the program structure. The transform mapping process of this design identifies the transform center that is responsible for taking the input in some way from the external entity or from the processes and giving the output to other processes or to the external entity. When the transform center is identified it acts as the program structure that is kept in each level of architecture of the program. Each component of architecture of the program is described using Pseudocode in this chapter.
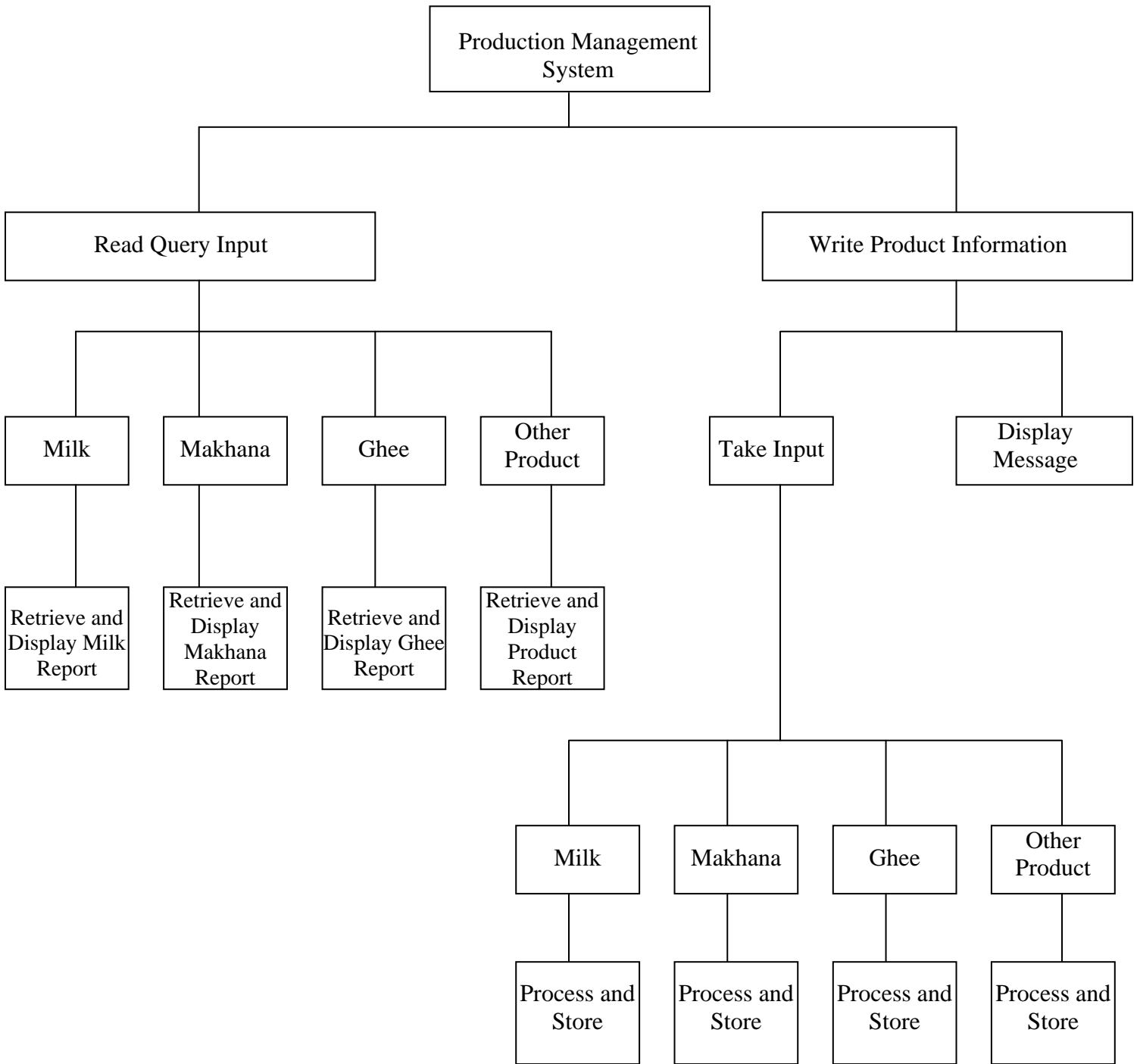
Figure 10: Architectural Design

5.3 Database Design

A database design in terms of a semantic model serves as a useful starting point and is subsequently translated into a database design in terms of the data model the DBMS actually supports. Database design is the process of producing a detailed data model of a database. The process of doing database design generally consists of a number of steps which will be carried out by the database designer. Usually, the designer must:

- ❖ Determine the relationships between the different data elements.
- ❖ Super impose a logical structure upon the data on the basis of these relationships

users
- user_id
- first_name
- last_name
- Email
- Pass
- user_type
- date_create

permission
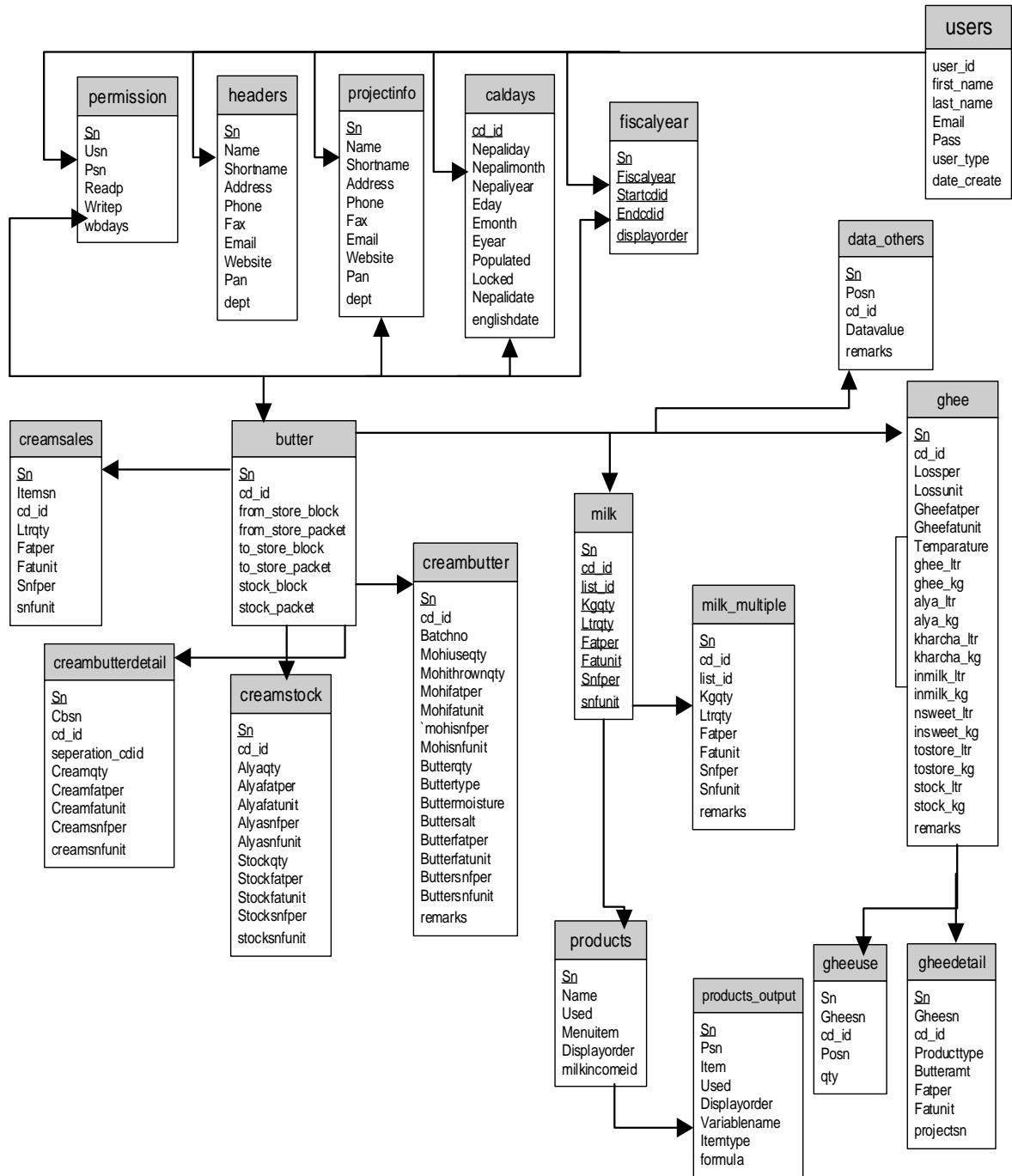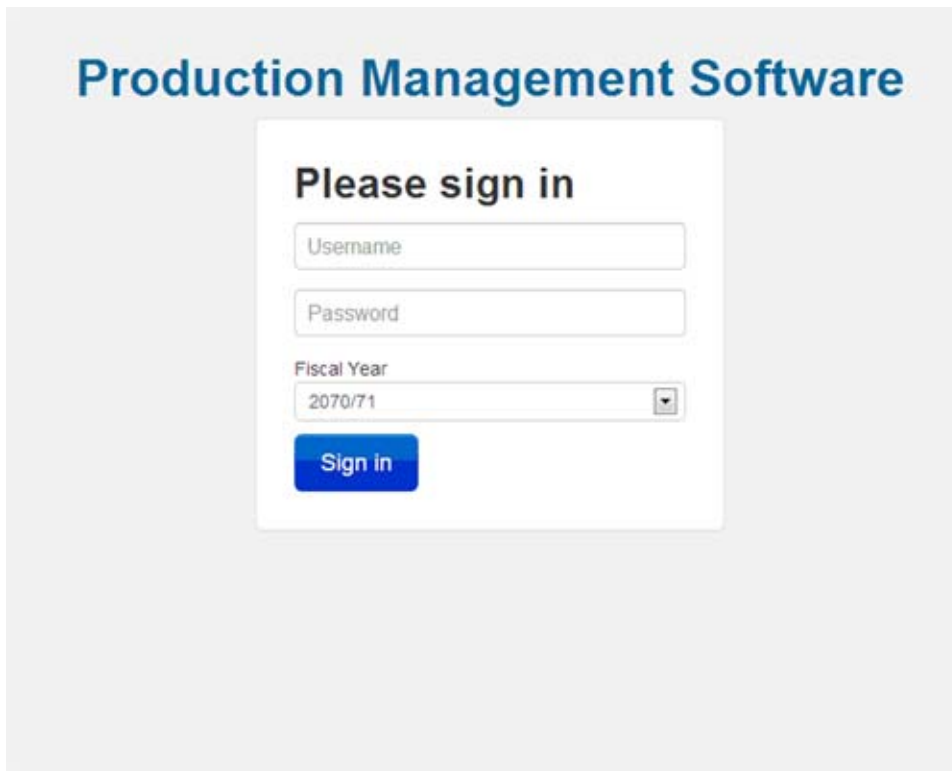- Sn
- Usn
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- Address
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- Fax
- Email
- Website
- Pan
- dept

projectinfo
- Sn
- Name
- Shortname
- Address
- Phone
- Fax
- Email
- Website
- Pan
- dept

caldays
- cd_id
- Nepaliday
- Nepalimonth
- Nepaliyear
- Eday
- Emonth
- Eyear
- Populated
- Locked
- Nepalidate
- englishdate

fiscalyear
- Sn
- Fiscalyear
- Startcdid
- Endcdid
- displayorder

data_others
- Sn
- Posn
- cd_id
- Datavalue
- remarks

ghee
- Sn
- cd_id
- Lossper
- Lossunit
- Gheefatper
- Gheefatunit
- Temparature
- ghee_ltr
- ghee_kg
- alya_ltr
- alya_kg
- kharcha_ltr
- kharcha_kg
- inmilk_ltr
- inmilk_kg
- nsweet_ltr
- insweet_kg
- tostore_ltr
- tostore_kg
- stock_ltr
- stock_kg
- remarks

creamsales
- Sn
- Itemsn
- cd_id
- Ltrqty
- Fatper
- Fatunit
- Snfper
- snfunit

butter
- Sn
- cd_id
- from_store_block
- from_store_packet
- to_store_block
- to_store_packet
- stock_block
- stock_packet

milk
- Sn
- cd_id
- list_id
- Kgqty
- Ltrqty
- Fatper
- Fatunit
- Snfper
- snfunit

milk_multiple
- Sn
- cd_id
- list_id
- Kgqty
- Ltrqty
- Fatper
- Fatunit
- Snfper
- Snfunit
- remarks

creambutter
- Sn
- cd_id
- Batchno
- Mohiuseqty
- Mohithrownqty
- Mohifatper
- Mohifatunit
- `mohisnfper
- Mohisnfunit
- Butterqty
- Buttertype
- Buttermoisture
- Buttersalt
- Butterfatper
- Butterfatunit
- Buttersnfper
- Buttersnfunit
- remarks

creambutterdetail
- Sn
- Cbsn
- cd_id
- seperation_cdid
- Creamqty
- Creamfatper
- Creamfatunit
- Creamsnfper
- creamsnfunit

creamstock
- Sn
- cd_id
- Alyaqty
- Alyafatper
- Alyafatunit
- Alyasnfper
- Alyasnfunit
- Stockqty
- Stockfatper
- Stockfatunit
- Stocksnfper
- stocksnfunit

products
- Sn
- Name
- Used
- Menuitem
- Displayorder
- milkincomeid

products_output
- Sn
- Psn
- Item
- Used
- Displayorder
- Variablename
- Itemtype
- formula

gheeuse
- Sn
- Gheesn
- cd_id
- Posn
- qty

gheedetail
- Sn
- Gheesn
- cd_id
- Producttype
- Butteramt
- Fatper
- Fatunit
- projectsn

Figure 11: Database Design

5.4 Interface Design

The user interface in this system id tried to design so as to give user the good environment for using the system. The below figures are self explanatory GUI (graphical User interface, termed GUI later) that are designed for use in the dairy production management system.

Login Page

Figure 12: Login page of the system.

The figure is the design of the interface that is loaded in the start of the software and here the users is give its username and password to open that dairy production management system.

The figure below is design of the interface that is loaded and shown up after the login page. It has four menus, setting, milk, cream makhan, ghee and other production. These menus are described later.

Welcome page

Figure 13: Welcome Windows of the System

Admin Panel (Setting)

Figure 14: User Interface Sub-menus of setting Menu

The figure above is design of the user interface with the menu items, this menu can be used by the admin. This setting menu contains submenus Fiscal Years, Users, Institution Info, Products & I/E, Income Headers and Expense Headers shown in the above figure.

Fiscal Year setting

Figure 15: User Interface of Fiscal Year Setting

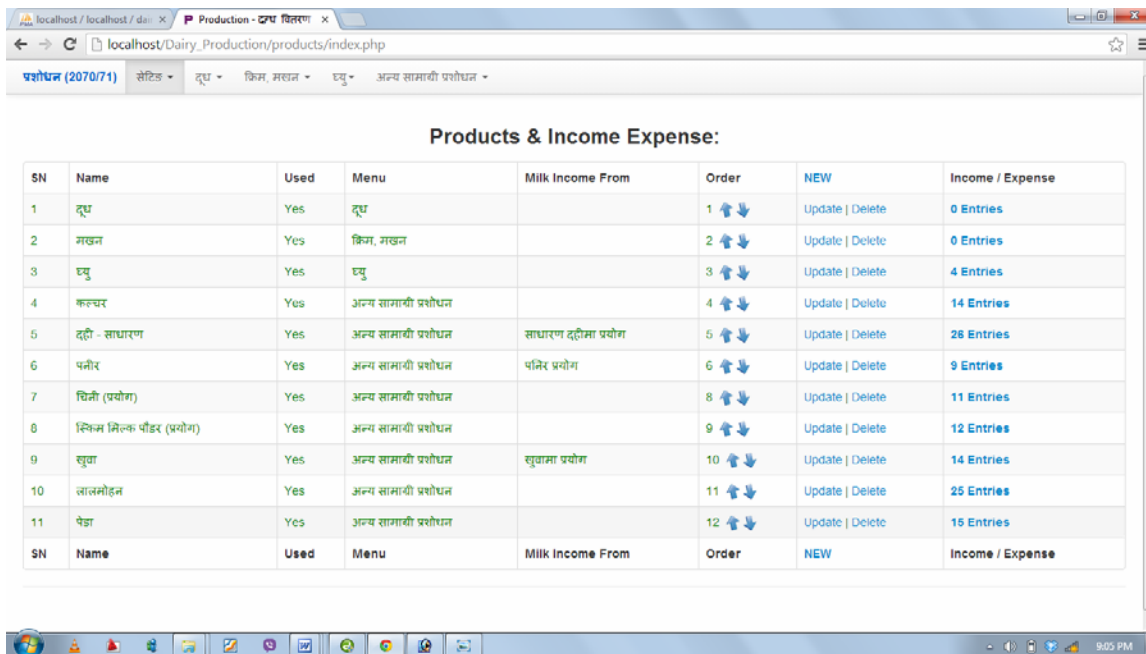## Products & Income Expense

Figure16: user Interface of Product & Income Expense
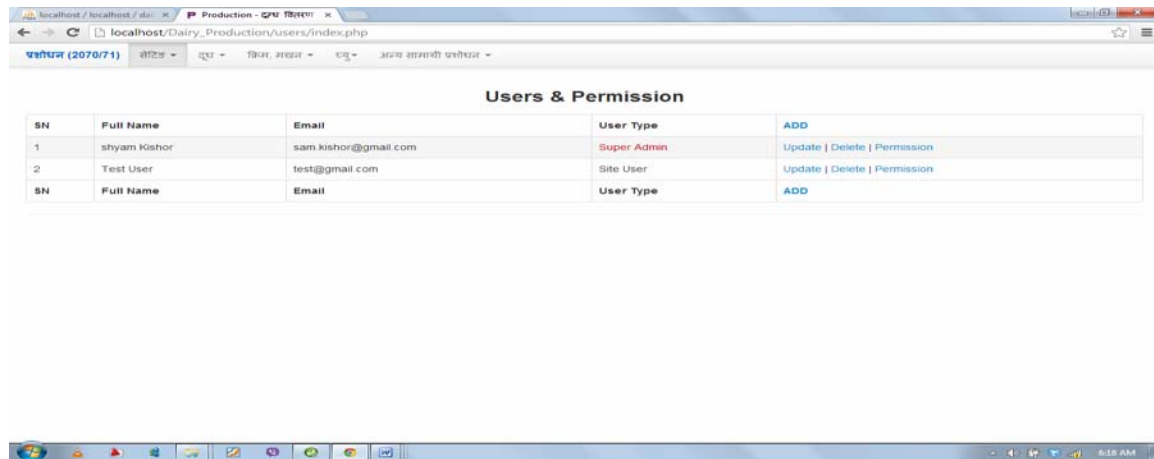
Adding Users and permissions

Figure 17: Setting -> Users

The above figure is the user interface of Users under the setting menu, where the super admin/admin can add user and its level of the permission, how many previous day days can query report, update and edit the data of different menu.
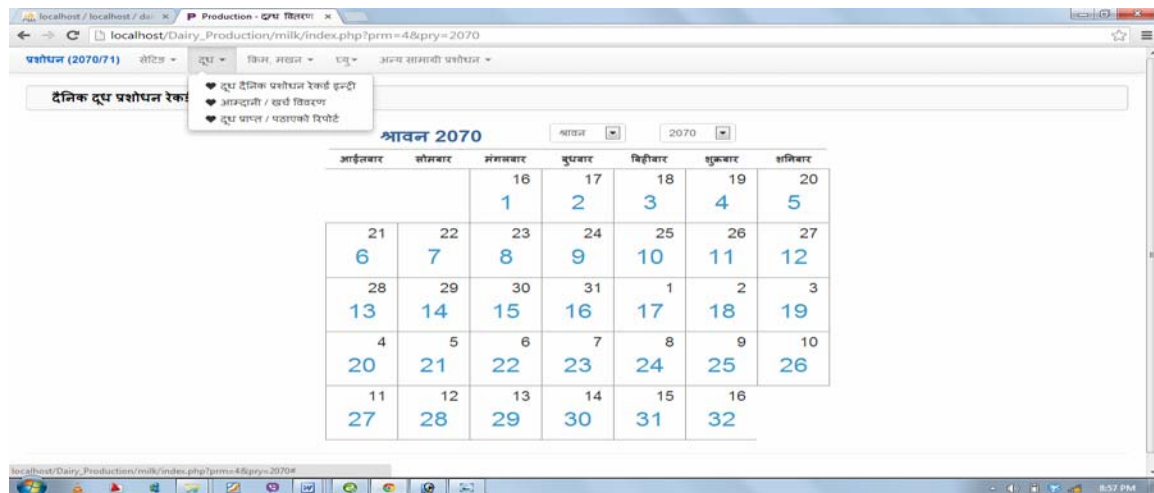
Milk Entry page

Figure 18: User interface design of milk menu with sub-menu
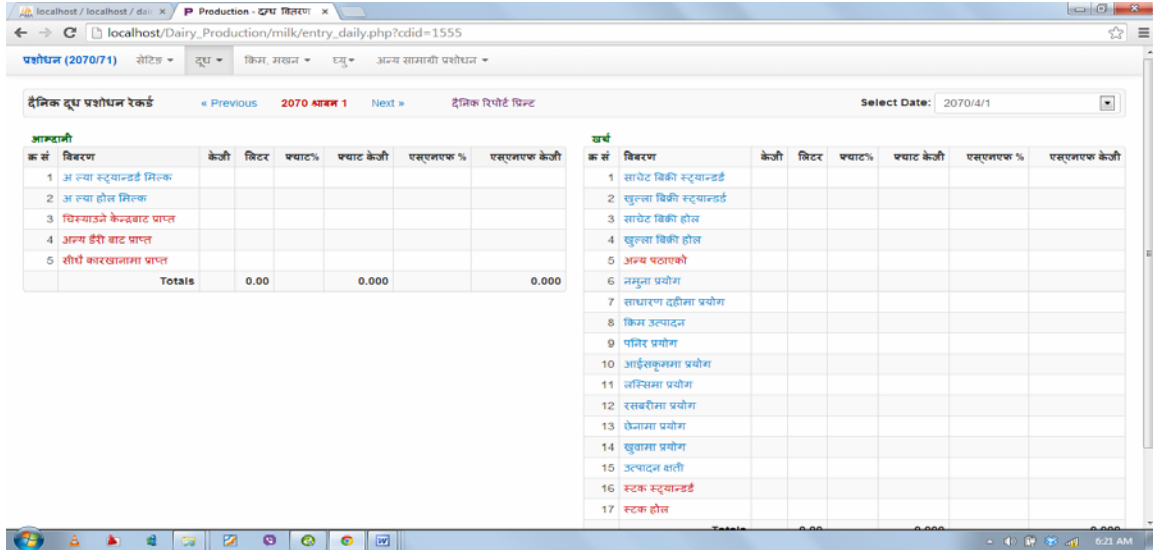
Milk Daily Entry

Figure 19: Milk-> daily entry Form

The above figure is the user interface for the entry page where all milk collection and its used in different product are entered. Left side of this page is defined the milk collection say income for this system. Right side of this page is space how many milk are used in other and cream and ghee production.
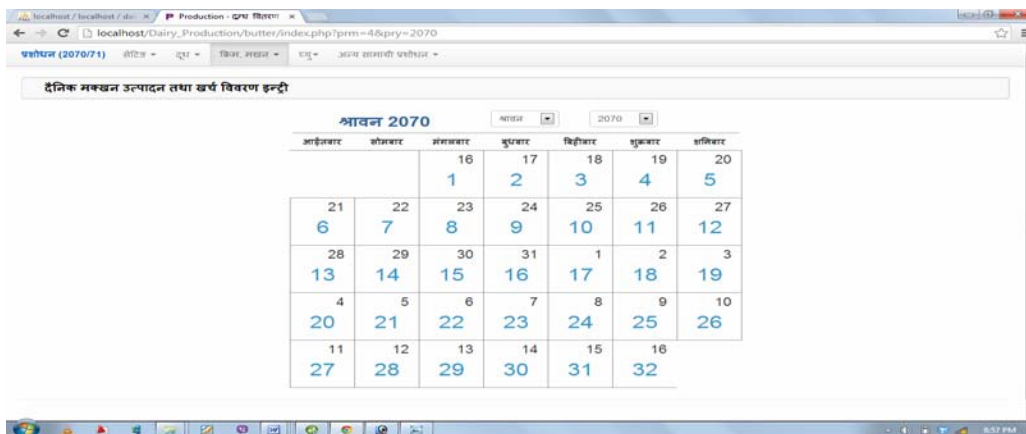
Cream, Makhan Entry

Figure 20: calendar of the Cream, Makhan Entry

Cream, Makhan Daily Entry
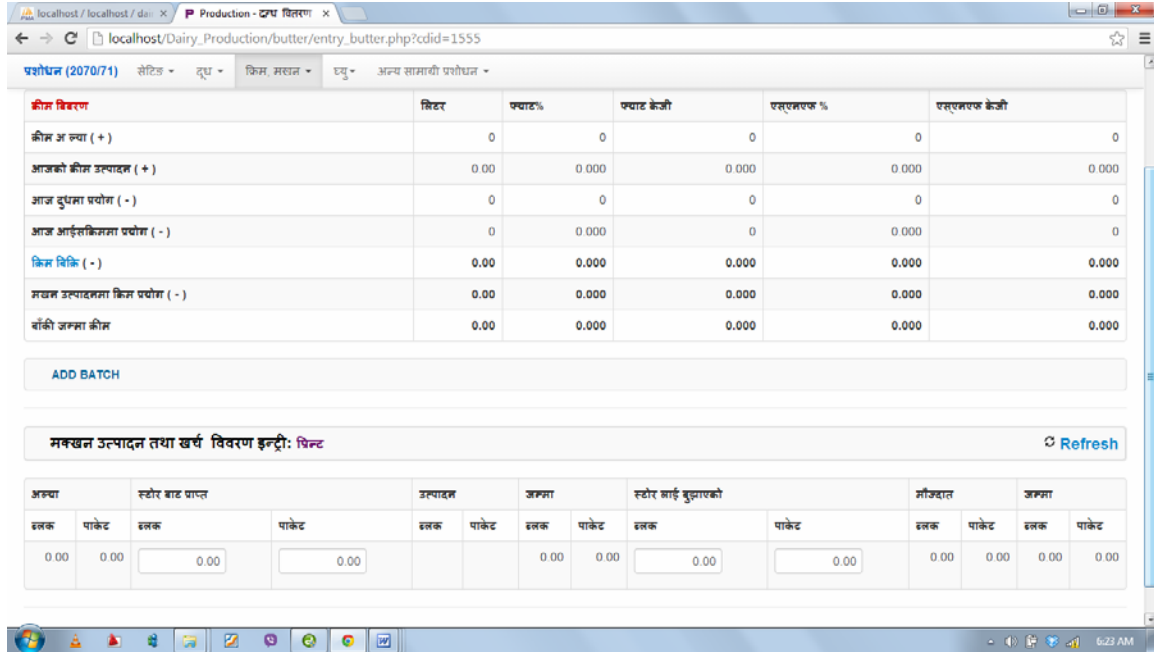

Figure 21: User Interface design of Cream, Makhan menu

The above figure is the user interface for the cream, makhan menu , this is space where user can entered the daily cream, makhan production for the ghee. Some fields are automatic and some are text box to enter how much production in date wise.
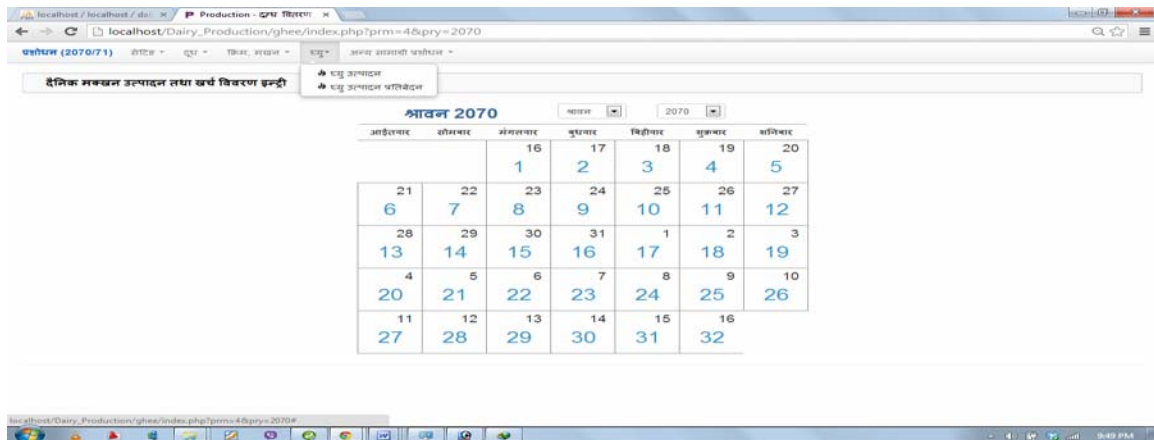
Ghee Entry

Figure 22: User Interface ghee menu with its Sub-Menu

The above user interface for ghee entry, here user select appropriate date, month and year to ghee data entry, by default current month of the year is displayed. Simple click in date the user open the desire page.

Ghee Daily Entry
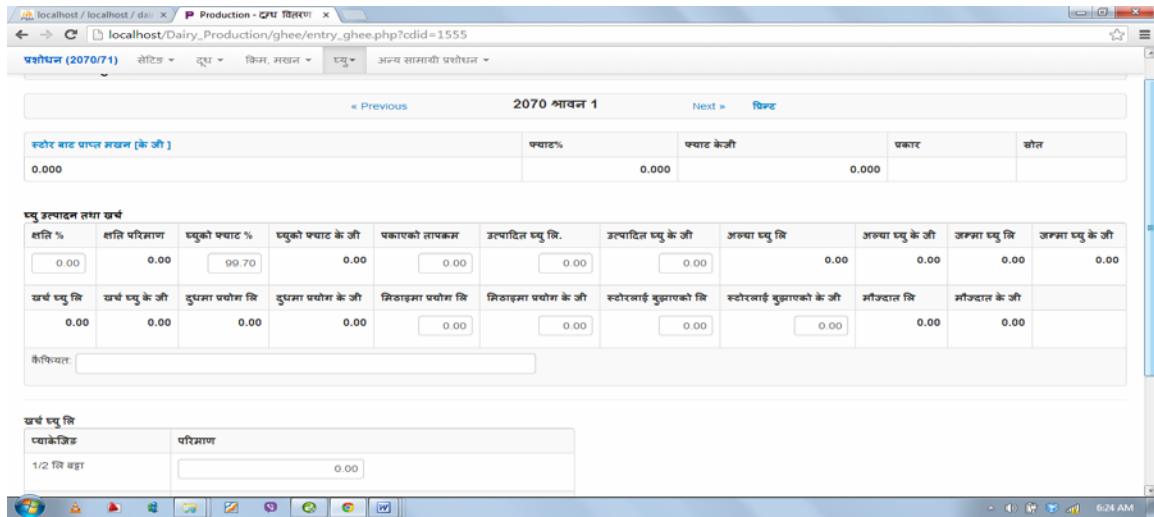
Figure 23: Design of Input page of ghee

The above figure is the user interface for the ghee entry page where all ghee production and quantity of cream used in ghee production with batch are entered. Here also entered the used ghee in different dairy product like ghee used in sweets. Also give the information about the remaining ghee in store.

Other Materials Production
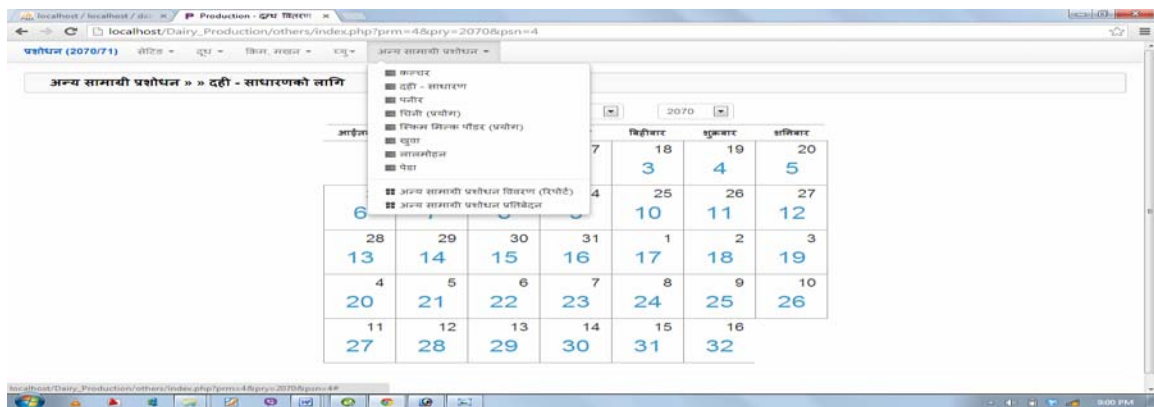
Figure24: User interface design of Other Material Production with sub-Menu

Daily Entry Dahi(Simple)

Figure 25: Other Materials Production-> Dahi-Simple entry page

The above figure is the user interface for the other production materials entry page where all other production and quantity of raw material used in this production. Here also entered information about the packaging quantity for the customers. Also give the information the remaining particular production in store.

5.4 Pseudo-code

The Pseudo-code is an informal way to express the design of a computer program or the Architectural Design. In this project the processes description language is used to define procedures. The aim is to get the idea quickly and also easy to read without understand than conventional programming language code, and that is an efficient and environment-independent description of the key principles of an algorithm. The following listings are Pseudo-Code of the project.

Display login page

This process is responsible for the displaying the message if the input is invalid user name and password or authentication fails during the login the below is the process description of the process:

BEGIN DISPLAY LOGIN

Initialize username and password

IF Username or password in not matched THEN

> *DISPLAY error message*

END IF

IF some fields are blank in the input THEN

> *DISPLAY Fill all the fields to continue*

END IF

END DISPLAY LOGIN

Display Fiscal Years

This process is responsible for the displaying the fiscal years, can be ADD, update by using different text box where user must be enter valid format, the below is the process description of this process:

BEGIN DISPLAY FISCAL_YEAR

Initialize fiscalyear, startcdid, endcdid

* IF Authenticated THEN*

> *DISPLAY fiscal year*

> *IF ADD button is clicked THEN*

>> *DISPLAY Fill all fields to continue*

>> *IF Sn==0 THEN*

>>> *Insert fiscalyear, startcdid, endcdid into table fiscalyear*

>> *IF ELSE*

>>> *Update fiscalyear, startcdid, endcdid into table fiscalyear*

END IF

> *END IF*

END IF

Adding Users

This process is responsible for the adding the new user with permission setting, here also can be ADD, Update by using different text box with valid format, the below is the process description of this process:

IF Authenticated THEN

Initialize email, pass, first_name, last_name, active, date_create,user_type

      DISPLAY Users

      IF ADD button is clicked THEN

            DISPLAY Fill all fields with valid data to continue

            INSERT information email, pass, first_name, last_name, active,

date_create,user_type INTO users table

            IF (sn=0) THEN

                SELECT user_id From table users with matching email_id;

            IF (Sr== 0) THEN

                INSERT email, pass, first_name, last_name, active,

date_create,user_type INTO users

                ELSE IF

                  DISPLAY Error Message

                END IF

            ELSE

                Update users table

            END IF

END IF

Setting Permission

This process is responsible for the setting permission of the different user and also give write back days, without write back permission generate error message to the user, the below is the process description of this process:

BEGIN DISPLAY Users & Permission

   IF Authenticated THEN

      Initialize *usn,psn,readp,writep,wbdays*

      DISPLAY *permission Form*

      WHILE *(usn)*

         IF(usn<=0) THEN

            Insert usn,psn,readp,writep,wbdays into permission values(Read

            ,Write,Write_Back)";

         END IF

      END WHILE

END IF

Adding Product

This process is responsible for the displaying the adding new products and previous product with it production formula, authorized user can and new product and its calculating formulas. Update can be done here by using different text box and other in built function where user must be enter valid format, the below is the process description of this process:

BEGIN DISPLAY Product

  IF Authenticated User THEN

      DISPLAY *products and its descriptions*

      IF NEW *button is clicked* ***THEN***

         DISPLAY Product Form

         Fill all the fields like name, used or not, menu, display order, formula etc.

         IF *(sn==0)*

            Insert psn, item, used, displayorder, variablename, itemtype,

            formula into products values (name, used, menuitem,

            milkincomeid, 9);

            Update products set displayorder=displayorder+1 where

            displayorder>=displayorder;

         ELSE IF

Update product item, used, displayorder, variablename, itemtype,

formula where sn=sn;

End IF

END IF

END IF

END IF

END Product

Adding product Formula

This process is responsible for adding production formula to different product used by the authorized user, updating, adding and edit options are available, by using different text box with valid format, the below is the process description of this process:

BEGIN DISPLAY Product

  IF Authenticated User THEN

DISPLAY *products and its descriptions*

IF ENTRIES button *is clicked* **THEN**

DISPLAY *Fill all fields to continue*

IF *(sn==0)*

Insert psn, item, used, displayorder, variablename, itemtype,

formula into products_output

update products_output set displayorder=displayorder+1

ELSE IF

update products_output set psn, item, used, displayorder,

variablename, itemtype, formula

END IF

END IF

END IF

END Product

Adding Institution

This process is responsible for the displaying the institution, here only updates function, update by using different text box where user must be enter valid format, the below is the process description of this process:

BEGIN DISPLAY Institution

   IF Authenticated THEN

        DISPLAY *Institution introduction*

        DISPLAY *Fill all fields to continue*

        IF *($sn==0)*

            DISPLAY Institution Message

        ELSE

            update projectinfo set address , phone, fax, email, website, pan, dept,

            name, shortname   where sn=sn

        END IF

END IF

Daily Milk Entry

This process is responsible for the displaying the daily milk entry page, can be ADD, update by using different text box where user must be enter valid format, also this page contain left and right side entry area, the below is the process description of this process:

BEGIN DISPLAY daily_milk_entry

IF Authenticated user THEN

        DISPLAY *daily_milk_entry form*

        DISPLAY *Fill all required fields to continue*

        IF fatper is > 0 Then *set fatunit to (ltrqty*fatper)/100*

        ELSE IF snfper is greater than 0 Then *set snfunit to (ltrqty*snfper)/100*

        END IF

        update milk set kgqty,ltrqty,fatper,snfunit,fatunit,snfper where sn=sn;

  END IF

END daily_milk_entry

Displaying daily repots of Milk

This process is responsible for obtaining milk income and expense repot according to the user requirements. This process description for this process is as given below:

BEGIN DISPLAY report_special_index

IF Authenticated User THEN

       DISPLAY report_special_index

       DISPLAY Fill dates to continue

       IF SUBMIT button is clicked THEN

              Display id,sum ltrqty, sum fatunit, sum snfunit from milk group by list id

              having list id in (sn from headers table)

              WHILE fetch id,sum ltrqty, sum fatunit, sum snfunit from milk {

              sum ltrqty, sum fatunit, sum snfunit, list id

              IF sum ltrqty is empty Then sum ltrqty to Zero END IF

              IF sum fatunit is empty Then sum fatunit to Zero END IF

              IF sum snfunit is empty Then sum snfunit to zero END IF

              IF milkltr is empty Then milk ltr to 1 END IF

              Fatper set to (sum snfunit / milkltr)*100

              Snfper to (sum snfunit / milkltr)*100

              Title display from header table where sn = list id

              Grand total sum ltrqty += sum ltrqty

              Grand sum fatunit += sum fatunit

              Grand sum snfunit += sum snfunit

              END WHILE

       END IF

END IF

END report_special_index

Cream, Makhan Entry

This process is responsible for the displaying the daily cream/makhan entry page, can be ADD, update by using different text box where user must be enter valid format, the below is the process description of this process:

BEGIN DISPLAY entry_butter

IF Authenticated User THEN

    SELECT APPROPRIATE CALENDER

    DISPLAY Entry Butter form

    DISPLAY Fill all fields to continue

    Display all items from creamstock table

    WHILE Display

        Liter set to tockqty, Fat per set stockfatper, Fat kg set to stockfatunit,snf per set to stocksnfper, Snf kg set to stocksnfunit

    END WHILE

    IF check count is emty THEN select sn from creamstock END IF

    Update creamstock set alyaqty to Liter, alyafatper to fat per, alyafatunit to Fat kg, alyasnfper to Snf per, alyasnfunit to Snf unit where cd_id to cdid

    Display all item from milk table

    Diplayall item from milk table where cd_id is cdid and list_id is 40

    WHILE

        Cream use Kg to kgqty, cream use Ltr to ltrqty, cream use Fat per to fat per, cream use Fat unit to fat unit, cream use Snf per to snf per, cream use Snf unit to snf unit

    END WHILE

END IF

END entry_butter

Displaying daily repots of Cream/Makhan

This process is responsible for obtaining Cream/Makhan repot according to the user requirements in the monthly, four monthly and yearly repot. This process description for this process is as given below:

BEGIN DISPLAY butter_ie_pratibedan

   LOAD butter_ie_pratibedan form

   SELECT DIFFERENT OPTION IN DISPLAYED PAGE

   Diplay all item from butter table

   WHILE id to sn, today cdid to cd_id, previous cdid to todaycdid-1, list account;

       Select sum butter qty, sum butter fat unit, sum butter sn funit from
       creambutter

   WHILE SCSBsltrqty to sbutter qty END WHILE

       Select sum butterqty, sum butter fat unit, sum butter_snfunit from
       creambutter

   WHILE White Butter ltr qty to butterqty END WHILE

   Total from store block to from store block

    Total from store packet to from store packet

   Total today block to White Butter ltr qty

    Total to store block to store block

   IF counter is equal num

    Total today stock block to stock block

    Total today stock packet to stock packet

    Total block to Total alya block

    Total Packet to total alya packet

   END IF

 END WHILE

END butter_ie_pratibedan

Daily Ghee Entry

This process is responsible for the displaying the daily Ghee entry page, can be ADD, update by using different text box where user must be enter valid format, the below is the process description of this process:

BEGIN DISPLAY entry_ghee

IF Authenticated User THEN

    SELECT *APPROPRIATE CALENDER*

    DISPLAY *entry ghee form*

    DISPLAY *Fill required fields to continue*

    Update table ghee set where val where sn is equal sn

    IF

        Update table ghee set ghee kg . val *0.91

    END IF

    IF

        Update table ghee set ghee_ltr to val / 0.91

    END IF

    IF

        Update table ghee set tostore kg to val *0.91

    END IF

    IF

        Update table ghee set tostore ltr to $val / 0.91

    END IF

    Select sum fat unit from ghee detail

    WHILE *Total fat unit to sfatunit* **END WHILE**

    Loss unit to total fatunit*(lossper / 100)

    Ghee fat unit to totfatunit-$lossunit

    Jamma ltr to alya_ltr + ghee ltr

    Jamma kg to alya_kg+$ghee_kg

    Stock ltr to jamma_ltr-tostore_ltr-kharcha_ltr-$inmilk_ltr-insweet_ltr

    Stock_kg to jamma_kg-tostore_kg-kharcha_kg-inmilk_kg - insweet_kg

    Update ghee table set loss unit to lossunit, ghee fatunit to gheefatunit

    Stock ltr to stock_ltr, stock_kg to stock_kg where sn to sn

END IF

END entry_ghee

Daily Other Production Entry

This process is responsible for the displaying the daily other production entry page, display the information of milk used with fat and snf, enter data by using different text box where user must be enter valid format, the below is the process description of this process:

BEGIN DISPLAY entry

IF Authenticated User THEN

    SELECT APPROPRIATE CALENDER

    DISPLAY entry other product form

    DISPLAY Fill all fields to continue

    Update data_others table set datavalue to val where sn is equal sn

    Select all items from products_output table where psn is equal psn and used is equal Yes and itemtype <> Remarks

    WHILE

        Posn to sn

        Variable name to variablename

        Id to variable name (1,200)

        Select sn, datavalue from data_others table where posn is equal posn and cd_id is equal cdid

    WHILE

        Str to datavalue

    END WHILE

END WHILE

END IF

END entry

CHAPTER 6
Software Construction

Introduction

Software construction is a software engineering discipline. It is the detailed creation of working, meaningful software through a combination of coding, verification, unit testing, integration testing, and debugging. To construct software different packages are used.

6.1 Software Packages

Development Environment: PHP, JavaScript, CSS

PHP(Hypertext Preprocessor) is selected as one of the development environment because it is free, open source, cross platform oriented and PHP commands can be embedded directly into an HTML source document rather than calling an external file to process data. JavaScript (JS) is an interpreted computer programming language. As part of web browsers, implementations allow client-side scripts to interact with the user, control the browser, communicate asynchronously, and alter the document content that is displayed.[5] It has also become common in server-side programming, game development and the creation of desktop applications. Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation semantics (the look and formatting) of a document written in a markup language. It's most common application is to style web pages written in HTML and XHTML [36, 37, and 38].

Development Tool:Adobe Dream weaver 8

Adobe Dreamweaver is a web development application originally created by Macromedia and now owned by Adobe Systems, which acquired Macromedia in 2005. Dreamweaver is available for both Mac and Windows operating systems. Recent versions have incorporated support for web technologies such as CSS, JavaScript, and various server-

side scripting languages and frameworks including ASP.NET, ColdFusion, JavaServer Pages, and PHP [39].

Local Server: WAMP

WAMP software bundle that installs web server services on to the Windows computer and allows quick and easy development of PHP and MySQL on a localhost (also known as 127.0.0.1). The package includes an Apache server, a MySQL database, and the PHP extension. [40]

Database:MYSQL

MYSQL database is selected since it is easily compatible with PHP platform and it is a popular choice of database for use in web applications [41].

The Web Server:Apache

Apache supports a variety of features, many implemented as compiled modules which extend the core functionality. These can range from server-side programming language support to authentication schemes. Some common language interfaces
support Perl, Python, Tcl, and PHP. Since the platform is PHP and the backend is MySQL hence Apache was selected [42].

Designing Tools :Adobe PhotoShop 7

Adobe Photoshop is a graphics editing program developed and published by Adobe Systems. It is the current and primary market leader for commercial bitmap and image manipulation, and is the flagship product of Adobe Systems. It has been described as "an industry standard for graphics professionals" and was one of the early "killer applications" on Macintosh [43].

Other Tool: Microsoft Visio, Microsoft Word, Microsoft Project

Microsoft Word was used for the documentations, Microsoft Visio for the drawing various diagrams and Microsoft project to generate Gantt chart of the project.

6.2 Database Construction

This software system comprises twenty mysql tables "butter", "caldays", "creambutter", "creambutterdetail", "creamsales", "creamstock", "data_others", "fiscalyear", "ghee", "gheedetail", "gheeuse", "headers", "interprojects", "milk", "milk_multiple", "permission", "products", "products_output", "projectinfo", "users". Among these, "creambutter", "creambutterdetail", "creamsales", "creamstock", "data_others", "milk", "milk_multiple" stores the user data and last one is used to store the username and password with permission allowed information. The table "products_output" use by the super admin, where the new product and its formulas are enter. The "product table store the information about the product.

Table: Butter tables

	Field	Type	Collation	Attributes	Null	Default	Extra
☐	sn	int(11)			No		auto_increment
☐	cd_id	int(11)			No		
☐	from_store_block	decimal(15,2)			No		
☐	from_store_packet	decimal(15,2)			No		
☐	to_store_block	decimal(15,2)			No		
☐	to_store_packet	decimal(15,2)			No		
☐	stock_block	decimal(15,2)			No		
☐	stock_packet	decimal(15,2)			No		

Table 3: Butter Table

Table: caldays

	Field	Type	Collation	Attributes	Null	Default	Extra
☐	cd_id	int(11)			No		
☐	nepaliday	int(11)			No		
☐	nepalimonth	int(11)			No		
☐	nepaliyear	int(11)			No		
☐	eday	int(11)			No		
☐	emonth	int(11)			No		
☐	eyear	int(11)			No		
☐	populated	tinyint(4)			No	0	
☐	locked	tinyint(4)			No	0	
☐	nepalidate	varchar(50)	utf8_unicode_ci		No		
☐	englishdate	varchar(50)	utf8_unicode_ci		No		

Table 4: Calendar Days

Table: creambutter

	Field	Type	Collation	Attributes	Null	Default	Extra
☐	sn	int(11)			No		auto_increment
☐	cd_id	int(11)			No		
☐	batchno	int(11)			No		
☐	mohiuseqty	decimal(15,2)			No		
☐	mohithrownqty	decimal(15,2)			No		
☐	mohifatper	decimal(15,3)			No		
☐	mohifatunit	decimal(15,3)			No		
☐	mohisnfper	decimal(15,3)			No		
☐	mohisnfunit	decimal(15,3)			No		
☐	butterqty	decimal(15,2)			No		
☐	buttertype	varchar(50)	utf8_unicode_ci		No		
☐	buttermoisture	decimal(15,2)			No		
☐	buttersalt	decimal(15,2)			No		
☐	butterfatper	decimal(15,3)			No		
☐	butterfatunit	decimal(15,3)			No		
☐	buttersnfper	decimal(15,3)			No		
☐	buttersnfunit	decimal(15,3)			No		
☐	remarks	varchar(200)	utf8_unicode_ci		No		

Table 5: CreamButter

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Table: creambutterdetail

	Field	Type	Collation	Attributes	Null	Default	Extra	
☐	sn	int(11)			No		auto_increment	
☐	cbsn	int(11)			No			
☐	cd_id	int(11)			No			
☐	seperation_cdid	int(11)			Yes	NULL		
☐	creamqty	decimal(15,2)			No			
☐	creamfatper	decimal(15,3)			No			
☐	creamfatunit	decimal(15,3)			No			
☐	creamsnfper	decimal(15,3)			No			
☐	creamsnfunit	decimal(15,3)			No			

Table 6: Cream Butter Details

Table: creamsales

	Field	Type	Collation	Attributes	Null	Default	Extra
☐	sn	int(11)			No		auto_increment
☐	itemsn	int(11)			Yes	NULL	
☐	cd_id	int(11)			No		
☐	ltrqty	decimal(15,2)			No		
☐	fatper	decimal(15,3)			No		
☐	fatunit	decimal(15,3)			No		
☐	snfper	decimal(15,3)			No		
☐	snfunit	decimal(15,3)			No		

Table 7: Cream Sales

Table: creamstock

	Field	Type	Collation	Attributes	Null	Default	Extra
☐	sn	int(11)			No		auto_increment
☐	cd_id	int(11)			No		
☐	alyaqty	decimal(15,2)			No		
☐	alyafatper	decimal(15,3)			No		
☐	alyafatunit	decimal(15,3)			No		
☐	alyasnfper	decimal(15,3)			No		
☐	alyasnfunit	decimal(15,3)			No		
☐	stockqty	decimal(15,2)			No		
☐	stockfatper	decimal(15,3)			No		
☐	stockfatunit	decimal(15,3)			No		
☐	stocksnfper	decimal(15,3)			No		
☐	stocksnfunit	decimal(15,3)			No		

Table 8: Cream Stock

Table: data_others

	Field	Type	Collation	Attributes	Null	Default	Extra
☐	sn	int(11)			No		auto_increment
☐	posn	int(11)			No		
☐	cd_id	int(11)			No		
☐	datavalue	decimal(15,3)			No		
☐	remarks	varchar(300)	utf8_unicode_ci		No		

Table 9: Data Others

Table: fiscalyear

	Field	Type	Collation	Attributes	Null	Default	Extra
☐	sn	int(11)			No		auto_increment
☐	fiscalyear	varchar(30)	utf8_unicode_ci		No		
☐	startcdid	int(11)			No		
☐	endcdid	int(11)			No		
☐	displayorder	int(11)			No		

Table 10: Fiscal Year

Table: ghee

	Field	Type	Collation	Attributes	Null	Default	Extra
☐	sn	int(11)			No		auto_increment
☐	cd_id	int(11)			No		
☐	lossper	decimal(15,2)			No		
☐	lossunit	decimal(15,2)			No		
☐	gheefatper	decimal(15,2)			No	99.70	
☐	gheefatunit	decimal(15,2)			No		
☐	temparature	decimal(15,2)			No		
☐	ghee_ltr	decimal(15,2)			No		
☐	ghee_kg	decimal(15,2)			No		
☐	alya_ltr	decimal(15,2)			No		
☐	alya_kg	decimal(15,2)			No		
☐	kharcha_ltr	decimal(15,2)			No		
☐	kharcha_kg	decimal(15,2)			No		
☐	inmilk_ltr	decimal(15,2)			No		
☐	inmilk_kg	decimal(15,2)			No		
☐	insweet_ltr	decimal(15,2)			No		
☐	insweet_kg	decimal(15,2)			No		
☐	tostore_ltr	decimal(15,2)			No		
☐	tostore_kg	decimal(15,2)			No		
☐	stock_ltr	decimal(15,2)			No		
☐	stock_kg	decimal(15,2)			No		
☐	remarks	varchar(300)	utf8_unicode_ci		No		

Table 11: Ghee

Table: gheedetail

	Field	Type	Collation	Attributes	Null	Default	Extra	
☐	sn	int(11)			No		auto_increment	
☐	gheesn	int(11)			No			
☐	cd_id	int(11)			No			
☐	producttype	varchar(30)	utf8_unicode_ci		No			
☐	butteramt	decimal(15,3)			No			
☐	fatper	decimal(15,3)			No			
☐	fatunit	decimal(15,3)			No			
☐	projectsn	int(11)			No			

Table 12: Ghee Details

Table: gheeuse

	Field	Type	Collation	Attributes	Null	Default	Extra
☐	<u>sn</u>	int(11)			No		auto_increment
☐	gheesn	int(11)			No		
☐	cd_id	int(11)			No		
☐	posn	int(11)			No		
☐	qty	decimal(15,3)			No		

Table 13: Ghee Use

Table: headers

	Field	Type	Collation	Attributes	Null	Default	Extra
☐	<u>sn</u>	int(11)			No		auto_increment
☐	title	varchar(255)	utf8_unicode_ci		No		
☐	ie	varchar(7)	utf8_unicode_ci		No		
☐	displayorder	int(11)			No		
☐	subtotalgrouping	varchar(20)	utf8_unicode_ci		No		
☐	entrymode	varchar(20)	utf8_unicode_ci		No		
☐	used	varchar(3)	utf8_unicode_ci		No		

Table 14: Headers

Table: interprojects

	Field	Type	Collation	Attributes	Null	Default	Extra
☐	<u>sn</u>	int(11)			No		auto_increment
☐	name	varchar(300)	utf8_unicode_ci		No		
☐	self	varchar(3)	utf8_unicode_ci		No		

Table 15: Inter Projects

Table: milk

	Field	Type	Collation	Attributes	Null	Default	Extra
☐	sn	int(11)			No		auto_increment
☐	cd_id	int(11)			No		
☐	list_id	int(11)			No		
☐	kgqty	decimal(14,2)			No	0.00	
☐	ltrqty	decimal(14,2)			No	0.00	
☐	fatper	decimal(14,3)			No	0.000	
☐	fatunit	decimal(14,3)			No	0.000	
☐	snfper	decimal(14,3)			No	0.000	
☐	snfunit	decimal(14,3)			No	0.000	

Table 16: Milk

Table: milk_multiple

	Field	Type	Collation	Attributes	Null	Default	Extra
☐	sn	int(11)			No		auto_increment
☐	cd_id	int(11)			No		
☐	list_id	int(11)			No		
☐	kgqty	decimal(14,2)			No	0.00	
☐	ltrqty	decimal(14,2)			No	0.00	
☐	fatper	decimal(14,3)			No	0.000	
☐	fatunit	decimal(14,3)			No	0.000	
☐	snfper	decimal(14,3)			No	0.000	
☐	snfunit	decimal(14,3)			No	0.000	
☐	remarks	varchar(50)	utf8_unicode_ci		No		

Table 17: Milk Multiple

Table: permission

	Field	Type	Collation	Attributes	Null	Default	Extra
☐	sn	int(11)			No		auto_increment
☐	usn	int(11)			No		
☐	psn	int(11)			No		
☐	readp	int(11)			No		
☐	writep	int(11)			No		
☐	wbdays	int(11)			No	1	

Table 18: Permission

Table: products

	Field	Type	Collation	Attributes	Null	Default	Extra
☐	sn	int(11)			No		auto_increment
☐	name	varchar(100)	utf8_unicode_ci		No		
☐	used	varchar(3)	utf8_unicode_ci		No		
☐	menuitem	varchar(200)	utf8_unicode_ci		No		
☐	displayorder	int(11)			No		
☐	milkincomeid	int(11)			No	0	

Table 19: Products

Table: products_output

	Field	Type	Collation	Attributes	Null	Default	Extra
☐	sn	int(11)			No		auto_increment
☐	psn	int(11)			No		
☐	item	varchar(100)	utf8_unicode_ci		No		
☐	used	varchar(3)	utf8_unicode_ci		No		
☐	displayorder	int(11)			No		
☐	variablename	varchar(20)	utf8_unicode_ci		No		
☐	itemtype	varchar(30)	utf8_unicode_ci		No		
☐	formula	varchar(300)	utf8_unicode_ci		No		

Table 20: Product Output

Table: projectinfo

	Field	Type	Collation	Attributes	Null	Default	Extra
☐	sn	int(11)			No		auto_increment
☐	name	varchar(250)	utf8_unicode_ci		No		
☐	shortname	varchar(20)	utf8_unicode_ci		No		
☐	address	varchar(250)	utf8_unicode_ci		No		
☐	phone	varchar(100)	utf8_unicode_ci		No		
☐	fax	varchar(100)	utf8_unicode_ci		No		
☐	email	varchar(100)	utf8_unicode_ci		No		
☐	website	varchar(100)	utf8_unicode_ci		No		
☐	pan	varchar(20)	utf8_unicode_ci		No		
☐	dept	varchar(50)	utf8_unicode_ci		No		

Table 21: Project Information

Table: users

	Field	Type	Collation	Attributes	Null	Default	Extra
☐	user_id	int(10)		UNSIGNED	No		auto_increment
☐	first_name	varchar(20)	utf8_unicode_ci		No		
☐	last_name	varchar(40)	utf8_unicode_ci		No		
☐	email	varchar(80)	utf8_unicode_ci		No		
☐	pass	char(40)	utf8_unicode_ci		No		
☐	user_type	tinyint(1)		UNSIGNED	No	0	
☐	date_create	datetime			No		

Table 22: Users

Chapter 7
Testing

The testing process is used to identify program errors the constructed system has been tested and the obtained errors are corrected as required. The below section shows few snapshots of different entering and queries that are used in system. The details of all test cases are given in appendix 2 for testing.

दैनिक दूध प्रशोधन रेकर्ड	« Previous	2070 श्रावन 1	Next »	दैनिक रिपोर्ट प्रिन्ट				Select Date: 2070/4/1

आम्दानी

क्र सं	विबरण	केजी	लिटर	फ्याट%	फ्याट केजी	एसएनएफ %	एसएनएफ केजी
1	अ ल्या स्ट्यान्डर्ड मिल्क						
2	अ ल्या होल मिल्क		58100.00		661.100		5022.600
3	चित्स्याउजे केन्द्रबाट प्राप्त		21042.00	3.285	691.252	7.903	1662.980
4	अन्य डेरी बाट प्राप्त						
5	सीधै कारखानामा प्राप्त		164.00	4.200	6.888	8.020	13.153
	Totals		79,306.00		1,359.240		6,698.733

खर्च

क्र सं	विबरण	केजी	लिटर	फ्याट%	फ्याट केजी	एसएनएफ %	एसएनएफ केजी
1	साचेट बिक्री स्ट्यान्डर्ड		5990.00	3.000	179.700	8.000	479.200
2	खुल्ला बिक्री स्ट्यान्डर्ड						
3	साचेट बिक्री होल		7100.00	5.000	355.000	8.000	568.000
4	खुल्ला बिक्री होल						
5	नमुना प्रयोग		4.00	3.200	0.128	8.000	0.320
6	स्पेशल दहीमा प्रयोग		2071.00	4.000	82.840	8.000	165.680
7	क्रिम उत्पादन						
8	पनिर प्रयोग		910.00	3.200	29.120	7.800	70.980
9	आईसक्रममा प्रयोग						
10	लस्सिमा प्रयोग						
11	रसबरीमा प्रयोग						
12	उत्पादन क्षती			0.354		5.124	
13	स्टक स्ट्यान्डर्ड						
14	स्टक होल		64600.00	1.110	717.300	8.490	5484.700
	Totals		79,306.00		1,359.240		6,698.733

Figure 26: Daily milk Entry

Figure 26, represent the entry form in which user enter the all milk collection data, milk used data, sample used etc. Each and every data are separately entered by click individually items.

Figure 27: Query Report Milk

Figure 27, represents query form in which user enter in daily milk entry form. This page display milk report of certain period.

Figure 28: Daily ghee entry form

Figure 28, represent the entry form in which user enter the all ghee production and used in different product during the operational operations.

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घ्यु उत्पादन प्रतिबेदन : **श्रावन** (2070/71)

स्टोर बाट प्राप्त मखन [के जी]	फ्याट%	फ्याट केजी	प्रकार
1,980.600	80.000	1,584.480	White Butter
1,980.600	80.000	1,584.480	

घ्यु उत्पादन तथा खर्च

क्षति %	क्षति परिमाण	घ्युको फ्याट %	घ्युको फ्याट के जी	पकाएको तापक्रम	उत्पादित घ्यु लि.	उत्पादित घ्यु के जी	अल्या घ्यु लि	अल्या घ्यु के जी	जम्मा घ्यु लि	जम्मा घ्यु के जी
0.97"	5.28	199.20	538.72	108.00	594.95	541.40	1,838.79	1,673.30	2,433.74	2,214.70

खर्च घ्यु लि	खर्च घ्यु के जी	दुधमा प्रयोग लि	दुधमा प्रयोग के जी	मिठाइमा प्रयोग लि	मिठाइमा प्रयोग के जी	स्टोरलाई बुझाएको लि	स्टोरलाई बुझाएको के जी	मौज्दात लि	मौज्दात के जी	
996.00	906.36	0.00	0.00	0.00	0.00	-1,838.79	-1,673.30	1,838.79	1,673.30	

खर्च घ्यु लि

प्याकेजिङ	परिमाण
1/2 लि बट्टा	0.00
१ लि घ्यु बट्टा	0.00
1 लि पोली	3,382.00
1/2 लि पोली	0.00

Figure 29: Ghee Report

Figure 29, represents query of the daily ghee entry which is user inserted in the daily ghee entry page. This display all ghee production details, ghee used in sweets and quantity of packed produce for market.

घ्यु उत्पादन प्रतिबेदन : **प्रथम चौमासिक** (2070/71)

स्टोर बाट प्राप्त मखन [के जी]	फ्याट%	फ्याट केजी	प्रकार
1,980.600	80.000	1,584.480	White Butter
1,980.600	80.000	1,584.480	

घ्यु उत्पादन तथा खर्च

क्षति %	क्षति परिमाण	घ्युको फ्याट %	घ्युको फ्याट के जी	पकाएको तापक्रम	उत्पादित घ्यु लि.	उत्पादित घ्यु के जी	अल्या घ्यु लि	अल्या घ्यु के जी	जम्मा घ्यु लि	जम्मा घ्यु के जी
0.97"	5.28	199.20	538.72	108.00	594.95	541.40	1,838.79	1,673.30	2,433.74	2,214.70

खर्च घ्यु लि	खर्च घ्यु के जी	दुधमा प्रयोग लि	दुधमा प्रयोग के जी	मिठाइमा प्रयोग लि	मिठाइमा प्रयोग के जी	स्टोरमा बुझाएको लि	स्टोरलाई बुझाएको के जी	मौज्दात लि	मौज्दात के जी	
996.00	906.36	0.00	0.00	0.00	0.00	-1,838.79	-1,673.30	1,838.79	1,673.30	

खर्च घ्यु लि

प्याकेजिङ	परिमाण
1/2 लि बट्टा	0.00
१ लि घ्यु बट्टा	0.00
1 लि पोली	3,382.00
1/2 लि पोली	0.00

Figure 30: Monthly Report Ghee

Figure 30, represents query form of the monthly report of the ghee production, used in other product and remaining quantity.

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Figure 31: Daily Cream Entry

Figure 31, represents query of the daily cream/Makhan entry which is user inserted in the daily cream/makhan entry page. This display all cream/makhan production details, cream used in production of ghee. Also how many blocks are used in ghee production.

Figure 32: Cream Report

Figure 32, represents query form of the report of the cream/Makhan production, used in ghee production and remaining quantity.

« Previous   2070 श्रावन 1   Next »   प्रिन्ट

आम्दानी		खर्च	
दूध :	2071.000	१।२ लिटर दही डब्बा :	0.000
फ्याट केजी :	82.840	स्याम्पल :	0.200
एसएनएफ केजी :	165.680	1 लि पोली :	355.000
क्रिम :	0.000	1/2 लि प्याकेट :	898.000
मखन :	0.000	1 लि डब्बा :	100.000
कल्चर :	0.000	10 लि पोली :	0.000
पानी :	0.000	क्यान :	0.000
जम्मा मिक्स :	2071.000	५० लि जार :	100.000
चिनी :	82.840	200 एमएल कप लि :	612.000
ग्लुकोज :	0.000	200 एमएल कप :	3060.000
स्किम मिल्क :	41.420	क्षेती :	5.800
कलर ग्राम :	0.000	जम्मा खर्च :	2071.000
स्ट्रबेरी सिरप :	0.000		
म्याङो पल्प :	0.000	अन्य	
		ओभर रन % :	0.000
कैफियत :			

Figure 33: Entry Form of Simple Dahi

Figure 33, represents query of the daily Simple Dahi form in which user insert details about Dahi production and its raw materials. In right side of the form expense of dahi entry space.

अवधी मिती: 2070 श्रावन 1 देखी 2070 श्रावन 1

मिती	दूध	फ्याट केजी	एसएनएफ केजी	क्रिम	मखन	कल्चर	पानी	जम्मा मिक्स	चिनी	ग्लुकोज	स्किम मिल्क	कलर ग्राम	स्ट्रबेरी सिरप	म्याङो पल्प
	१।२ लिटर दही डब्बा	स्याम्पल	1 लि पोली	1/2 लि प्याकेट	1 लि डब्बा	10 लि पोली	क्यान	५० लि जार	200 एमएल कप लि	200 एमएल कप	क्षेती	जम्मा खर्च	ओभर रन %	
1	2071.000	82.840	165.680					2071.000	82.840		41.420			
		0.200	355.000	898.000	100.000			100.000	612.000	3060.000	5.800	2071.000		

Figure 34: Simple Dahi Report

Figure 34, represents query form of the report of the simple dahi report production.

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CHAPTER 7

Conclusions and Future Works

7.1 Conclusions

This project concentrates on the use of web based application for the dairy production management system. To deploy the dairy production management problem we studied different applications using the web based application approach for dairy production management system. Having acquainted with subject matter of dairy production management system we approached dairy specialist of different projects and it departments to obtain the knowledge about the dairy product and its management system. The amalgamation of the knowledge assimilated from the different dairy book, research paper, literature review and the interrogation with dairy specialist provided the way to out to continue my project work. To solve the problem of dairy production management system the analysis of the proposed system was completed with the complete development of the model required for the design of the production management system using web based applications. After the analysis the design was completed to suit the actual environment. All required standards have been followed while doing the project until its completion. Afterwards the design was implemented using open source program PHP and MYSQL to bring the system in the real world. All testing within the scope of the system were successful as required from the finding in the analysis of the system. Finally I hope that this system as the result from my project will become helpful towards the real applications in the dairy production management system.

7.2 Future work

The implemented dairy production management system has been tested and few problems have identified that are not integrated in this project. For example, if there is no data entry between last dates to today date, user must visit each and every pages to today date. This problem is Mysql data retrieve. Also we can connect this system to sales and account to work perfectly, this is term as adaptation problem. In this project work adaptation problem has not been solved because of multiple reasons. To date, in the field of dairy production management system no sound framework exits for solving the adaptation. This project can be enhanced if we solved this problem and inter connection to the sales and account system in real time.

Appendix 1

Some Main Code Pieces

```
<form class="form-signin" action="login.php" method="post">
<h2 class="form-signin-heading">Please sign in</h2>
<input type="text" class="input-block-level" placeholder="Username"
        name="txtusername">
<input type="password" class="input-block-level" placeholder="Password"
        name="txtpassword">
 <div>Fiscal Year</div>
        <div>

                <select name="fy" class="input-block-level">
                <?php

                        $listaccount=mysqli_query($dbc,"select   sn,fiscalyear   from
fiscalyear order by sn desc");

                        while($row = mysqli_fetch_array($listaccount))

                        {

                ?>
<option   value="<?php   echo   $row['sn'];   ?>"><?php   echo   $row['fiscalyear'];
?></option>
<?php } ?>
</select>
</div>
    <button class="btn btn-large btn-primary" type="submit">Sign in</button>
```

Fiscal Years

```php
<?php
  $counter=1;
  $sql="select * from fiscalyear order by sn desc";
  $listaccount=mysqli_query($dbc,$sql);
  if(!$listaccount) echo mysqli_error();
        while($row = mysqli_fetch_array($listaccount))
        {
                $id=$row['sn'];
                $fiscalyear=$row['fiscalyear'];
                $startcdid=$row['startcdid'];
                $endcdid=$row['endcdid'];
 ?>
  <tr>
   <td><?php echo $counter; ?></td>
   <td><?php echo $fiscalyear; ?></td>
   <td><?php echo get_date($startcdid,"all",$dbc); ?></td>
   <td><?php echo get_date($endcdid,"all",$dbc); ?></td>
   <td><a href="update.php?sn=<?php echo $id; ?>">Update</a> |
        <a onclick="if ( confirm('You are about to delete this item ?\n \'Cancel\'
to    stop,    \'OK\'    to    delete.')    )    {    return    true;}return    false;"
href="delete.php?sn=<?php echo $id; ?>">Delete</a></td>
  </tr>
 <?php
 $counter=$counter+1;
 } ?>
```

User Permission

```php
<?php
$usn=$_GET['sn'];
$sql="select * from users where user_id=$usn";
$q=mysqli_query($dbc,$sql);
if(!$q) echo mysqli_error($dbc);
while($r = mysqli_fetch_array($q))
{
            $name=$r['first_name'] . " " . $r['last_name'] . " (" . $r['email'] . ")";
}
echo "<span style='color:#0000FF; font-weight:bold; text-align:center'><h3>Setting Permission for $name</h3></span>";
?>
<?php
$sql="select * from products order by sn";
$q=mysqli_query($dbc,$sql);
while($r = mysqli_fetch_array($q))
{
    $psn=$r['sn'];
    $check    =    mysqli_query    ($dbc,"select    sn    from    table
    $numcheck=mysqli_num_rows($check);
    if($numcheck<=0)
    {
    $s="insert into permission (usn,psn,readp,writep,wbdays) values
    $in=mysqli_query($dbc,$s);
    }
```

```
}
?>
<tr>
<td width="60%"  style="text-align:left"><strong>Products</strong></td>
<td width="20%" style="text-align:left"><strong>Read</strong></td>
<td width="20%" style="text-align:left"><strong>Write</strong></td>
<td width="20%" style="text-align:left"><strong>Write Back Days</strong></td>
</tr>
<?php
$sql="select permission.* from permission join products on permission.psn = products.sn where usn=$usn ";
while($r = mysqli_fetch_array($q))
{
        $id = $r['sn'];
        $psn=$r['psn'];
        $wbdays=$r['wbdays'];
        $productname="";
        $sql2="select name from products;
        $q2=mysqli_query($dbc,$sql2);
        while($r2 = mysqli_fetch_array($q2))
        {
                $productname = $r2['name'];
        }
        $readp_text="No";
        $writep_text="No";
        if($r['readp'] == 1) $readp_text= "Yes";
```

```php
        if($r['writep'] == 1) $writep_text= "Yes";
        ?>
```
```html
<tr>
<td width="60%"  style="text-align:left"><?php echo $productname; ?></td>
<td  width="20%"  style="text-align:center"><span  id="readp<?php  echo  $id;
?>"><?php echo $readp_text; ?></span>   
<a   href="javascript:void(0)"   onClick="sendRequest_change(<?php   echo   $id;
?>,'readp')" style="outline:none"><i class="icon-edit"></i></a>
</td>
<td   width="20%"   style="text-align:center"><span   id="writep<?php   echo   $id;
?>"><?php echo $writep_text; ?></span>   
<a   href="javascript:void(0)"   onClick="sendRequest_change(<?php   echo   $id;
?>,'writep')" style="outline:none"><i class="icon-edit"></i></a>
</td>
<td width="20%" style="text-align:center">
<input type="text" class="input-small" onChange="sendRequest(this.value,<?php
echo $id; ?>)" value="<?php echo $wbdays; ?>" style="text-align:right; margin:0
auto"></td>
</tr>
```

Institute
```html
<table class="table table-striped table-hover table-bordered">
<thead>
 <tr>
   <th>SN</th>
   <th>Name</th>
   <th>Address</th>
```

```php
    <th>Phone</th>
        <th></th> </tr>
  </thead>
  <?php
 $counter=1;
      $sql="select * from projectinfo limit 1";
  $listaccount=mysqli_query($dbc,$sql);
  if(!$listaccount) echo mysqli_error();
      while($row = mysqli_fetch_array($listaccount))
      {
              $id=$row['sn'];
              $name=$row['name'];
              $address=$row['address'];
              $phone=$row['phone'];
 ?>
</table>
```

Product out Put

```html
<table class="table table-striped table-hover table-bordered">
<thead>
 <tr>
   <th>SN</th>
   <th>ID</th>
   <th>Item</th>
   <th>Used</th>
   <th>Variable Name</th>
   <th>Item Type</th>
```

```html
    <th>Formula</th>

    <th>Order</th>

    <th><a href="updateupdate.php?sn=0&psn=<?php echo $psn;

?>">NEW</a></th>

  </tr>

 </thead>

 <tfoot>

 <tr>

   <th>SN</th>

   <th>ID</th>

   <th>Item</th>

   <th>Used</th>

   <th>Variable Name</th>

   <th>Item Type</th>

   <th>Formula</th>

   <th>Order</th>

   <th><a     href="updateupdate.php?sn=0&psn=<?php     echo     $psn;

?>">NEW</a></th>

  </tr>

 </tfoot>

<tbody>

<?php

  $counter=1;

      $sql="select * from products_output where psn=$psn ";

       $listaccount=mysqli_query($dbc,$sql);

  if(!$listaccount) echo mysqli_error();

      while($row = mysqli_fetch_array($listaccount))
```

```php
        {
                $id=$row['sn'];

                $item=$row['item'];

                $used=$row['used'];

                $displayorder=$row['displayorder'];

                $variablename=$row['variablename'];

                $itemtype=$row['itemtype'];

                $formula=$row['formula'];  $s="";

         if($used=="Yes")

        {

                $s="style='color: green'";

        } ?>

   <tr <?php echo $s; ?>>

    <td><?php echo $counter; ?></td>

    <td><?php echo $id; ?></td>

    <td><?php echo $item; ?></td>

    <td><?php echo $used; ?></td>

    <td><?php echo $variablename; ?></td>

    <td><?php echo $itemtype; ?></td>

    <td><?php echo $formula; ?></td>

    <td><?php echo $displayorder; ?> 

        <a href="setorder_setorder.php?psn=<?php echo $psn; ?>&sn=<?php echo
"$id"; ?>&osn=<?php echo "$displayorder"; ?>&task=up">

    <img src="up.png" width="16" height="16" border="0" align="absmiddle">

    </a>
```

```php
<a href="setorder_setorder.php?psn=<?php echo $psn; ?>&sn=<?php echo
"$id"; ?>&osn=<?php echo "$displayorder"; ?>&task=down"><img
    src="down.png" width="16" height="16" border="0" align="absmiddle">
</a></td>

<td><a href="updateupdate.php?psn=<?php echo $psn; ?>&sn=<?php echo $id;
?>">Update</a> |

    <a onclick="if ( confirm('You are about to delete this item ?\n \'Cancel\'
    to stop, \'OK\' to delete.') ) { return true;}return false;"
    href="deletedelete.php?psn=<?php echo $psn; ?>&sn=<?php echo $id;
    ?>">Delete</a></td>
  </tr>
<?php
$counter=$counter+1;
} ?></tbody></table>
```

Milk Entry

```php
<?php $cdid=$_GET['cdid'];
    $nextcdid=$cdid+1; $previouscdid=$cdid-1;
    $wsKg = 0;$wsLT = 0;$wsFATper = 0;$wsFATunit = 0;
    $wsSNFper = 0;$wsSNFunit = 0;
    $listaccount=mysqli_query($dbc,"select * from milk where cd_id=$preid );
    while($row = mysqli_fetch_array($listaccount))
    {
    $wsKg=$row['kgqty'];$wsLT=$row['ltrqty'];$wsFATper=$row['fatper'];
    $wsFATunit=$row['fatunit'];$wsSNFper=$row['snfper'];
    $wsSNFunit=$row['snfunit'];
    }
```

```php
$ssKg = 0;$ssLT = 0; $ssFATper = 0;$ssFATunit = 0;$ssSNFper = 0;
$ssSNFunit = 0;
$listaccount=mysqli_query($dbc,"select * from milk where cd_id=$preid
");
while($row = mysqli_fetch_array($listaccount))
{
$ssKg=$row['kgqty'];$ssLT=$row['ltrqty'];$ssFATper=$row['fatper'];
$ssFATunit=$row['fatunit'];$ssSNFper=$row['snfper'];
$ssSNFunit=$row['snfunit'];
}
$csKg = 0;$csLT = 0; $csFATper = 0;$csFATunit = 0;$csSNFper = 0;
$csSNFunit = 0;
$listaccount=mysqli_query($dbc,"select * from milk where
cd_id=$previouscdid and list_id=58");//gai stock of previous day
while($row = mysqli_fetch_array($listaccount))
{
$csKg=$row['kgqty']; $csLT=$row['ltrqty'];
$csFATper=$row['fatper']; $csFATunit=$row['fatunit'];
$csSNFper=$row['snfper']; $csSNFunit=$row['snfunit'];
}$listaccount=mysqli_query($dbc,"select sn from headers");
while($row = mysqli_fetch_array($listaccount))
{
        $id=$row['sn']; $chkcount=0;
$list2=mysqli_query($dbc,"select list_id from milk WHERE list_id=$id and
cd_id=$cdid");
$chkcount = mysqli_num_rows($list2);
if($chkcount==0) {
```

```php
        $list3=mysqli_query($dbc,"insert into milk(cd_id,list_id) VALUES($cdid,
$id)");
                }
         }
        if($cdid>$set_startcdid) {
$list4=mysqli_query($dbc, "update milk set kgqty=$ssKg, ltrqty=$ssLT,
        fatper=$ssFATper,fatunit=$ssFATunit,snfper=$ssSNFper,snfunit=$ssSNFu
        nit ");
$list4=mysqli_query($dbc,"update milk set kgqty=$wsKg, ltrqty=$wsLT,
        fatper=$wsFATper, fatunit=$wsFATunit,snfper=$wsSNFper ");
$q=mysqli_query($dbc,"select sn from headers where entrymode='Multiple'");
        while($r = mysqli_fetch_array($q))
        {
                $multiple_listid=$r['sn']; $sltr=0; $sfat=0; $ssnf=0;
$multiple=mysqli_query($dbc,"select sum(ltrqty) as sltr, sum(fatunit) as sfat,
sum(snfunit) as ssnf from milk_multiple where list_id=$multiple_listid and
cd_id=$cdid");
                while($row = mysqli_fetch_array($multiple))
                {
                $sltr=$row['sltr']; $sfat=$row['sfat'];
                $ssnf=$row['ssnf']; }
                if($sltr=="") $sltr=0;
                if($sfat=="") $sfat=0;
                if($ssnf=="") $ssnf=0;
                $ltr=$sltr;
                if($ltr==0) $ltr=1;
                $sfatper=($sfat/$ltr)*100; //for arithmatic average
```

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```
        $ssnfper=($ssnf/$ltr)*100;

        $list5=mysqli_query($dbc,"update  milk  set  kgqty=0,  ltrqty=$sltr,
fatper=$sfatper,fatunit=$sfat,snfper=$ssnfper,snfunit=$ ");

    }?>
```
```html
<table width="100%" border="0" cellspacing="0" cellpadding="0">
<tr>
    <td width="50%" valign="top" style=" padding-right: 10px">
  <table width="100%" border="0" cellspacing="0" cellpadding="0">
 <tr><td  style="font-size:14px;  font-weight:bold;  padding-left:10px;  color:
#006600">आम्दानी</td>
  </tr> <tr>
  <td>
   <table   class="table   table-striped   table-hover   table-bordered   table-
condensed">
    <tr>
     <td><strong>क्र सं</strong></td>
     <td><strong>विबरण</strong></td>
     <td style="text-align: right"><strong>केजी</strong></td>
     <td style="text-align: right"><strong>लिटर</strong></td>
     <td style="text-align: right"><strong>फ्याट%</strong></td>
     <td style="text-align: right"><strong>फ्याट केजी</strong></td>
     <td style="text-align: right"><strong>एस्एनएफ %</strong></td>
     <td style="text-align: right"><strong>एस्एनएफ केजी</strong></td>
        </tr>
```

```php
<?php
$counter=1;  $ltrtotal=0; $snftotal=0; $fattotal=0;
$listaccount=mysqli_query($dbc,"select milk.*,headers.title,
headers.entrymode from milk inner join headers on
milk.list_id=headers.sn  where  milk.cd_id=$cdid  and  headers.ie='Income'
and headers.used='Yes' order by headers.displayorder");
while($row = mysqli_fetch_array($listaccount))
{
    $ltrtotal=$ltrtotal+$row['ltrqty'];
    $snftotal=$snftotal+$row['snfunit'];
    $fattotal=$fattotal+$row['fatunit'];

?><tr>
<td style="text-align: right"><?php echo $counter; ?></td>
<td>
    <?php
        if($row['entrymode'] == "Single")
        {
if(($row['list_id']==18) or ($row['list_id']==19) or ($row['list_id']==57))
{
    if($cdid>$set_startcdid)
    {
        echo $row['title'];
    }
    else
    {
?>
```

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```php
<a href="#myModal" role="button" data-toggle="modal"
        onclick="assignValue('<?php echo $row['sn']; ?>','<?php echo $row['title'];
?>','<?php echo $row['kgqty']; ?>','<?php echo $row['ltrqty']; ?>','<?php echo
$row['fatper']; ?>','<?php echo $row['fatunit']; ?>','<?php echo $row['snfper'];
?>','<?php echo $row['snfunit']; ?>')"><?php echo $row['title']; ?></a>
<?php   }
                }
            else
 { ?>
<a href="#myModal" role="button" data-toggle="modal"
        onclick="assignValue('<?php echo $row['sn']; ?>','<?php echo $row['title'];
?>','<?php echo $row['kgqty']; ?>','<?php echo $row['ltrqty']; ?>','<?php echo
$row['fatper']; ?>','<?php echo $row['fatunit']; ?>','<?php echo $row['snfper'];
?>','<?php echo $row['snfunit']; ?>')"><?php echo $row['title']; ?></a>
<?php
        }
            }
else
{ ?>
<a  href="multiple.php?what=<?php  echo  $row['list_id'];  ?>&cdid=<?php  echo
$cdid; ?>&ie=Income" style="color: #cc0000"><?php echo $row['title']; ?></a>
<?php
        }
?>
 </td>
 <td style="text-align: right"><?php if($row['kgqty']>0) echo $row['kgqty']; else
echo ""; ?></td>
```

```php
<td style="text-align: right"><?php if($row['ltrqty']>0) echo $row['ltrqty']; else
echo ""; ?></td>
 <td style="text-align: right"><?php if($row['fatper']>0) echo $row['fatper'];  else
echo ""; ?></td>
  <td style="text-align: right"><?php if($row['fatunit']>0) echo $row['fatunit']; else
echo ""; ?></td>
<td style="text-align: right"><?php if($row['snfper']>0) echo $row['snfper']; else
echo ""; ?></td>
<td style="text-align: right"><?php if($row['snfunit']>0) echo $row['snfunit']; else
echo ""; ?></td>
 </tr>
 <?php
        $counter=$counter+1;
 } ?>
 <tr>
    <td> </td>
      <td style="text-align: right"><strong>Totals</strong></td>
      <td style="text-align: right"> </td>
      <td    style="text-align:   right"><strong><?php   echo    number_format
      ($ltrtotal,2); ?></strong></td>
      <td style="text-align: right"> </td>
      <td    style="text-align:   right"><strong><?php   echo    number_format
      ($fattotal,3); ?></strong></td>
         <td style="text-align: right"> </td>
      <td    style="text-align:   right"><strong><?php   echo    number_format
      ($snftotal,3); ?></strong></td>
      </tr>
```

```html
    </table></td>
  </tr>
</table></td><!-- expenses -->
<td width="50%" valign="top" style="padding-left:10px">
  <table width="100%" border="0" cellspacing="0" cellpadding="0">
 <tr>
  <td style="font-size:14px; font-weight:bold; padding-left:10px; color:
  #006600">खर्च</td>
 </tr>
 <tr>
  <td style="border:none"><table class="table table-striped table-hover table-
  bordered table-condensed">
 <tr>
        <td><strong>क्र सं</strong></td>
        <td><strong>विबरण</strong></td>
        <td style="text-align: right"><strong>केजी</strong></td>
        <td style="text-align: right"><strong>लिटर</strong></td>
        <td style="text-align: right"><strong>फ्याट%</strong></td>
        <td style="text-align: right"><strong>फ्याट केजी</strong></td>
        <td style="text-align: right"><strong>एस्एनएफ %</strong></td>
        <td style="text-align: right"><strong>एस्एनएफ केजी</strong></td>
        </tr>
        <?php
        $counter=1;
```

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```php
                $ltrtotal=0;

                $snftotal=0;

                $fattotal=0;

 $listaccount=mysqli_query($dbc,"select  milk.*,headers.title,  headers.entrymode
from milk inner join headers on milk.list_id=headers.sn where milk.cd_id=$cdid
and headers.ie='Expense' and headers.used='Yes' order by headers.displayorder
");

        while($row = mysqli_fetch_array($listaccount))

        {

                        $ltrtotal=$ltrtotal+$row['ltrqty'];

                        $snftotal=$snftotal+$row['snfunit'];

                        $fattotal=$fattotal+$row['fatunit'];


         ?>

        <tr>

                <td style="text-align: right"><?php echo $counter; ?></td>

                <td>

    <?php

            if($row['entrymode'] == "Single")

            {

                    if(($row['list_id']==18) or ($row['list_id']==19))

                    {

                            if($cdid>$set_startcdid)

                            {

                                    echo $row['title'];

                            }

                            else
```

```php
                    {
 ?>
<a      href="#myModal"      role="button"      data-toggle="modal"
onclick="assignValue('<?php echo $row['sn']; ?>','<?php echo $row['title'];
?>','<?php  echo  $row['kgqty'];  ?>','<?php  echo  $row['ltrqty'];  ?>','<?php
echo  $row['fatper'];  ?>','<?php  echo  $row['fatunit'];  ?>','<?php  echo
$row['snfper'];   ?>','<?php   echo   $row['snfunit'];   ?>')"><?php   echo
$row['title']; ?></a>
<?php  }
    }
        else
        { ?>
<a  href="#myModal"  role="button"  data-toggle="modal"  onclick="assignValue
('<?php   echo   $row['sn'];   ?>','<?php   echo   $row['title'];   ?>','<?php   echo
$row['kgqty'];  ?>','<?php  echo  $row['ltrqty'];  ?>','<?php  echo  $row['fatper'];
?>','<?php echo $row['fatunit']; ?>','<?php echo $row['snfper']; ?>','<?php echo
$row['snfunit']; ?>')"><?php echo $row['title']; ?></a>
    <?php
      }
        }
        else
{ ?>
 <a  href="multiple.php?what=<?php  echo  $row['list_id'];  ?>&cdid=<?php
echo   $cdid;   ?>&ie=Expense"   style="color:   #cc0000"><?php   echo
$row['title']; ?></a>
<?php
}
```

```
        ?>
</td>

<td style="text-align: right"><?php if($row['kgqty']>0) echo $row['kgqty'];
else echo ""; ?></td>

<td style="text-align: right"><?php if($row['ltrqty']>0) echo $row['ltrqty'];
else echo ""; ?></td>

<td style="text-align: right"><?php if($row['fatper']>0) echo $row['fatper'];
else echo ""; ?></td>

<td        style="text-align:        right"><?php       if($row['fatunit']>0)       echo
$row['fatunit']; else echo ""; ?></td>

<td style="text-align: right"><?php if($row['snfper']>0) echo $row['snfper'];
else echo ""; ?></td>

<td        style="text-align:        right"><?php       if($row['snfunit']>0)       echo
$row['snfunit']; else echo ""; ?></td>

        </tr>
         <?php
         $counter=$counter+1;
         } ?>
         <tr>
    <td> </td>
    <td style="text-align: right"><strong>Totals</strong></td>
    <td style="text-align: right"> </td>
    <td style="text-align: right"><strong><?php echo
number_format($ltrtotal,2); ?></strong></td>
    <td style="text-align: right"> </td>
    <td style="text-align: right"><strong><?php echo
number_format($fattotal,3); ?></strong></td>
```

```
            <td style="text-align: right"> </td>
            <td style="text-align: right"><strong><?php echo
     number_format($snftotal,3); ?></strong></td>
         </tr>
             </table></td>
     </tr>
   </table>          </td>
   </tr>
  </table>
```

Report Milk

```
<table class="table table-striped table-hover table-bordered table-condensed"
cellspacing="0">
     <tr>
      <td><strong>क्र सं</strong></td>
      <td><strong>विबरण</strong></td>
      <td style="text-align: right"><strong>केजी</strong></td>
      <td style="text-align: right"><strong>लिटर</strong></td>
      <td style="text-align: right"><strong>फ्याट%</strong></td>
      <td style="text-align: right"><strong>फ्याट केजी</strong></td>
      <td style="text-align: right"><strong>एस्एनएफ %</strong></td>
      <td style="text-align: right"><strong>एस्एनएफ केजी</strong></td>
     </tr>
<?php
         $counter=1;
```

```php
            $ltrtotal=0;

            $snftotal=0;

            $fattotal=0;

            $listaccount=mysqli_query($dbc,"select milk.*,headers.title,
headers.entrymode    from    milk    inner    join    headers    on
milk.list_id=headers.sn  where  milk.cd_id=$cdid  and  headers.ie='Income'
and headers.used='Yes' order by headers.displayorder");
while($row = mysqli_fetch_array($listaccount))
{
            $ltrtotal=$ltrtotal+$row['ltrqty'];

            $snftotal=$snftotal+$row['snfunit'];

            $fattotal=$fattotal+$row['fatunit'];
 ?>
    <tr>
        <td style="text-align: right"><?php echo $counter; ?></td>
        <td>
<?php
        echo $row['title'];
?>
</td>
        <td style="text-align: right"><?php if($row['kgqty']>0) echo $row['kgqty'];
        else echo " "; ?></td>
        <td style="text-align: right"><?php if($row['ltrqty']>0) echo $row['ltrqty'];
        else echo " "; ?></td>
        <td style="text-align: right"><?php if($row['fatper']>0) echo $row['fatper'];
        else echo " "; ?></td>
```

```php
<td        style="text-align:       right"><?php       if($row['fatunit']>0)       echo
$row['fatunit']; else echo " "; ?></td>
<td style="text-align: right"><?php if($row['snfper']>0) echo $row['snfper'];
else echo " "; ?></td>
<td style="text-align: right"><?php if($row['snfunit']>0) echo
$row['snfunit']; else echo " "; ?></td>
</tr>
<?php
$counter=$counter+1;
} ?>
<?php
if($noincome<$noexpense) {
        $de=$noexpense-$noincome;
        for($i=1;$i<=$de;$i++) { ?>
        <tr>
    <td> </td><td> </td><td> </td>
    <td> </td> <td> </td><td> </td>
    <td> </td><td> </td>
</tr>
<?php
} // for
} //if
?>
<tr>
    <td> </td>
    <td style="text-align: right"><strong>Totals</strong></td>
    <td style="text-align: right"> </td>
```

```html
<td style="text-align: right"><strong><?php echo number_format($ltrtotal,2); ?></strong></td>
    <td style="text-align: right"> </td>
    <td style="text-align: right"><strong><?php echo number_format($fattotal,3); ?></strong></td>
    <td style="text-align: right"> </td>
    <td style="text-align: right"><strong><?php echo number_format($snftotal,3); ?></strong></td>
  </tr>
    </table></td>
  </tr>
  </table></td><!-- expenses -->
  <td width="50%" valign="top" style="padding-left:10px">
<table width="100%" border="0" cellspacing="0" cellpadding="0">
 <tr><td style="font-size:14px; font-weight:bold; padding-left:10px; color: #006600">खर्च</td>
   </tr>
<tr>
    <td style="border:none"><table class="table table-striped table-hover table-bordered table-condensed" cellspacing="0">
    <tr>
     <td><strong>क्र सं</strong></td>
     <td><strong>विबरण</strong></td>
     <td style="text-align: right"><strong>केजी</strong></td>
     <td style="text-align: right"><strong>लिटर</strong></td>
```

```html
        <td style="text-align: right"><strong>फ्याट%</strong></td>

        <td style="text-align: right"><strong>फ्याट केजी</strong></td>

        <td style="text-align: right"><strong>एस्एनएफ %</strong></td>

        <td style="text-align: right"><strong>एस्एनएफ केजी</strong></td>

        </tr>
 <?php
        $counter=1;
        $ltrtotal=0;
        $snftotal=0;
        $fattotal=0;
        $listaccount=mysqli_query($dbc,"select milk.*,headers.title,
        headers.entrymode  from   milk   inner   join   headers   on
        milk.list_id=headers.sn where milk.cd_id=$cdid and headers.ie='Expense'
        and headers.used='Yes' order by headers.displayorder");
while($row = mysqli_fetch_array($listaccount))
        {
        $ltrtotal=$ltrtotal+$row['ltrqty'];
        $snftotal=$snftotal+$row['snfunit'];
        $fattotal=$fattotal+$row['fatunit'];
 ?>
     <tr>
        <td style="text-align: right"><?php echo $counter; ?></td>
        <td>
<?php
        echo $row['title'];
?>
```

```php
    </td>
    <td style="text-align: right"><?php if($row['kgqty']>0) echo $row['kgqty'];
else echo " "; ?></td>
    <td style="text-align: right"><?php if($row['ltrqty']>0) echo $row['ltrqty'];
else echo " "; ?></td>
    <td style="text-align: right"><?php if($row['fatper']>0) echo $row['fatper'];
else echo " "; ?></td>
    <td    style="text-align:    right"><?php    if($row['fatunit']>0)    echo
$row['fatunit']; else echo " "; ?></td>
    <td style="text-align: right"><?php if($row['snfper']>0) echo $row['snfper'];
else echo " "; ?></td>
    <td    style="text-align:    right"><?php    if($row['snfunit']>0)    echo
$row['snfunit']; else echo " "; ?></td>
    </tr>
 <?php
        $counter=$counter+1;
 } ?>
<?php
    if($noincome>$noexpense) {
            $de=$noincome-$noexpense;
            for($i=1;$i<=$de;$i++) { ?>
        <tr>
        <td> </td><td> </td><td> </td><td> </td>
        <td> </td><td> </td><td> </td><td> </td>
         </tr>
<?php
    } // for } //if
```

```
?>
 <tr>
    <td> </td>
    <td style="text-align: right"><strong>Totals</strong></td>
    <td style="text-align: right"> </td>
    <td style="text-align: right"><strong><?php echo
number_format($ltrtotal,2); ?></strong></td>
    <td style="text-align: right"> </td>
    <td style="text-align: right"><strong><?php echo
number_format($fattotal,3); ?></strong></td>
    <td style="text-align: right"> </td>
    <td style="text-align: right"><strong><?php echo
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