



VISVESVARAYA TECHNOLOGICAL UNIVERSITY

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A MINI PROJECT REPORT ON
“DAIRY MANAGEMENT SYSTEM”

Submitted in partial fulfillment of academic requirement of 5th semester
Database Management System with Mini Project laboratory

**BACHELOR OF ENGINEERING
IN
INFORMATION SCIENCE AND ENGINEERING**

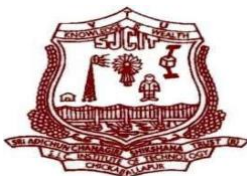
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Carried out
at
**Database Management System Laboratory
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CERTIFICATE

This is to certify that the Mini-project work titled “**DAIRY MANAGEMENT SYSTEM**” is a bonafide work carried out at Database Management System with mini project laboratory by SWAROOP N SWAMY(**1SJ19IS113**), VASUKI(**1SJ19IS120**) and UDAY KUMAR J B(**1SJ19IS118**) in partial fulfillment for the award of **Bachelor of Engineering in Information Science and Engineering in 5th semester of the Visvesvaraya Technological University, Belgaum** during the year 2021 – 2022. It is certified that all correction/suggestion indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect to 5th semester mini project work.

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ABSTRACT

A survey was prepared by the Dairy Cattle Milk Recording Working Group together with invited milk recording organisations. This paper is one part of this project and focuses on management and organisational questions. The management of recording organizations in the current climate of growing competition is more challenging than ever.

The main part of this approach is how to develop a clear relationship with customers and how to provide value to farmers in regard to collected data and samples. New tools of analysis are already very common in some countries, while other participants are now focusing on maximizing increased efficiency in data capturing and processing. In those countries whose workflow is technician-based, training and certification are major components in improving human resources. The reporting of results back to farmers is also a very challenging area.

The use of paper and pdf-reports is very common, but new online technologies and smartphone usage now provide new opportunities for farmers to manage information. Real value is created by additional analyses from identified milk samples. The goal was to develop a program that is flexible enough to be useful in a wide variety of management systems by providing reports suited to the individual producer. The existing program already collects farmers, employees, deliveries and their databases respectively other maintenance procedures and performance records.

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Chapter 1

INTRODUCTION

1.1 Preamble

Dairy management involves keeping good records. Once a government realizes that milk recording should complement breeding programmes, farmers must still be convinced that they have something to gain from keeping records. Here are ways in which milk recording systems in developing countries can be adapted to the needs of farmers and governments.

Dairy management system is a software application to maintain day to day transaction in a milk distributor office. It is a pilot project for new milk distributor to be start soon in the city .the management planned this milk distribution center to operate on the next month. they have a big plan to collect the milks from many different sources and distribute the same for the milk buyers to manage all these they required a full-fledged software which will take care all these.

Good dairy management practice also ensures that the milk is produced by healthy animals in a manner that is sustainable and responsible from the animal welfare, social, economic and environmental perspectives. So implementing good dairy farming practice is good risk management for the short and long term future of the dairy farming enterprise. This Guide encourages dairy farmers to adopt 'proactive' preventative practices rather than waiting for problems to occur. which means if the farmers are involved in the dairy management system then the health and welfare of the animals are also preserved .

1.2 Objectives Of Proposed System

Milk recording has two main objectives:

1. To help the individual farmer to produce milk more efficiently, i.e. more economically.

2. To provide data for government administrative, research, breeding and extension purposes.

Both objectives are of course equally important, but it should be recognized that if the individual farmer cannot be convinced that he/she has something to gain from the practice, it is very difficult to develop extensive recording systems. One should therefore avoid emphasizing the over-all national benefits too much, because otherwise many farmers will believe that milk recording serves only the interests of various official bodies.

The starting point in all recording schemes should be the farmer, how to get him/her to see that it really pays to keep some simple records. If one succeeds in this, the collection of data, and cooperation in other matters, will be much easier.

In country's like INDIA farmers are the back of bone of the country ,these farmers chooses dairy farming other than the field work.so bringing the justice for the farmers and make the office work easy we are bringing this system into act.

Chapter 2

LITERATURE SURVEY

2.1 Existing System Details and Problems

When we Analysis the Manage about this firm then we face that they working with manual. And we all know that the manual system has many disadvantages. Some are mentioned below...

The manual system requires more time for processing.

- It requires more critical work.
- The manual system is more error prone.
- Difficult to maintain.
- Manual system is costly.
- Immediate response to the queries is difficult and time consuming.
- More men power needed.
- Manual system show of the particular place.

Apart from the general lack of funds, the main problems in setting up and running milk recording schemes are:

- Low educational level of farmers.
- Lack of qualified extension workers and recorders.
- Few incentives for farmers to record their cows.
- Small average herd size.
- Poor communications.
- unrecognized need for progeny testing and other breeding programmes.
- Poor data collection and processing facilities.

2.2 Alternative Solutions

New system is required because of some advantage of new system are as below...

- The new system required less time for completion of any work.
- New system is decreasing the chances of error.
- New system should work smoothly and very fast.
- New system saving time and manpower.
- The system is user friendly and any one having computer knowledge can handle it easily.

Suitability for computerized data entry. Maintaining Dairy information, Staff information & Customer information, Milk Rate Information.

Other than the above alternatives we can solve the existing problem by taking some incentives. General incentives are helpful but are usually not sufficient to get large numbers of farmers to join a milk recording scheme. Therefore, one should seriously consider other ways of encouraging milk producers to keep records. In Finland a popular saying has it that "Money is the best extension worker". If farmers could actually be paid for keeping records and sending them to the authorities, this would obviously be the most efficient incentive. Even if this system cannot be used generally, it could be tried when starting and building up a scheme in a developing country. And farmers willing to cooperate in a progeny testing programme should certainly be paid a fee for each daughter record.

Other possible incentives are:

- Farmers belonging to a milk recording scheme would get free of charge sound advice on how to manage, feed and breed their animals at regular intervals.
- Farmers belonging to such a scheme would get all inseminations without cost, or very cheaply. This would simultaneously promote both recording and AI. If AI is not available, good bulls could be put at the disposal of record-keeping farmers without extra cost.

- 2.3 Advantages Of Proposed System

- Very simple and easy to implement
- Security of data
- Ensure data accuracy
- Administrator discretion and control over the entire system.
- Reduces the damages of machine
- Minimizes manual data entry
- Greater efficiency
- User friendly and interactive
- Less time consuming

Chapter 3

SYSTEM REQUIREMENTS

3.1 Requirements Related To Project

i) User Requirements

Since end users are the ones who are finally going to use the system, their requirements need to be identified. This involves questioning the end users what their expectations were. The main requirement of the end user is that the system should be easy to use and take less time. In addition to these another important factor was to eliminate the need for database conversion and migration that had to be carried out presently. After conducting interviews with the users a document called the software requirement specification was created. This is the most important document that forms the basis for system development. It should be consistent, complete, unambiguous, traceable and inter-related. This document has the following components:

ii) Functional Requirements:

The functional requirements specify relationship between the inputs and outputs. All the operations to be performed on the input data to obtain output are to be specified. This includes specifying the validity checks on the input and output data, parameters affected by the operations and the other operations, which must be used to transform the inputs into outputs. Functional requirements specify the behavior of the system for valid input and outputs.

iii) Performance Requirements

This section includes performance of the product that are set by user interaction and studying the existing system of the organization. These are stated in complete measurable terms, so that they can be verified during system evaluation phase.

3.2 Hardware Requirement

Processor : Intel Core Duo 2.0 GHz

RAM : 1 GB or More

Harddisk : 80GB or more

Monitor : 15" CRT, or LCD monitor

Keyboard : Normal or Multimedia

Mouse : Compatible mouse

3.3 Software Requirement

Front End : Visual Basic 2005 Express edition with Sql Server Compact Edition Microsoft SDK

2.0 or Visual Basic 2008 Express edition with Sql Server Compact Edition Microsoft SDK
3.0

Back End : MS Sql Server

Operation System : Windows 7 with server pack 2 Or Windows 8.1

3.4 User Characteristics

i) Every user

Should be comfortable with basic working of the computer Must carry a login ID and password used for authentication In dairy milk management manager, supervisor and clerk are the employees. These characters only are allowed to authorized to login.

ii) Constraints

The GUI restricted to English

Login user mail and password is used for identification of users. There is no facility for a guest login.

Chapter 4

ANALYSIS & DESIGN

4.1 Project Description

System design is essential to develop a model of system before writing any software that is used

to control the system or to interact with it during the design process we try to develop system at different levels of abstraction. Design process involves data structures including library function used in the programs. The project is developed using the below objects:-

Planned approach toward working: The working in the organization will be well planned and organized. The data will be stored efficiently with optimal disk space consumption in data stores which will help in retrieval of information as well as its storage under resource constraints.

Accuracy: The level of accuracy in the proposed system will be higher. All operations would conform to integrity constraints and correctness and it will be ensured that whatever information is received at or sent from the centre is accurate.

Reliability: The reliability of the proposed system will be high due to the above mentioned reasons. This comes from the fact that only the data which conforms accuracy clause would be allowed to commit back to the disk. Other properties like transaction management and rollback during system or power failure etc get automatically taken care of by the SQL systems, which is undoubtedly an excellent choice of the DBMS system. Properties of atomicity, consistency, isolation and data security are intrinsically maintained.

No redundancy: In the proposed system it will be ensured that no repetition of information occurs; neither on a physical storage nor on a logical implementation level. This economizes on

resource utilization in terms of storage space. Also even in case of concurrent access no anomalies occur and consistency is maintained. In addition to all this, principles of normalization have been endeavoured to be followed.

Immediate retrieval of information: The main objective of the proposed system is to provide a quick and efficient platform for retrieval of information. Among the queries allowed for use by the user, the query results are made available immediately, without time lapse, irrespective of the complexity of the query.

Ease of operation: The system should be simplistic in design and use. It is such that it can be easily developed within a short period of time and can conform to the financial and resource-related constraints of the organization.

4.2 Tables Used

LOGIN

(usermail, username, password)

FARMER

(f_no, f_id, f_name, f_locality, f_acc, last_paid, f_phone)

EMPLOYEES

(e_id, e_name, e_mail, username, e_pass, e_roll, e_payroll_no)

DELIVERY

(d_id, r_f_no, r_kg, r_dt, r_received_by, r_deliverer)

PAYMENT

(id, p_to, p_date, p_ac, p_method, p_transaction_code, p_transacted_by)

SETTINGS_RATES

(id, from, to, rate)

4.3 Description of Tables

1. Login page
 - Login into the account
 - The user should be either Manager, Supervisor or Clerk to access the database.
2. Farmers
 - Add farmers into the database and their information.
 - View, update, and remove farmers information.
3. Deliveries
 - Add Deliveries into the database and their information.
 - View, update, and remove delivery information.
4. Employees
 - Add employee into the database and their information.
 - This table is only accessed by the Manager neither by Supervisor nor Clerk.
5. Payments
 - The record of the Farmer is opened here.
 - The payment for the Farmer and deliverer is processed.
6. Setting and rating
 - The cost milk per liter is fixed here.
 - Fixed cost is going to updated and follow the same for payment.

4.4 System Development Phases

Systems Development Life Cycle (SDLC) adheres to important phases that are essential for developers, such as planning, analysis, design, and implementation, and are explained in the section below. There are several Systems Development Life Cycle Models in existence. The oldest model, that was originally regarded as "the Systems Development Life Cycle" is the waterfall

model: a sequence of stages in which the output of each stage becomes the input for the next. These stages generally follow the same basic steps but many different waterfall methodologies give the steps different names and the number of steps seems to vary between 4 and 7. There is no definitively correct Systems Development Life Cycle model, but the steps can be characterized and divided in several steps.

i) Initiation Phase

The Initiation Phase begins when a business sponsor identifies a need or an opportunity. The purpose of the Initiation Phase is to:

- Identify and validate an opportunity to improve business accomplishments of the organization or a deficiency related to a business need.
- Identify significant assumptions and constraints on solutions to that need.
- Recommend the exploration of alternative concepts and methods to satisfy the need including questioning the need for technology, i.e., will a change in the business process offer a solution?
- Assure executive business and executive technical sponsorship.

ii) System Concept Development Phase

The System Concept Development Phase begins after a business need or opportunity is validated

by the Agency/Organization Program Leadership and the Agency/Organization CIO. The purpose of the System Concept Development Phase is to:

- Determine the feasibility and appropriateness of the alternatives.
- Identify system interfaces.
- Identify basic functional and data requirements to satisfy the business need.
- Establish system boundaries; identify goals, objectives, critical success factors, and performance measures.
- Evaluate costs and benefits of alternative approaches to satisfy the basic functional requirements

- Assess project risks
- Identify and initiate risk mitigation actions, and
- Develop high-level technical architecture, process models, data models, and a concept of operations.

4.5 Feasibility Study

A feasibility study is a test of a system proposal according to its workability impact on organization, ability to meet user needs and effective use of resources. The objective of a feasibility study is not to solve a problem but to acquire a sense of its scope. During the study, the problem definition is crystallized and the aspects of the problem to be included in the system

are determined. After the initial investigation of the system that helped to have in-depth study of

the existing system, understanding its strength and weaknesses and the requirements for the new

proposed system.

Feasibility study was done in phases documented below.

i) Behavioral feasibility

People are inherently resistant to change and computers have been known to facilitate change. There is always some reluctance among the users against the introduction of new system but they were told that this system would eliminate the unnecessary overhead of database migration and conversion, which presently had to be carried out on daily basis to facilitate transactions between the different departments. The objective this feasibility phase is to take the operational staff into confidence.

ii) Schedule feasibility

Time evaluation is the most important consideration in the development of project. The time schedule required for the development of the project is very important of other systems.

A reliable Human Resource Database Management System can be developed in a considerably appropriate amount of time.

iii) Economic feasibility

Economic feasibility is the most frequently used method for evaluating the effectiveness of the candidate system. More commonly known as cost\benefit analysis, the procedure is to determine the benefits and savings that are expected from a candidate system and compare them with the costs. If benefits outweigh the costs, then the decision is made to design and implement the system. A cost\benefit analysis was done for the proposed system to evaluate whether it would be economically viable or not.

iv) Technical feasibility

Technical feasibility centers on the existing computer system.

(Hardware/software) and to what extent it can support the proposed addition also the organization already has sufficient high-end machines to serve the processing requirements of the proposed system. So there is no need to purchase new software as the organization has necessary software i.e. tomcat5.0, j2ee1.4, Microsoft SQL Server or hardware to support the proposed system

4.6 Analysis Phase

i) Existing System Details and Problems

Lack of immediate retrievals: In the conventional system, information is distributed across several files. This might also lead to data redundancy with repetition of the same information in various files. In the event of a complex or nested query, the search has to scan several files, thus making procurement of requested query results very cumbersome.

Maintenance of Accuracy and Reliability issues: With redundancy comes consistency issues as the update of information in a single record should be echoed in all records containing the

same information. Also atomicity issues ie, completion of a transaction in totality or nothing at all; has to be maintained. This is difficult in a multi-file system.

Lack of prompt update: Updates associated with a record in a file is to be reflected in all records wherein the particular record is present. This concurrent update poses the problem of time lag. Errors in commit operation to some particular files cause the grave issue of data inconsistency.

Errorprone manual calculation: Manual calculations are errorprone and relatively immensely time consuming, in spite of which they may result in generation of incorrect information. Verification is another overhead, which can be saved through efficient design and implementation.

4.7 Technology used

i) PHP

PHP is a widely used, general-purpose scripting language that was originally designed for web development to produce dynamic web pages. For this purpose, PHP code is embedded into the HTML source document and interpreted by a web server with a PHP processor module, which generates the web page document.

PHP source code is compiled on-the-fly to an internal format that can be executed by the PHP engine. In order to speed up execution time and not have to compile the PHP source code every time the webpage is accessed, PHP scripts can also be deployed in executable format using a PHP compiler.

PHP is one of the most popular server side scripting languages running today. It is used for creating dynamic webpages that interact with the user offering customized information. PHP offers many advantages; it is fast, stable, secure, easy to use and open source (free).

PHP code is inserted directly into the HTML that makes up a website. When a visitor comes to the website, the code is executed. Because PHP is a server side technology, the user does not need any special browser or plug-ins to see the PHP in action.

Another key advantage of PHP is its connective abilities. PHP uses a modular system of extensions to interface with a variety of libraries such as graphics, XML, encryption, etc. In addition, programmers can extend PHP by writing their own extensions and compiling them into the executable or they can create their own executable and load it using PHP's dynamic loading mechanism.

A huge advantage that PHP offers is its community. Since PHP is an open source project, the PHP community is willing to share. If you're looking for a particular script, chances are another user has already created something similar. Check within the PHP community for availability. Likewise, if you have created a function that others might enjoy, be sure to post the code for others.

A PHP scripting block always starts with `<?php` and ends with `?>`. A PHP scripting block can be placed anywhere in the document.

On servers with shorthand support enabled you can start a scripting block with `<?` and end with `?>`.

For maximum compatibility, we recommend that you use the standard form (`<?php`) rather than the shorthand form.

ii) MySQL

MySQL is an [open-source relational database management system](#) (RDBMS). Its name is a combination of "My", the name of co-founder [Michael Widenius](#)'s daughter and "[SQL](#)", the abbreviation for [Structured Query Language](#). The MySQL development project has made its [source code](#) available under the terms of the [GNU General Public License](#), as well as under a variety of [proprietary](#) agreements. MySQL was owned and sponsored by a single [for-profit](#) firm, the [Swedish](#) company [MySQL AB](#), now owned by [Oracle Corporation](#). For proprietary use, several paid editions are available, and offer additional functionality.

MySQL was created by a Swedish company, [MySQL AB](#), founded by [David Axmark](#), Allan Larsson and [Michael "Monty" Widenius](#). Original development of MySQL by Widenius and Axmark began in 1994.^[27] The first version of MySQL appeared on 23 May 1995. It was initially created for personal usage from [mSQL](#) based on the low-level language [ISAM](#), which the creators considered too slow and inflexible. They created a new [SQL](#) interface, while keeping the same [API](#) as mSQL.

MySQL is written in [C](#) and [C++](#). Its SQL parser is written in [yacc](#), but it uses a home-brewed [lexical analyzer](#).

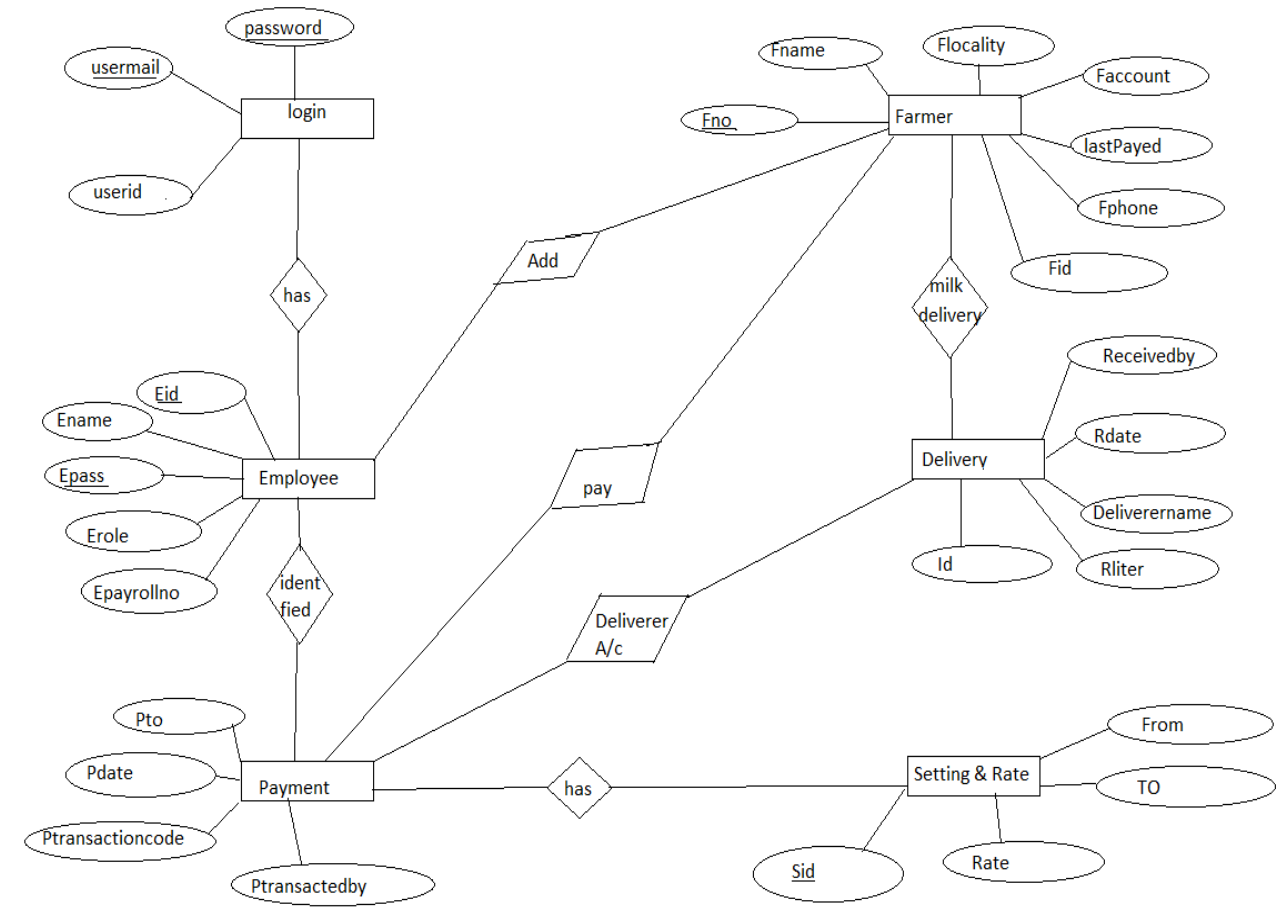
MySQL dump is a logical backup tool included with both community and enterprise editions of MySQL. It supports backing up from all storage engines. MySQL Enterprise Backup is a hot backup utility included as part of the MySQL Enterprise subscription from Oracle, offering native InnoDB hot backup, as well as backup for other storage engines.

Xtra Backup is an open-source MySQL hot backup software program. Features include hot, non-locking backups for InnoDB storage, incremental backups, streaming, parallel-compressed backups, throttling based on the number of I/O operations per second, etc.

MySQL Fabric is an integrated system for managing a collection of MySQL servers, and a [framework](#) on top of which high availability and database sharding is built. MySQL Fabric is open-source, and supports procedure execution in the presence of failure, providing an execution model usually called *resilient execution*. MySQL client libraries are extended so they are hiding the complexities of handling [failover](#) in the event of a server failure, as well as correctly dispatching transactions to the shards.

[phpMyAdmin](#) is a free and open source tool written in PHP intended to handle the administration of MySQL with the use of a web browser. It can perform various tasks such as creating, modifying or deleting databases, tables, fields or rows; executing SQL statements; or managing users and permissions. The software, which is available in 78 languages, is maintained by *The phpMyAdmin Project*.

4.8 ER Diagram



4.9 Schema Diagram

LOGIN

<u>usermail</u>	username	<u>Password</u>
-----------------	----------	-----------------

FORMER

<u>F_no</u>	F_id	F_name	F_locality	<u>F_ac</u>	Last_paid	F_phone
-------------	------	--------	------------	-------------	-----------	---------

EMPLOYEES

<u>E_id</u>	E_name	<u>E_mail</u>	username	<u>E_pass</u>	E_rol	E_payroll_no
-------------	--------	---------------	----------	---------------	-------	--------------

DELIVERY

<u>D_id</u>	R_F_no	R_kg	R_dt	R_receved_by	R_deliverer
-------------	--------	------	------	--------------	-------------

PAYMENT

<u>P_id</u>	P_to	P_date	P_kg	<u>P_ac</u>	P_method	P_transaction_cod e	P_transacted_b y
-------------	------	--------	------	-------------	----------	------------------------	---------------------

SETTING_RATES

<u>S_id</u>	From	To	Rate
-------------	------	----	------

Chapter 5

IMPLEMENTATION

This phase is initiated after the system has been tested and accepted by the user. In this phase, the

system is installed to support the intended business functions. System performance is compared to performance objectives established during the planning phase. Implementation includes user notification, user training, installation of hardware, installation of software onto production computers, and integration of the system into daily work processes.

This phase continues until the system is operating in production in accordance with the defined user requirements.

5.1 SQL commands

Creating tables

```
CREATE TABLE 'login' (  
  userid int(11) NOT NULL auto_increment,  
  useremail varchar(50) NOT NULL default "",  
  password varchar(50) NOT NULL default "",  
  userlevel int(11) NOT NULL default '0',  
  PRIMARY KEY (userid) );
```

```
CREATE TABLE `employees` (  
  `id` int(11) NOT NULL,  
  `e_name` varchar(50) NOT NULL,  
  `e_mail` varchar(50) DEFAULT NULL,  
  `username` varchar(50) NOT NULL,  
  `e_pass` varchar(50) NOT NULL,
```

```
`e_role` varchar(50) DEFAULT NULL,  
`e_payroll_no` varchar(50) NOT NULL  
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
CREATE TABLE `farmers` (  
  `f_no` varchar(50) NOT NULL,  
  `f_id` text NOT NULL,  
  `f_name` varchar(50) NOT NULL,  
  `f_locality` varchar(50) DEFAULT NULL,  
  `f_ac` varchar(50) DEFAULT NULL,  
  `last_paid` date DEFAULT NULL,  
  `f_phone` varchar(20) DEFAULT NULL  
);
```

```
CREATE TABLE `settings_rates` (  
  `id` int(11) NOT NULL,  
  `from` date NOT NULL,  
  `to` date NOT NULL,  
  `rate` float NOT NULL  
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
CREATE TABLE `delivery` (  
  `id` int(11) NOT NULL,  
  `r_f_no` varchar(50) NOT NULL,  
  `r_kg` float NOT NULL,  
  `r_dt` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP,  
  `r_received_by` varchar(50) NOT NULL,  
  `r_deliverer` varchar(50) DEFAULT NULL  
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
CREATE TABLE `payment` (
  `id` int(11) NOT NULL,
  `p_to` varchar(50) NOT NULL,
  `p_date` date NOT NULL,
  `p_ac` bigint(20) NOT NULL,
  `p_method` varchar(30) NOT NULL,
  `p_transaction_code` int(11) NOT NULL, `p_transacted_by` varchar(50) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

i) Inserting values

```
INSERT INTO `login` (`userid`,`usermail`,`password`,`userlevel` ) VALUES ('1' ,
'nayan@gmail.com', 'nayan123', '1');
```

```
INSERT INTO `employees` (`id`, `e_name`, `e_mail`, `username`, `e_pass`, `e_role`,
`e_payroll_no`) VALUES
(3, 'nayan', 'nayan@gmail.com', '', '827ccboeea8a706c4c34a16891f84e7b', 'Manager',
'3456'),
```

```
INSERT INTO `farmers` (`f_no`, `f_id`, `f_name`, `f_locality`, `f_ac`, `last_paid`,
`f_phone`, `f_photo`) VALUES
('1', '23456779', 'alexandar jones', 'kk', '9890485987', '2017-04-30', '0721274242',
NULL);
```

```
INSERT INTO `delivery` (`id`, `r_f_no`, `r_kg`, `r_dt`, `r_received_by`, `r_deliverer`)
VALUES
(2, '49', 66, '2017-04-07 23:00:00', '', 'kumar');
```

```
INSERT INTO 'payment' ( 'id' , 'p_to', 'p_date' , 'p_ac', 'p_method' , 'p_transaction_code' ,  
'p_transacted_by') VALUES (21,'2017-11-31', '2017-12-31', ' 0721274242' , 'cheque' ,  
'62468264823');
```

```
INSERT INTO `settings_rates` (`id`, `from`, `to`, `rate`) VALUES  
(4, '2017-01-01', '2017-01-31', 20);
```

5.2 PHP Code

i) Connecting To Database

```
<?php  
define('db_host', 'localhost');  
define('db_user', 'root');  
define('db_password', '');  
define('db_database', 'dairy');  
$conn= mysqli_connect(db_host, db_user, db_password, db_database);  
mysqli_select_db($conn, db_database);
```

ii) Login Page

```
<?php
if (!defined('PAGE_URL'))define ('PAGE_URL', 'http://localhost/Dairy/');
include("auth.php");
$log = new logmein();
$log->encrypt = false; //set encryption
if($_REQUEST['action'] == "login"){
    $hashed_pass= md5($_REQUEST['password']);
    if($log->login("logon", $_REQUEST['username'], $hashed_pass) == true){
        //do something on successful login
        header("location:".PAGE_URL);
    }else{
        //do something on FAILED login
        echo "wrong";
        echo "action: ". $_REQUEST['action'] .", username: ". $_REQUEST['username']. "
password: ". $_REQUEST['password'] ." Hashed: ".$hashed_pass;
        // header("location:".PAGE_URL);
        $log->loginform("login", "loginform", PAGE_URL."auth/login.php");
    }
}
```

Chapter 6

SOFTWARE TESTING

6.1 Levels Of Testing

Testing is the process of executing then programs with the intention of finding out error.

During

the process, the project is executed with set of test and the output of the website is evaluated to determine if the project is performing as expected. Testing makes a logical assumption that if all

the parts of the module are correct then goal will be successfully achieved. Testing includes after

the completion of the coding phase. The project was tested from the very beginning and also at each step by entering different type of data. In the testing phase some mistakes were found, which did not come to knowledge at the time of coding the project. Then changes were made in the project coding so that it may take all the relevant data and gives the required result. All the forms were tested one by one and made all the required changes.

Testing is vital to the success of the system. Testing makes a logical assumption that if all the

parts of the system are correct, the goal will be successfully achieved. A small system error can conceivably explode into a much larger problem. Effective testing early in the process translates directly into long-term cost savings from a reduced number of errors. For the verification and validation of data various-nesting task are performed. Testing is itself capable of finding the

syntactical mistakes in the system but user need to test the system for logical checking.

The aim of the testing process is to identify all the defects in the website. It is not practical to test

the website with respect to each value that the input request data may assume. Testing provides a practical way of reducing defects in the website and increasing the user's confidence in a developed system. Testing consists of subjecting the website to a set of test inputs and observing if the program behaves as expected. If the program fails to Testing behave as expected then conditions under which failure occurs are noted for later debugging and correction. The following things are associated with testing:

Failure is a manifestation of an error. But the mere presence of an error may not necessarily lead

to a failure. A test case is the triplet $[I, S, O]$ where I is data input to the system. S is the state of

the state of the system at which the data is input, O is the expected output of the system. A test suite is the set of all test cases with which a given software product is to be tested.

i) Functional Testing

Here the system is a black box whose behavior is determined by studying its inputs and related outputs. The key problem is to select the inputs that have a huge probability of being members of a set in many cases; the selection of these test cases is based on the previous studies.

ii) Structural Testing

A great deal can be learnt about the strength and the limitation of the application by examining the manner in which the system breaks. This type of testing has two limitations. It tests failure behavior of the system circumstances may arise through an unexpected combination of events where the load placed on the system exceeds the maximum anticipated load. The structure of the

each module was checked at every step

iii) Unit Testing

In unit testing the entire individual functions and modules were tested independently. By following this strategy all the error in coding were identified and corrected. This method was

applied in combination with the white and black box testing techniques to find the errors in each

module.

Unit testing is normally considered an adjunct to the coding step. Unit test case design was started after source level code had been developed, reviewed, and verified for correct syntax. A review of design information provides guidance for establishing test cases that were likely to uncover errors in each of the categories discussed above. Each test case was coupled with a set of expected results.

6.2 Snapshots

LOGIN PAGE: This is the login page through which admin going to access the database.

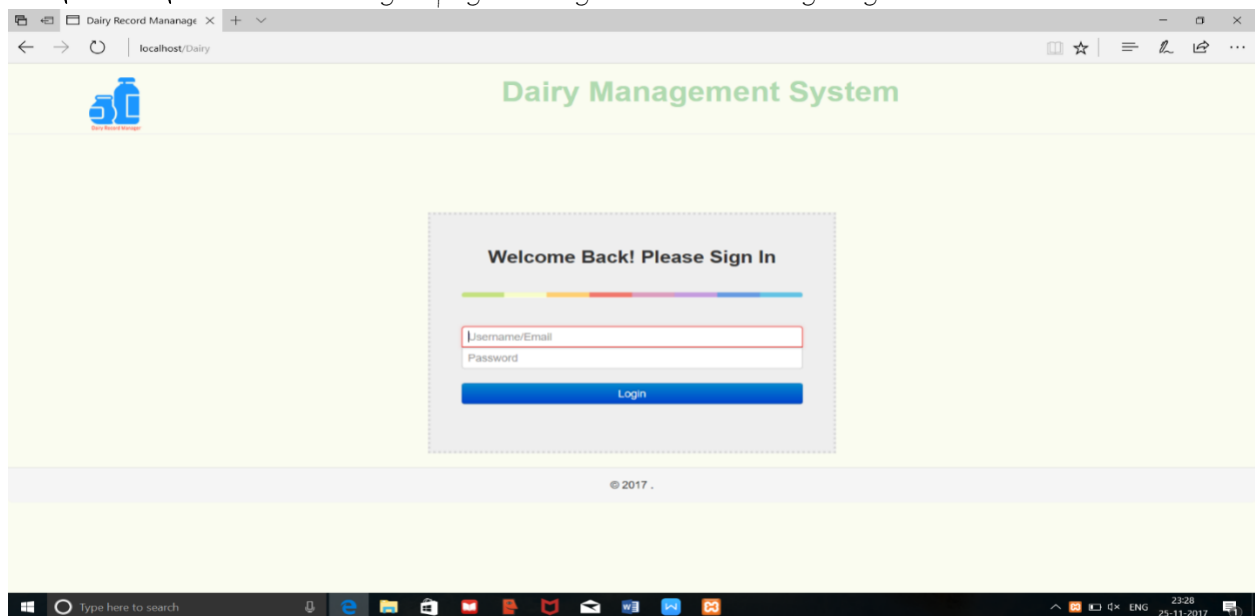


Figure 6.1 :Login Page

HOME PAGE: this is Home page where we get options like Farmer, Delivery, Payment, Employee and Setting.

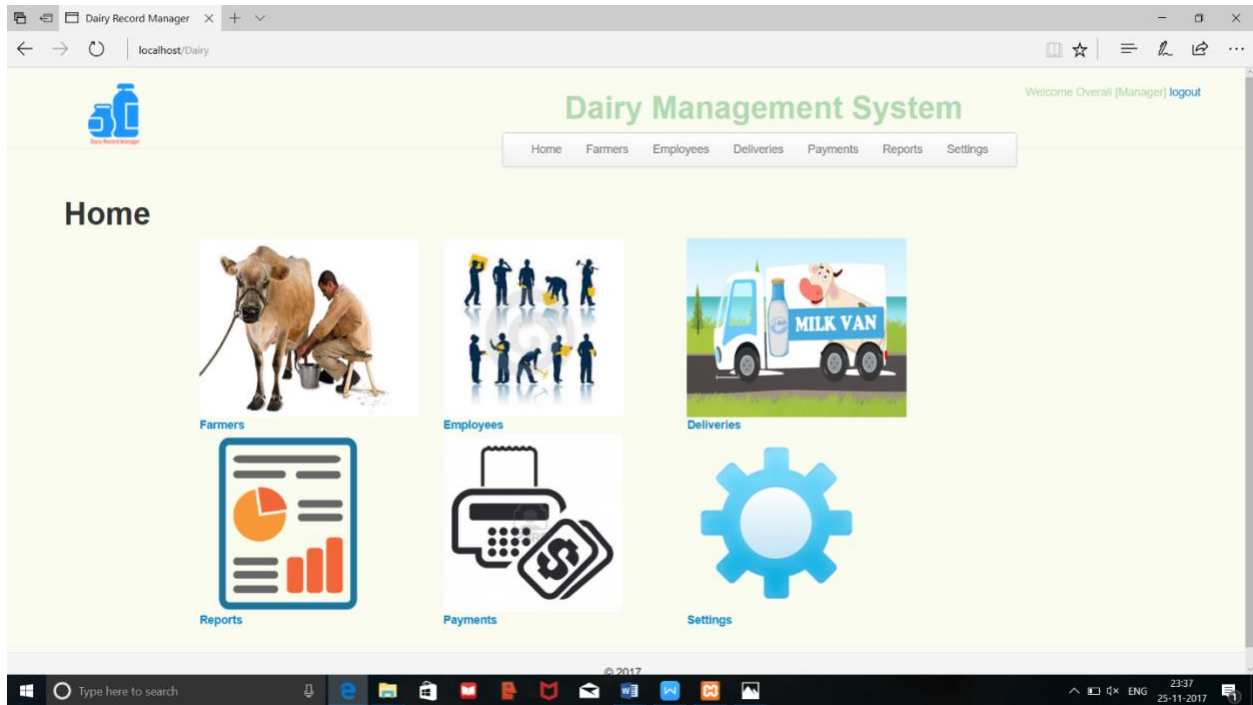


Figure 6.2: Home Page

FARMER PAGE: In this page user is going to add or edit the Farmer information.

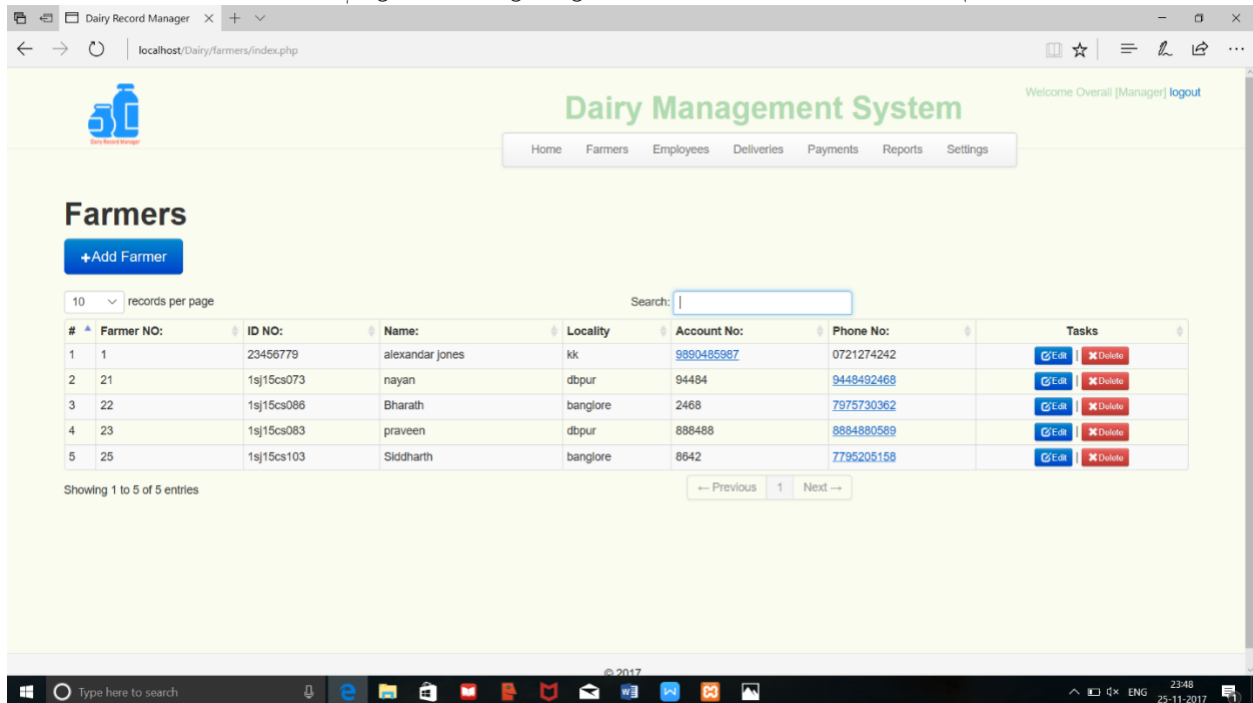


Figure 6.3: Farmer Page

EMPLOYEE PAGE: This page is only for the overall Manager of the system.

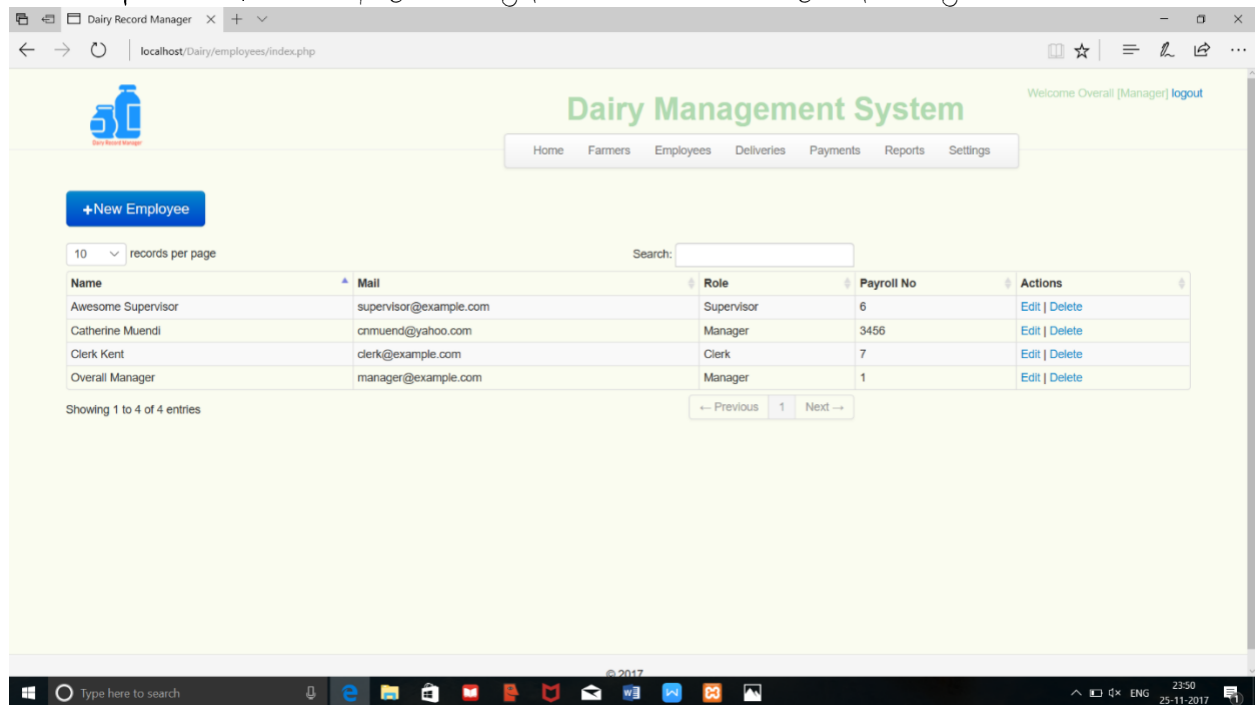


Figure 6.4 :Employee Page

DELIVERIES PAGE: In this page Deliverer is going to deliveres the milk into the destination location by collecting the milk from Farmer.

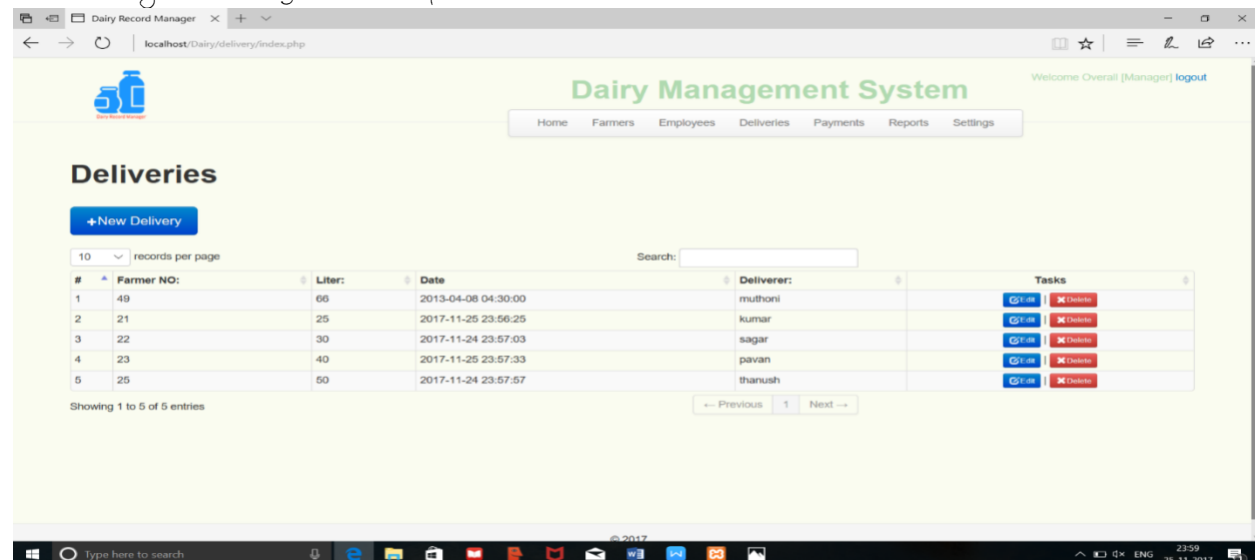


Figure 6.5: Deliveries Page

PAYMENT PAGE: In this page both Farmer and Deliverer is going get the payment through the bank.

Dairy Management System

Welcome Overall [Manager] [logout](#)

Home Farmers Employees Deliveries Payments Reports Settings

Farmers Monthly Sales Reports

From: 2017-11-22 To: 2017-11-26 [Get Records](#)

10 records per page Search:

#	Farmer NO:	Farmer Name:	Last Paid on:	Total Liters:	Pay
1	1	alexandar Jones	2013-04-30	0	Pay
2	21	nayan		25	Pay
3	22	Bharath		30	Pay
4	23	praveen		40	Pay
5	25	Siddharth		50	Pay
Total	All	--	--	145 Liters	--

Showing 1 to 6 of 6 entries

← Previous 1 Next →

Figure 6.6: payment Page

REPORT PAGE: In this page milk by each Farmer and Total Farmer delivery is reported.

Dairy Management System

Welcome Overall [Manager] [logout](#)

Home Farmers Employees Deliveries Payments Reports Settings

Reports

Per Farmer Delivery

Total Farmers Delivery

Figure 6.7: report Page

SETTING RATE PAGE: By considering this page user is going to fix the cost of the milk per liter .

The screenshot shows a web browser window titled 'Dairy Record Manager' with the URL 'localhost/Dairy/settings/rates/new.php'. The page features a logo on the left and a navigation bar with links: Home, Farmers, Employees, Deliveries, Payments, Reports, and Settings. The main form includes a 'Back To Listing' link, a 'From' date field (2017-11-01), a 'To' date field (2017-11-30), a 'Rate (RS/Liter)' field (32), and a green 'Save' button. The Windows taskbar at the bottom shows the date as 26-11-2017.

Figure 6.8: setting rate Page

Chapter 7

CONCLUSION

With the theoretical inclination of our syllabus it becomes very essential to take the utmost advantage of any opportunity of gaining practical experience that comes along. The building blocks of this Mini Project "DAIRY MANAGEMENT SYSTEM" was one of these opportunities. It gave us the requisite practical knowledge to supplement the already taught theoretical concepts thus making us more competent as a computer engineer. The project from a personal point of view also helped us in understanding the following aspects of project development:

- The planning that goes into implementing a project.
- The importance of proper planning and an organized methodology.
- The key element of team spirit and co-ordination in a successful project.

The project also provided us the opportunity of interacting with our teachers and to gain from

their best experience.

An application has been developed using My Sql and PHP database programming connectivity via Xampp Server so as to meet the requirements of an organization, thereby ensuring quality performance.

The data can be accessed, manipulated and retrieved very easily. To conclude this software has proved to be a user friendly interface.

REFERENCES

[1] Authors Names, "Title Of Paper" volume, page no, year of publication etc.

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A MINI PROJECT REPORT
ON

“DAIRY MANAGEMENT SYSTEM”

Submitted on partial fulfilment of academic requirement of 5th semester

DATABASE MANAGENENT SYSTEM LABORATORY

**BACHELOR OF ENGINEERING
IN
INFORMATION SCIENCE AND ENGINEERING**

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CERTIFICATE

This is to certify that the Project work entitled “ **DAIRY MANAGEMENT SYSTEM**” is a bonafide work carried out at Database Management System Laboratory by **SWAROOP N SWAMY (1SJ19IS113)**, **VASUKI(1SJ19IS120)**, **UDAY KUMAR J B (1SJ19IS118)** in partial fulfilment for the award of **Bachelor of Engineering in Information Science and Engineering in Fifth semester of the Visvesvaraya Technological University**, Belgaum during the year 2021-2022. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect to Fifth Semester Mini Project work prescribed for the said degree.

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1)

2)

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ABSTRACT

- A survey was prepared by the Dairy Cattle Milk Recording Working Group together with invited milk recording organizations. This paper is one part of this project and focuses on management and organizational questions. The management of recording organizations in the current climate of growing competition is more challenging than ever.

The main part of this approach is how to develop a clear relationship with customers and how to provide value to farmers in regard to collected data and samples. New tools of analysis are already very common in some countries, while other participants are now focusing on maximizing increased efficiency in data capturing and processing. In those countries whose workflow is technician-based, training and certification are major components in improving human resources. The reporting of results back to farmers is also a very challenging area.

The use of paper and pdf-reports is very common, but new online technologies and smartphone usage now provide new opportunities for farmers to manage information. Real value is created by additional analyses from identified milk samples. The goal was to develop a program that is flexible enough to be useful in a wide variety of management systems by providing reports suited to the individual producer. The existing program already collects farmers, employees, deliveries and their databases respectively other maintenance procedures and performance records.

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CHAPTER 1: INTRODUCTION

CHAPTER 1:

INTRODUCTION

1.1 About the mini project

Dairy management involves keeping good records. Once a government realizes that milk recording should complement breeding programmes, farmers must still be convinced that they have something to gain from keeping records. Here are ways in which milk recording systems in developing countries can be adapted to the needs of farmers and governments.

Dairy management system is a software application to maintain day to day transaction in a milk distributor office. It is a pilot project for new milk distributor to be start soon in the city .the management planned this milk distribution centre to operate on the next month. they have a big plan to collect the milks from many different sources and distribute the same for the milk buyers to manage all these they required a full-fledged software which will take care all these. Good dairy management practice also ensures that the milk is produced by healthy animals in a manner that is sustainable and responsible from the animal welfare, social, economic and environmental perspectives. So implementing good dairy farming practice is good risk management for the short and long term future of the dairy farming enterprise. This Guide encourages dairy farmers to adopt ‘proactive’ preventative practices rather than waiting for problems to occur. which means if the farmers are involved in the dairy management system then the health and welfare of the animals are also preserved .

1.2 About SQL

Structured Query Language (SQL) is comprehensive database language. Hence it has both DDL and DML.

- Data Definition Language (DDL): We can use CREATE, INSERT, DELETE and MODIFY statements. We cannot manipulate the data in the table.
- Data Manipulation Language (DML): We can manipulate the data in the record using UPDATE and ALTER statements.

- SQL has several different techniques for writing programs in various Programming languages that include SQL statements to access one or more database.
- SQL has transaction control commands. These are used to specify units of database processing for concurrency control and recovery purpose.

MySQL is a relational database management system (RDBMS).

The MySQL development project has made its source code available under the terms of the GNU General Public License, as well as under a variety of proprietary agreements. MySQL was owned and sponsored by a single for-profit firm, the Swedish company MySQL AB, now owned by Oracle Corporation. For proprietary use, several paid editions are available, and offer additional functionality.

MySQL was initially created for personal usage from MSQL based on the low-level language ISAM, which the creators considered too slow and inflexible. They created a new SQL interface, while keeping the same API as mSQL.

MySQL is written in C and C++. Its SQL parser is written in yacc, but it uses a home-brewed lexical analyser.

MySQL dump is a logical backup tool included with both community and enterprise editions of MySQL. It supports backing up from all storage engines. MySQL Enterprise Backup is a hot backup utility included as part of the MySQL Enterprise subscription from Oracle, offering native InnoDB hot backup, as well as backup for other storage engines.

Xtra Backup is an open-source MySQL hot backup software program. Features include hot, non-locking backups for InnoDB storage, incremental backups, streaming, parallel-compressed backups, throttling based on the number of I/O operations per second, etc.

MySQL Fabric is an integrated system for managing a collection of MySQL servers, and a framework on top of which high availability and database sharing is built. MySQL Fabric is open-source, and supports procedure execution in the presence of failure, providing an execution model usually called resilient execution.

1.3 Scope and application of mini project

This application is built such a way that it should suits for all type of Milk Distributors in future. So every effort is taken to implement this project in this Milk Distributor Office, on successful implementation in this Milk Distributor Office, we can target other Milk Distributors in the city. Milk Dairy Management System Project Codes and Scripts

Downloads Free. Pre Business Management System is consists of complete Customer Relationship Management System. Milk dairy management system project is a software application useful for dairy forms for managing daily activities like receiving of milk from various sources.

CHAPTER 2: LITERATURE SURVEY

CHAPTER 2:

LITERATURE SURVEY

2.1 Related Work:

- Lack of immediate retrievals: In the conventional system, information is distributed across several files. This might also lead to data redundancy with repetition of the same information in various files. In the event of a complex or nested query, the search has to scan several files, thus making procurement of requested query results very cumbersome.
- Maintenance of Accuracy and Reliability issues: With redundancy comes consistency issues as the update of information in a single record should be echoed in all records containing the same information. Also atomicity issues i.e., completion of a transaction in totality or nothing at all; has to be maintained. This is difficult in a multi-file system.
- Lack of prompt update: Updates associated with a record in a file is to be reflected in all records wherein the particular record is present. This concurrent update poses the problem of time lag. Errors in commit operation to some particular files cause the grave issue of data inconsistency.
- Error prone manual calculation: Manual calculations are error prone and relatively immensely time consuming, in spite of which they may result in generation of incorrect information.
- Verification is another overhead, which can be saved through efficient design and implementation.
- Improved manual System: One of the alternative solutions is the improvement of the manual system. Anything, which can be done by using automated methods, can be done manually. But the key question is how to perform a task manually in a sound and optimal manner. Following are some suggestions, which can be useful in manual system.

A more sophisticated register maintenance dedicated to each subsystem can be maintained with centralised control and evolution. Adequate dedicated staff may be maintained so that updates are made at very moment at the same time. Proper provision for proper work should be put into place.

This would require considerable extra work force.

- Batch system: An alternative solution can be used of computer based batch system for maintaining the information regarding personal details. A batch system refers to a system in which data is processed in a periodical basis. The batch system is able to achieve most of the goals and sub goals. But a batch system data is processed in sequential basis. Therefore batch system is not suggested
- Online system: This system (HRDBMS) provides online storage, update and retrieval facility. This system promises very less or no paper work and also provides help to administrate and company personal. In the system everything is stored electronically so constants of paper work are eliminated and multiple files usage is not required. Information can be retrieved very easily without scanning multiple registers this system is been discussed here.

2.2 : Existing System Details and Problems

When we Analysis the Manage about this firm then we face that they working with manual. And we all know that the manual system has many disadvantages. Some are mentioned below...

The manual system requires more time for processing.

- It requires more critical work.
- The manual system is more error prone.
- Difficult to maintain.
- Manual system is costly.
- Immediate response to the queries is difficult and time consuming.
- More men power needed.
- Manual system show of the particular place.

Apart from the general lack of funds, the main problems in setting up and running milk recording schemes are:

- Low educational level of farmers.
- Lack of qualified extension workers and recorders.
- Few incentives for farmers to record their cows.
- Small average herd size.
- Poor communications.
- Unrecognized need for progeny testing and other breeding programmes.
- Poor data collection and processing facilities..

2.3 Advantages

Advantages:

- Very simple and easy to implement
- Security of data
- Ensure data accuracy
- Administrator discretion and control over the entire system.
- Reduces the damages of machine
- Minimizes manual data entry
- Greater efficiency
- User friendly and interactive
- Less time consuming

CHAPTER 3:

SOFTWARE, HARDWARE AND FUNCTIONAL

REQUIREMENTS

CHAPTER 3:

SOFTWARE, HARDWARE AND FUNCTIONAL REQUIREMENTS

3.1 Requirements Related To Project

i) User Requirements

Since end users are the ones who are finally going to use the system, their requirements need to be identified. This involves questioning the end users what their expectations were. The main requirement of the end user is that the system should be easy to use and take less time. In addition to these another important factor was to eliminate the need for database conversion and migration that had to be carried out presently. After conducting interviews with the users a document called the software requirement specification was created. This is the most important document that forms the basis for system development. It should be consistent, complete, unambiguous, traceable and inter-related. This document has the following components:

ii) Functional Requirements:

The functional requirements specify relationship between the inputs and outputs. All the operations to be performed on the input data to obtain output are to be specified. This includes specifying the validity checks on the input and output data, parameters affected by the operations and the other operations, which must be used to transform the inputs into outputs. Functional requirements specify the behavior of the system for valid input and outputs.

iii) Performance Requirements

This section includes performance of the product that are set by user interaction and studying the existing system of the organization. These are stated in complete measurable terms, so that they can be verified during system evaluation phase.

3.2 Hardware Requirement

Processor : Intel Core Duo 2.0 GHz

RAM : 1 GB or More

Hard disk : 80GB or more

Monitor : 15” CRT, or LCD monitor

Keyboard : Normal or Multimedia

Mouse : Compatible mouse

3.3 Software Requirement

Front End : Visual Basic 2005 Express edition with **SQL** Server Compact Edition Microsoft SDK

2.0 or Visual Basic 2008 Express edition with **SQL** Server Compact Edition Microsoft SDK
3.0

Back End : MS **SQL** Server

Operation System : Windows 7 with server pack 2 Or Windows 8.1

3.4 User Characteristics

i) Every user

Should be comfortable with basic working of the computer Must carry a login ID and password used for authentication In dairy milk management manager, supervisor and clerk are the employees. These characters only are allowed to authorized to login.

ii) Constraints

The GUI restricted to English

Login user mail and password is used for identification of users. There is no facility for a guest login.

CHAPTER 4:

ANALYSIS AND DESIGN

CHAPTER 4: ANALYSIS AND DESIGN

4.1 Project Description

System design is essential to develop a model of system before writing any software that is used to control the system or to interact with it during the design process we try to develop system at different levels of abstraction. Design process involves data structures including library function used in the programs. The project is developed using the below objects:-

Planned approach toward working: The working in the organization will be well planned and organized. The data will be stored efficiency with optimal disk space consumption in data stores which will help in retrieval of information as well as its storage under resource constraints.

Accuracy: The level of accuracy in the proposed system will be higher. All operations would conform to integrity constraints and correctness and it will be ensured that whatever information is received at or sent from the center is accurate.

Reliability: The reliability of the proposed system will be high due to the above mentioned reasons. This comes from the fact that only the data which conforms accuracy clause would be allowed to commit back to the disk. Other properties like transaction management and rollback during system or power failure etc get automatically taken care of by the SQL systems, which is undoubtedly an excellent choice of the DBMS system. Properties of atomicity, consistency, isolation and data security are intrinsically maintained.

No redundancy: In the proposed system it will be ensured that no repetition of information occurs; neither on a physical storage nor on a logical implementation level. This economizes on resource utilization in terms of storage space. Also even in case of concurrent access no anomalies occur and consistency is maintained. In addition to all this, principles of normalization have been endeavored to be followed.

Immediate retrieval of information: The main objective of the proposed system is to provide a quick and efficient platform for retrieval of information. Among the queries allowed for use

by the user, the query results are made available immediately, without time lapse, irrespective of the complexity of the query.

Ease of operation: The system should be simplistic in design and use. It is such that it can be easily developed within a short period of time and can conform to the financial and resource related constraints of the organization.

4.2 Tables Used

LOGIN

(usermail, username, password)

FARMER

(f_no, f_id, f_name, f_locality, f_acc, last_paid, f_phone)

EMPLOYEES

(e_id, e_name, e_mail, username, e_pass, e_roll, e_payroll_no)

DELIVERY

(d_id, r_f_no, r_kg, r_dt, r_received_by, r_deliverer)

PAYMENT

(id, p_to, p_date, p_ac, p_method, p_transaction_code, p_transacted_by)

SETTINGS_RATES

(id, from, to, rate)

4.3 Description of Tables

1. Login page
 - Login into the account
 - The user should be either Manager, Supervisor or Clerk to access the database.
2. Farmers

- Add farmers into the database and their information.
 - View, Update, and remove farmers information.
3. Deliveries
- Add Deliveries into the database and their information.
 - View, update ,and remove delivery information.
4. Employees
- Add employee into the database and their information.
 - This table is only accessed by the Manager neither by Supervisor nor Clerk.
5. Payments
- The record of the Farmer is opened here.
 - The payment for the Farmer and deliverer is processed.
6. Setting and rating
- The cost milk per liter is fixed here.
 - Fixed cost is going to updated and follow the same for payment.

4.4 System Development Phases

Systems Development Life Cycle (SDLC) adheres to important phases that are essential for developers, such as planning, analysis, design, and implementation, and are explained in the section below. There are several Systems Development Life Cycle Models in existence. The oldest model, that was originally regarded as "the Systems Development Life Cycle" is the waterfall model: a sequence of stages in which the output of each stage becomes the input for the next. These stages generally follow the same basic steps but many different waterfall methodologies give the steps different names and the number of steps seems to vary between 4 and 7. There is no definitively correct Systems Development Life Cycle model, but the steps can be characterized and divided in several steps.

i) Initiation Phase

The Initiation Phase begins when a business sponsor identifies a need or an opportunity. The purpose of the Initiation Phase is to:

- Identify and validate an opportunity to improve business accomplishments of the organization or a deficiency related to a business need.
- Identify significant assumptions and constraints on solutions to that need.
- Recommend the exploration of alternative concepts and methods to satisfy the need including questioning the need for technology, i.e., will a change in the business process offer a solution?
- Assure executive business and executive technical sponsorship.

ii) System Concept Development Phase

The System Concept Development Phase begins after a business need or opportunity is validated by the Agency/Organization Program Leadership and the Agency/Organization CIO. The purpose of the System Concept Development Phase is to:

- Determine the feasibility and appropriateness of the alternatives.
- Identify system interfaces.
- Identify basic functional and data requirements to satisfy the business need.
- Establish system boundaries; identify goals, objectives, critical success factors, and performance measures.
- Evaluate costs and benefits of alternative approaches to satisfy the basic functional requirements
- Assess project risks
- Identify and initiate risk mitigation actions, and
- Develop high-level technical architecture, process models, data models, and a concept of operations.

4.5 Feasibility Study

A feasibility study is a test of a system proposal according to its workability impact on organization, ability to meet user needs and effective use of resources. The objective of a feasibility study is not to solve a problem but to acquire a sense of its scope. During the study, the problem definition is crystallized and the aspects of the problem to be included in the system are determined. After the initial investigation of the system that helped to have in-depth study of the existing system, understanding its strength and weaknesses and the requirements for the new proposed system.

Feasibility study was done in phases documented below.

i) Behavioral feasibility

People are inherently resistant to change and computers have been known to facilitate change. There is always some reluctance among the users against the introduction of new system but they were told that this system would eliminate the unnecessary overhead of database migration and conversion, which presently had to be carried out on daily basis to facilitate transactions between the different departments. The objective this feasibility phase is to take the operational staff into confidence.

ii) Schedule feasibility

Time evaluation is the most important consideration in the development of project. The time schedule required for the development of the project is very important of other systems. A reliable Human Resource Database Management System can be developed in a considerably appropriate amount of time.

iii) Economic feasibility

Economic feasibility is the most frequently used method for evaluating the effectiveness of the candidate system. More commonly known as cost\benefit analysis, the procedure is to determine the benefits and savings that are expected from a candidate system and compare them with the costs. If benefits outweigh the costs, then the decision is made to design and implement the system. A cost\benefit analysis was done for the proposed system to evaluate whether it would be economically viable or not.

iv) Technical feasibility

Technical feasibility centers on the existing computer system.

(Hardware/software) and to what extent it can support the proposed addition also the organization already has sufficient high-end machines to serve the processing requirements of the proposed system. So there is no need to purchase new software as the organization has necessary software i.e.tomcat5.0, j2ee1.4, Microsoft SQL Server or hardware to support the proposed system

4.6 Analysis Phase

i) Existing System Details and Problems

Lack of immediate retrievals: In the conventional system, information is distributed across several files. This might also lead to data redundancy with repetition of the same information in various files. In the event of a complex or nested query, the search has to scan several files, thus making procurement of requested query results very cumbersome.

Maintenance of Accuracy and Reliability issues: With redundancy comes consistency issues as the update of information in a single record should be echoed in all records containing the same information. Also atomicity issues ie, completion of a transaction in totality or nothing at all; has to be maintained. This is difficult in a multi-file system.

Lack of prompt update: Updates associated with a record in a file is to be reflected in all records wherein the particular record is present. This concurrent update poses the problem of time lag. Errors in commit operation to some particular files cause the grave issue of data inconsistency.

Error prone manual calculation: Manual calculations are error prone and relatively immensely time consuming, in spite of which they may result in generation of incorrect information. Verification is another overhead, which can be saved through efficient design and implementation.

4.7 Technology Used

i) PHP

PHP is a widely used, general-purpose scripting language that was originally designed for web development to produce dynamic web pages. For this purpose, PHP code is embedded

into the HTML source document and interpreted by a web server with a PHP processor module, which generates the web page document.

PHP source code is compiled on-the-fly to an internal format that can be executed by the PHP engine. In order to speed up execution time and not have to compile the PHP source code every time the webpage is accessed, PHP scripts can also be deployed in executable format using a PHP compiler.

PHP is one of the most popular server side scripting languages running today. It is used for creating dynamic webpages that interact with the user offering customized information. PHP offers many advantages; it is fast, stable, secure, easy to use and open source (free). PHP code is inserted directly into the HTML that makes up a website. When a visitor comes to the website, the code is executed. Because PHP is a server side technology, the user does not need any special browser or plug-ins to see the PHP in action.

Another key advantage of PHP is its connective abilities. PHP uses a modular system of extensions to interface with a variety of libraries such as graphics, XML, encryption, etc. In addition, programmers can extend PHP by writing their own extensions and compiling them into the executable or they can create their own executable and load it using PHP's dynamic loading mechanism.

A huge advantage that PHP offers is its community. Since PHP is an open source project, the PHP community is willing to share. If you're looking for a particular script, chances are another user has already created something similar. Check within the PHP community for availability. Likewise, if you have created a function that others might enjoy, be sure to post the code for others.

A PHP scripting block always starts with `<?PHP` and ends with `?>`. A PHP scripting block can be placed anywhere in the document.

On servers with shorthand support enabled you can start a scripting block with `<?` and end with `?>`.

For maximum compatibility, we recommend that you use the standard form (`<?PHP`) rather than the shorthand form.

ii) MY SQL

MySQL is an [open-source relational database management system](#)(RDBMS). Its name is a combination of "My", the name of co-founder [Michael Widenius](#)'s daughter and "[SQL](#)", the abbreviation for [Structured Query Language](#). The MySQL development project has made its [source code](#) available under the terms of the [GNU General Public License](#), as well as under a variety of [proprietary](#) agreements. MySQL was owned and sponsored by a single [forprofit](#) firm, the [Swedish](#) company [MySQL AB](#), now owned by [Oracle Corporation](#). For proprietary use, several paid editions are available, and offer additional functionality.

MySQL was created by a Swedish company, [MySQL AB](#), founded by [David Axmark](#), Allan Larsson and [Michael "Monty" Widenius](#). Original development of MySQL by Widenius and Axmark began in 1994.^[27] The first version of MySQL appeared on 23 May 1995. It was initially created for personal usage from [mSQL](#) based on the low-level language [ISAM](#), which the creators considered too slow and inflexible. They created a new [SQL](#) interface, while keeping the same [API](#) as mSQL.

MySQL is written in [C](#) and [C++](#). Its SQL parser is written in [yacc](#), but it uses a homebrewed [lexical analyzer](#).

MySQL dump is a logical backup tool included with both community and enterprise editions of MySQL. It supports backing up from all storage engines. MySQL Enterprise Backup is a hot backup utility included as part of the MySQL Enterprise subscription from Oracle, offering native InnoDB hot backup, as well as backup for other storage engines.

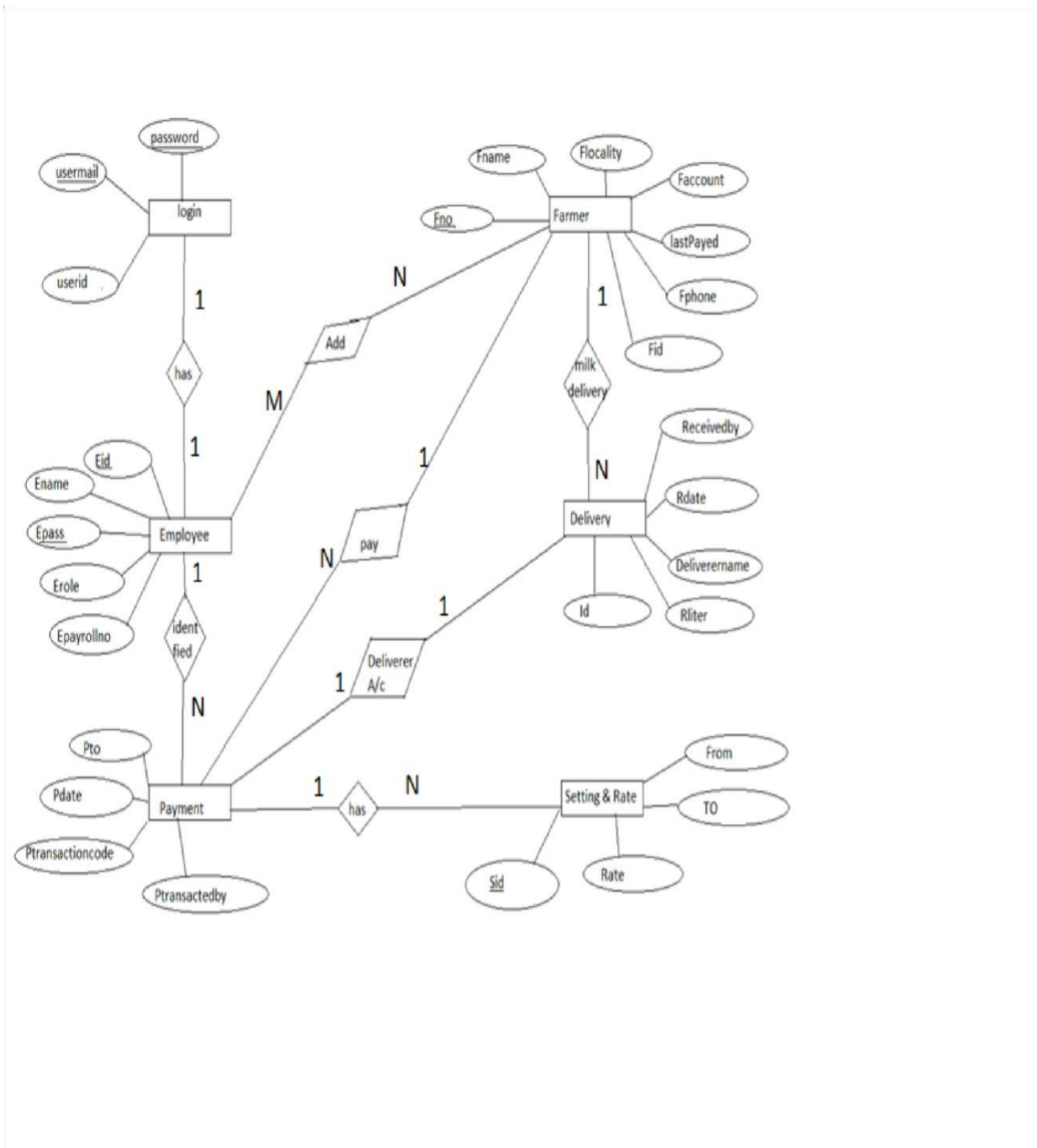
Xtra Backup is an open-source MySQL hot backup software program. Features include hot, non-locking backups for InnoDB storage, incremental backups, streaming, parallel compressed backups, throttling based on the number of I/O operations per second, etc.

MySQL Fabric is an integrated system for managing a collection of MySQL servers, and a [framework](#) on top of which high availability and database sharing is built. MySQL Fabric is open-source, and supports procedure execution in the presence of failure, providing an execution model usually called *resilient execution*. MySQL client libraries are extended so

they are hiding the complexities of handling [failover](#) in the event of a server failure, as well as correctly dispatching transactions to the shards.

[phpMyAdmin](#) is a free and open source tool written in PHP intended to handle the administration of MySQL with the use of a web browser. It can perform various tasks such as creating, modifying or deleting databases, tables, fields or rows; executing SQL statements; or managing users and permissions. The software, which is available in 78 languages, is maintained by *The [phpMyAdmin](#) Project*.

4.8 ER diagram



4.8 Schema Diagram

LOGIN

<u>Usermail</u>	username	<u>Password</u>
-----------------	----------	-----------------

FORMER

<u>F_no</u>	F_id	F_name	F_locality	<u>F_ac</u>	Last_paid	F_phone
-------------	------	--------	------------	-------------	-----------	---------

EMPLOYEES

<u>E_id</u>	E_name	<u>E_mail</u>	Username	<u>E_pass</u>	E_rol	E_payroll_no
-------------	--------	---------------	----------	---------------	-------	--------------

DELIVERY

<u>D_id</u>	R_F_no	R_kg	R_dt	R_receved_by	R_deliverer
-------------	--------	------	------	--------------	-------------

PAYMENT

<u>P_id</u>	P_to	P_date	P_kg	<u>P_ac</u>	P_method	P_transaction_code	P_transacted_by
-------------	------	--------	------	-------------	----------	--------------------	-----------------

SETTING_RATES

<u>S_id</u>	From	To	Rate
-------------	------	----	------

CHAPTER 5:

IMPLEMENTATION

CHAPTER 5 IMPLEMENTATION

This phase is initiated after the system has been tested and accepted by the user. In this phase, the system is installed to support the intended business functions. System performance is compared to performance objectives established during the planning phase. Implementation includes user notification, user training, installation of hardware, installation of software onto production computers, and integration of the system into daily work processes.

This phase continues until the system is operating in production in accordance with the defined user requirements.

5.1 SQL commands

Creating tables

```
CREATE TABLE 'login' (  
    userid int(11) NOT NULL auto_increment,  
    useremail varchar(50) NOT NULL default "",  
    password varchar(50) NOT NULL default "",  
    userlevel int(11) NOT NULL default '0',  
    PRIMARY KEY (userid) );
```

```
CREATE TABLE `employees` (  
    `id` int(11) NOT NULL,  
    `e_name` varchar(50) NOT NULL,  
    `e_mail` varchar(50) DEFAULT NULL,  
    `username` varchar(50) NOT NULL,  
    `e_pass` varchar(50) NOT NULL,  
    `e_role` varchar(50) DEFAULT NULL,  
    `e_payroll_no` varchar(50) NOT NULL  
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
CREATE TABLE `farmers` (  
    `f_no` varchar(50) NOT NULL,
```

```
`f_id` text NOT NULL,  
`f_name` varchar(50) NOT NULL,  
`f_locality` varchar(50) DEFAULT NULL,  
`f_ac` varchar(50) DEFAULT NULL,  
`last_paid` date DEFAULT NULL,  
`f_phone` varchar(20) DEFAULT NULL  
);
```

```
CREATE TABLE `settings_rates` (  
  `id` int(11) NOT NULL,  
  `from` date NOT NULL,  
  `to` date NOT NULL,  
  `rate` float NOT NULL  
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
CREATE TABLE `delivery` (  
  `id` int(11) NOT NULL,  
  `r_f_no` varchar(50) NOT NULL,  
  `r_kg` float NOT NULL,  
  `r_dt` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP,  
  `r_received_by` varchar(50) NOT NULL,  
  `r_deliverer` varchar(50) DEFAULT NULL  
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
CREATE TABLE `payment` (  
  `id` int(11) NOT NULL,  
  `p_to` varchar(50) NOT NULL,  
  `p_date` date NOT NULL,  
  `p_ac` bigint(20) NOT NULL,  
  `p_method` varchar(30) NOT NULL,  
  `p_transaction_code` int(11) NOT NULL, `p_transacted_by` varchar(50) NOT NULL  
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

i) Inserting values

```
INSERT INTO 'login' ('userid','usermail','password','userlevel' ) VALUES ('1',  
'nayan@gmail.com' , 'nayan123' , '1');
```

```
INSERT INTO `employees` (`id`, `e_name`, `e_mail`, `username`, `e_pass`, `e_role`,  
`e_payroll_no`) VALUES  
(3, 'nayan', 'nayan@gmail.com', '', '827ccb0eea8a706c4c34a16891f84e7b', 'Manager', '3456'),
```

```
INSERT INTO `farmers` (`f_no`, `f_id`, `f_name`, `f_locality`, `f_ac`, `last_paid`,  
`f_phone`,  
`f_photo`) VALUES  
(1, '23456779', 'alexandar jones', 'kk', '9890485987', '2017-04-30', '0721274242', NULL);
```

```
INSERT INTO `delivery` (`id`, `r_f_no`, `r_kg`, `r_dt`, `r_received_by`, `r_deliverer`)  
VALUES  
(2, '49', 66, '2017-04-07 23:00:00', '', 'kumar');
```

```
INSERT INTO 'payment' ( 'id' , 'p_to', 'p_date' , 'p_ac', 'p_method' , 'p_transaction_code'  
, 'p_transacted_by') VALUES (21,'2017-11-31' , '2017-12-31' , ' 0721274242' , 'cheuee' ,  
'62468264823');
```

```
INSERT INTO `settings_rates` (`id`, `from`, `to`, `rate`) VALUES  
(4, '2017-01-01', '2017-01-31', 20);
```

CHAPTER: 6

SNAPSHOTS AND SOFTWARE TESTING

Chapter 6:

SNAPSHOTS AND SOFTWARE TESTING

6.1 Levels of Testing

Testing is the process of executing then programs with the intention of finding out error. During the process, the project is executed with set of test and the output of the website is evaluated to determine if the project is performing as expected. Testing makes a logical assumption that if all the parts of the module are correct then goal will be successfully achieved. Testing includes after the completion of the coding phase. The project was tested from the very beginning and also at each step by entering different type of data. In the testing phase some mistakes were found, which did not come to knowledge at the time of coding the project. Then changes were made in the project coding so that it may take all the relevant data and gives the required result. All the forms were tested one by one and made all the required changes.

Testing is vital to the success of the system. Testing makes a logical assumption that if all the parts of the system are correct, the goal will be successfully achieved. A small system error can conceivably explode into a much larger problem. Effective testing early in the process translates directly into long-term cost savings from a reduced number of errors. For the verification and validation of data various-nesting task are performed. Testing is itself capable of finding the syntactical mistakes in the system but user need to test the system for logical checking.

The aim of the testing process is to identify all the defects in the website. It is not practical to test the website with respect to each value that the input request data may assume. Testing provides a practical way of reducing defects in the website and increasing the user's confidence in a developed system. Testing consists of subjecting the website to a set of test inputs and observing if the program behaves as expected. If the program fails to Testing

behave as expected then conditions under which failure occurs are noted for later debugging and correction. The following things are associated with testing:

Failure is a manifestation of an error. But the mere presence of an error may not necessarily lead to a failure. A test case is the triplet [I, S, O] where I am data input to the system. S is the state of the state of the system at which the data is input, O is the expected output of the system. A test suite is the set of all test cases with which a given software product is to be tested. **i) Functional Testing**

Here the system is a black box whose behaviour is determined by studying its inputs and related outputs. The key problem is to select the inputs that have a huge probability of being members of a set in my case; the selection of these test cases is based on the previous studies.

ii) Structural Testing

A great deal can be learnt about the strength and the limitation of the application by examinee the manner in which the system breaks. This type of testing has two limitations. It tests failure behaviour of the system circumstances may arise through an unexpected combination of events where the node placed on the system exceeds the maximum anticipated load. The structure of the each module was checked at every step.

iii) Unit Testing

In unit testing the entire individual functions and modules were tested independently. By following this strategy all the error in coding were identified and corrected. This method was applied in combination with the white and black box testing techniques to find the errors in each module.

Unit testing is normally considered an adjunct to the coding step. Unit test case design was started after source level code had been developed, reviewed, and verified for correct syntax. A review of design information provides guidance for establishing test cases that were likely to uncover errors in each of the categories discussed above. Each test case was coupled with a set of expected results.

6.2 Snapshots:

LOGIN PAGE: This is the login page through which admin going to access the database.

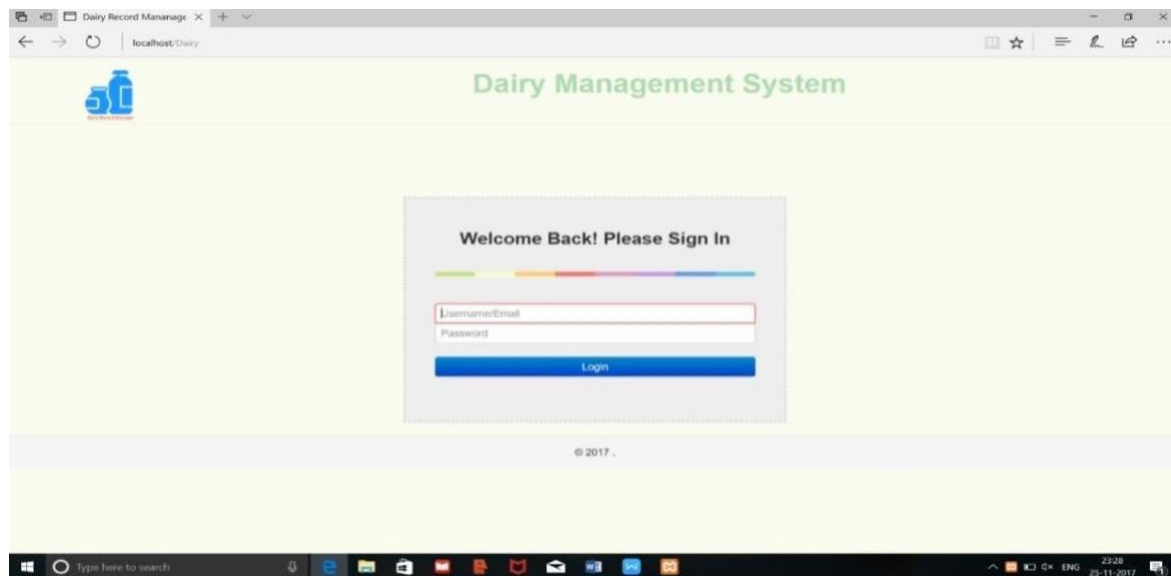


Figure 6.1: Login Page

HOME PAGE: this is Home page where we get options like Farmer, Delivery, Payment, Employee and Setting.



Figure 6.2: Home Page

FARMER PAGE: In this page user is going to add or edit the Farmer information

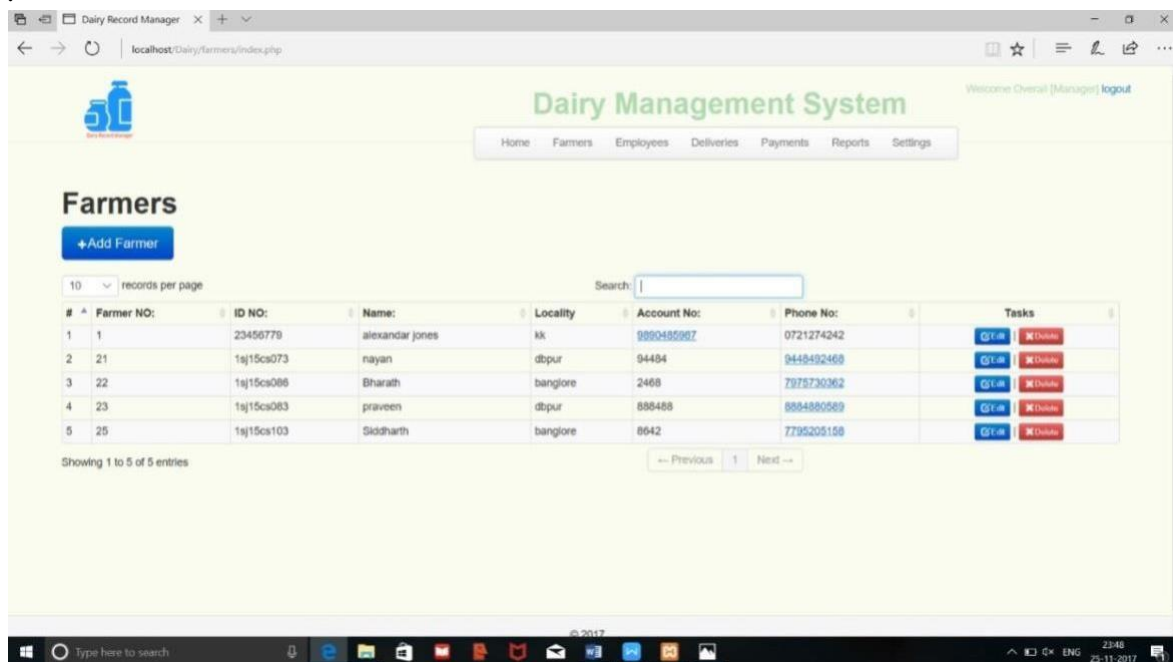


Figure 6.3: Farmer Page

EMPLOYEE PAGE: This page is only for the overall Manager of the system.

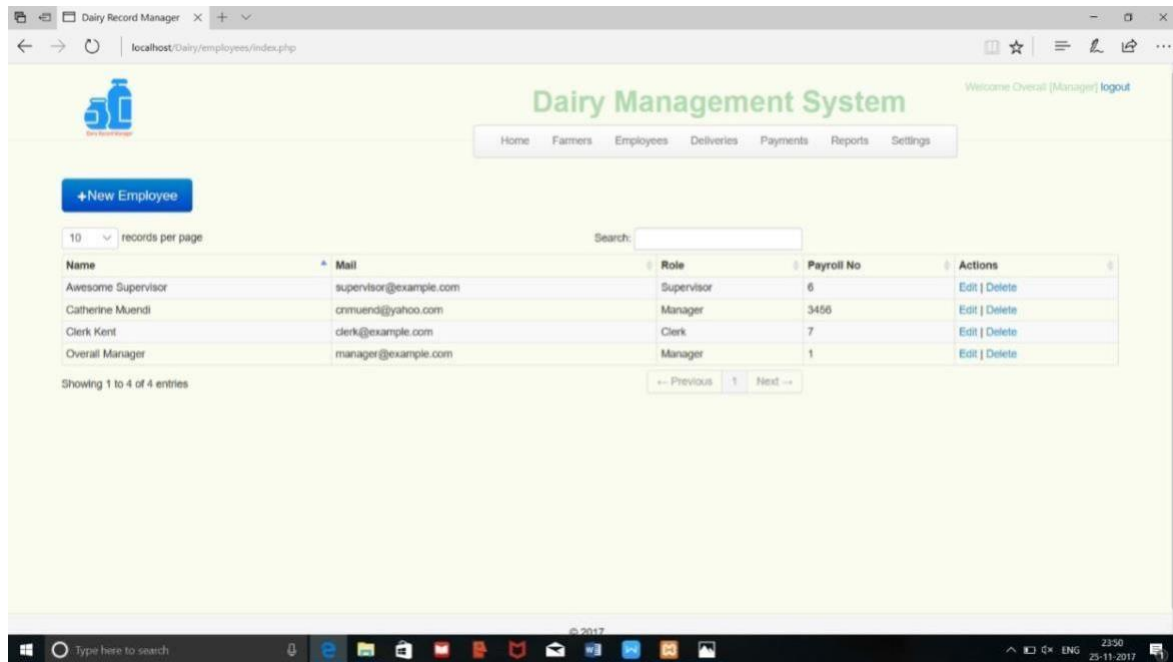


Figure 6.4: Employee Page

DELIVERIES PAGE: In this page Deliverer is going to deliver the milk into the destination location by collecting the milk from Farmer.

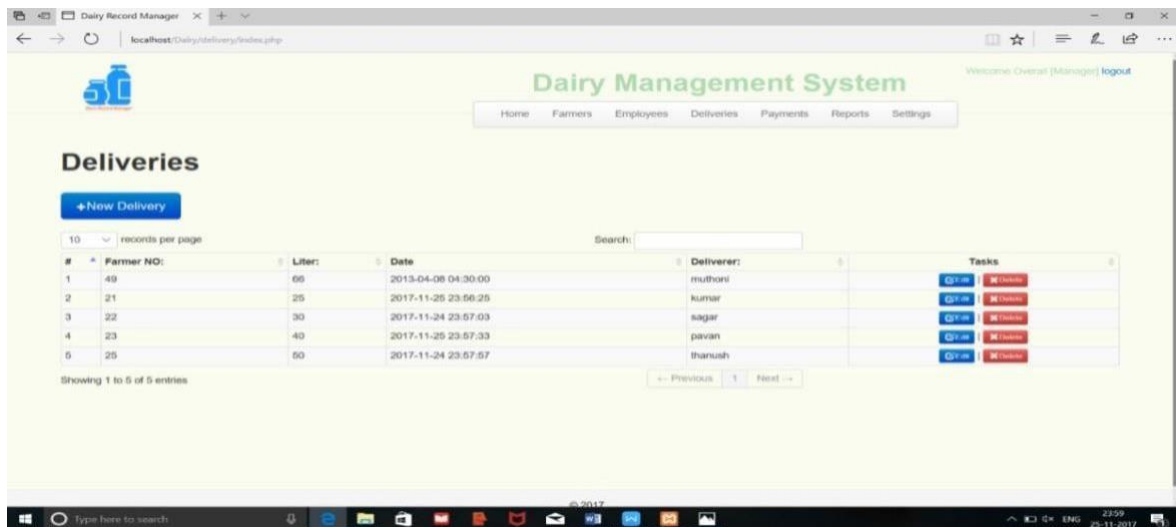


Figure 6.5: Deliveries Page

PAYMENT PAGE: In this page both Farmer and Deliverer is going to get the payment through the bank.

Farmers Monthly Sales Reports

From: 2017-11-22 To: 2017-11-26 [Get Records](#)

10 records per page Search:

#	Farmer NO.	Farmer Name	Last Paid on	Total Liters	Pay
1	1	alexandar jones	2013-04-30	0	Pay
2	21	nayan		25	Pay
3	22	Bharath		30	Pay
4	23	praveen		40	Pay
5	25	Siddharth		50	Pay
Total	All	--	--	145 Liters	--

Showing 1 to 6 of 6 entries

← Previous 1 Next →

Figure 6.6: payment Page

REPORT PAGE: In this page milk by each Farmer and Total Farmer delivery is reported.

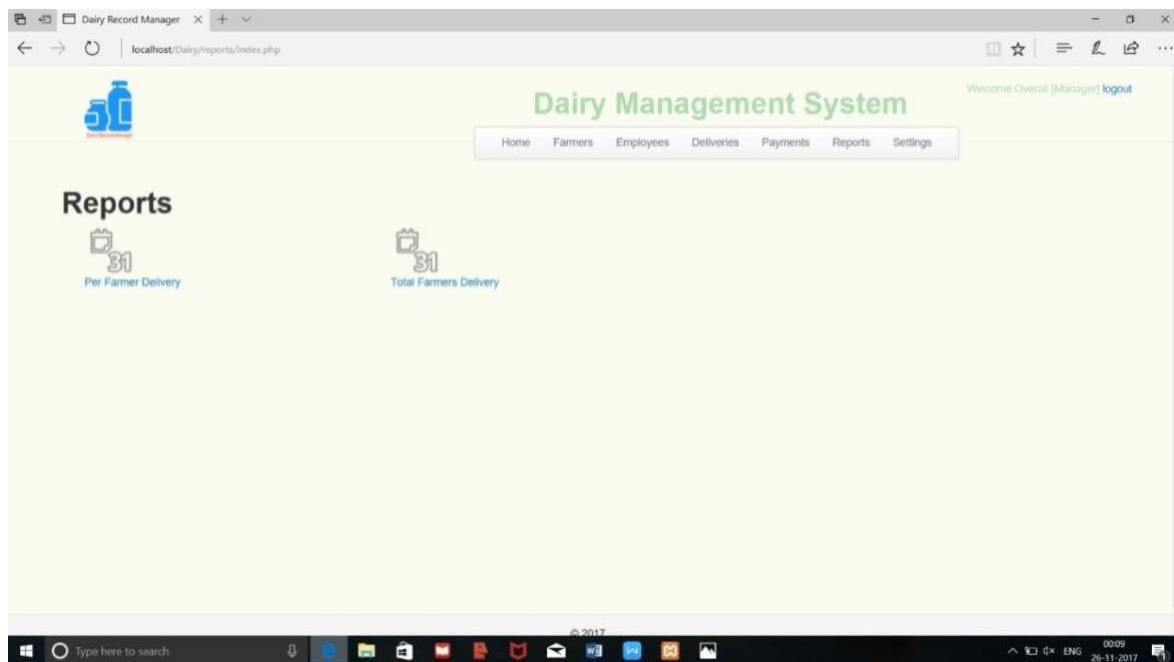


Figure 6.7: Report Page

SETTING RATE PAGE: By considering this page user is going to fix the cost of the milk per litre.

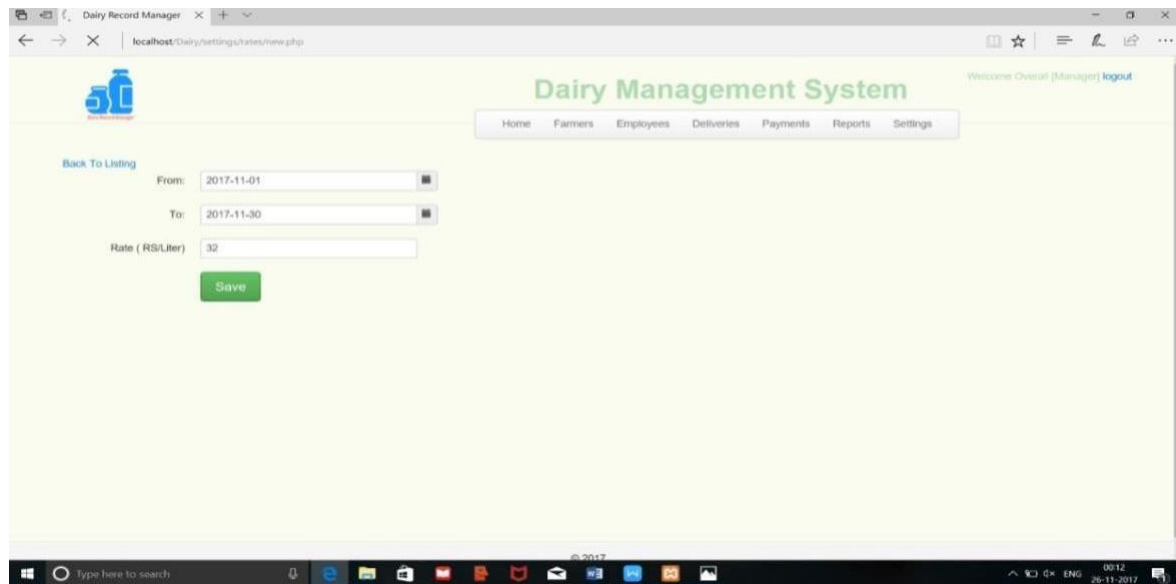


Figure 6.8: setting rate Page

CHAPTER 7:

CONCLUSION

Chapter 7 CONCLUSION

With the theoretical inclination of our syllabus it becomes very essential to take the at most advantage of any opportunity of gaining practical experience that comes along. The building blocks of this Mini Project "DAIRY MANAGEMENT SYSTEM" was one of these opportunities. It gave us the requisite practical knowledge to supplement the already taught theoretical concepts thus making us more competent as a computer engineer. The project from a personal point of view also helped us in understanding the following aspects of project development:

- The planning that goes into implementing a project.
- The importance of proper planning and an organized methodology.
- The key element of team spirit and co-ordination in a successful project.

The project also provided us the opportunity of interacting with our teachers and to gain from their best experience.

An application has been developed using My **SQL** and PHP database programming connectivity via **XAMPP** Server so as to meet the requirements of an organization, thereby ensuring quality performance.

The data can be accessed, manipulated and retrieved very easily. To conclude this software has proved to be a user friendly interface.

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CHAPTER 8: BIBLIOGRAPHY

Chapter 8

BIBLIOGRAPHY

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