Visvesvaraya Technological University

Belagavi, Karnataka – 590 018

A
Project Report
On
Dairy Management System

Submitted in partial fulfilment of the requirements for the Web Assignment (18CS63) course of 5th Semester

Bachelor of Engineering in
Computer Science and Engineering

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Department of Computer Science & Engineering

CERTIFICATE

This is to certify that the project work entitled "Dairy Management System" is a Bonafide work carried out by Kushagra Agrawal(1JS18CS069) and Ishan Singh(1JS18CS064) in partial fulfilment for the DBMS Laboratory with Mini Project (18CS63) of 6th Semester Bachelor of Engineering in Computer Science and Engineering in Visvesvaraya Technological University Belagavi during the year 2020-2021. It is certified that all corrections and 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 requirement in respect of the project work prescribed for the said degree.

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1)_____ _____

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ABSTRACT

The purpose of this project is to develop a computerized and mobilized milk ordering system that can be used to revolutionize the traditional ordering system that currently implemented in majority of the industry. The traditional system that using by most of the milk industry is the traditional manual ordering system which means all works and procedures is recorded through manpower manual work and it consist of a huge amount of paper work that is not effective and efficiency. This cause the business to encounter trouble which regarding human error due to the huge amount of manpower manual work that operating in each business routine. Thus, this computerized and mobilized milk ordering system is designed to assist the business routine in term of having better management as well as easier to handle daily business operation also it will play a very important role as it will reduce usage of plastic milk bags from our life.

This system is designed for small medium enterprise. The chosen methodology for this project is throwaway prototyping methodology. This is because majority of the targeted user do not have the experience in using computerized system as they implement traditional ordering system previously. Therefore, this methodology enables developer to communicate with target user through using the prototyping, which can let target user to review, evaluate, visualize and learn about the system before the actual implementation of the final system.

Furthermore, the system is a cross platform system which involve desktop based and mobile phone based which is in Android operating system. It is also the highlighted feature of the system which does not limited the ordering procedures to desktop based as portable and mobility is the current trend. Besides that, with this feature it also provides a degree of level of trust and self-service for targeted users' consumers, as they can place order themselves through using the mobile application.

Acknowledgements

We express our humble pranams to His Holiness Jagadguru Sri Sri Sri Shivaratri Deshikendra Mahaswamiji for showering his blessings on us to receive good education and have a successful career.

The completion of any project involves the efforts of many people. We have been lucky enough to have received a lot of support from all ends during the course of this project. So, we take this opportunity to express our gratitude to all whose guidance and encouragement helped us emerge successful.

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Last but not the least; we would be immensely pleased to express our heartfelt thanks to all the teaching and non-teaching staff of the department of CSE and our friends for their timely help, support and guidance.

Vishwaravitejraj Manik
Shruthi B

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LITERATURE REVIEW

Daily needs like milk are critical every morning for a household. This system is will keep track of user order and let them connect to the farmers and dairies which produces milk for them to have more trusted relationship and ensure food safety. The system practicality is to have an environment friendly production, with reusable containers and very low to zero use of plastic. These days online shopping gets much popularity among dual income household groups and avoid hassle, save time and greater convenience. it is extremely important to have timely delivery as one's schedules depend on these items.

The Indian dairy industry is fraught with many difficulties such as inefficiency, deterioration of perishable food items, unsatisfactory quality of commodities, malpractices in weights and measures, mismatch of demand and supply, long waiting times, exorbitant corruption, rude behaviour of shopkeepers and poor service delivery.

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. It is consisting of complete Customer Relationship Management System. Milk delivering system project is a software application useful for dairy forms for managing daily activities like receiving of milk from various sources.

The purpose of this effort is not to penalize suppliers in the short term but to evaluate the optimal set of suppliers based on full disclosure of total cost. The end result may well be the replacement of a supplier with a more efficient alternative; however, it also may be that the driver of unanticipated costs falls at the feet of the manufacturers that can make changes to their role in the relationship that will eliminate the issues. Further, this approach is empowering to those in the supply chain organization who have a role in both identifying and reducing supply chain costs.

Focus on various aspects such as:

- Pulls together many existing systems.
- These systems will be restructured and re-focused.
- They will be implemented in a synchronized manner.

- Many elements are only process improvements with minimal cost.

What is ONLINE MILK DELIVERY SYSTEM:

ONLINE MILK DELIVERY is a dairy based **project prepared for a future focus on delivery of milk efficiently. It is based on:**

Technology for Farmers:

- Real time price information
- Online ordering of inputs
- Online cash, loan, relief payment with mobile banking

Technology for Security:

- Mobile Emergency Services

Technology for Financial Inclusion:

- Mobile Banking
- Micro-ATM program
- UPI system

Technology for Justice:

- e-Procurement, e-Production, e-promotion, e-Payment.

PROBLEM FORMULATION

After understanding the problem of the user for buying milk from the store at different time. I had lots of questions in my mind which I need to address before proceeding to the solution by getting answers to my questions instead of giving a solution based on assumptions.

How we can convert offline market of milk into a digital one. Because this is the basic need of every type of user?

What will the user do if they are not getting milk from their nearby store?

Which time they would prefer to buy the milk?

Are they buying anything else along with milk?

How do they like to pay money for the milk to the store daily or monthly?

Are they buying milk from the store or the milk man provider?

How the user can trust buying the milk from the store or the milkman?

Are they knowing about any digital mode for buying the milk like mobile application or website?

If they know then what they like about it?

EXISTING SYSTEM:

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.
- Difficult to find Vendors.
- Manual system is costly.
- Immediate response to the queries is difficult and time consuming.
- Manual system shows of the particular place.

NEED FOR NEW SYTEM

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 anyone having computer knowledge can handle it easily.
- Suitability for computerized data entry. Maintaining Dairy information, Staff information & Customer information, Milk Rate Information.

TOOLS USED FOR IMPLEMENTATION

Hardware Interface:

- Processor: Pentium® dual core or above RAM: 2GB and above
- Hard disk Utilization: 320GB and above
- Input Devices: Mouse, Keyboard • Output Devices: Monitor, Printer

Software Interface:

- Back End: My SQL
- Front End: Php, HTML, CSS, JavaScript.
- Browser: Internet Explorer, Google chrome, Mozilla Firefox.
- Other Software: Adobe Reader.

Back End:

MySQL is the world's most popular open source database software, with over 100 million copies of its software downloaded or distributed throughout its history. With its superior speed, reliability, and ease of use, MySQL has become the preferred choice for Web, Web 2.0, SaaS, ISV, Telecom companies and forward-thinking corporate IT Managers because it eliminates the major problems associated with downtime, maintenance and administration for modern online applications. MySQL is an open source Relational Database Management System. MySQL is very fast reliable and flexible Database Management System. It provides a very high performance and it is multi-threaded and multi user Relational Database management system. Front End: PHP, JavaScript, UI design, HTML and CSS PHP is a server side scripting language designed for web development but also used as a general-purpose programming language. PHP code can be simply mixed with HTML code, or it can be used in combination with various template engines and web frameworks. PHP code is usually proposed by a PHP interpreter, which

is usually implemented as a web server native module or Common Gateway Interface. Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a mark-up language. Although most often used to set the visual style of web pages and user interfaces written in HTML and XHTML, the language can be applied to any XML document. Along with HTML and JavaScript, CSS is a cornerstone technology used by most websites to create visually engaging Webpages, user interfaces for web applications, and user interfaces for many mobile applications. JavaScript is a dynamic language and is often considered somewhat of a functional language, though it's mainly imperative. Object-oriented programming in JavaScript is facilitated by a feature called prototyping. The data types of JavaScript include: numbers, Booleans, strings, functions, the special value null, arrays (what JavaScript calls lists), and objects (what JavaScript calls dictionaries).

HTML is a computer language devised to allow website creation. These websites can then be viewed by anyone else connected to the Internet. It is relatively easy to learn, with the basics being accessible to most people in one sitting; and quite powerful in what it allows you to create. It is constantly undergoing revision and evolution to meet the demands and requirements of the growing Internet audience under the direction of the organization charged with designing and maintaining the language. The definition of HTML is Hypertext Mark-up Language.The Oracle Database (commonly referred to as Oracle RDBMS or simply as Oracle) is an object-relational database management system (ORDBMS) produced and marketed by Oracle Corporation. Users of the Oracle databases refer to the server-side memory-structure as the SGA (System Global Area). The SGA typically holds cache information such as data-buffers, SQL commands, and user information. In addition to storage, the database consists of online redo logs (or logs), which hold transactional history.

Feasibility Analysis:

So far as the feasibility study and analysis during the development of the project online milk ordering system we have studied on the following major categories of feasibility study.

Operational Feasibility:

It is the measure of how well the project will support the customer and the service provider during the working phase.

Technical Feasibility:

- It measures the feasibility of the particular technical solution and the availability of technical resources.
- Technical feasibility is mainly addressing the issue that the proposed system or technology is practically possible or not.

Economic feasibility:

It is the measure of cost effectiveness of a project, called as cost benefit analysis.

MERITS OF PROPOSED SYSTEMS

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.
- Provides data security.
- New system should work smoothly and very fast.
- Keeps the track of transaction done.
- New system saving time and manpower.
- Data loss and misuse of data is avoided.
- The system is user friendly and anyone having computer knowledge can handle it easily.
- It can be accessed by dairy managers and admin at any time in any platform.
- Suitability for computerized data entry. Maintaining Dairy information, Staff information & Customer information, Milk Rate Information.

- Reduction of paper work
- User friendly
- Reduction of human efforts and manual labour

- Additional features can be added to it based on requirements
- Reduces time considerably

DIAGRAMS:

Data Flow Diagrams (DFDs):

Data flow diagram (DFD) is a picture of the movement of data between external entities and the processes and data stores within a system.

External Entity Noun

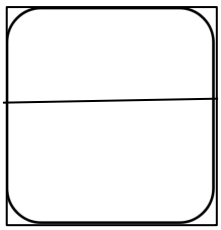
Data Flow Names of data

Process verb phrase

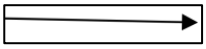
a system
name a
subsystem
name

Data Store Noun

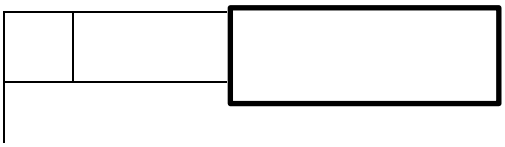
DFD Symbols:



PROCESS



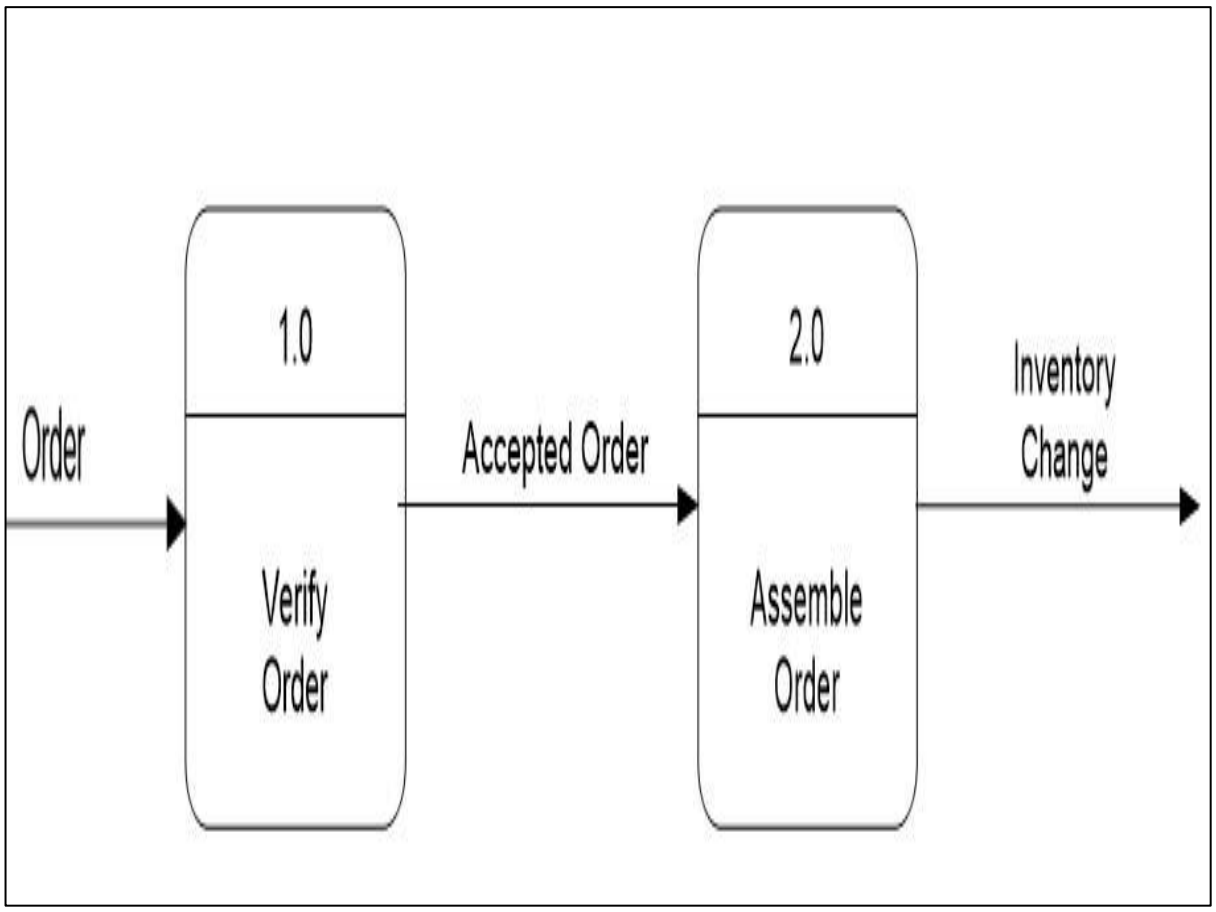
DATAFLOW



SOURCE/SINK DATASTORE

PROCESS:

- Work or actions performed on data (inside the system)
- Labels should be verb phrases
- Receives input data and produces output
- Can connect to any other symbol (including another process symbol)
- Is a path for data to move from one part of the IS to another?



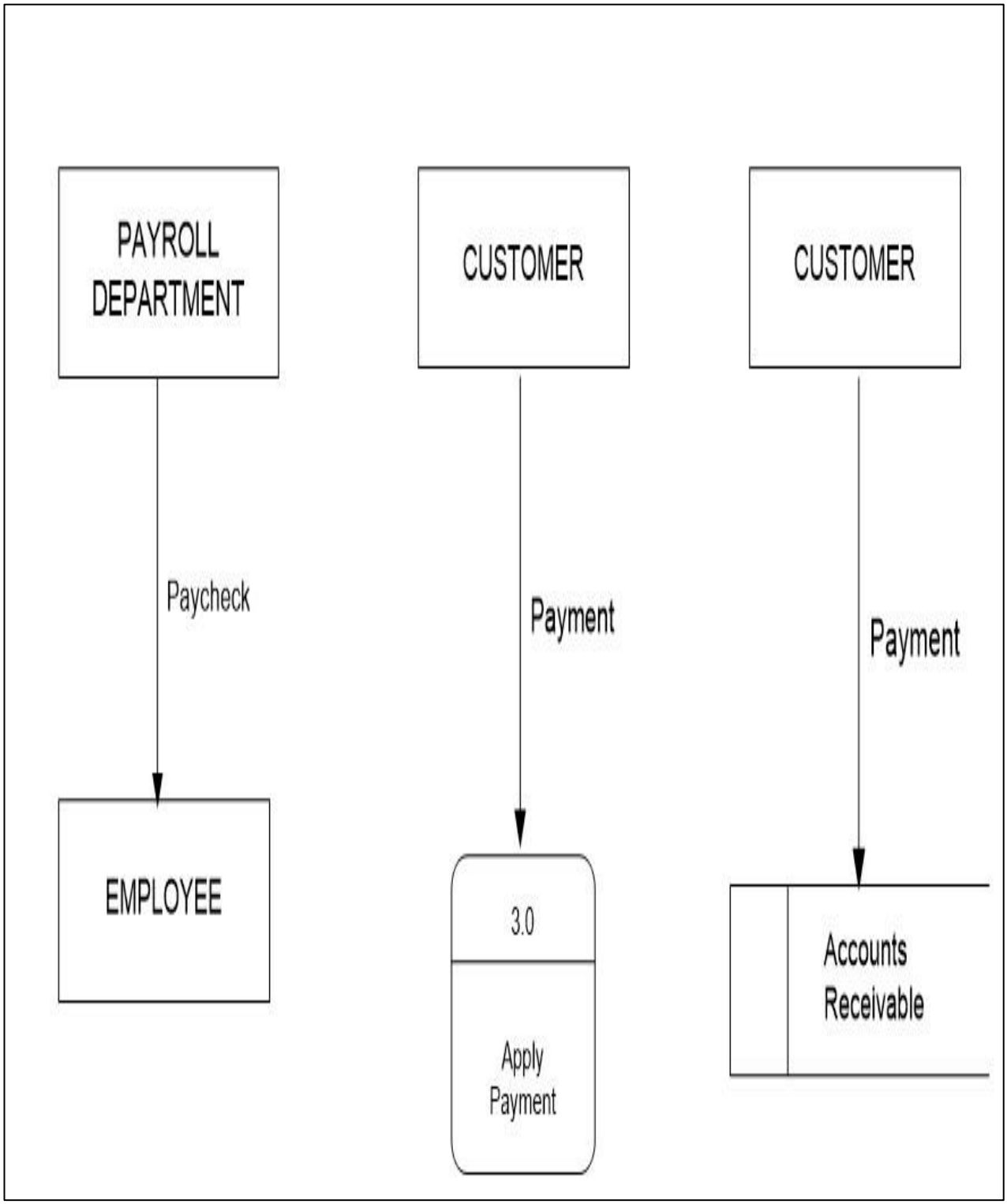
- Arrows depicting movement of data
- Can represent flow between process and data store by two separate arrows

Data Store:

- Is used in a DFD to represent data that the system stores
- Labels should be noun phrases

Source/Sink (External Entity):

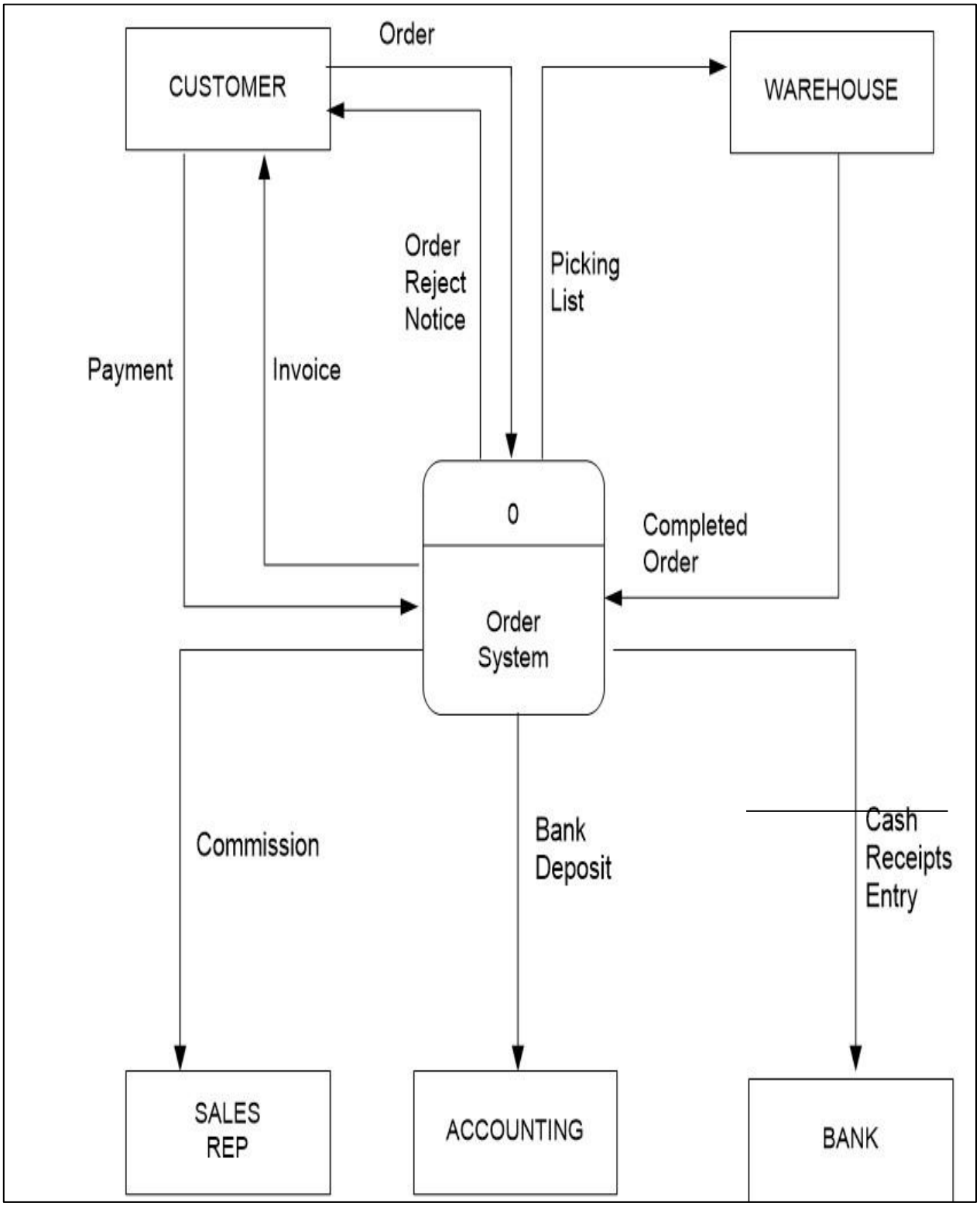
- External entity that is origin or destination of data (outside the system)
- Is the singular form of a department, outside organisation, other IS, or person
- Labels should be noun phrases
- Source – Entity that supplies data to the system
- Sink – Entity that receives data from the system


PAYROLL DEPARTMENT
CUSTOMER
CUSTOMER
Paycheck
Payment
Payment
EMPLOYEE
3.0
Apply Payment
Accounts Receivable

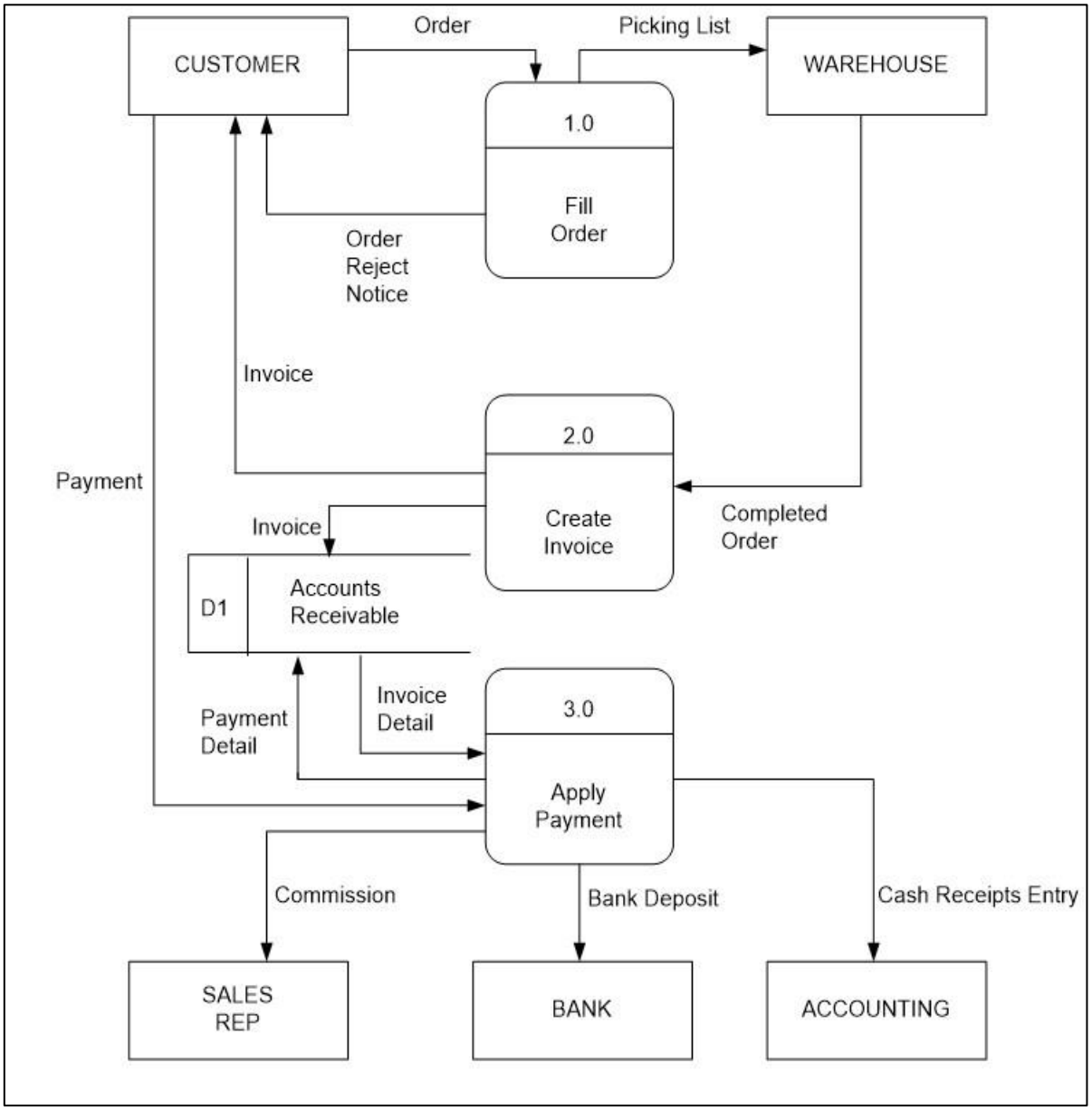
Context Diagram:

- Top-level view of IS
- Shows the system boundaries, external entities that interact with the system, and major information flows between entities and the system.
- Example: Order system that a company uses to enter orders and apply payments against a customer's balance

Context Diagram of order system:


CUSTOMER
Order
WAREHOUSE
Order
Reject
Notice
Picking
List
Payment
Invoice
0
Completed
Order
Order
System
Commission
Bank
Deposit
Cash
Receipts
Entry
SALES
REP
ACCOUNTING
BANK

Level 0 DFD diagram:



Lower level diagrams:

Functional Decomposition

- An iterative process of breaking a system description down into finer and finer detail
- Uses a series of increasingly detailed DFDs to describe an IS

Balancing

- The conservation of inputs and outputs to a data flow process when that process is decomposed to a lower level
- Ensures that the input and output data flows of the parent DFD are maintained on the child DFD.

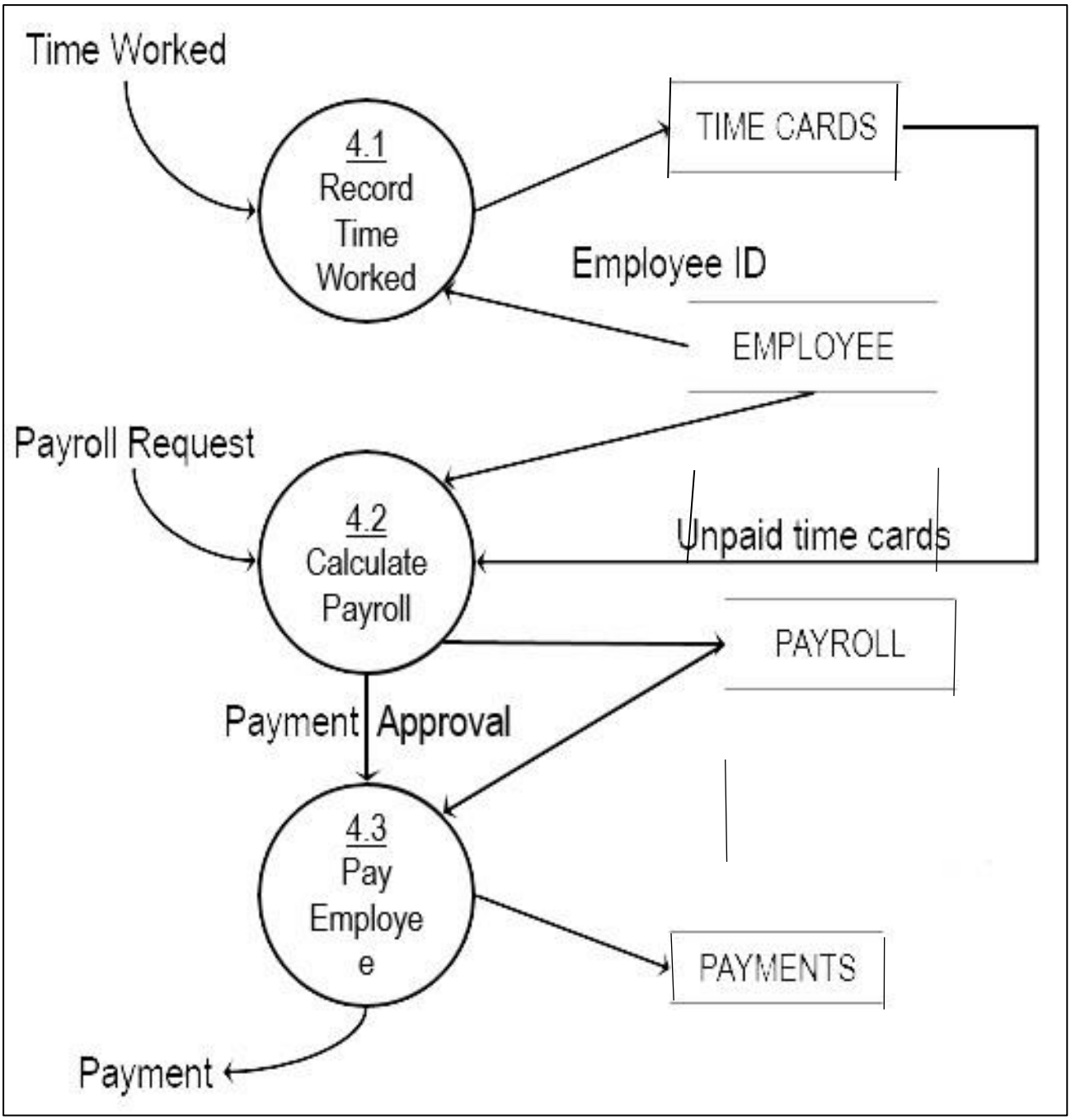
Top-down strategy

- Create the high-level diagrams (Context Diagram), then low-level diagrams (Level-0 diagram), and so on

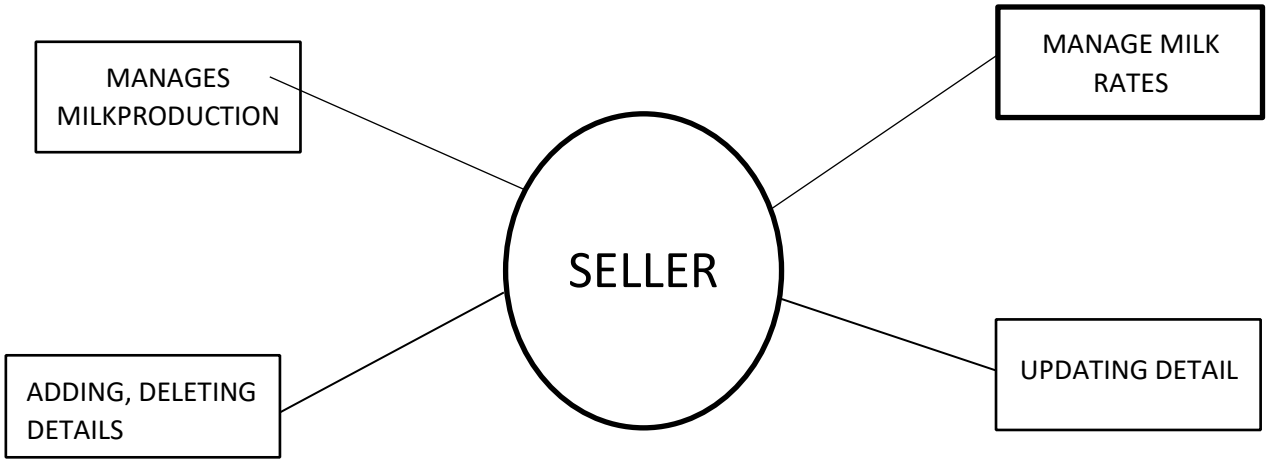
Bottom-up strategy

- Create the low-level diagrams, then higher-level diagrams

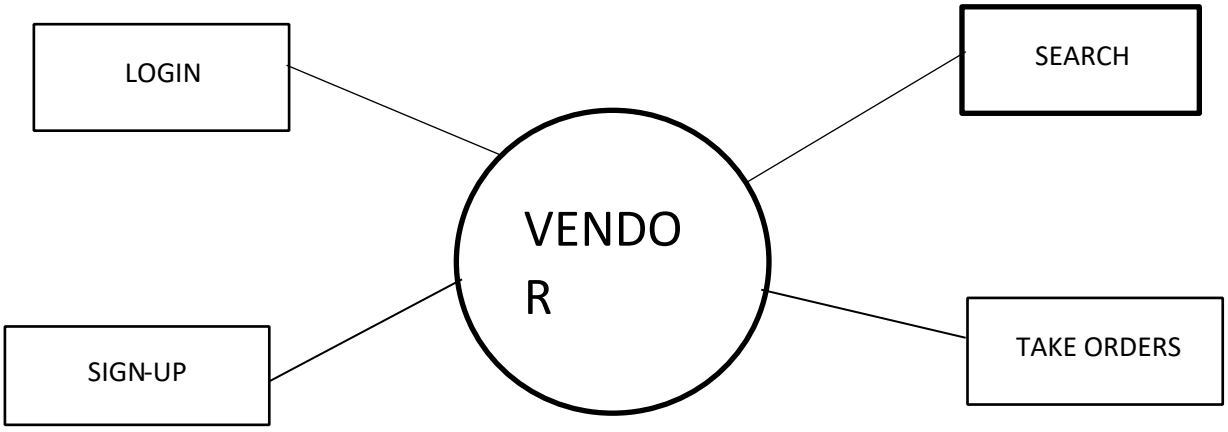
Level 1 DFD:


Time Worked
4.1
Record
Time
Worked
TIME CARDS
Employee ID
EMPLOYEE
Payroll Request
4.2
Calculate
Payroll
Unpaid time cards
PAYROLL
Payment Approval
4.3
Pay
Employe
e
PAYMENTS
Payment

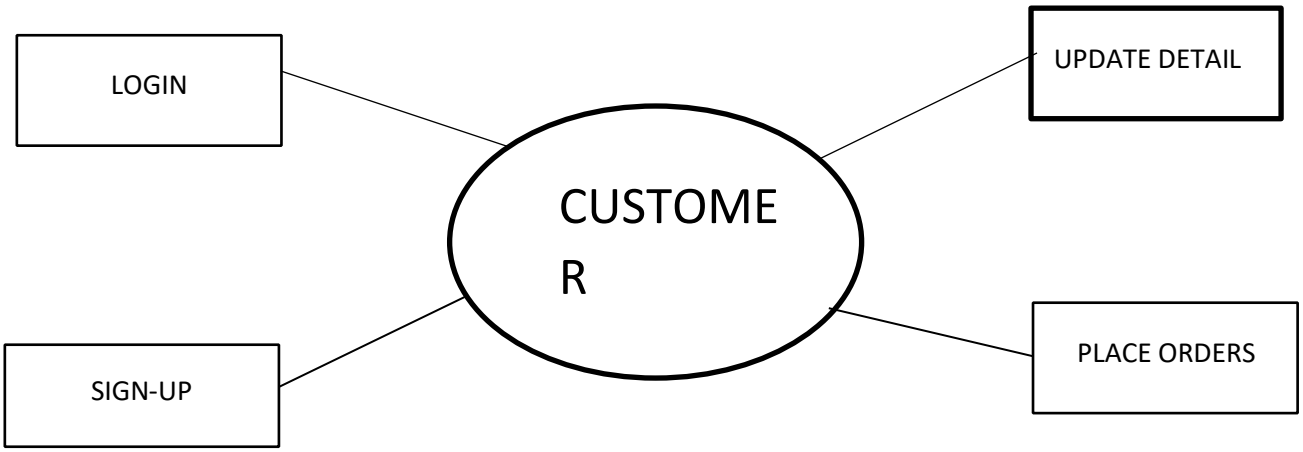
SELLER DIAGRAM



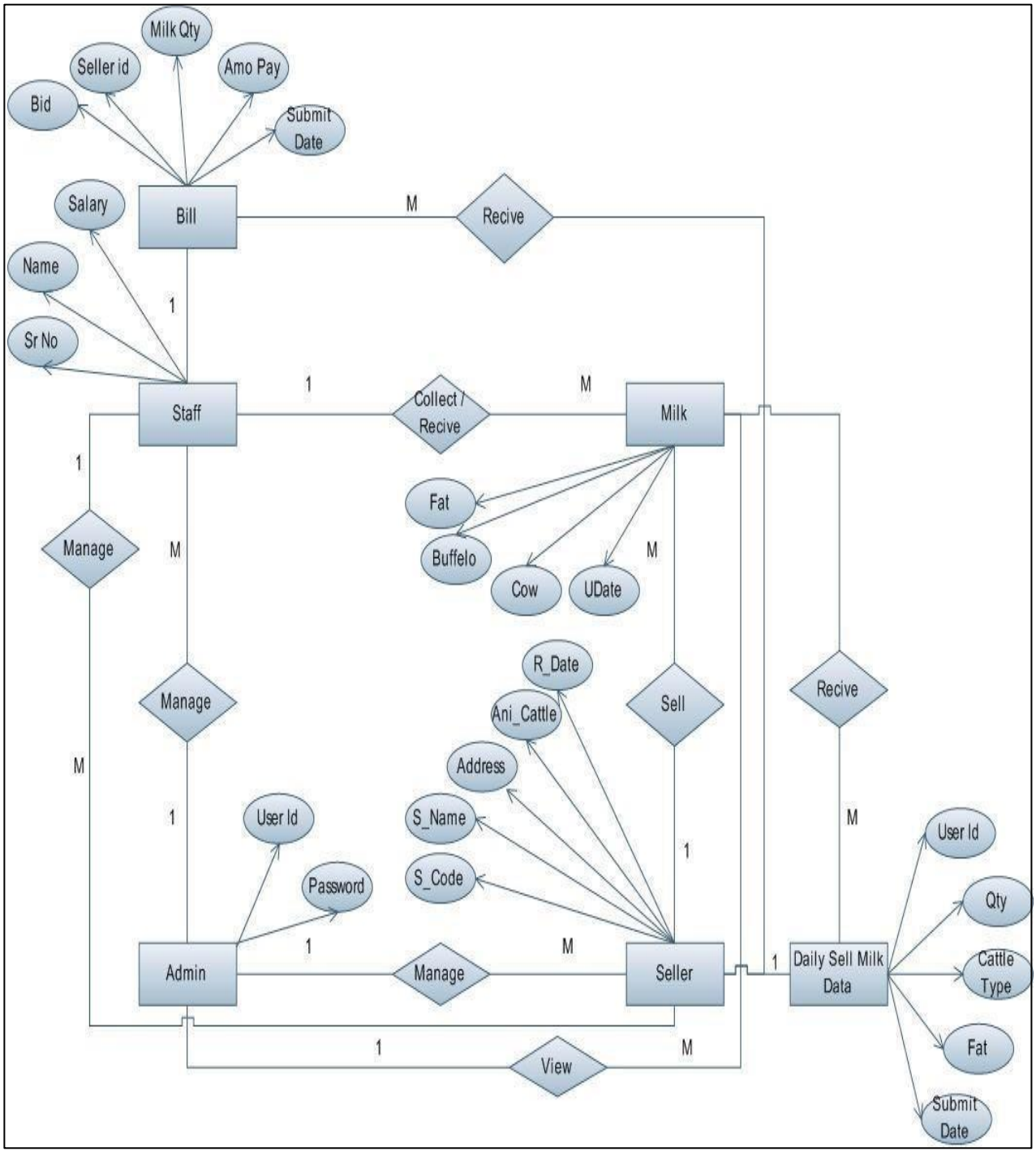
VENDOR DIAGRAM



CUSTOMER DIAGRAM



ER DIAGRAM


Milk Qty
Seller id
Amo Pay
Bid
Submit Date
Salary
Bill
M
Recive
Name
1
Sr No
Staff
1
Collect / Recive
M
Milk
1
Fat
Manage
M
Buffelo
M
Cow
UDate
R_Date
Manage
Ani_Cattle
Sell
Recive
Address
M
1
User Id
S_Name
1
S_Code
Password
1
M
Admin
Manage
Seller
1
Daily Sell Milk Data
User Id
Qty
Cattle Type
Fat
Submit Date
1
M
View

Implementation and Description of Project Modules:

1. Seller:

The Seller has the unique login and password. Seller will find the vendors near them.

- **Manages Milk production:** The Seller finds the perfect vendor for them and provides milk to the vendors.

- **Updates Milk Rates:** the seller provides the milk rates to the vendors. In short, the rates are allotted by the Seller according the milk procurements.

- **Adding, Deleting and Updating:** The Seller has all the power to add, remove and even update wherever and whenever required.

2. Vendors:

- **Login/Sign-up:** The Vendor will get a unique I'd password so that they can login and connect to both seller and customer.

- **Search:** The Vendors can search for sellers according to their requirements.

- **Take orders:** By Providing the product details customer can place order.

3. Customer:

- **Login/Sign-up:** The Customer will get a unique I'd password so that they can see all the products and connect to the local vendors.

- **Update Details:** The customer has to update his/her information like address to receive the delivery.

- **Place Order:** they can easily put an order for product and get it delivered to their home.

In the dairy food system, means to lessen the manual labor forces important to gather and handle the requests from all the different retailers and to cover all the individual correspondence between retailer-wholesaler makers. This methodology digitalizes the Manufacturer-Distributor Retailer business relationship with the end goal of request arrangement and conveyance. Move Summary and Daily assortment reports can be seen on portable application. The portable application additionally can be utilized to record exchanges, for example, issue to record nearby deals. Dairy food item application shows you a value Catalog of the items (e.g., milk, curd, yogurt, paneer and so forth) And then shows the buy request, installment history. In habit of milk a few dairy items, for example, cream, spread, cheddar, ghee despite the fact that have been sorted milk they have assortment kinds of milks, and dairy items to see the cost of the item in the value index. Accordingly, the effect of milk and dairy items are valuable and supportive for all specialists and merchants. Specialists are having record to login this application, and to see the request history and installments detail, due equilibrium plans, and register a grumbling for any Queries and report. The application produces printed receipt just as sends SMS to the Agents immediately. Toward the finish of move, whole information is shipped off the web-worker. Focal points of Food Product System are a solid eating regimen including an assortment of nourishments from the five nutrition types, for example, natural product, vegetables and milk, cheddar and yogurt can assist you with dealing with your pulse.

Queries

```
CREATE TABLE `tbladmin` (
  `ID` int(5) NOT NULL,
  `name` varchar(45) DEFAULT NULL,
  `UserName` char(45) DEFAULT NULL,
  `MobileNumber` bigint(11) DEFAULT NULL,
  `Email` varchar(120) DEFAULT NULL,
  `Password` varchar(120) DEFAULT NULL,
  `AdminRegdate` timestamp NULL DEFAULT current_timestamp(),
  `UpdationDate` timestamp NULL DEFAULT NULL ON UPDATE current_timestamp()
)

CREATE TABLE `tblcategory` (
  `id` int(11) NOT NULL,
  `CategoryName` varchar(200) DEFAULT NULL,
  `CategoryCode` varchar(50) DEFAULT NULL,
  `PostingDate` timestamp NULL DEFAULT current_timestamp()
)


CREATE TABLE `tblcompany` (
  `id` int(11) NOT NULL,
  `CompanyName` varchar(150) DEFAULT NULL,
  `PostingDate` timestamp NULL DEFAULT current_timestamp()
)
```

```
CREATE TABLE `tblorders` (
  `id` int(11) NOT NULL,
  `ProductId` int(11) DEFAULT NULL,
  `Quantity` int(11) DEFAULT NULL,
  `InvoiceNumber` int(11) DEFAULT NULL,
  `CustomerName` varchar(150) DEFAULT NULL,
  `CustomerContactNo` bigint(12) DEFAULT NULL,
  `PaymentMode` varchar(100) DEFAULT NULL,
  `InvoiceGenDate` timestamp NULL DEFAULT current_timestamp()
)

CREATE TABLE `tblproducts` (
  `id` int(11) NOT NULL,
  `CategoryName` varchar(150) DEFAULT NULL,
  `CompanyName` varchar(150) DEFAULT NULL,
  `ProductName` varchar(150) DEFAULT NULL,
  `ProductPrice` decimal(10,0) DEFAULT current_timestamp(),
  `PostingDate` timestamp NOT NULL DEFAULT current_timestamp() ON UPDATE current_timestamp(),
  `UpdationDate` timestamp NULL DEFAULT NULL ON UPDATE current_timestamp()
)

CREATE TABLE `tblusers` (
  `Id` int(10) NOT NULL,
  `name` varchar(30) NOT NULL,
  `username` varchar(20) NOT NULL,
  `contact` bigint(15) NOT NULL,
```

```
  `address` text NOT NULL,
  `password` varchar(30) NOT NULL
)
```

Pseudo Code

Pseudocode is an informal high-level description of the operating principle of a computer program or other algorithm. It uses the structural conventions of a normal programming language, but is intended for human reading rather than machine reading.

Algorithm for Admin login

Step 1: BEGIN

Step 2: Enter username and password

Step 3: Verify the credentials

Step 4: If Data match, then proceed to the Admin List page

Else show login failed

Step 5: End if Step 6: END

Algorithm for user Sign-up

Steps 1:BEGIN

Step 2: Enter the user details

Step 3: If details are correct then create User Account

Else show invalid date failed to create account.

Step 4: End if Step 5:END

Algorithm for Users login

Step 1: BEGIN

Step 2 : Enter username and password

Step 3: Verify the credentials from User Table

Step 4: If Credentials match, then proceed to the Customer List page

Else show login failed

Step 5: End if Step 6: END

Algorithm for Data fetching from database

Step1: BEGIN

Step 2: Establish connection with the database using the username and password of the database.

Step 3: Define Associative Array to return all the values from the method passed.

Step 4: Define the select query to retrieve all the values from the DBMS

Step 5: Pass all the values into the associative array variable.

Step 6: Use php to extract the data from the associative array and display in appropriate format.

Step 7: END

Algorithm for Insertion

Step 1: BEGIN

Step 2: Get all the necessary values required for insertion into variable defined in the method.

Step 3: Prepare the SQL statement using PDO. This is done to prevent SQL Injection attacks into our system.

Step 4: Define the query for insertion as stated above.

Step 5: Execute the Query using the exucute() method provided by the PDO object.

Step 6: END

Algorithm for updation

Step 1: BEGIN

Step 2: Get all the necessary values required for updating the values into the variable defined in the method.

Step 3: Prepare the SQL statement using PDO. This is done to prevent SQL Injection attacks into our system.

Step 4: Define the Query for Updating as stated above.

Step 5: Execute the Query using the exucute() method provided by the PDO object.

Step 6: END

Algorithm for Deletion

Step 1: BEGIN

Step 2: Get the primary key of the item which is to be deleted into a variable defined in the method.

Step 3: Define the Query for deleting as stated above.

Step 3: Prepare the SQL statement using PDO. This is done to prevent SQL Injection attacks into our system.

Step 5: END

Results and Discussions

This Project is compiled and executed, we have put in a few Screen Shots in here to show the working of the application

shows the home page of the application

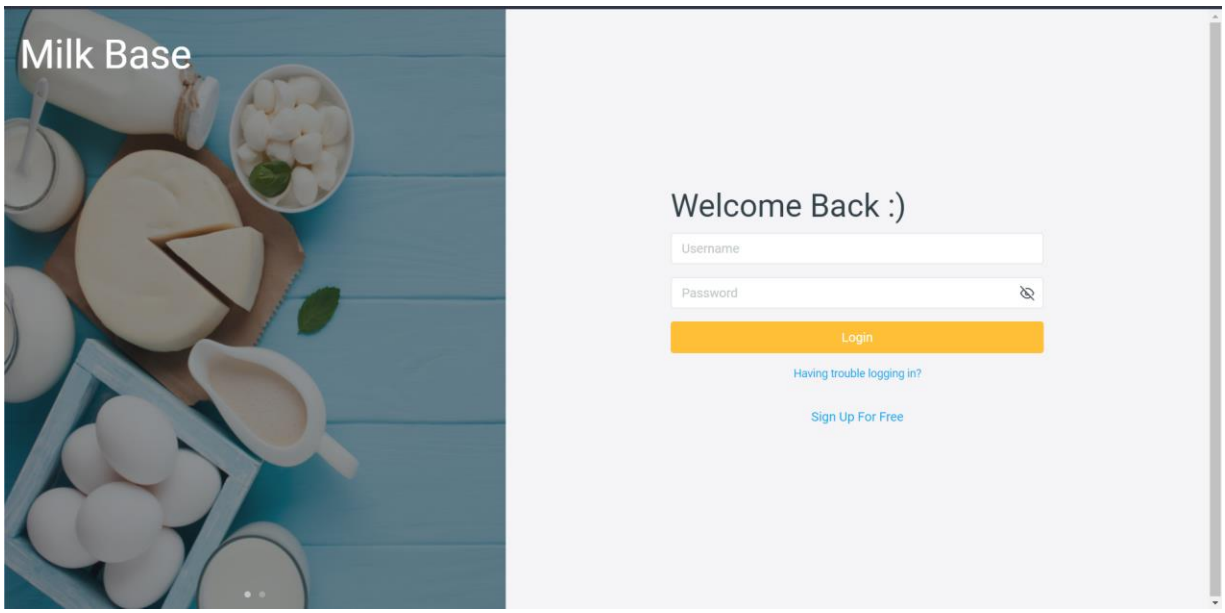


Figure: Home page

Figure shows the signup Page

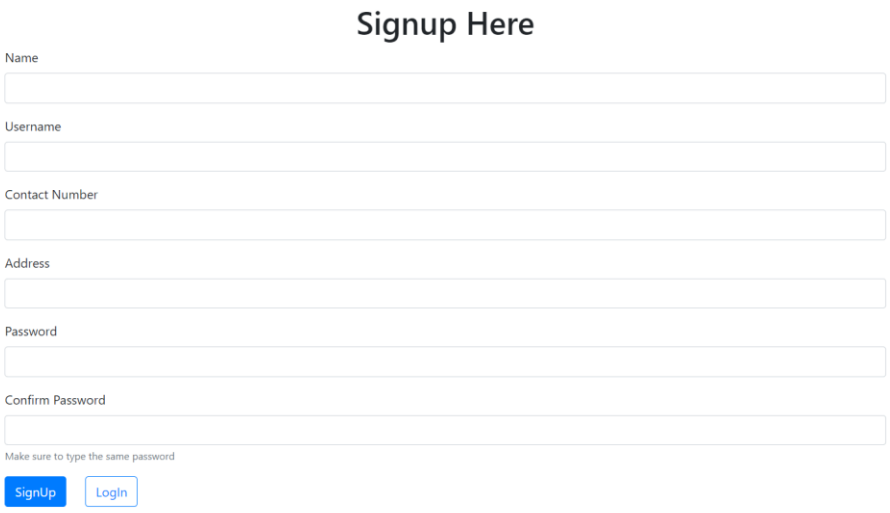


Figure : Sign Up page

Figure shows the Dashboard

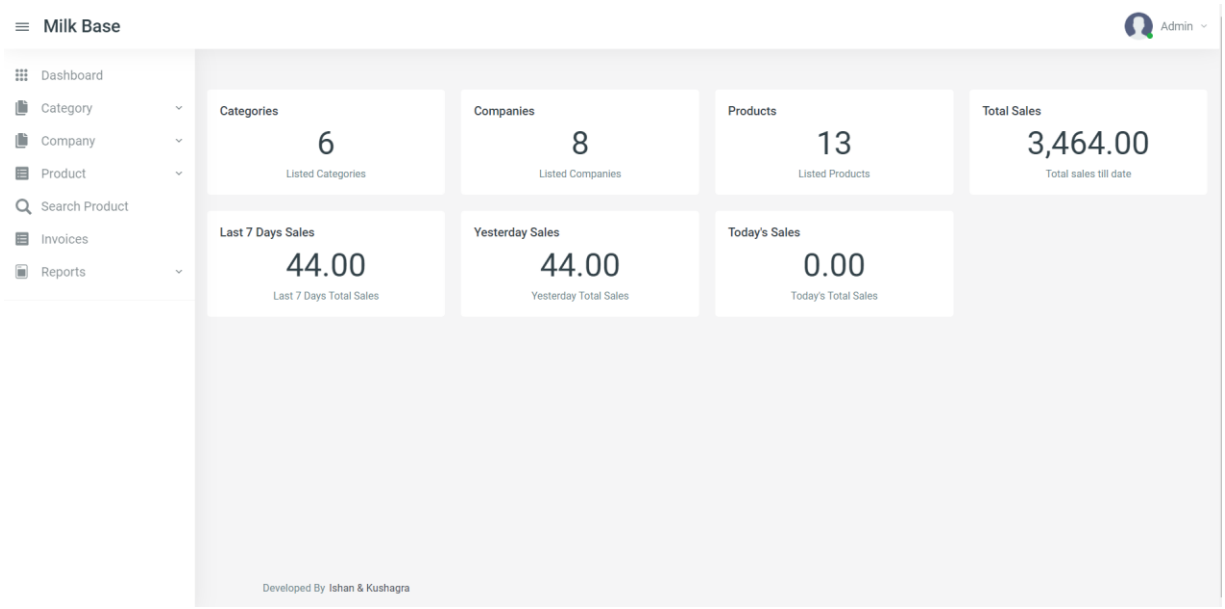


Figure : Dashboard

Figure: Category page

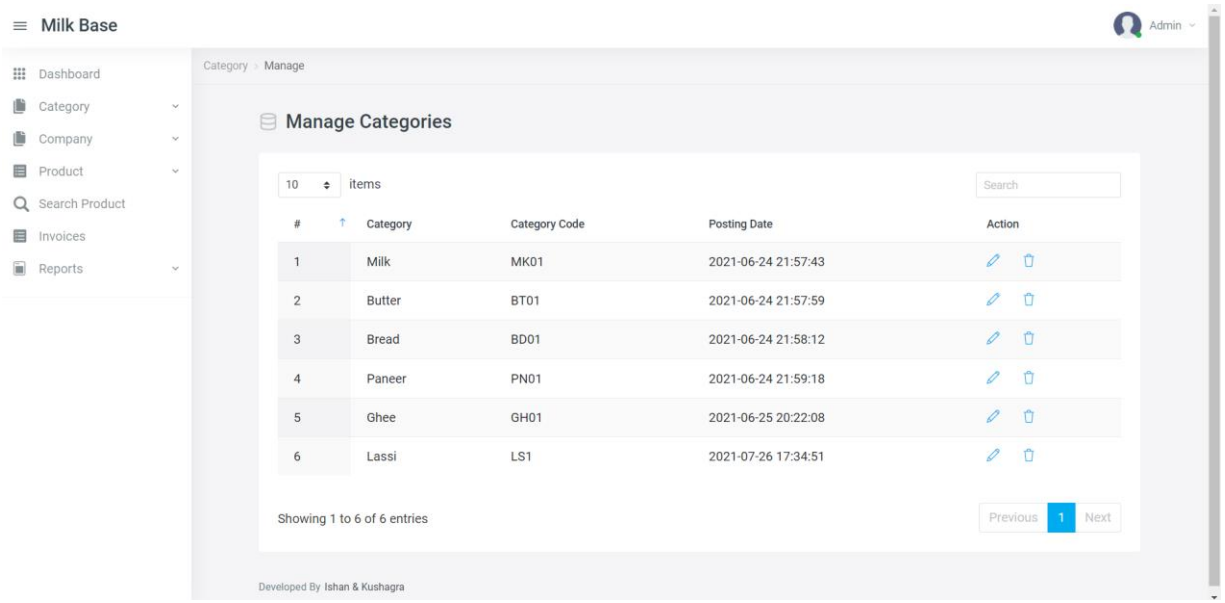


Figure: Category page

Figure Product page

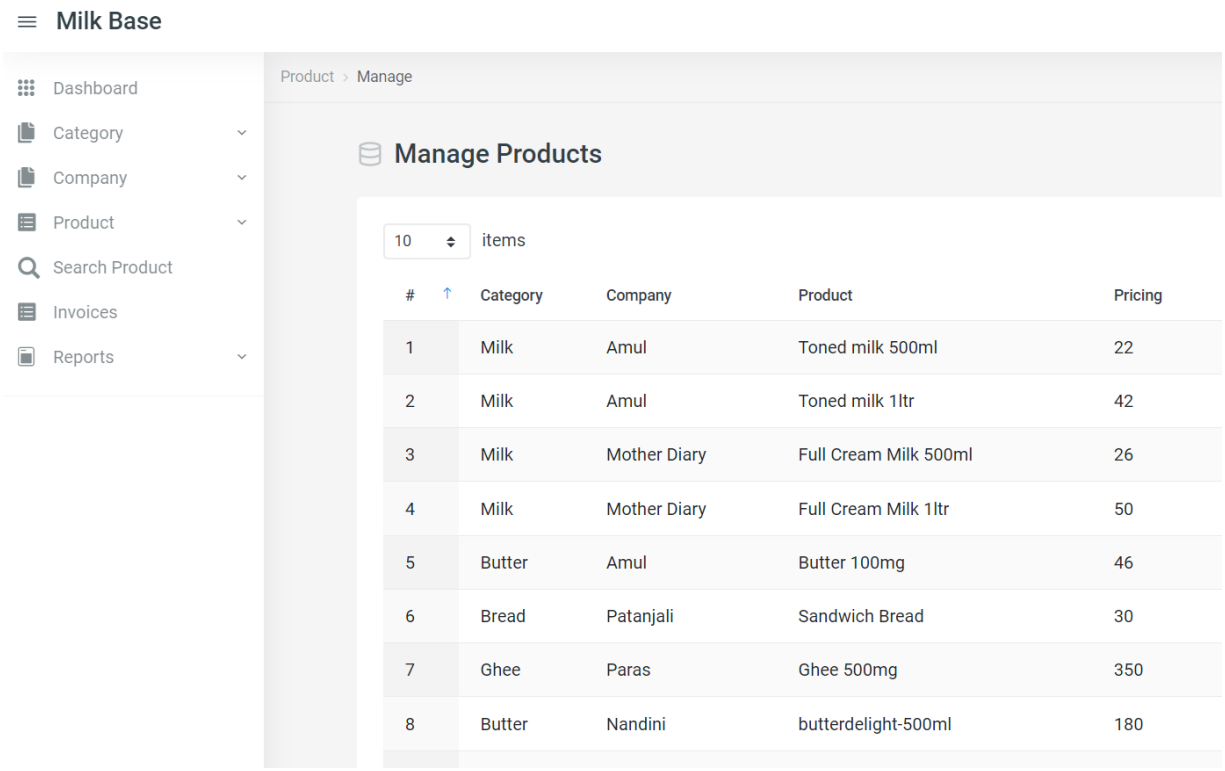


Figure Product page

Figure Comapany page

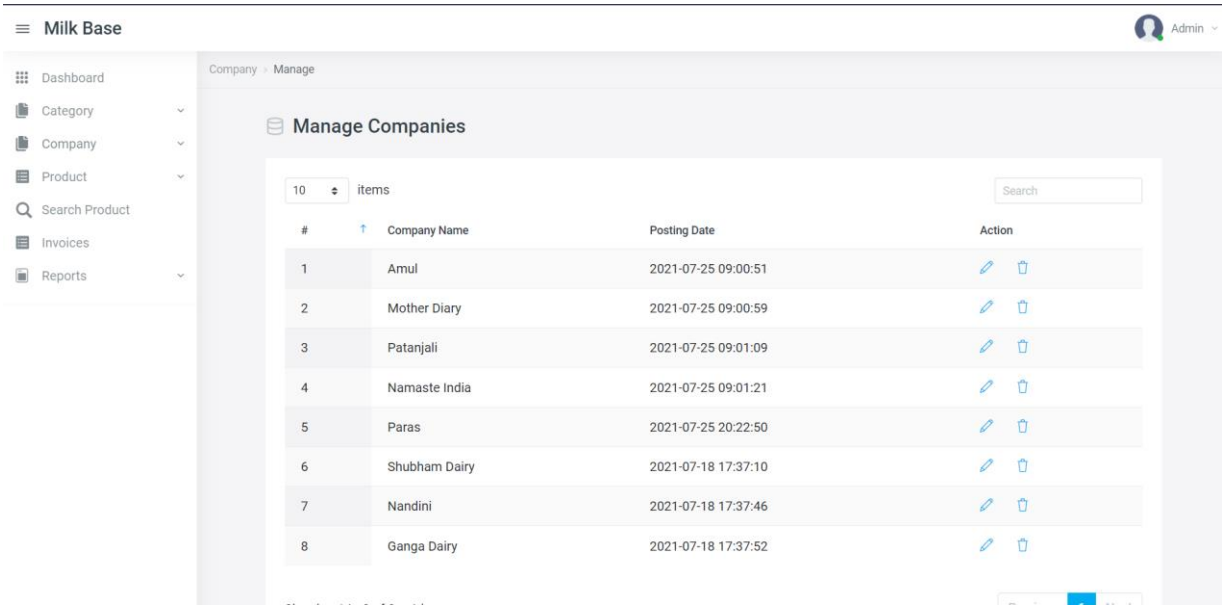


Figure Comapany page

Figure Invoice page

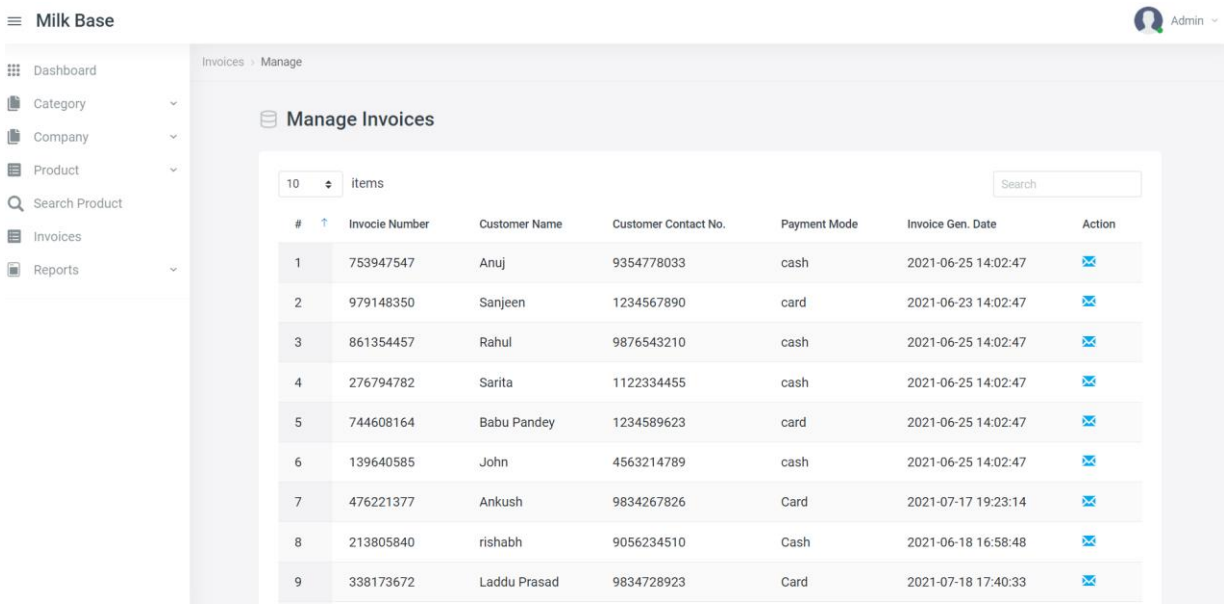


Figure Invoice page

Figure search product page

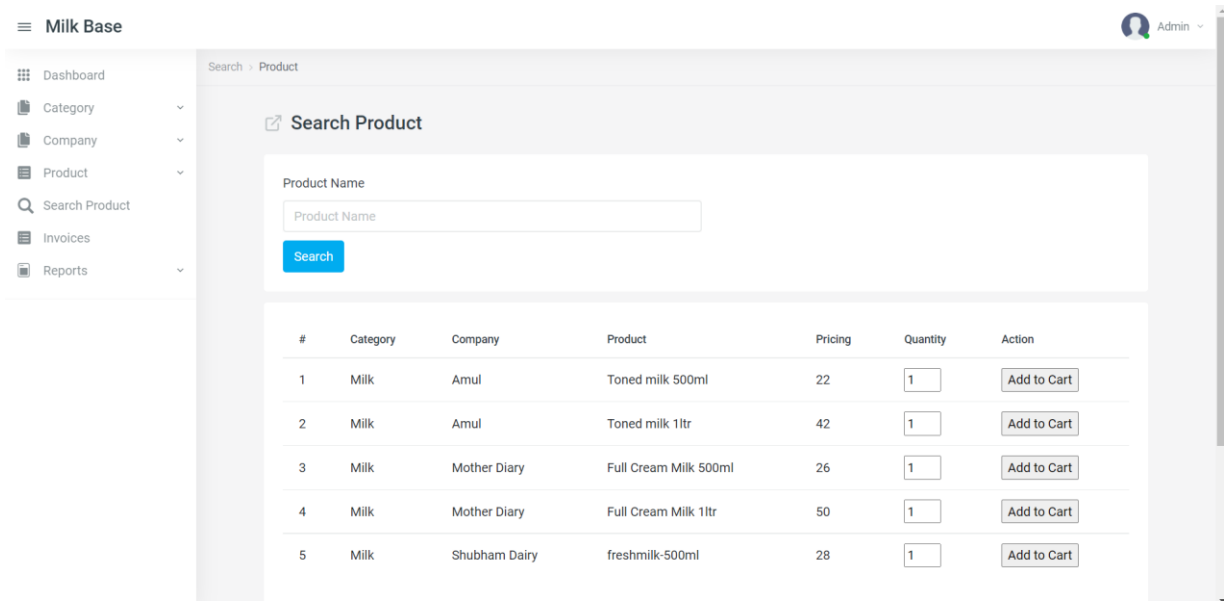
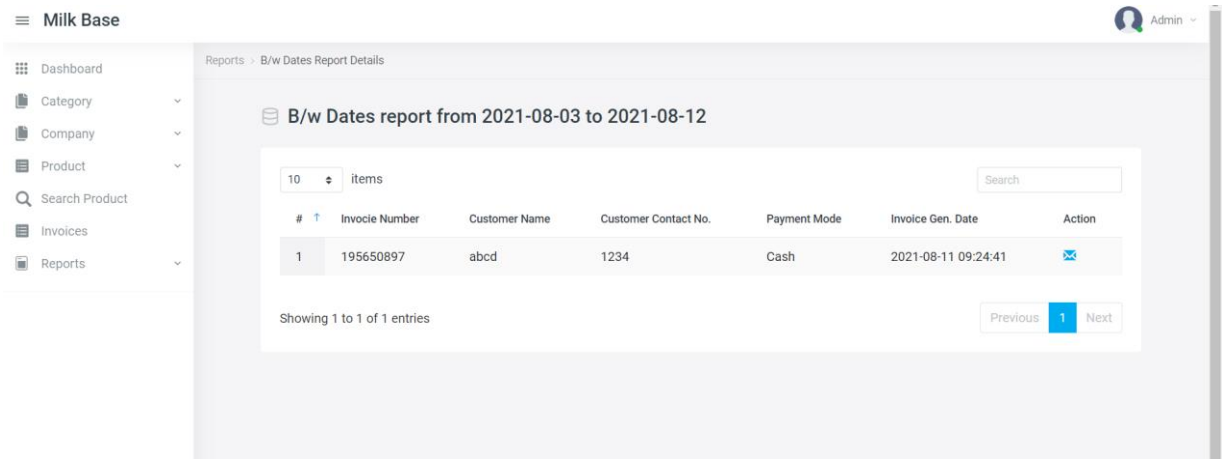


Figure reports page



Chapter 5

Conclusion

Information Technology plays a vital role not only in a particular field, it provides various kinds of solutions and services to the various problems prevailing in many fields. Restaurant exploits information technology at the maximum extent. It uses the information technology in an efficient way for providing better Customer services.

Future Enhancements and Conclusion

Future Enhancements

Every Edition of a book comes with new topics and modifications if any errors are present. In the similar way, in near future, our application will overcome the flaws if occurred, and attains new features offered to employees for the Flexible and easy products Order. Following are the Enhancements to the application.

- Providing Good User Interface.
- Providing access permissions to the employees
- Try to Implement the GPS system to track Delivery details.