"INVENTO"

A MINI PROJECT REPORT

Submitted by

ATHARVA HEMANT MALANDKAR [1NH18IS017]

Under the guidance of,

Mrs. K M BILVIKA

Assistant Professor, ISE, NHCE

In partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING

IN

INFORMATION SCIENCE AND ENGINEERING

FOR

COURSE NAME: MINI PROJECT

COURSE CODE: 20ISE59

CERTIFICATE

Certified that the project work entitled “Invento” carried out by Mr. ATHARVA HEMANT MALANDKAR, bearing USN 1NH18IS017, a bonafide student of 5th semester in partial fulfillment for the award of Bachelor of Engineering in Information Science & Engineering of the Visveswaraiah Technological University, Belagavi during the year 2020-21. It is certified that all corrections / suggestions indicated for Internal Assessment have been incorporated. The project report has been approved as it satisfies the academic requirements in respect of Mini Project work prescribed for the said Degree.

Name & Signature of Guide	**Name & Signature of HOD**	**Name & Signature of Principal**
Mrs. K M Bilvika	Dr. Anandhi R J	Dr. Manjunatha

Examiners:

	Name	**Signature**
1.	…….	……..
2.	……	……

ABSTRACT

The Inventory Management System (Invento) is a website capable of handling large inventories of an organization. This can be used to track the inventory of a single store, or to manage the distribution of stock between several stores of a larger franchise. The goal is to reduce the strain of tracking rather than to handle all store maintenance.

The website will be capable of doing the following:

i. Login for different level of users (admin, customer)
ii. Add new categories and products
iii. Add new users and edit their info
iv. View all sales/orders
v. View all users
vi. View sales reports for each product

This project will be implemented using HTML5, CSS3, PHP and Xampp server.

ACKNOWLEDGEMENT

Any project is a task of great enormity and it cannot be accomplished by an individual without support and guidance. I am grateful to a number of individuals whose professional guidance and encouragement has made this project completion a reality.

I have a great pleasure in expressing my deep sense of gratitude to the beloved Chairman **Dr. Mohan Manghnani** for having provided me with a great infrastructure and well-furnished labs.

I take this opportunity to express my profound gratitude to the Principal **Dr. Manjunatha** for his constant support and management.

I am grateful to **Dr. R J Anandhi**, Professor and Head of Department of ISE, New Horizon College of Engineering, Bengaluru for his strong enforcement on perfection and quality during the course of my project work.

I would like to express my thanks to the guide Mrs. **K M Bilvika**, Assistant Professor, Department of ISE, New Horizon College of Engineering, Bengaluru who has always guided me in detailed technical aspects throughout my project.

I would like to mention special thanks to all the Teaching and Non-Teaching staff members of Information Science and Engineering Department, New Horizon College of Engineering, Bengaluru for their invaluable support and guidance.

ATHARVA H M

1NH18IS017

Table of Contents

LIST OF FIGURES

CHAPTER 1

INTRODUCTION

Inventory Management Software is a software system for tracking inventory orders, sales and deliveries of a warehouse. It can also be used in the manufacturing industry to create a work order, material bills and other production-related documentations. Companies use inventory management software to avoid product overstock as well as outages. It is a tool for organizing inventory data that before was generally stored in hard-copy form or in spreadsheets or excel format.

1.1 The Motivation for the Project

The existing system uses MS Excel to maintain records and it is not possible to share the data from multiple system in multi-user environment. Thus. there is lot of duplicate work and chances for mistakes to occur. When the records are changed, the records need to be updated in each and every excel file. There is no option to find and print previous saved records. Also there is no security as anyone can access any report and sensitive data, also no way to make and organize sales reports.

The main limitation of the previous system of Inventory Management System are as follows:

- The existing system only provides text- based interface, which is not as user-friendly as Graphical user Interface.
- Since the system is implemented in manual, so the response is very slow.
- Off-line reports cannot be generated due to batch mode execution.

This Inventory Management System (Invento) is used to overcome the problems which is present in the existing system, and also makes this existing manual system to computerized system.

1.2 Objectives and Scope of the project

The main objective of Invento is to enhance and upgrade the existing manual inventory management system by increasing its efficiency and effectiveness.

The software improves the working methods by replacing the existing manual system with the computer-based system.

- **Automation:** Invento automates each and every activity of the manual system and increase its throughput. Thus, the response time of the system is very less and it works very fast.
- **Accuracy:** Invento provides the users a quick response with very accurate information regarding the inventory products etc. in an accurate manner, as and when required.
- **User-Friendly:** Invento has a very user-friendly interface. Thus the users will feel very easy to work on it. This application provides accuracy along with a pleasant interface. It makes the present manual system more interactive, speedy and user friendly.
- **Availability:** The sale reports can be retrieved as and when required. Thus, there is no delay in the availability of any information which can be captured very quickly and easily.
- **Maintenance Cost:** Reduce the cost of maintenance.

CHAPTER 2

SYSTEM REQUIREMENTS

The project has been developed utilizing HTML, PHP, CSS, JavaScript and MySQL. The requirements in order to develop this project and system design and flow is described in this chapter.

2.1 Hardware Requirements

- Laptop or any PC
- RAM of 2gb (minimum)
- Mouse and Keyboard
- Processor (Intel Pentium, Intel core or AMD)
- Hard Disk (above 20gb)

2.2 Software Requirements

- Windows, MacOS, or any other Operating System
- Command Prompt
- Any text editor (Notepad++, Sublime, VisualStudioCode etc.)
- Chrome or any other Web Browser

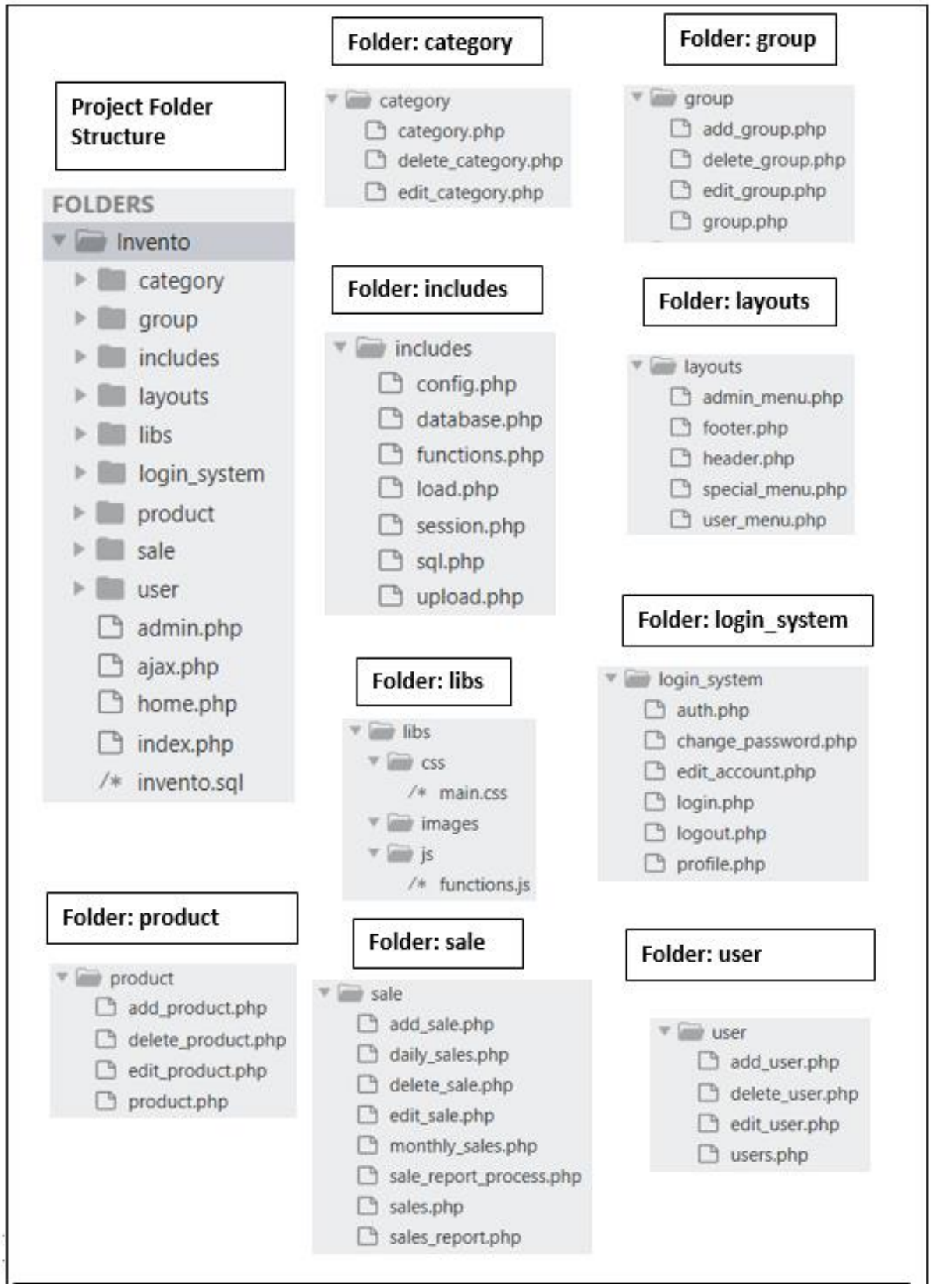


Figure 2. 1: Folder Structure

CHAPTER 3

SOFTWARE TECHNOLOGY

Invento is a web based Inventory System, built using html, css, php, mysql and bootstrap.

3.1 HTML

Figure 3. 1: HTML

HTML stands for Hypertext Markup Language. HTML is utilized to create web pages and web applications. The term Hypertext refers to "Text within Text." Hypertext means a text which has a link in it. A link that redirects you to a new webpage is a hypertext. Hypertext is a mechanism to link two or more pages (HTML documents) with each other.

To apply layout and formatting conventions to a text document, the computer language called markup language is used. The text is made more dynamic and interactive using markup language. The text can be converted into images, tables, links, etc. using markup language.

A document that is generally written in HTML and translated by a web browser is called a web page. A web page is identified using a URL. A Web page can be either of type static or dynamic.

An example of a HTML document is:

```
<!DOCTYPE>
<html>
    <head>
        <title>Title of the Web Page</title>
    </head>
    <body>
        <h1> First Heading</h1>
        <p>First Paragraph</p>
    </body>
</html>
```

Features of HTML are as follows:

- HTML is a language which can be easily understood, modified and is simple.
- With the help of a lot of formatting tags, HTML can be easily used to make an effective presentation.
- HTML is platform independent.
- HTML facilitates the programmer to make the web pages interactive by the addition of graphics, images, videos, and sounds.
- HTML is a case insensitive language.
- HTML can be used to link web pages.

3.2 PHP

Figure 3.2: PHP

PHP refers to a scripting language which can be executed at the server-side. Web development can be done using PHP. Hence, it is can be utilized to develop web applications. PHP stands for Hypertext Preprocessor and is an interpreted language. PHP functions faster than other scripting languages. PHP is also a simple language to learn. PHP is used to design and build dynamic web applications with MySQL database.

Features of PHP are as follows:

- PHP has an excellent performance rate.
- PHP is open source.
- Familiarity with syntax making PHP easy to use.
- PHP can be embedded with HTML script and tags.
- PHP is platform-independent.
- PHP provides database support.
- PHP has predefined error reporting components.
- PHP is a loosely typed language.
- PHP has multiple web servers' support.
- PHP has good security features.
- There exists a very helpful PHP community.

3.3 CSS

Figure 3.3: CSS

CSS stands for Cascading Style Sheet. CSS can be used to design HTML tags. CSS is one of the most widely used languages on the web.

Cascading Style Sheets, or **CSS**, are a way to change the look of HTML and XHTML web pages. CSS was designed by the W3C, and is supported well by most modern web browsers. The current version of CSS is CSS3. CSS4 is available, but is split into parts.

One advantage to using CSS is a web page can still be displayed, even if the CSS is not working or removed.

CSS code is saved in files with the .css file extension.

Features of CSS:

- CSS helps save time.
- With CSS pages load faster as the CSS rule can be applied to all occurrences of the tag and less code indicates faster downloading time.
- CSS is easy maintenance.
- CSS has a much wider array of attributes than HTML.
- CSS has multiple device compatibility.

3.4 JavaScript

Figure 3.4: JavaScript

JavaScript is a lightweight, interpreted programming language. JavaScript is designed for creating network-centric applications. JavaScript is open and cross-platform.

JavaScript is typically inserted into HTML when used on the web, either directly in the file in a HTML tag, or linking it to a separate file containing the script. JavaScript, as a full featured scripting language, can be used to provide functionality to a website;

Features of JavaScript:

- JavaScript is a structured programming language that follows the syntax and structure of the C programming language.
- JavaScript is a weakly typed, object-oriented, and case sensitive language.
- JavaScript is supported by several operating systems.
- JavaScript provides less server interaction.
- JavaScript provides increased interactivity.

3.5 Bootstrap

Figure 3.5: Bootstrap

The bootstrap is an Open Source Front-End framework, used for Web Application development, made up of HTML, CSS and Java Scrip, which twitter has developed. This is a free program that anyone can download and use. And you can run it on any platform (Windows, Linux, Mac). Bootstrap gives you the option of using the Grid System which is known as one of the fastest and simplest ways to create a layout that saves you time.

The following are the advantages bootstrap possesses for the users to implement in their webpages:

- **Saving Time**. It saves a lot of time as its own framework
- **Very Easy To Use**. As a lot of the modules are open sourced its very easy to use since its all available in their official websites and can be very understandable and easy to use complex graphics with single lines of code for the HTML.
- **Interactive Design.** The Design of the website wil be very responsive for the users and it presents itself on any screen with the required amount of resolutions as its already built-in in the code and easy to apply.
- **Cross Browser Compatible.** It can be used with any browser as it responds with any browsers the user will be using for the output. Since its up-to-date with the tech available from the computers it proceeds to perform very well for the users.

3. 6 MySQL

Figure 3.6: MySQL

Currently, the most popular database management system software is MySQL. MySQL is utilized for managing relational databases. It is supported by the Oracle Company. MySQL is open-sourced, fast, scalable, and easy to use DBMS. It is generally used with PHP scripts.

MySQL is a Relational Database Management System software that provides has the following features:

- MySQL can be used to create databases. Within the database tables are created. Operations are then performed on rows, columns, and indexes.
- It defines the relationship between tables.
- It allows the table indexes to update automatically.
- SQL queries are used to combine useful information and provide it to the end-users.

CHAPTER 4

DESIGN MODULES

The project has been implemented with some functions/modules. The discussion of the flow of the project has been described in this chapter.

4.1 Login Module

The following figure shows how the login module functions for this project.

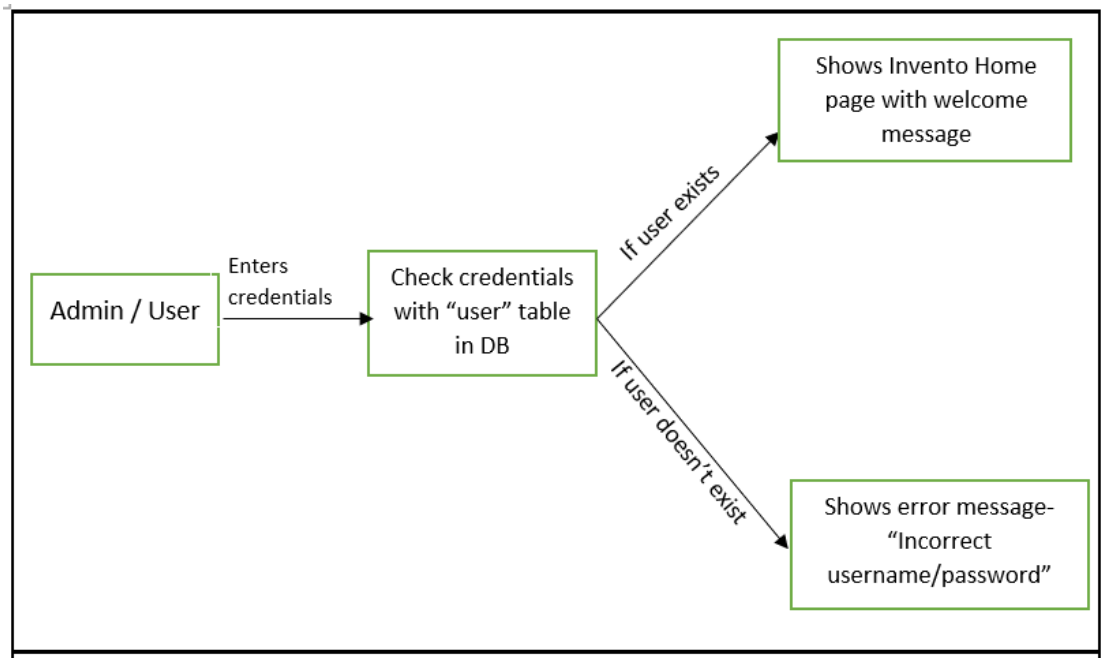


Figure 4.1: Login Module

1. The user is required to enter credentials to utilize this project application. This credentials are namely two fields:
    - Username
    - Password
2. After clicking on login button, the user credentials entered are checked with the records in the "user" table in the database.

3. If match is found, the user is redirected to Invento home page and shown welcome message.
4. If no match is found, the user is shown an error dialog , “Incorrect username/password”.

4.2 Admin Module

The following figure shows the admin module functionalities for this project.

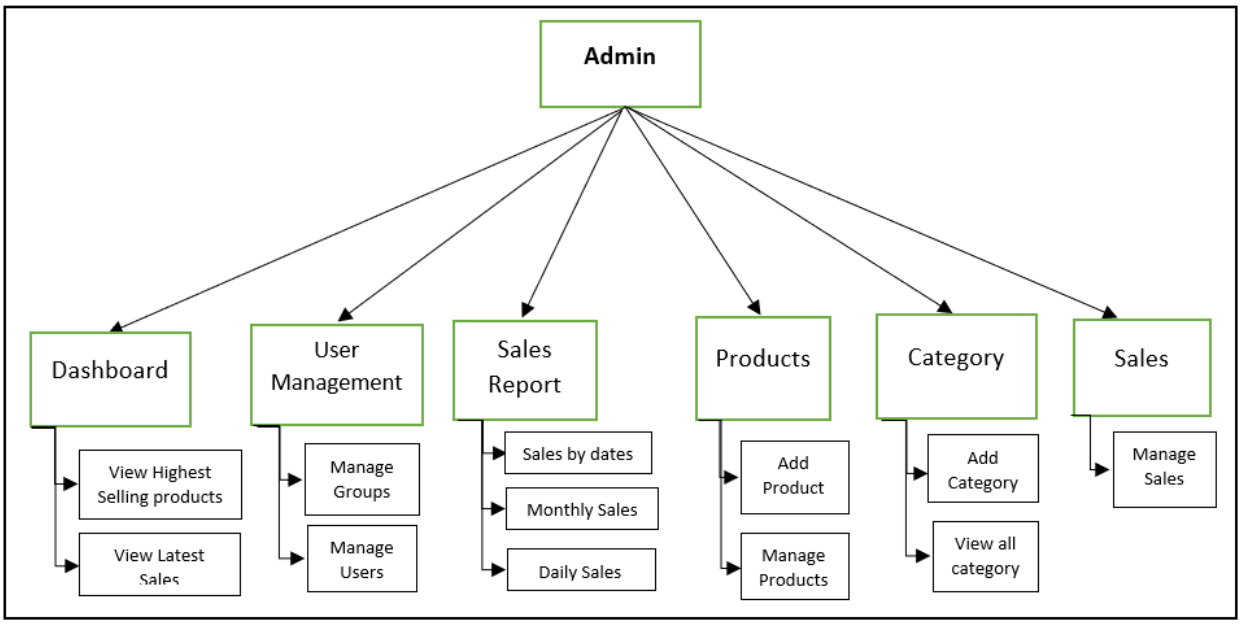


Figure 4.2: Admin Module

The admin has access to the following features of this project:

1. **Dashboard**: Here, the admin can view the active count of users, category, products, and sales of the entire system. The dashboard also shows highest selling products and latest sales.
2. **User Management**: Here, the admin can assign roles to various users. These roles are either admin or user. The admin can also create new roles as well as create new users.

3. **Sales Report**: This can be used to generate sales report by dates, monthly and daily sales report.
4. **Products**: This allows admin to add new products and manage product information.
5. **Category:** This allows admin to add new product category and manage category information.
6. **Sales:** The admin can view list of all sales till date done by users.

4.3 User Module

The following figure shows the user module functionalities for this project.

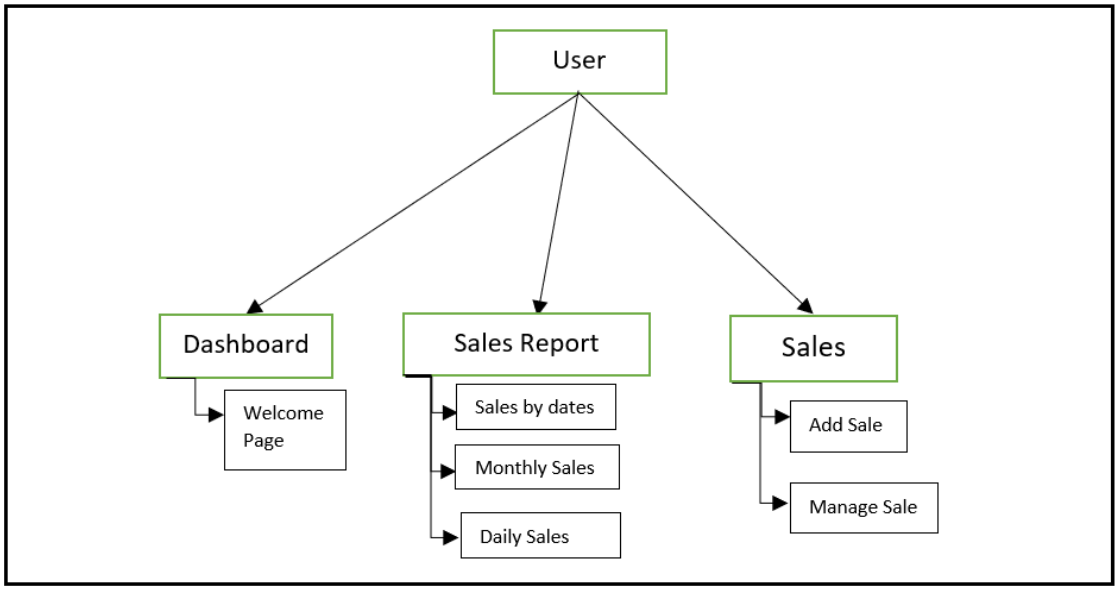


Figure 4.3: Normal User/Customer Module

The user has access to the following features of this project:

1. **Dashboard**: Here, the user can view invento's home page.
2. **Sales Report**: This can be used to generate sales report by dates, monthly and daily sales report.
3. **Sales:** The user can add new sale and view list of all sales till date done by him.

CHAPTER 5

RESULTS

The current results of the project implementation and future developments have been discussed in this chapter.

5.1 Expected Outcome

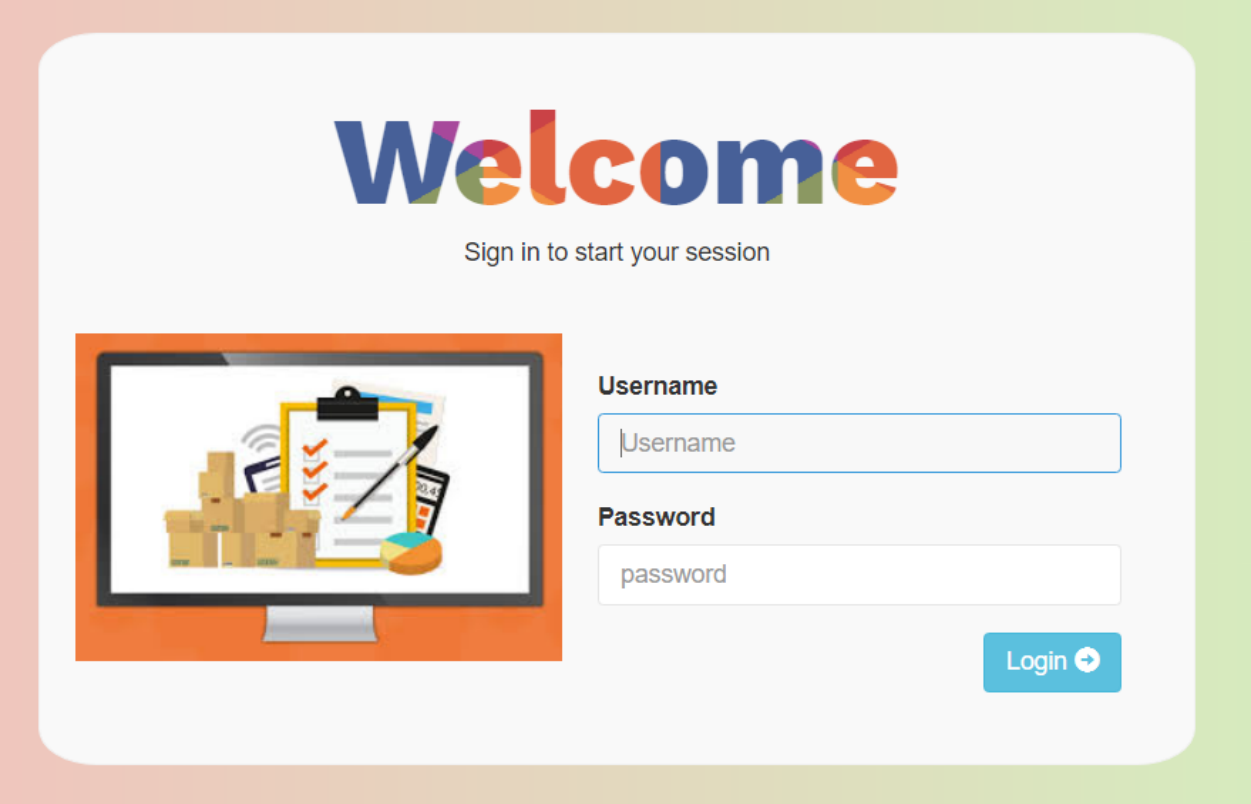


Figure 5.1: Login Page

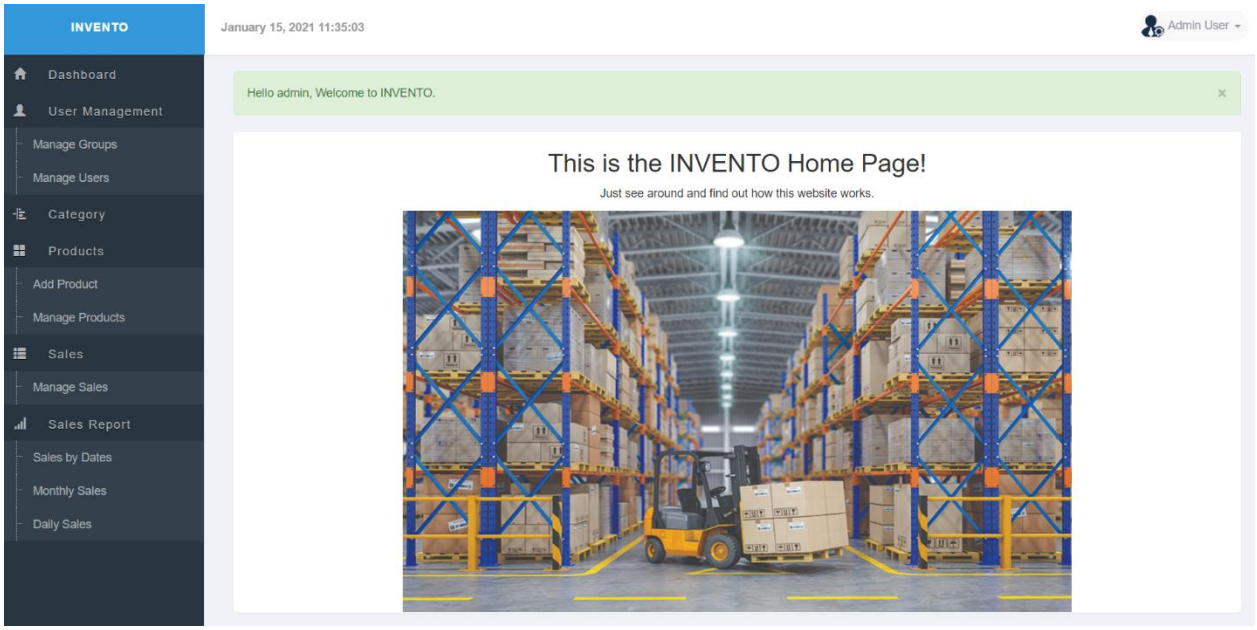


Figure 5.2: Admin Home Page

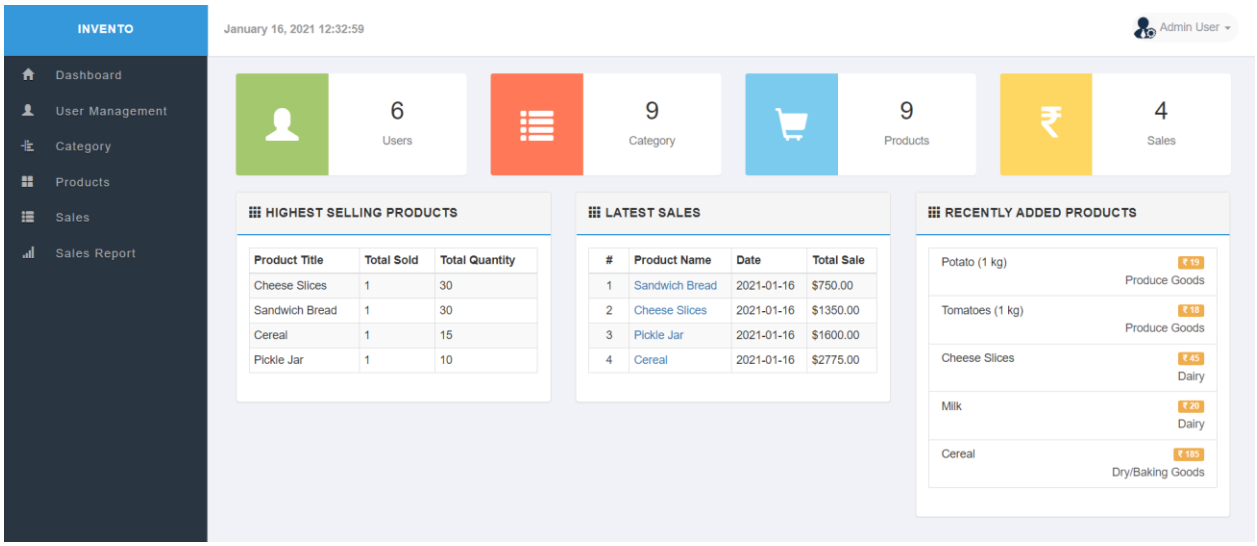


Figure 5.3: Dashboard of Admin

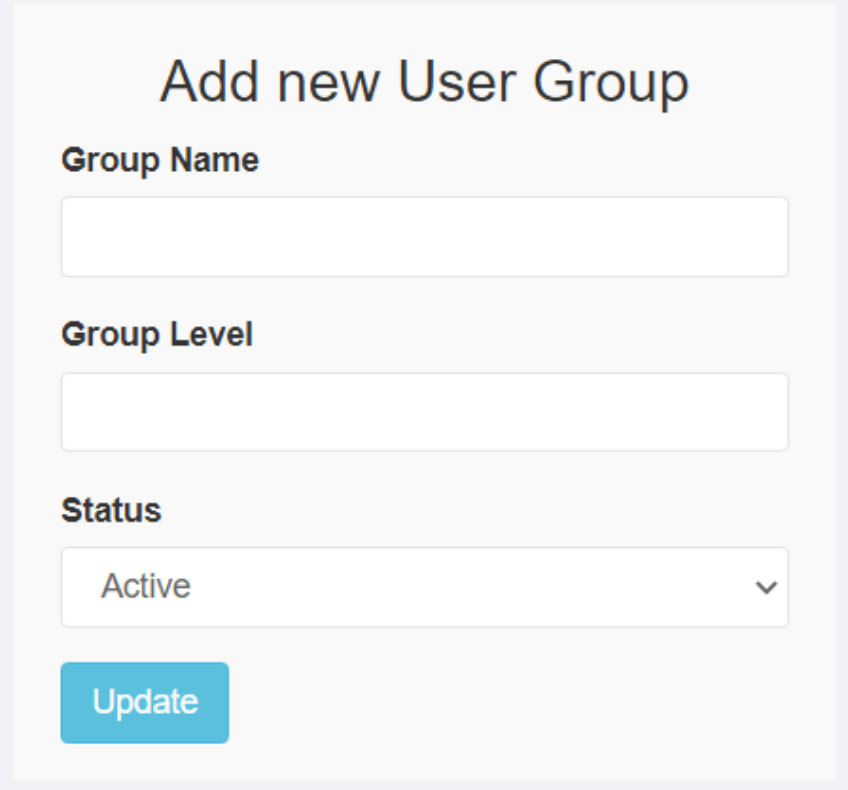


Figure 5.4: Add new User Group Page

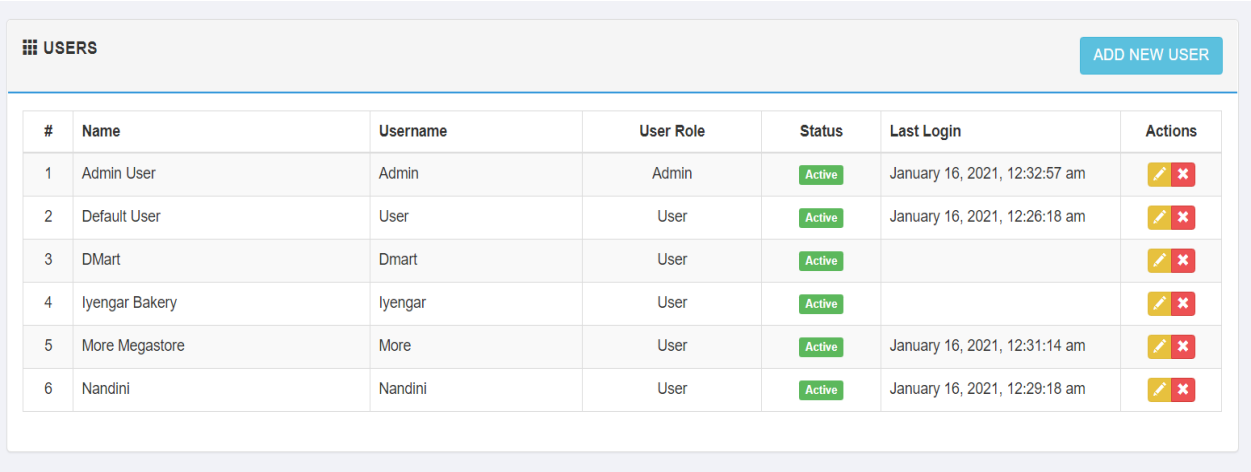


Figure 5.5: User Management Page

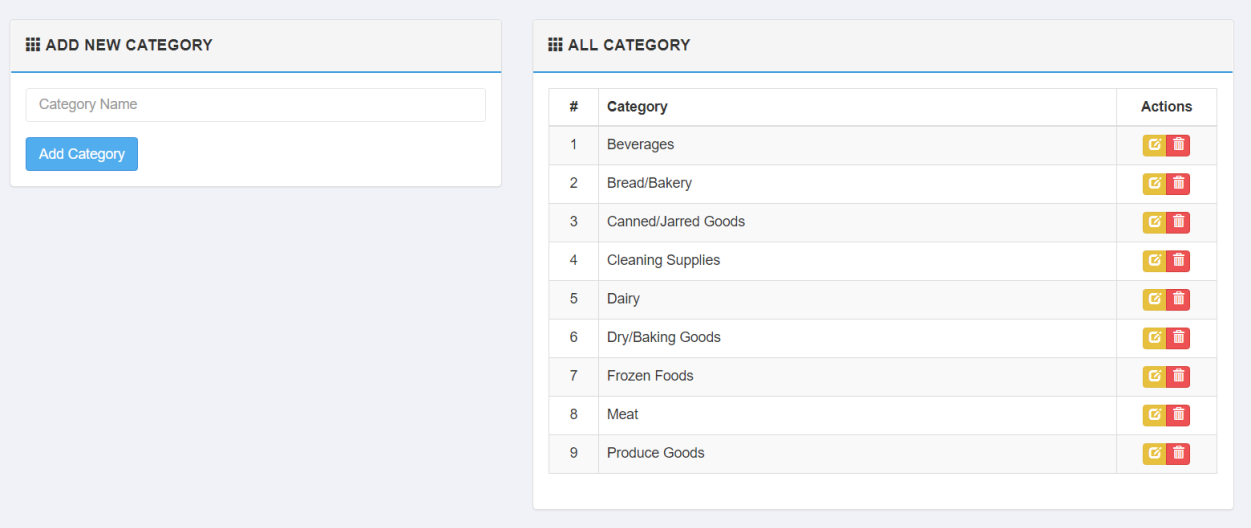


Figure 5.6: Category Page

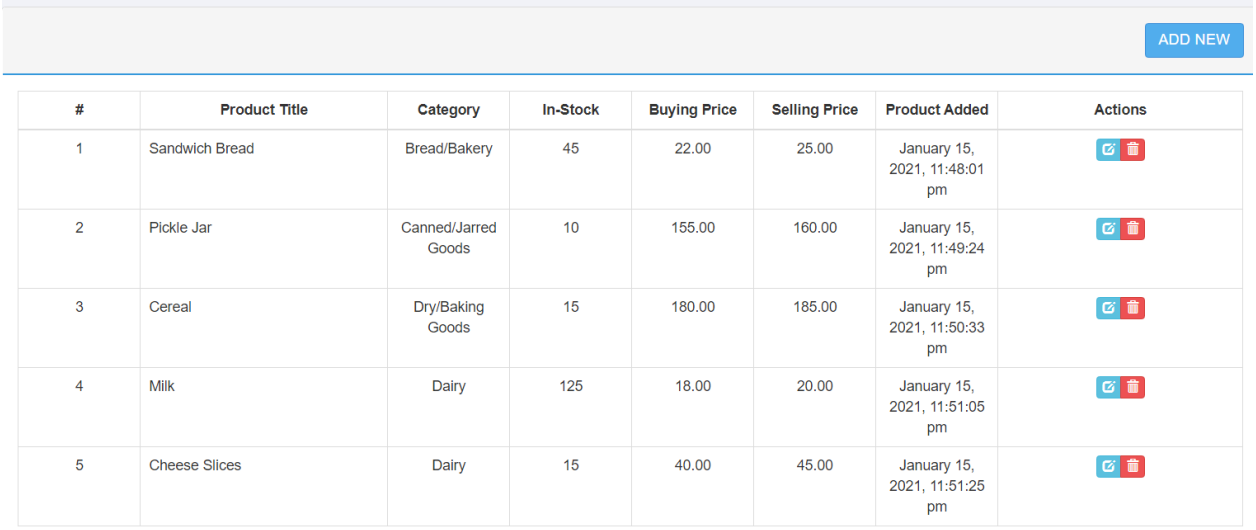
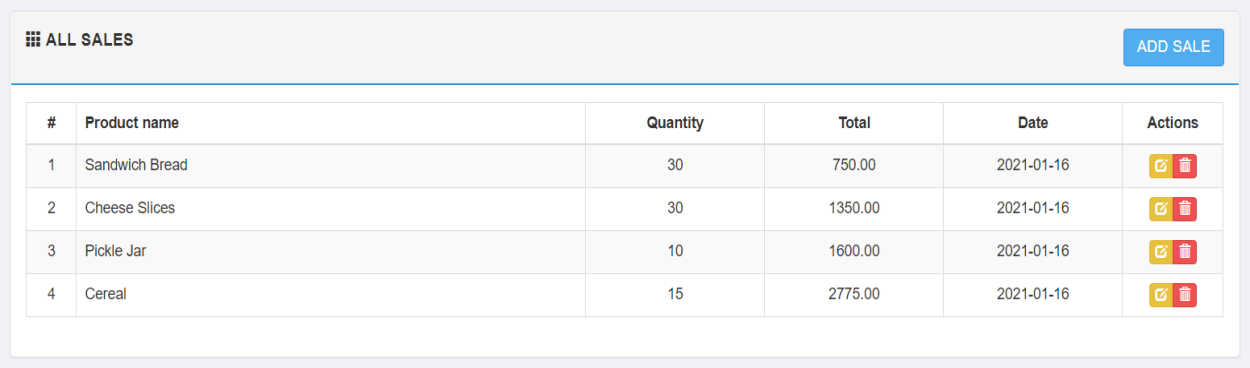


Figure 5.7 Product Page



#	Product name	Quantity	Total	Date	Actions
1	Sandwich Bread	30	750.00	2021-01-16	
2	Cheese Slices	30	1350.00	2021-01-16	
3	Pickle Jar	10	1600.00	2021-01-16	
4	Cereal	15	2775.00	2021-01-16	

Figure 5.8: Sales Page

Sales Report

2021-01-16 To 2021-01-17

Date	Product Title	Buying Price	Selling Price	Total Qty	TOTAL
2021-01-16	Cereal	180.00	185.00	15	2775.00
2021-01-16	Cheese Slices	40.00	45.00	30	1350.00
2021-01-16	Pickle Jar	155.00	160.00	10	1600.00
2021-01-16	Sandwich Bread	22.00	25.00	30	750.00
				GRAND TOTAL	RS.6,475.00
				PROFIT	RS.365.00

Figure 5.9: Sales Report Page

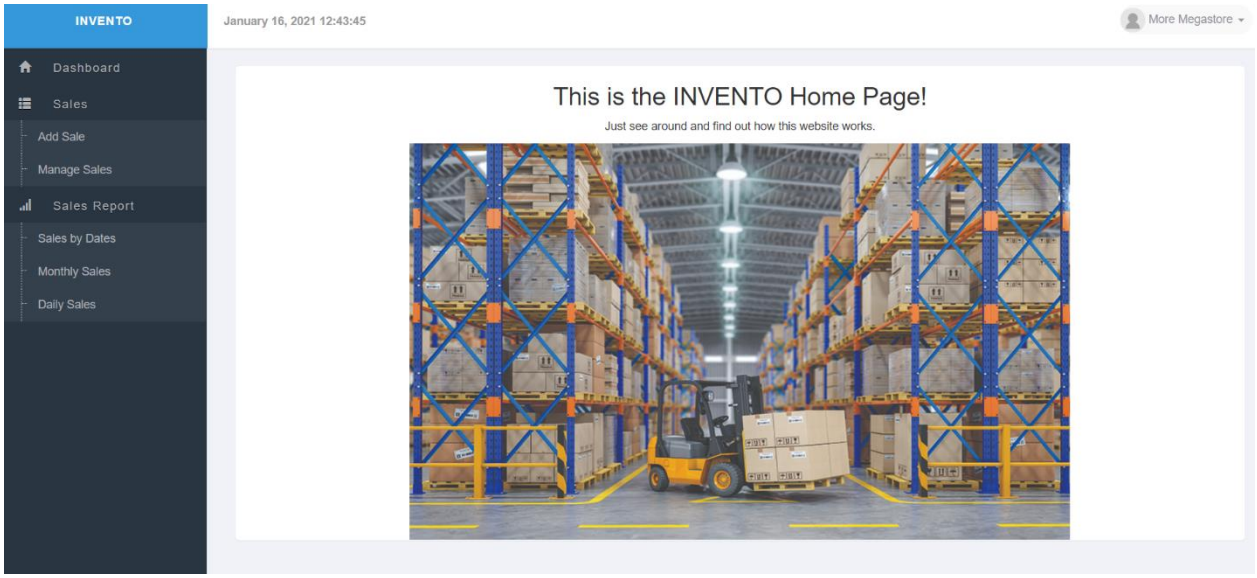


Figure 5.10: User Home Page

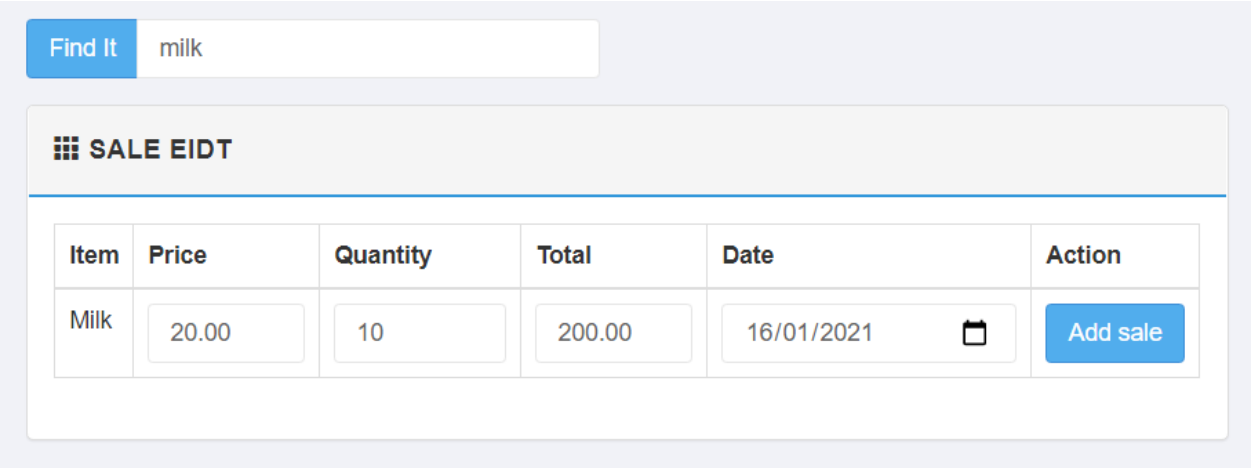


Figure 5.11: Add Sale

CHAPTER 6

CONCLUSION

6.1 Conclusion

To conclude, Invento is a web-based Inventory Management System application basically suitable for small warehouses/organizations. Inventory system is an extremely important problem area in the management of product/stock handling. It has every basic items which are used for the small organization. Invento is a very reliable application where we can update, insert and delete the product/item as per the requirement. This application also provides a simple report on daily basis to know the daily sales and purchase details. This application matches for small organization where there are limited number of godowns. Through it has some limitations, the implementation of this system will surely benefit any organization.

6.2 Future Scope

This project can be further improved by including analytics to predict future sales, show the inventory's profits/sales in the form of graphs, tables, etc. We can also show warning messages when the stocks are low.

BIBLIOGRAPHY

[1]. https://www.irjet.net/archives/V5/i4/IRJET-V5I448.pdf

[2]. https://www.researchgate.net/publication/327793184_A_Study_of_Inventory_Management_System_Case_Study

[3]. https://www.w3schools.com/php/php_mysql_intro.asp

[4]. http://web.deu.edu.tr/doc/misc/ebook_PHP_MySQL_PHP_Database_Applications_IDG_Books_Jay_Greenspan.pdf

[5]. https://www.w3resource.com/index.php