

STOCK MANAGEMENT SYSTEM

A COURSE PROJECT REPORT

18CSC303J - Database Management Systems

Submitted by

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Under the guidance of

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BONAFIDE CERTIFICATE

The Mini project report titled “**STOCK MANAGEMENT SYSTEM**” is the bonafide work of **T.Pavana Narasimha [RA2111030010202]** who carried out the course project under my supervision. Certified further, that to the best of my knowledge, the work reported herein does not form any other project report or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

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CHAPTER - 1

INTRODUCTION

OVERVIEW

Stock management, also known as inventory management, is the process of overseeing the flow of goods into and out of a business. It involves monitoring and controlling the quantities of various items that a company holds in stock. Effective stock management ensures that a business has the right amount of stock on hand at any given time to meet customer demand without overstocking or understocking..

The primary goals of stock management include optimizing inventory levels to minimize storage costs while maximizing sales and profitability. This often involves forecasting demand based on historical data, current market trends, and other factors to determine how much of each product to keep in stock. Additionally, stock management involves tracking inventory movements, such as incoming shipments, sales, returns, and wastage, to maintain accurate stock levels and prevent stockouts or excess inventory.

The features that can be included in this website are as follows:

1. **Inventory Tracking:** Allows businesses to monitor the movement of goods in real-time, from receiving shipments to sales and returns, ensuring accurate stock levels.
2. **Demand Forecasting:** Utilizes historical data, market trends, and other factors to predict future demand for products, helping businesses make informed decisions about stock levels and replenishment.

Stock Reordering: Automatically generates purchase orders or replenishment requests when stock levels fall below predefined thresholds, ensuring timely replenishment to avoid stockouts.

PROBLEM STATEMENT : A small business, such as a retail store, needs an efficient inventory and sales management system to streamline its operations. The system should facilitate tracking product inventory, managing sales transactions, and generating reports for business insights.

- The system should maintain a comprehensive database of products, including their types, prices, quantities, and associated details like category, firm, and tax information.
- It should allow for easy addition, deletion, and modification of product records, ensuring accurate inventory tracking.

SCOPE OF PROJECT:

The scope of a Stock Management System involves the functionalities and features that the system will include to effectively manage inventory and related operations within an organization.

- ***Requirements analysis:*** This involves understanding the needs and requirements of the stock management to identify the specific features and functionalities that the stock management system should have.
- ***System design:*** This involves designing the system architecture, user interfaces, and other technical aspects of the system.
- ***Software development:*** This involves coding, testing, and integrating the various components of the system.
- ***Maintenance and support:*** This involves providing ongoing maintenance and support to the system to ensure that it continues to function properly and meets the evolving needs of the stock management.

PURPOSE OF PROJECT :

The purpose of stock management, also known as inventory management, is to ensure that a business maintains optimal levels of stock to meet customer demand while minimizing the costs associated with holding excess inventory. Here are some key purposes of stock management: The main objectives of a stock management system project include:

1. **Optimizing Inventory Levels:** Stock management helps businesses strike a balance between having enough inventory to fulfill customer orders promptly and avoiding overstocking, which ties up capital and increases storage costs.
2. **Meeting Customer Demand:** By accurately forecasting demand and maintaining adequate stock levels, businesses can fulfill customer orders promptly, enhancing customer satisfaction and loyalty.

CHAPTER - 2

FEATURES AND OBJECTIVES

Features:

1. **bill_products**: Contains records of products purchased in each bill, including product ID, quantity, and price.
2. **bill_records**: Stores information about each bill, such as bill ID, customer name, bill type, amount, and entry datetime.
3. **category**: Holds categories of products with their IDs, names, descriptions, and statuses.
4. **custom_products**: Stores custom products with their IDs, names, prices, and quantities.
5. **firm**: Contains information about firms or suppliers, including firm ID, name, description, phone number, and address.
6. **product**: Stores details of products, including product ID, type ID, group ID, firm ID, price, tax details, quantity, and status.
7. **seller_bill_products**: Similar to bill_products, but for seller bills.
8. **seller_bill_records**: Similar to bill_records, but for seller bills.

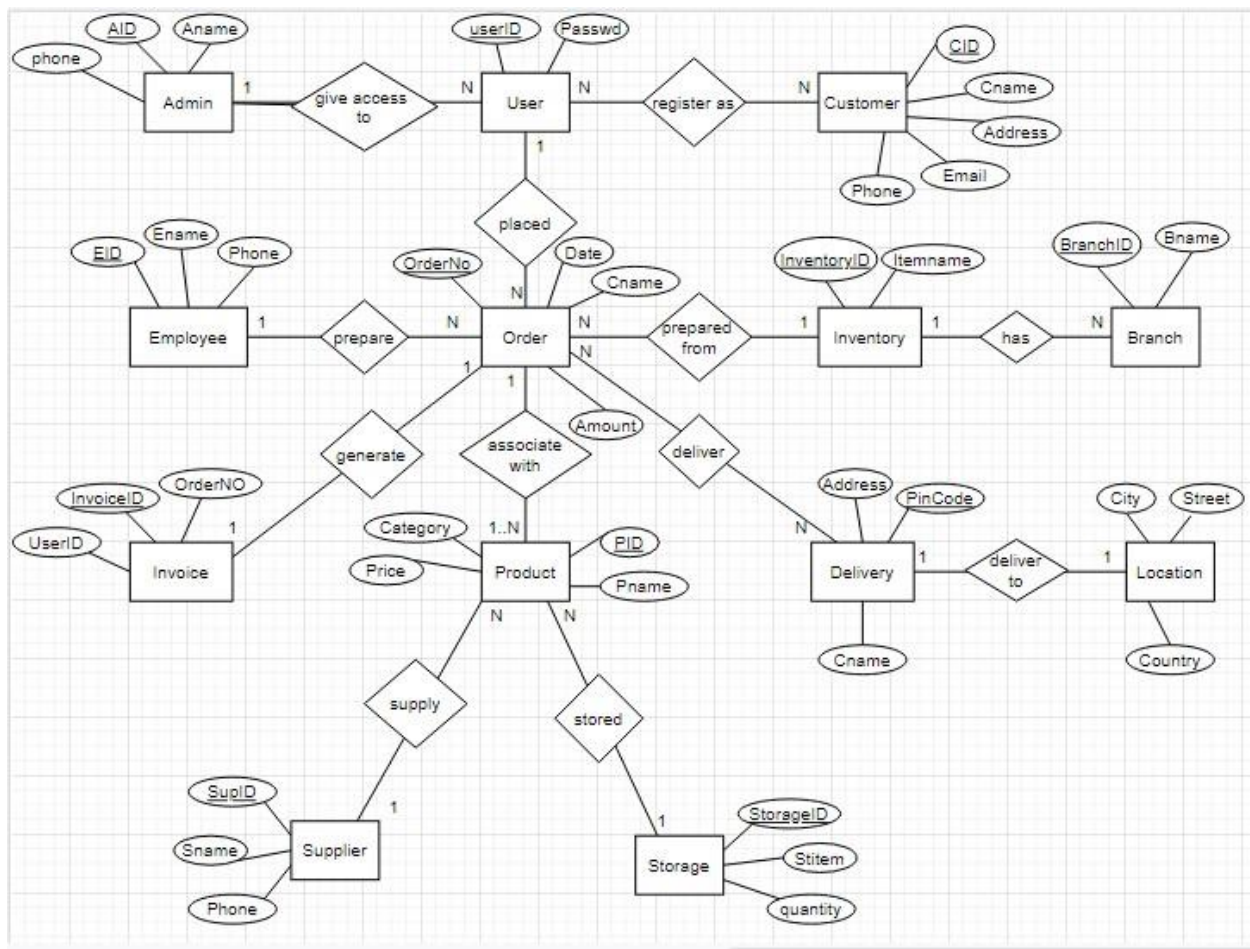
Objectives:

1. Develop a robust stock management system or e-commerce platform.
2. Enable administrators to efficiently manage products by adding, editing, and removing them from the system.
3. Implement categorization of products based on brands and categories for streamlined organization.
4. Provide users with the capability to place orders, specifying quantities and payment details.
5. Empower administrators to manage orders effectively, including tracking, updating statuses, and generating invoices.
6. Calculate order totals accurately, considering discounts, taxes, and other applicable charges.
7. Ensure secure access to the system through robust user authentication and authorization mechanisms.
8. Enable users to register accounts, log in securely, and update their profile information as needed.
9. Implement measures to safeguard sensitive user data through encryption and other security protocols.
10. Design an intuitive user interface for seamless interaction, optimizing user experience and accessibility.

CHAPTER - 3

BACK-END DESIGN

Conceptual Database Design (ER-Diagram) :



Source Code:

```
.label {
  display: inline;
  padding: .2em .6em .3em;
  font-size: 75%;
  font-weight: bold;
  line-height: 1;
  color: #fff;
  text-align: center;
  white-space: nowrap;
  vertical-align: baseline;
  border-radius: .25em;
}
a.label:hover,
a.label:focus {
  color: #fff;
  text-decoration: none;
  cursor: pointer;
}
.label:empty {
  display: none;
}
.btn .label {
  position: relative;
  top: -1px;
}
.label-default {
  background-color: #777;
}
.label-default[href]:hover,
.label-default[href]:focus {
```

```
    background-color: #5e5e5e;
}
.label-primary {
    background-color: #337ab7;
}
.label-primary[href]:hover,
.label-primary[href]:focus {
    background-color: #286090;
}
.label-success {
    background-color: #5cb85c;
}
.label-success[href]:hover,
.label-success[href]:focus {
    background-color: #449d44;
}
.label-info {
    background-color: #5bc0de;
}
.label-info[href]:hover,
.label-info[href]:focus {
    background-color: #31b0d5;
}
.label-warning {
    background-color: #f0ad4e;
}
.label-warning[href]:hover,
.label-warning[href]:focus {
    background-color: #ec971f;
}
.label-danger {
    background-color: #d9534f;
}
.label-danger[href]:hover,
.label-danger[href]:focus {
```

```

    background-color: #c9302c;
}
.badge {
    display: inline-block;
    min-width: 10px;
    padding: 3px 7px;
    font-size: 12px;
    font-weight: bold;
    line-height: 1;
    color: #fff;
    text-align: center;
    white-space: nowrap;
    vertical-align: middle;
    background-color: #777;
    border-radius: 10px;
}
.badge:empty {
    display: none;
}
.btn .badge {
    position: relative;
    top: -1px;
}
.btn-xs .badge,
.btn-group-xs > .btn .badge {
    top: 0;
    padding: 1px 5px;
}
a.badge:hover,
a.badge:focus {
    color: #fff;
    text-decoration: none;
    cursor: pointer;
}
.list-group-item.active > .badge,

```

```

.nav-pills > .active > a > .badge {
  color: #337ab7;
  background-color: #fff;
}
.list-group-item > .badge {
  float: right;
}
.list-group-item > .badge + .badge {
  margin-right: 5px;
}
.nav-pills > li > a > .badge {
  margin-left: 3px;
}
.jumbotron {
  padding-top: 30px;
  padding-bottom: 30px;
  margin-bottom: 30px;
  color: inherit;
  background-color: #eee;
}
.jumbotron h1,
.jumbotron .h1 {
  color: inherit;
}
.jumbotron p {
  margin-bottom: 15px;
  font-size: 21px;
  font-weight: 200;
}
.jumbotron > hr {
  border-top-color: #d5d5d5;
}
.container .jumbotron,
.container-fluid .jumbotron {
  padding-right: 15px;

```

```

padding-left: 15px;
border-radius: 6px;
}
.jumbotron .container {
max-width: 100%;
}
@media screen and (min-width: 768px) {
.jumbotron {
padding-top: 48px;
padding-bottom: 48px;
}
.container .jumbotron,
.container-fluid .jumbotron {
padding-right: 60px;
padding-left: 60px;
}
.jumbotron h1,
.jumbotron .h1 {
font-size: 63px;
}
}
.thumbnail {
display: block;
padding: 4px;
margin-bottom: 20px;
line-height: 1.42857143;
background-color: #fff;
border: 1px solid #ddd;
border-radius: 4px;
-webkit-transition: border .2s ease-in-out;
-o-transition: border .2s ease-in-out;
transition: border .2s ease-in-out;
}
.thumbnail > img,
.thumbnail a > img {

```

```

    margin-right: auto;
    margin-left: auto;
}
a.thumbnail:hover,
a.thumbnail:focus,
a.thumbnail.active {
    border-color: #337ab7;
}
.thumbnail .caption {
    padding: 9px;
    color: #333;
}
.alert {
    padding: 15px;
    margin-bottom: 20px;
    border: 1px solid transparent;
    border-radius: 4px;
}
.alert h4 {
    margin-top: 0;
    color: inherit;
}
.alert .alert-link {
    font-weight: bold;
}
.alert > p,
.alert > ul {
    margin-bottom: 0;
}
.alert > p + p {
    margin-top: 5px;
}
.alert-dismissable,
.alert-dismissible {
    padding-right: 35px;

```

```

}
.alert-dismissible .close,
.alert-dismissible .close {
  position: relative;
  top: -2px;
  right: -21px;
  color: inherit;
}
.alert-success {
  color: #3c763d;
  background-color: #dff0d8;
  border-color: #d6e9c6;
}
.alert-success hr {
  border-top-color: #c9e2b3;
}
.alert-success .alert-link {
  color: #2b542c;
}
.alert-info {
  color: #31708f;
  background-color: #d9edf7;
  border-color: #bce8f1;
}
.alert-info hr {
  border-top-color: #a6e1ec;
}
.alert-info .alert-link {
  color: #245269;
}
.alert-warning {
  color: #8a6d3b;
  background-color: #fcf8e3;
  border-color: #faebcc;
}

```

```
.alert-warning hr {
  border-top-color: #f7e1b5;
}
.alert-warning .alert-link {
  color: #66512c;
}
.alert-danger {
  color: #a94442;
  background-color: #f2dede;
  border-color: #ebccd1;
}
.alert-danger hr {
  border-top-color: #e4b9c0;
}
.alert-danger .alert-link {
  color: #843534;
}
@-webkit-keyframes progress-bar-stripes {
  from {
    background-position: 40px 0;
  }
  to {
    background-position: 0 0;
  }
}
@-o-keyframes progress-bar-stripes {
  from {
    background-position: 40px 0;
  }
  to {
    background-position: 0 0;
  }
}
@keyframes progress-bar-stripes {
  from {
```



```

    background-position: 40px 0;
  }
  to {
    background-position: 0 0;
  }
}
.progress {
  height: 20px;
  margin-bottom: 20px;
  overflow: hidden;
  background-color: #f5f5f5;
  border-radius: 4px;
  -webkit-box-shadow: inset 0 1px 2px rgba(0, 0, 0, .1);
  box-shadow: inset 0 1px 2px rgba(0, 0, 0, .1);
}
.progress-bar {
  float: left;
  width: 0;
  height: 100%;
  font-size: 12px;
  line-height: 20px;
  color: #fff;
  text-align: center;
  background-color: #337ab7;
  -webkit-box-shadow: inset 0 -1px 0 rgba(0, 0, 0, .15);
  box-shadow: inset 0 -1px 0 rgba(0, 0, 0, .15);
  -webkit-transition: width .6s ease;
  -o-transition: width .6s ease;
  transition: width .6s ease;
}
.progress-striped .progress-bar,
.progress-bar-striped {
  background-image: -webkit-linear-gradient(45deg, rgba(255, 255, 255, .15) 25%,
transparent 25%, transparent 50%, rgba(255, 255, 255, .15) 50%, rgba(255, 255,
255, .15) 75%, transparent 75%, transparent);

```

```

    background-image:    -o-linear-gradient(45deg, rgba(255, 255, 255, .15) 25%,
transparent 25%, transparent 50%, rgba(255, 255, 255, .15) 50%, rgba(255, 255,
255, .15) 75%, transparent 75%, transparent);
    background-image:    linear-gradient(45deg, rgba(255, 255, 255, .15) 25%,
transparent 25%, transparent 50%, rgba(255, 255, 255, .15) 50%, rgba(255, 255,
255, .15) 75%, transparent 75%, transparent);
    -webkit-background-size: 40px 40px;
        background-size: 40px 40px;
}
.progress.active .progress-bar,
.progress-bar.active {
    -webkit-animation: progress-bar-stripes 2s linear infinite;
        -o-animation: progress-bar-stripes 2s linear infinite;
            animation: progress-bar-stripes 2s linear infinite;
}
.progress-bar-success {
    background-color: #5cb85c;
}
.progress-striped .progress-bar-success {
    background-image: -webkit-linear-gradient(45deg, rgba(255, 255, 255, .15) 25%,
transparent 25%, transparent 50%, rgba(255, 255, 255, .15) 50%, rgba(255, 255,
255, .15) 75%, transparent 75%, transparent);
    background-image:    -o-linear-gradient(45deg, rgba(255, 255, 255, .15) 25%,
transparent 25%, transparent 50%, rgba(255, 255, 255, .15) 50%, rgba(255, 255,
255, .15) 75%, transparent 75%, transparent);
    background-image:    linear-gradient(45deg, rgba(255, 255, 255, .15) 25%,
transparent 25%, transparent 50%, rgba(255, 255, 255, .15) 50%, rgba(255, 255,
255, .15) 75%, transparent 75%, transparent);
}
.progress-bar-info {
    background-color: #5bc0de;
}
.progress-striped .progress-bar-info {

```

```

    background-image: -webkit-linear-gradient(45deg, rgba(255, 255, 255, .15) 25%,
transparent 25%, transparent 50%, rgba(255, 255, 255, .15) 50%, rgba(255, 255,
255, .15) 75%, transparent 75%, transparent);
    background-image:    -o-linear-gradient(45deg, rgba(255, 255, 255, .15) 25%,
transparent 25%, transparent 50%, rgba(255, 255, 255, .15) 50%, rgba(255, 255,
255, .15) 75%, transparent 75%, transparent);
    background-image:      linear-gradient(45deg, rgba(255, 255, 255, .15) 25%,
transparent 25%, transparent 50%, rgba(255, 255, 255, .15) 50%, rgba(255, 255,
255, .15) 75%, transparent 75%, transparent);
}
.progress-bar-warning {
    background-color: #f0ad4e;
}
.progress-striped .progress-bar-warning {
    background-image: -webkit-linear-gradient(45deg, rgba(255, 255, 255, .15) 25%,
transparent 25%, transparent 50%, rgba(255, 255, 255, .15) 50%, rgba(255, 255,
255, .15) 75%, transparent 75%, transparent);
    background-image:    -o-linear-gradient(45deg, rgba(255, 255, 255, .15) 25%,
transparent 25%, transparent 50%, rgba(255, 255, 255, .15) 50%, rgba(255, 255,
255, .15) 75%, transparent 75%, transparent);
    background-image:      linear-gradient(45deg, rgba(255, 255, 255, .15) 25%,
transparent 25%, transparent 50%, rgba(255, 255, 255, .15) 50%, rgba(255, 255,
255, .15) 75%, transparent 75%, transparent);
}
.progress-bar-danger {
    background-color: #d9534f;
}
.progress-striped .progress-bar-danger {
    background-image: -webkit-linear-gradient(45deg, rgba(255, 255, 255, .15) 25%,
transparent 25%, transparent 50%, rgba(255, 255, 255, .15) 50%, rgba(255, 255,
255, .15) 75%, transparent 75%, transparent);
    background-image:    -o-linear-gradient(45deg, rgba(255, 255, 255, .15) 25%,
transparent 25%, transparent 50%, rgba(255, 255, 255, .15) 50%, rgba(255, 255,
255, .15) 75%, transparent 75%, transparent);

```

```

background-image: linear-gradient(45deg, rgba(255, 255, 255, .15) 25%,
transparent 25%, transparent 50%, rgba(255, 255, 255, .15) 50%, rgba(255, 255,
255, .15) 75%, transparent 75%, transparent);
}
.media {
margin-top: 15px;
}
.media:first-child {
margin-top: 0;
}
.media,
.media-body {
overflow: hidden;
zoom: 1;
}
.media-body {
width: 10000px;
}
.media-object {
display: block;
}
.media-object.img-thumbnail {
max-width: none;
}
.media-right,
.media > .pull-right {
padding-left: 10px;
}
.media-left,
.media > .pull-left {
padding-right: 10px;
}
.media-left,
.media-right,
.media-body {

```

```
display: table-cell;
vertical-align: top;
}
.media-middle {
vertical-align: middle;
}
.media-bottom {
vertical-align: bottom;
}
.media-heading {
margin-top: 0;
margin-bottom: 5px;
}
.media-list {
padding-left: 0;
list-style: none;
}
.list-group {
padding-left: 0;
margin-bottom: 20px;
}
.list-group-item {
position: relative;
display: block;
padding: 10px 15px;
margin-bottom: -1px;
background-color: #fff;
border: 1px solid #ddd;
}
.list-group-item:first-child {
border-top-left-radius: 4px;
border-top-right-radius: 4px;
}
.list-group-item:last-child {
margin-bottom: 0;
```

```

border-bottom-right-radius: 4px;
border-bottom-left-radius: 4px;
}
a.list-group-item,
button.list-group-item {
  color: #555;
}
a.list-group-item .list-group-item-heading,
button.list-group-item .list-group-item-heading {
  color: #333;
}
a.list-group-item:hover,
button.list-group-item:hover,
a.list-group-item:focus,
button.list-group-item:focus {
  color: #555;
  text-decoration: none;
  background-color: #f5f5f5;
}
button.list-group-item {
  width: 100%;
  text-align: left;
}
.list-group-item.disabled,
.list-group-item.disabled:hover,
.list-group-item.disabled:focus {
  color: #777;
  cursor: not-allowed;
  background-color: #eee;
}
.list-group-item.disabled .list-group-item-heading,
.list-group-item.disabled:hover .list-group-item-heading,
.list-group-item.disabled:focus .list-group-item-heading {
  color: inherit;
}

```

```

.list-group-item.disabled .list-group-item-text,
.list-group-item.disabled:hover .list-group-item-text,
.list-group-item.disabled:focus .list-group-item-text {
  color: #777;
}
.list-group-item.active,
.list-group-item.active:hover,
.list-group-item.active:focus {
  z-index: 2;
  color: #fff;
  background-color: #337ab7;
  border-color: #337ab7;
}
.list-group-item.active .list-group-item-heading,
.list-group-item.active:hover .list-group-item-heading,
.list-group-item.active:focus .list-group-item-heading,
.list-group-item.active .list-group-item-heading > small,
.list-group-item.active:hover .list-group-item-heading > small,
.list-group-item.active:focus .list-group-item-heading > small,
.list-group-item.active .list-group-item-heading > .small,
.list-group-item.active:hover .list-group-item-heading > .small,
.list-group-item.active:focus .list-group-item-heading > .small {
  color: inherit;
}
.list-group-item.active .list-group-item-text,
.list-group-item.active:hover .list-group-item-text,
.list-group-item.active:focus .list-group-item-text {
  color: #c7ddef;
}
.list-group-item-success {
  color: #3c763d;
  background-color: #dff0d8;
}
a.list-group-item-success,
button.list-group-item-success {

```

```

    color: #3c763d;
}
a.list-group-item-success .list-group-item-heading,
button.list-group-item-success .list-group-item-heading {
    color: inherit;
}
a.list-group-item-success:hover,
button.list-group-item-success:hover,
a.list-group-item-success:focus,
button.list-group-item-success:focus {
    color: #3c763d;
    background-color: #d0e9c6;
}
a.list-group-item-success.active,
button.list-group-item-success.active,
a.list-group-item-success.active:hover,
button.list-group-item-success.active:hover,
a.list-group-item-success.active:focus,
button.list-group-item-success.active:focus {
    color: #fff;
    background-color: #3c763d;
    border-color: #3c763d;
}
.list-group-item-info {
    color: #31708f;
    background-color: #d9edf7;
}
a.list-group-item-info,
button.list-group-item-info {
    color: #31708f;
}
a.list-group-item-info .list-group-item-heading,
button.list-group-item-info .list-group-item-heading {
    color: inherit;
}

```



```
a.list-group-item-info:hover,
button.list-group-item-info:hover,
a.list-group-item-info:focus,
button.list-group-item-info:focus {
  color: #31708f;
  background-color: #c4e3f3;
}
a.list-group-item-info.active,
button.list-group-item-info.active,
a.list-group-item-info.active:hover,
button.list-group-item-info.active:hover,
a.list-group-item-info.active:focus,
button.list-group-item-info.active:focus {
  color: #fff;
  background-color: #31708f;
  border-color: #31708f;
}
.list-group-item-warning {
  color: #8a6d3b;
  background-color: #fcf8e3;
}
a.list-group-item-warning,
button.list-group-item-warning {
  color: #8a6d3b;
}
a.list-group-item-warning .list-group-item-heading,
button.list-group-item-warning .list-group-item-heading {
  color: inherit;
}
a.list-group-item-warning:hover,
button.list-group-item-warning:hover,
a.list-group-item-warning:focus,
button.list-group-item-warning:focus {
  color: #8a6d3b;
  background-color: #faf2cc;
```

```

}
a.list-group-item-warning.active,
button.list-group-item-warning.active,
a.list-group-item-warning.active:hover,
button.list-group-item-warning.active:hover,
a.list-group-item-warning.active:focus,
button.list-group-item-warning.active:focus {
    color: #fff;
    background-color: #8a6d3b;
    border-color: #8a6d3b;
}
.list-group-item-danger {
    color: #a94442;
    background-color: #f2dede;
}
a.list-group-item-danger,
button.list-group-item-danger {
    color: #a94442;
}
a.list-group-item-danger .list-group-item-heading,
button.list-group-item-danger .list-group-item-heading {
    color: inherit;
}
a.list-group-item-danger:hover,
button.list-group-item-danger:hover,
a.list-group-item-danger:focus,
button.list-group-item-danger:focus {
    color: #a94442;
    background-color: #ebcccc;
}
a.list-group-item-danger.active,
button.list-group-item-danger.active,
a.list-group-item-danger.active:hover,
button.list-group-item-danger.active:hover,
a.list-group-item-danger.active:focus,

```

```

button.list-group-item-danger.active:focus {
  color: #fff;
  background-color: #a94442;
  border-color: #a94442;
}
.list-group-item-heading {
  margin-top: 0;
  margin-bottom: 5px;
}
.list-group-item-text {
  margin-bottom: 0;
  line-height: 1.3;
}
.panel {
  margin-bottom: 20px;
  background-color: #fff;
  border: 1px solid transparent;
  border-radius: 4px;
  -webkit-box-shadow: 0 1px 1px rgba(0, 0, 0, .05);
  box-shadow: 0 1px 1px rgba(0, 0, 0, .05);
}
.panel-body {
  padding: 15px;
}
.panel-heading {
  padding: 10px 15px;
  border-bottom: 1px solid transparent;
  border-top-left-radius: 3px;
  border-top-right-radius: 3px;
}
.panel-heading > .dropdown .dropdown-toggle {
  color: inherit;
}
.panel-title {
  margin-top: 0;

```

```

margin-bottom: 0;
font-size: 16px;
color: inherit;
}
.panel-title > a,
.panel-title > small,
.panel-title > .small,
.panel-title > small > a,
.panel-title > .small > a {
color: inherit;
}
.panel-footer {
padding: 10px 15px;
background-color: #f5f5f5;
border-top: 1px solid #ddd;
border-bottom-right-radius: 3px;
border-bottom-left-radius: 3px;
}
.panel > .list-group,
.panel > .panel-collapse > .list-group {
margin-bottom: 0;
}
.panel > .list-group .list-group-item,
.panel > .panel-collapse > .list-group .list-group-item {
border-width: 1px 0;
border-radius: 0;
}
.panel > .list-group:first-child .list-group-item:first-child,
.panel > .panel-collapse > .list-group:first-child .list-group-item:first-child {
border-top: 0;
border-top-left-radius: 3px;
border-top-right-radius: 3px;
}
.panel > .list-group:last-child .list-group-item:last-child,
.panel > .panel-collapse > .list-group:last-child .list-group-item:last-child {

```

```

border-bottom: 0;
border-bottom-right-radius: 3px;
border-bottom-left-radius: 3px;
}
.panel > .panel-heading + .panel-collapse > .list-group .list-group-item:first-child {
border-top-left-radius: 0;
border-top-right-radius: 0;
}
.panel-heading + .list-group .list-group-item:first-child {
border-top-width: 0;
}
.list-group + .panel-footer {
border-top-width: 0;
}
.panel > .table,
.panel > .table-responsive > .table,
.panel > .panel-collapse > .table {
margin-bottom: 0;
}
.panel > .table caption,
.panel > .table-responsive > .table caption,
.panel > .panel-collapse > .table caption {
padding-right: 15px;
padding-left: 15px;
}
.panel > .table:first-child,
.panel > .table-responsive:first-child > .table:first-child {
border-top-left-radius: 3px;
border-top-right-radius: 3px;
}
.panel > .table:first-child > thead:first-child > tr:first-child,
.panel > .table-responsive:first-child > .table:first-child > thead:first-child > tr:first-
child,
.panel > .table:first-child > tbody:first-child > tr:first-child,

```

```

.panel > .table-responsive:first-child > .table:first-child > tbody:first-child >
tr:first-child {
    border-top-left-radius: 3px;
    border-top-right-radius: 3px;
}
.panel > .table:first-child > thead:first-child > tr:first-child td:first-child,
.panel > .table-responsive:first-child > .table:first-child > thead:first-child > tr:first-
child td:first-child,
.panel > .table:first-child > tbody:first-child > tr:first-child td:first-child,
.panel > .table-responsive:first-child > .table:first-child > tbody:first-child >
tr:first-child td:first-child,
.panel > .table:first-child > thead:first-child > tr:first-child th:first-child,
.panel > .table-responsive:first-child > .table:first-child > thead:first-child > tr:first-
child th:first-child,
.panel > .table:first-child > tbody:first-child > tr:first-child th:first-child,
.panel > .table-responsive:first-child > .table:first-child > tbody:first-child >
tr:first-child th:first-child {
    border-top-left-radius: 3px;
}
.panel > .table:first-child > thead:first-child > tr:first-child td:last-child,
.panel > .table-responsive:first-child > .table:first-child > thead:first-child > tr:first-
child td:last-child,
.panel > .table:first-child > tbody:first-child > tr:first-child td:last-child,
.panel > .table-responsive:first-child > .table:first-child > tbody:first-child >
tr:first-child td:last-child,
.panel > .table:first-child > thead:first-child > tr:first-child th:last-child,
.panel > .table-responsive:first-child > .table:first-child > thead:first-child > tr:first-
child th:last-child,
.panel > .table:first-child > tbody:first-child > tr:first-child th:last-child,
.panel > .table-responsive:first-child > .table:first-child > tbody:first-child >
tr:first-child th:last-child {
    border-top-right-radius: 3px;
}
.panel > .table:last-child,
.panel > .table-responsive:last-child > .table:last-child {

```

```

border-bottom-right-radius: 3px;
border-bottom-left-radius: 3px;
}
.panel > .table:last-child > tbody:last-child > tr:last-child,
.panel > .table-responsive:last-child > .table:last-child > tbody:last-child > tr:last-child,
.panel > .table:last-child > tfoot:last-child > tr:last-child,
.panel > .table-responsive:last-child > .table:last-child > tfoot:last-child > tr:last-child {
border-bottom-right-radius: 3px;
border-bottom-left-radius: 3px;
}
.panel > .table:last-child > tbody:last-child > tr:last-child td:first-child,
.panel > .table-responsive:last-child > .table:last-child > tbody:last-child > tr:last-child td:first-child,
.panel > .table:last-child > tfoot:last-child > tr:last-child td:first-child,
.panel > .table-responsive:last-child > .table:last-child > tfoot:last-child > tr:last-child td:first-child,
.panel > .table:last-child > tbody:last-child > tr:last-child th:first-child,
.panel > .table-responsive:last-child > .table:last-child > tbody:last-child > tr:last-child th:first-child,
.panel > .table:last-child > tfoot:last-child > tr:last-child th:first-child,
.panel > .table-responsive:last-child > .table:last-child > tfoot:last-child > tr:last-child th:first-child {
border-bottom-left-radius: 3px;
}
.panel > .table:last-child > tbody:last-child > tr:last-child td:last-child,
.panel > .table-responsive:last-child > .table:last-child > tbody:last-child > tr:last-child td:last-child,
.panel > .table:last-child > tfoot:last-child > tr:last-child td:last-child,
.panel > .table-responsive:last-child > .table:last-child > tfoot:last-child > tr:last-child td:last-child,
.panel > .table:last-child > tbody:last-child > tr:last-child th:last-child,
.panel > .table-responsive:last-child > .table:last-child > tbody:last-child > tr:last-child th:last-child,

```

```

.panel > .table:last-child > tfoot:last-child > tr:last-child th:last-child,
.panel > .table-responsive:last-child > .table:last-child > tfoot:last-child > tr:last-
child th:last-child {
    border-bottom-right-radius: 3px;
}
.panel > .panel-body + .table,
.panel > .panel-body + .table-responsive,
.panel > .table + .panel-body,
.panel > .table-responsive + .panel-body {
    border-top: 1px solid #ddd;
}
.panel > .table > tbody:first-child > tr:first-child th,
.panel > .table > tbody:first-child > tr:first-child td {
    border-top: 0;
}
.panel > .table-bordered,
.panel > .table-responsive > .table-bordered {
    border: 0;
}
.panel > .table-bordered > thead > tr > th:first-child,
.panel > .table-responsive > .table-bordered > thead > tr > th:first-child,
.panel > .table-bordered > tbody > tr > th:first-child,
.panel > .table-responsive > .table-bordered > tbody > tr > th:first-child,
.panel > .table-bordered > tfoot > tr > th:first-child,
.panel > .table-responsive > .table-bordered > tfoot > tr > th:first-child,
.panel > .table-bordered > thead > tr > td:first-child,
.panel > .table-responsive > .table-bordered > thead > tr > td:first-child,
.panel > .table-bordered > tbody > tr > td:first-child,
.panel > .table-responsive > .table-bordered > tbody > tr > td:first-child,
.panel > .table-bordered > tfoot > tr > td:first-child,
.panel > .table-responsive > .table-bordered > tfoot > tr > td:first-child {
    border-left: 0;
}
.panel > .table-bordered > thead > tr > th:last-child,
.panel > .table-responsive > .table-bordered > thead > tr > th:last-child,

```



```

.panel > .table-bordered > tbody > tr > th:last-child,
.panel > .table-responsive > .table-bordered > tbody > tr > th:last-child,
.panel > .table-bordered > tfoot > tr > th:last-child,
.panel > .table-responsive > .table-bordered > tfoot > tr > th:last-child,
.panel > .table-bordered > thead > tr > td:last-child,
.panel > .table-responsive > .table-bordered > thead > tr > td:last-child,
.panel > .table-bordered > tbody > tr > td:last-child,
.panel > .table-responsive > .table-bordered > tbody > tr > td:last-child,
.panel > .table-bordered > tfoot > tr > td:last-child,
.panel > .table-responsive > .table-bordered > tfoot > tr > td:last-child {
  border-right: 0;
}
.panel > .table-bordered > thead > tr:first-child > td,
.panel > .table-responsive > .table-bordered > thead > tr:first-child > td,
.panel > .table-bordered > tbody > tr:first-child > td,
.panel > .table-responsive > .table-bordered > tbody > tr:first-child > td,
.panel > .table-bordered > thead > tr:first-child > th,
.panel > .table-responsive > .table-bordered > thead > tr:first-child > th,
.panel > .table-bordered > tbody > tr:first-child > th,
.panel > .table-responsive > .table-bordered > tbody > tr:first-child > th {
  border-bottom: 0;
}
.panel > .table-bordered > tbody > tr:last-child > td,
.panel > .table-responsive > .table-bordered > tbody > tr:last-child > td,
.panel > .table-bordered > tfoot > tr:last-child > td,
.panel > .table-responsive > .table-bordered > tfoot > tr:last-child > td,
.panel > .table-bordered > tbody > tr:last-child > th,
.panel > .table-responsive > .table-bordered > tbody > tr:last-child > th,
.panel > .table-bordered > tfoot > tr:last-child > th,
.panel > .table-responsive > .table-bordered > tfoot > tr:last-child > th {
  border-bottom: 0;
}

```

```

var App = (function () {

```

```

'use strict';

//Basic Config
var config = {
  assetsPath: 'assets',
  imgPath: 'img',
  jsPath: 'js',
  libsPath: 'lib',
  leftSidebarSlideSpeed: 200,
  leftSidebarToggleSpeed: 300,
  enableSwipe: true,
  swipeTreshold: 100,
  scrollTop: true,
  openRightSidebarClass: 'open-right-sidebar',
  closeRsOnClickOutside: true,
  removeLeftSidebarClass: 'be-nosidebar-left',
  transitionClass: 'be-animate',
  openSidebarDelay: 400
};

var colors = {};
var body = $("body");
var wrapper = $(".be-wrapper");
var leftSidebar = $(".be-left-sidebar");
var rightSidebar = $(".be-right-sidebar");
var openSidebar = false;

//Get the template css colors into js vars
function getColor( c ){
  var tmp = $("<div>", { class: c }).appendTo("body");
  var color = tmp.css("background-color");
  tmp.remove();

  return color;
}

```

FRONT-END DESIGN

Front-End Web Development Details :

- **HTML** provides the basic structure of sites, which is enhanced and modified by other technologies like CSS and JavaScript.
- **CSS** is used to control presentation, formatting, and layout.
- **JavaScript** is used to control the behavior of different elements.

HTML :

HTML is at the core of every web page, regardless of the complexity of a site or number of technologies involved. It's an essential skill for any web professional. It's the starting point for anyone learning how to create content for the web. And, luckily for us, it's surprisingly easy to learn.

CSS :

CSS stands for Cascading Style Sheets. This programming language dictates how the HTML elements of a website should actually appear on the frontend of the page.

JavaScript :

JavaScript is a more complicated language than HTML or CSS, and it wasn't released in beta form until 1995. Nowadays, JavaScript is supported by all modern web browsers and is used on almost every site on the web for more powerful and complex functionality.

Connectivity :

IntelliJ IDEA, a popular integrated development environment (IDE), provides various ways to connect to databases to facilitate database-related development tasks. Here's an overview of its database connectivity features:

Database Tools and Drivers: IntelliJ supports a wide range of databases including MySQL, PostgreSQL, Oracle, SQL Server, and more. It comes bundled with JDBC drivers for many databases, and you can easily add drivers for other databases.

Database Tool Window: The Database tool window allows you to view and interact with your databases. You can browse database objects like tables, views, and procedures, and perform tasks like running SQL queries, viewing data, and managing database connections.

Data Sources and Drivers Configuration: IntelliJ lets you configure data sources for your databases. You can specify connection settings such as database URL, username, password, and driver. IntelliJ also supports SSH tunneling for secure database connections.

SQL Editor: IntelliJ provides a built-in SQL editor with syntax highlighting, code completion, and formatting. You can write and execute SQL queries directly from the editor, and see the results in a tabular format.

Database Console: IntelliJ includes a database console that allows you to run SQL queries and view the results within the IDE. You can also use the console to execute DDL (Data Definition Language) statements to create or modify database objects.

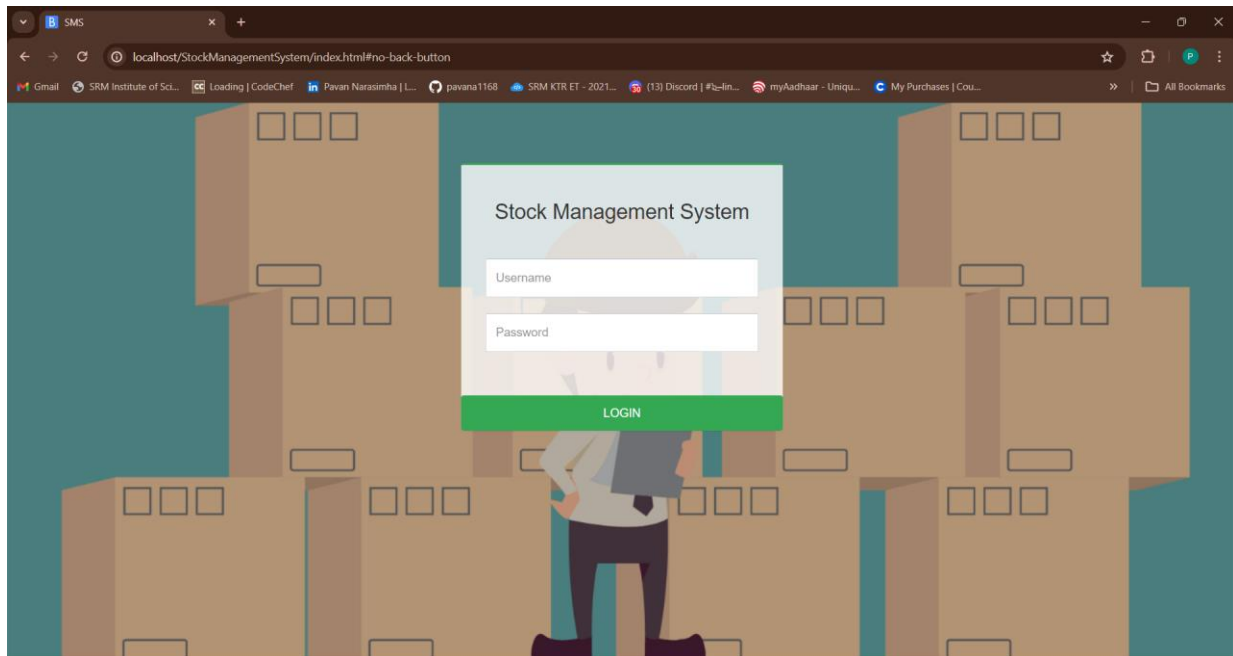
Database Tools and Features: IntelliJ offers various database-related tools and features such as database refactoring, schema and data comparison, and database version control integration. These tools help you manage and maintain your database schemas and data effectively.

Overall, IntelliJ IDEA provides comprehensive database connectivity features that streamline database-related development tasks and enhance developer productivity.

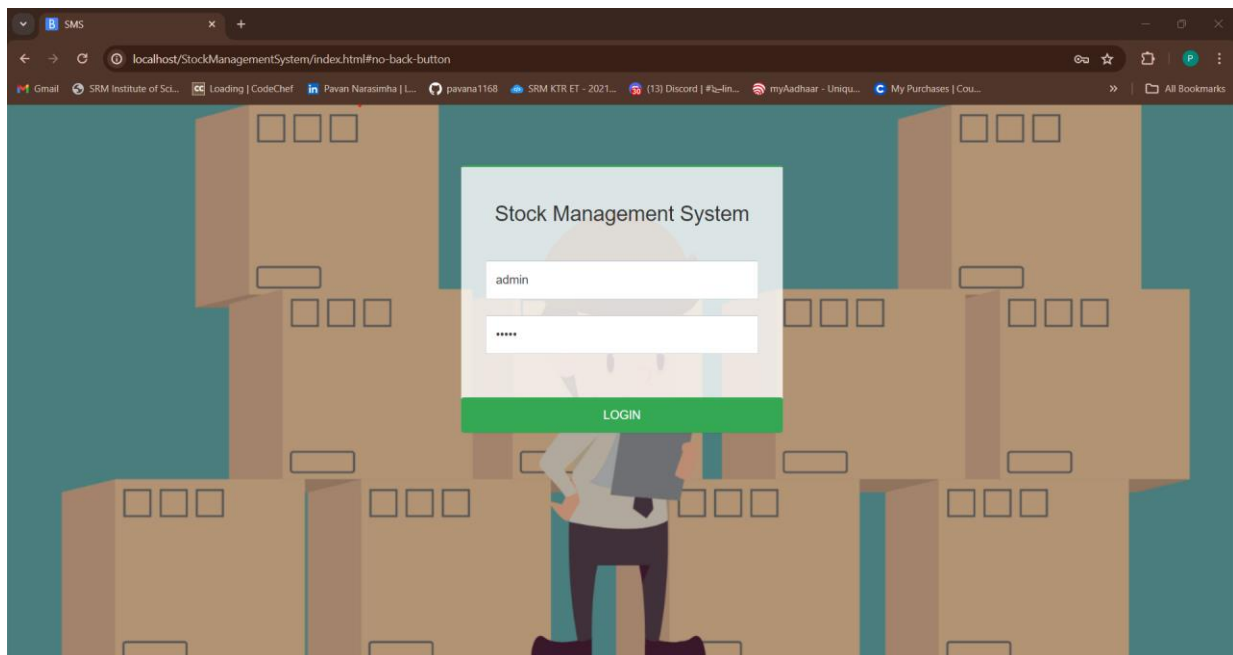
CHAPTER - 4

OUTPUT

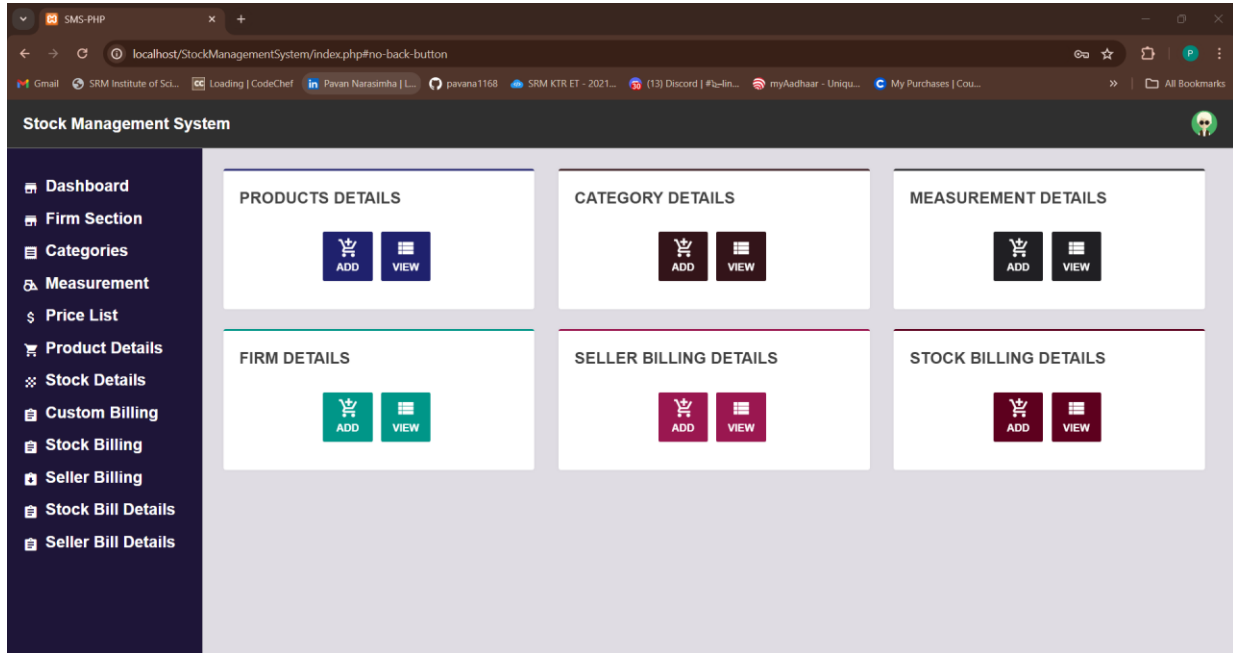
4.1 Home Page :



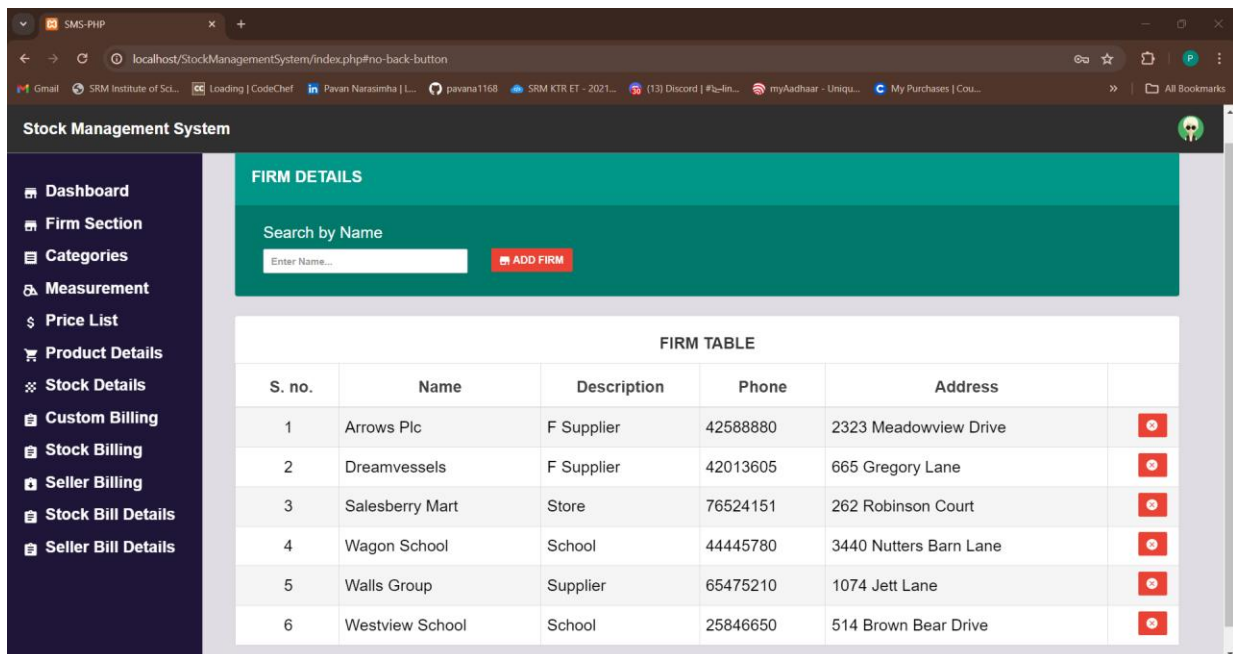
4.2 ADMIN LOGIN



4.3 ADMIN HOMEPAGE



4.3 Firm Section



4.4 : Categories

The screenshot displays the 'Stock Management System' interface. On the left is a dark sidebar with a menu containing: Dashboard, Firm Section, Categories, Measurement, Price List, Product Details, Stock Details, Custom Billing, Stock Billing, Seller Billing, Stock Bill Details, and Seller Bill Details. The main content area is titled 'CATEGORY DETAILS' and features two search fields: 'Search by Name' (with placeholder 'Enter Name...') and 'Search by Description' (with placeholder 'Enter description...'). To the right of these fields is a red 'ADD CATEGORY' button. Below the search fields is a 'CATEGORY TABLE' with the following data:

S. no.	Name	Description	
1	Belt	Belt	
2	Casual Shoes	Casual Shoes - Men	
3	Costume	Costume	
4	Full Shirt	Full Shirt	
5	Jeans Pant	Jeans - Male, Female	
6	Leather Jacket	Leather Jacket - Men And Women	

4.5 price list :

The screenshot displays the 'Stock Management System' interface with the 'PRICE LIST' section active. The sidebar menu is the same as in the previous screenshot. The main content area has a red header bar with the title 'PRICE LIST' and a dropdown menu set to 'Salesberry Mart'. Below the header is a table with the following data:

Costume	26	
	560/-	
Belt	L	XL
	85/-	85/-

4.6 PRODUCT DETAILS:

Stock Management System

PRODUCT DETAILS

Search by category: Search by Firm: [ADD PRODUCT](#)

PRODUCT TABLE

S. no.	Firm	Category	Type	Stock Price	Seller Price	CGST	IGST	SGST	Quantity	Status	Edit
1	Westview School	Belt	XXL	85	<input type="text" value="200"/>	0%	0%	0%	134	Available	EDIT
2	Salesberry Mart	Belt	XL	85	<input type="text" value="200"/>	0%	0%	0%	23	Available	EDIT
3	Salesberry Mart	Belt	L	85	<input type="text" value="200"/>	0%	0%	0%	40	Available	EDIT
4	Walls Group	Casual Shoes	39	890	<input type="text" value="2200"/>	2%	1%	1%	75	Available	EDIT
		Casual									

4.7 Stock billing :

Stock Management System

STOCK BILLING DETAILS

Search by Name: Search by Bill no.:

STOCK BILL DETAILS

#	Bill no.	Name	Total Amount	GSTIN	Transport Charge	Transport no.	Entry Date	
1	77	Mike Daniels	7280/-	<input type="text" value="69CAMRVL099N66Z"/>	<input type="text" value="500"/>	<input type="text" value="860100"/>	2021-04-30 13:38:30	View
2	76	Susan Rogers	2210/-	<input type="text" value="69CAMRVL096T02W"/>	<input type="text" value="150"/>	<input type="text" value="8600180"/>	2021-04-30 13:37:24	View
3	75	Christine	13130/-	<input type="text" value="69CAMRVL096TFW0"/>	<input type="text" value="390"/>	<input type="text" value="8600169"/>	2021-04-30 13:36:32	View
4	74	John Doe	8010/-	<input type="text" value="69CAMRVL096WW30"/>	<input type="text" value="690"/>	<input type="text" value="86001250"/>	2021-04-30 13:35:24	View

4.8 seller billing:

Stock Management System

SELLER BILLING DETAILS

Search by Name Search by Bill no.

SELLER BILL DETAILS

#	Bill no.	Name	Total Amount	GSTIN	Transport Charge	Transport no.	Entry Date	
1	20	Sue Waller	63000/-	80CRDRVL096S351	<input type="text" value="500"/>	78965433	2021-04-30 13:26:36	View
2	19	John Stewart	1960/-	80CRDRVL096S4Z2	<input type="text" value="200"/>	78965432	2021-04-30 08:02:58	View

4.9 Stock Billing :

Stock Management System

STOCK BILLING

Name : Tax :

#	Firm	Description	Size	Qty Req.	Rate	Amount
1	<input type="text" value="Arrows Pic"/>	<input type="text" value="Leather Jacket"/>	<input type="text" value="XL"/>	<input type="text" value="1"/>	<input type="text" value="2900"/>	<input type="text" value="2900"/> C:\xampp\htdocs\StockManagementSystem\add_row.php on line 46

Transport Charge : [+ ADD PRODUCT](#) [Print Bill](#)

Igneous Industries						
Bill No. : 78		M/S : Belt			Date : 2024-04-25 19:26:51	
S. No.	FIRM	DESCRIPTION	SIZE	QUANTITY	RATE	AMOUNT
1	Arrows Plc	Leather Jacket	XL	1	2900	2900
Rupees In Words : Two Thousand Nine Hundred & Fifty Only.					Total : 2950 /-	
GSTIN :		Transport Charge : 50			Transport no :	

4.10 ADDING NEW PRODUCT:

Stock Management System

Dashboard

Firm Section

Categories

Measurement

Price List

Product Details

Stock Details

Custom Billing

Stock Billing

Seller Billing

Stock Bill Details

Seller Bill Details

ADD NEW PRODUCT

PRODUCTS DETAILS

ADD

FIRM DETAILS

ADD

MEASUREMENT DETAILS

ADD

VIEW

STOCK BILLING DETAILS

ADD

VIEW

Select Firm

Arrows Plc

Choose Category

Casual Shoes

Choose Measurement

39

Price

1000

CGST(%)

5

IGST(%)

5

SGST(%)

5

Quantity

1

Cancel

Proceed

CHAPTER - 5

MODULES

1. Product Management Module:

- Add/Edit/Delete Products: Allows adding, updating, or removing products from the inventory.
- Product Categorization: Enables organizing products into categories for easier management and browsing.
- Product Pricing: Manages pricing details for each product, including discounts and special offers.
- Product Tax Configuration: Configures tax details applicable to each product, such as GST rates.

2. Billing Module:

- Bill Generation: Generates bills for customer transactions based on selected products.
- Tax Calculation: Calculates taxes (e.g., CGST, SGST, IGST) for each bill based on product and location.
- Payment Processing: Records payment details and updates transaction status upon successful payment.
- Bill Printing/Emailing: Provides options to print bills or send them via email to customers.

3. Inventory Management Module:

- Stock Tracking: Tracks product quantities in stock and updates inventory levels after each transaction.
- Replenishment Management: Generates alerts or notifications for low stock levels and facilitates replenishment orders.
- Inventory Reporting: Generates reports on inventory status, including stock levels, fast-moving items, and aging stock.

4. Customer Management Module:

- Customer Database: Maintains a database of customer information, including contact details and purchase history.
- Customer Loyalty Programs: Manages loyalty programs and rewards for repeat customers.
- Customer Feedback: Collects and manages customer feedback to improve service quality.

5. Supplier Management Module:

- **Supplier Database:** Stores supplier information, including contact details and product catalog.
- **Purchase Orders:** Generates and manages purchase orders for ordering stock from suppliers.
- **Supplier Payments:** Records payment details for supplier transactions and tracks payment status.

6. Reporting and Analytics Module:

- **Sales Reports:** Generates reports on sales performance, including revenue, profit margins, and product-wise sales.
- **Financial Reports:** Provides financial statements such as income statements, balance sheets, and cash flow statements.
- **Business Analytics:** Offers data analysis tools to identify trends, forecast demand, and make strategic decisions.

7. User Management and Security Module:

- **User Authentication:** Authenticates users and controls access to system features based on user roles and permissions.
- **Data Security:** Implements measures to ensure data integrity, confidentiality, and protection against unauthorized access.
- **Audit Trail:** Logs user activities and system events for traceability and accountability purposes.

CHAPTER - 6

APPLICATIONS

1. **Real-time Inventory Tracking:** Businesses can monitor stock levels in real-time, reducing the risk of stockouts and ensuring adequate inventory levels to meet demand.
2. **Order Fulfillment Optimization:** From order placement to picking, packing, and shipping, these applications streamline the order fulfillment process, leading to timely delivery and improved customer satisfaction.
3. **Supplier Relationship Management:** Stock management applications facilitate procurement processes by managing relationships with suppliers, communicating orders, and tracking incoming shipments, thus contributing to efficient supply chain management.
4. **Advanced Analytics and Forecasting:** Utilizing advanced analytics and forecasting techniques, these applications predict demand, optimize inventory planning, and minimize excess inventory, leading to improved inventory management efficiency.
5. **Compliance and Record-Keeping:** With features such as barcode and RFID integration, batch and expiry tracking, and multi-channel management, these applications help maintain accurate inventory records, comply with regulations, and ensure product quality and safety.

Overall, stock management applications empower businesses to enhance operational efficiency, minimize costs, and improve customer satisfaction by efficiently managing inventory throughout the supply chain.

CHAPTER - 7

CONCLUSION

Conclusion

While developing this project we have learnt a lot about HTML/CSS/JS/PHP/MySQL and working with database management, we have also learnt how to make the application user- friendly (easy to use and handle) by hiding the complicated parts of it from the users.

In conclusion, the billing and inventory management system is a comprehensive solution designed to streamline various aspects of retail operations. By integrating features such as product management, billing, inventory control, customer management, supplier management, reporting, and security, the system aims to enhance efficiency, accuracy, and customer satisfaction.

Through efficient product management, businesses can easily add, update, and categorize products while maintaining accurate pricing and tax information. The billing module facilitates smooth transaction processing, including bill generation, tax calculation, and payment management, ensuring a seamless checkout experience for customers. Meanwhile, the inventory management module helps businesses track stock levels, manage replenishment, and generate insightful reports to optimize inventory performance.

During the development process, we studied carefully and understood the criteria for making a software more demanding, we also realized the importance of maintaining a minimal margin for errors.

CHAPTER - 8

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 - This textbook provides comprehensive coverage of operations management principles, including chapters on inventory management and supply chain management.
2. Chopra, Sunil, and Peter Meindl. "Supply Chain Management: Strategy, Planning, and Operation." 7th ed., Pearson, 2021.
 - This book offers insights into supply chain management strategies, including chapters on inventory management techniques and technology.
3. Lambert, Douglas M., Martha C. Cooper, and Lisa M. Ellram. "Supply Chain Management: Processes, Partnerships, Performance." 2nd ed., Supply Chain Management Institute, 2010.
 - This comprehensive guide covers various aspects of supply chain management, including inventory management practices and performance measurement.