

Project Report On
Inventory Management System

Submitted By
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101150606- Project Work
BCA Semester - VI
(2023-24)

Submitted To

**S.G.M. English Medium College of Commerce and Management (SEMCOM)
CVM University**



CVM University

The Charutar Vidya Mandal University
S.G.M. English Medium College of Commerce and Management

(SEMCOM)
Vallabh Vidyanagar

Certificate

Date: 03/05/2024

This is to certify that **Nandini Niravkumar Shah** of BCA – SEM - VI (**Seat No. 6115155**) has worked on project entitled Inventory Management System from **22/12/2023** to **06/04/2024**. This (101150606- Project Work) is an in-house project course of 9 (Nine) credits.

She was regular in her/his work and developed the project including analysis and design. She has completed the project satisfactorily.

Principal

Project Guide

➤ **ACKNOWLEDGEMENT:**

The satisfaction that accompanies that the successful completion of any task would be incomplete without the mention of people whose cooperation made it possible, whose constant guidance and encouragement crown all efforts with success.

I am grateful to my project guide Dr. Mehul Patel for the guidance, inspiration and constructive suggestions that helped me in the preparation of this In-House Project.

I am also thankful to my colleagues who have helped me in successful completion of the project.

I hereby declare that this project work titled “**Inventory Management System**” is my original work and no part of it has been submitted for any other degree purpose or published in any other form till date.

INDEX

| Sr. No. | Description of Topic | Page No. |
|--------------------|-----------------------------|---------------------|
| 1 | Title Page of Project | |
| 2 | College Certificate | |
| 3 | Acknowledgement | |
| 4 | Index | 4 |
| 5 | Project Profile | 5 |
| 6 | An Existing System | 9 |
| 7 | Hardware and Software | 11 |
| 8 | Data Flow Diagram | 12 |
| 9 | Database Layout | 17 |
| 10 | Screens | 20 |
| 11 | Limitation | 41 |
| 12 | Conclusion | 42 |
| 13 | Bibliography | 43 |

Project Profile

➤ Introduction

- Inventories are an integral part of business operations, representing the goods and materials a company holds for production, distribution, or sale. Efficient inventory management is crucial for maintaining a balance between supply and demand, reducing costs, and ensuring customer satisfaction.
- **Meaning of Inventory**
 - Inventory refers to the stock of goods and materials held by a business for the purpose of production, distribution, or sale. It includes raw materials, work-in-progress, and finished goods. Proper inventory management involves the careful monitoring and control of these stocks to optimize business operations.
- **Types of Inventories**
 - Raw materials: Items used in the production process, such as components, parts, and ingredients.
 - Work-in-progress: Goods that are in the process of being manufactured or assembled but are not yet completed.
 - Finished goods: Products those are ready for sale to customers.
 - Merchandise inventory: Inventory held by retailers for sale to customers.
- **Locations for Inventory Operations**
 - Warehouses: Large storage facilities where goods are stored before distribution.
 - Distribution centers: Facilities that receive, store, and distribute products to customers or other locations.
 - Retail stores: Physical locations where goods are displayed and sold to consumers.
 - Manufacturing plants: Facilities where raw materials are transformed into finished goods.
 - E-commerce fulfilment centers: Warehouses or distribution centers specialized in processing online orders and shipping directly to customers.

➤ **Inventory Management Systems**

- Manual inventory management: Traditional method involving manual tracking and recording of inventory levels.
- Just-In-Time (JIT) inventory system: Strategy aimed at minimizing inventory levels by receiving goods only when needed in the production process.
- ABC analysis: Method of categorizing inventory items based on their value and importance.
- EOQ (Economic Order Quantity): Formula used to calculate the optimal order quantity that minimizes total inventory costs.
- Inventory control software: Advanced software solutions such as ERP systems (Enterprise Resource Planning), WMS (Warehouse Management Systems), and IMS (Inventory Management Systems) that streamline inventory management processes.

➤ **Challenges in Inventory Management**

- Overstocking: Holding excess inventory can tie up capital and lead to increased holding costs.
- Stock outs: Inadequate inventory levels can result in missed sales opportunities and dissatisfied customers.
- Seasonal fluctuations: Demand for certain products may vary seasonally, making accurate forecasting challenging.
- Forecasting inaccuracies: Uncertainty in demand forecasts can lead to inventory imbalances and excess or insufficient stock levels.
- Inventory shrinkage: Loss of inventory due to theft, damage, or administrative errors can impact profitability.

- Best Practices for Inventory Management
 - Regular inventory audits: Conducting periodic audits to verify physical inventory levels and reconcile discrepancies.
 - Demand forecasting: Using historical data, market trends, and predictive analytics to forecast future demand accurately.
 - Supply chain collaboration: Collaborating with suppliers and partners to improve inventory visibility, lead times, and order fulfillment.
 - Safety stock management: Maintaining buffer stock to mitigate the risk of stockouts and unexpected demand fluctuations.
 - Vendor management: Establishing strong relationships with suppliers to ensure timely deliveries, quality control, and favourable terms.

- Future Trends in Inventory Management
 - Automation: Continued adoption of automation technologies such as robotics and AI for streamlining inventory processes and improving accuracy.
 - Data analytics: Increasing use of advanced analytics and machine learning algorithms for demand forecasting, inventory optimization, and decision support.
 - Omni-channel integration: Integration of inventory systems across multiple sales channels (e.g., online, offline, mobile) to provide a seamless shopping experience for customers.
 - Sustainability: Growing emphasis on sustainable practices in inventory management, including eco-friendly packaging, waste reduction, and carbon footprint reduction.

➤ **Need of Project:**

- **Accessibility and Convenience:** Inventory Management System provides easy access for manager and employees. Also there is online website for users who want to see the availability of products, etc. Also there is physical store for customers who want to visit the store and purchase.
- **Streamlined Process:** Traditional paper-based admission processes are often cumbersome, time-consuming, and prone to errors. By transitioning to an online system, store can streamline the process; reduce paperwork, manual data entry, and administrative overhead. This streamlining leads to faster processing times, improved efficiency, and better resource utilization.
- **Data Accuracy and Security:** Manual data entry and handling of paper documents increase the risk of errors, loss, or unauthorized access to sensitive information. Inventory Management System ensures data accuracy and security by centralizing all applicant information in a secure digital environment. User authentication and access control mechanisms enhance data security and compliance with privacy regulations.
- **Cost reduction:** Efficient inventory management helps minimize holding costs, storage expenses, and the risk of obsolescence.
- **Improved customer service:** Maintaining optimal inventory levels ensures timely fulfillment of customer orders, leading to higher satisfaction levels.
- **Efficient production planning:** Accurate inventory data enables better production scheduling and resource allocation.
- **Better decision-making:** Real-time visibility into inventory levels and trends allows for informed decision-making regarding purchasing, pricing, and promotions.
- **Inventory turnover ratio:** Measure of how quickly inventory is sold or used within a specific time period, indicating the efficiency of inventory management.

Existing System

- This is an offline system – paper-based system. In which there is so much difficulties like,
 - Manual on paper entries for every process
 - Storing of that data for future purpose
 - For Making Decisions from past data
 - Difficulty in Managing because admin had to take care of each detail, data, etc.
- In Existing System, there is a heavy work load on shop manager or shopkeeper, they have to take care of each data which is on paper also they have to take decision keeping all the data in their mind.
- It might be possible that the management might face problems while doing all the tasks with their own.
- It is also more costly because shop has to acquire good management team – group of people also for storing of data it requires, more stationary which made more expenses for shop.
- It takes too much time for each process like bill entries, inventory management.
- Also, preserving of all these data which is in paper form, it is also a headache task.
- Existing system is dependent on manual works, employee or person has to write and has to memorise all data all the time.
- There must be redundancy in human work. It wastes time, also extra human power consumed; also there is increase of paper wastage.
- Manager has to go through with each record in order to make decisions for future of the game zone, it is very time consuming, boring and headache task in order to do so first manager must assembles all the past data according to duration then using its own methods and mind, he then can take decision which is not appropriate approach.
- In against, proposed system is easy to use and implement, task of accessing data and taking decisions also becomes easier and automatic with more efficiency.
- Existing system is slow, it has many drawbacks and it has less efficiency.

Proposed System

➤ The main goal of the system is to ease the work of employees and manager with improved performance and realize the vision of paperless admission. Some of the goals of the system are listed below:

- Manage large number of customer details.
- Manage all details of store.
- View all the details of the customers, products, sellers, employees, etc.
- Reduce the work load by using application instead of paper-based.
- Activities like updating, modification, deletion of records should be easier.
- Efficient Product Management
- Enhanced Shopping Experience
- Data-driven Insights
- Convenience and Time-saving

Hardware and Software

➤ Hardware:

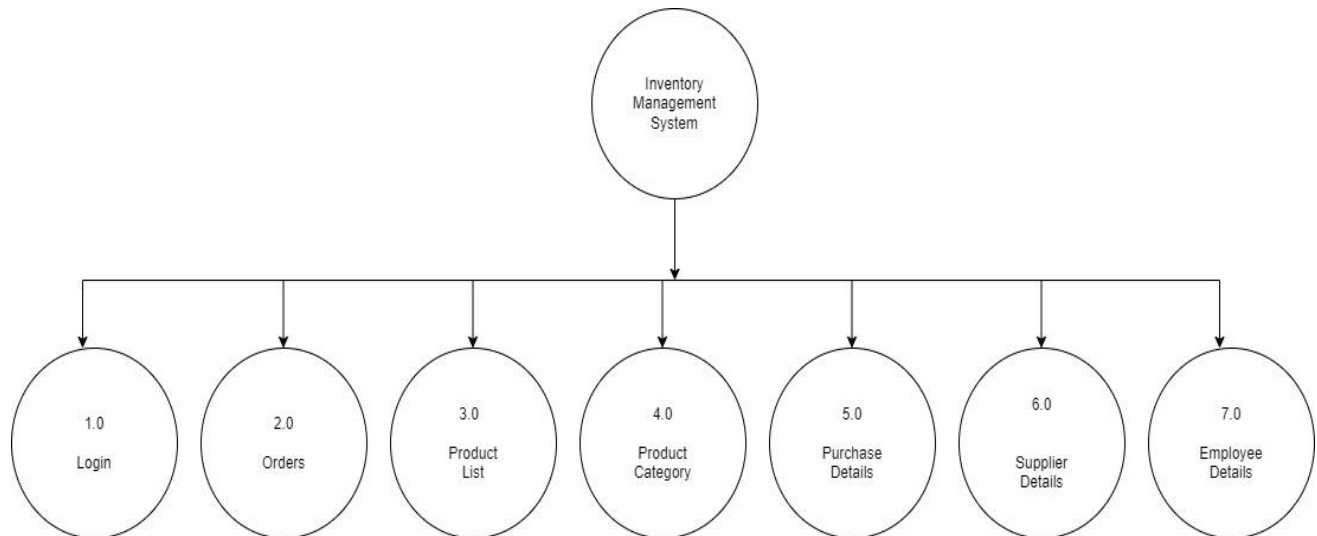
- Operating System:
 - Windows 10 or macOS or Android . Both Windows and macOS provide robust support for modern web browsers like Chrome, ensuring compatibility with the web application.
- Web Browser:
 - Latest version of Google Chrome, Mozilla Firefox, or Microsoft Edge.
 - These browsers offer excellent performance, compatibility, and security features, enhancing the user experience while accessing the web application.

➤ Software:

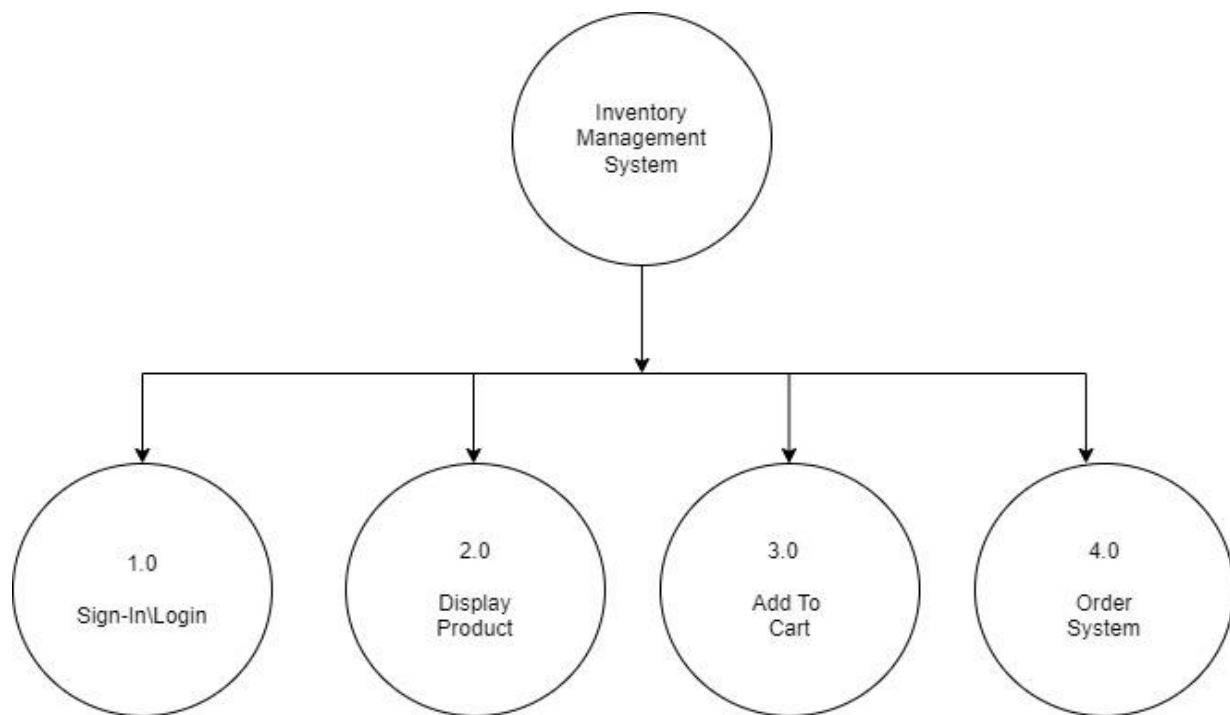
- Tools/Technologies/Software
 - Microsoft Visual Web Developer 2010 Express
- For Designing, Validation of Data, Database connection
 - Front-end:- ASP.NET with C#
 - Back-end:-SQL Server

Data Flow Diagram:

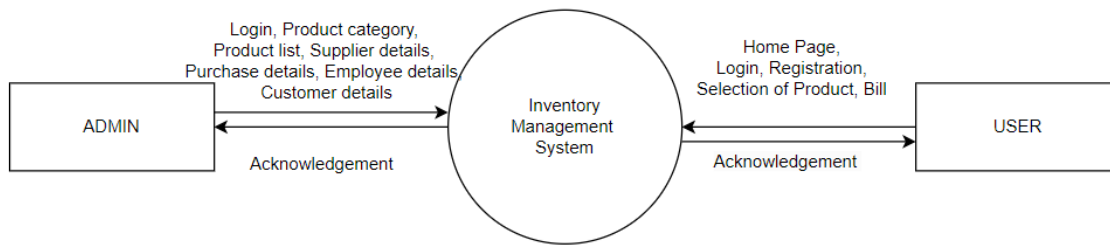
➤ Process Hierarchy (Admin Side)



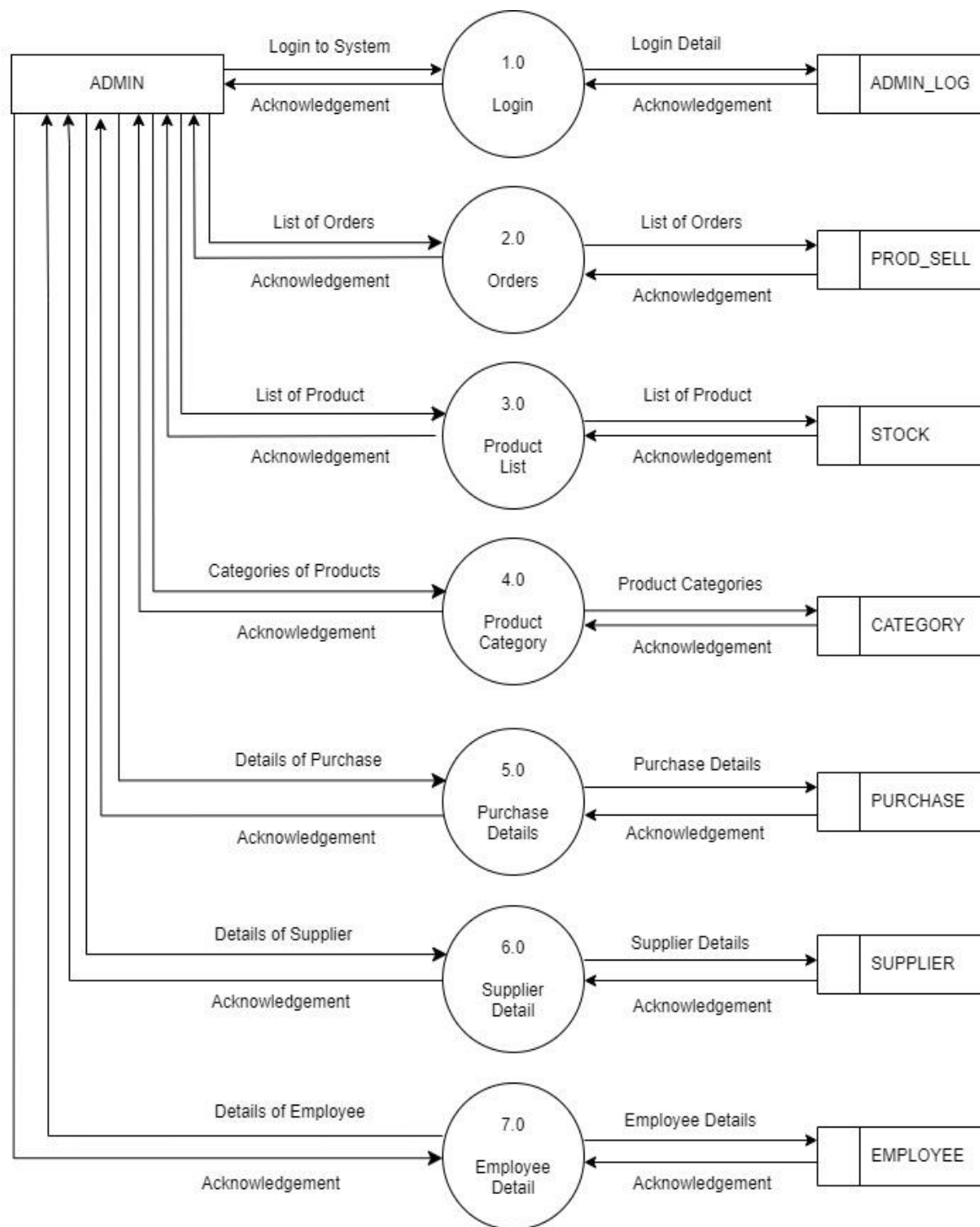
➤ Process Hierarchy (User Side)



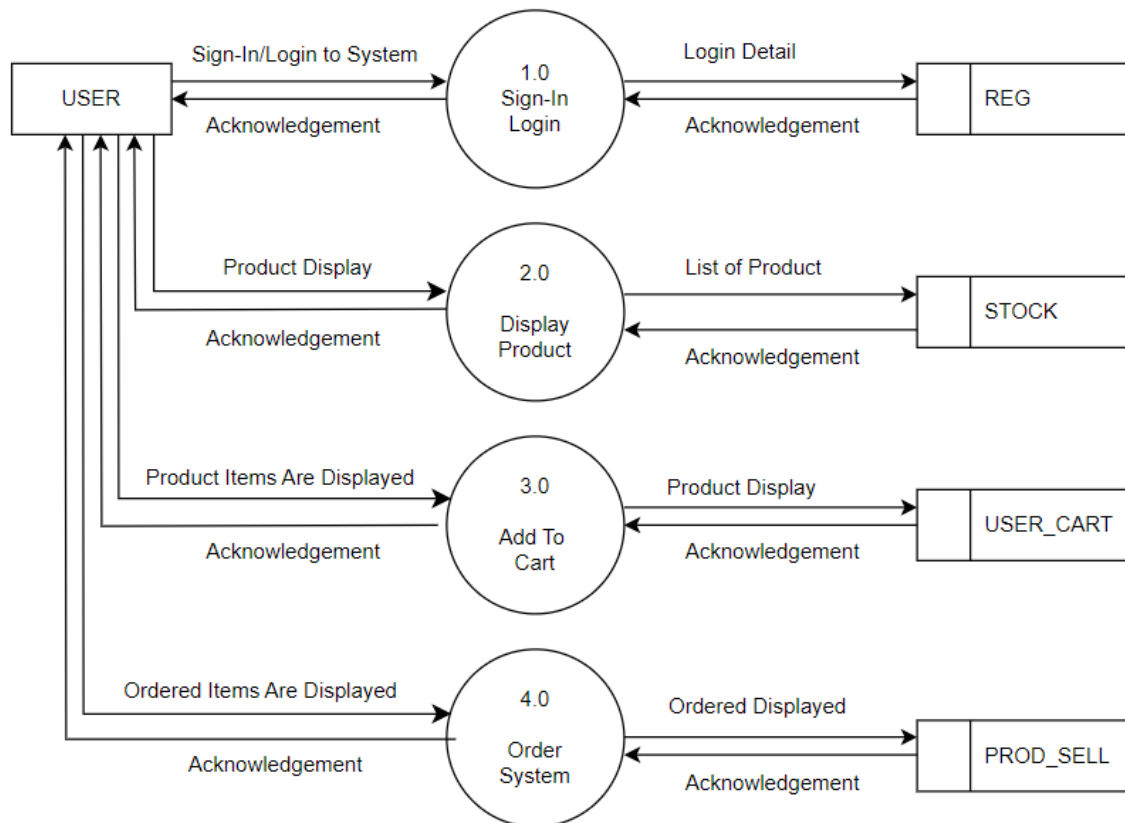
➤ Context Level DFD



➤ Zero Level DFD(Admin Side)



➤ Zero Level DFD(User Side)



Database Layout:

➤ admin_log

| Column Name | Data Type |
|-------------|-------------|
| email | varchar(50) |
| password | varchar(25) |

➤ Category_type

| Column Name | Data Type | |
|-------------|-------------|-------------|
| c_id | int | Primary Key |
| c_name | varchar(15) | |
| c_img | varchar(50) | |

➤ Employee

| Column Name | Data Type | |
|-------------|--------------|--|
| emp_id | int | Primary Key |
| emp_name | varchar(15) | |
| emp_cat | varchar(10) | Foreign Key, Related to Category Table |
| emp_email | nvarchar(20) | |
| emp_pass | int | |

➤ prod_sell

| Column Name | Data Type | Allow Null | |
|----------------|-------------|------------|-------------|
| sel_id | int | | Primary Key |
| sel_user_email | int | | |
| sel_p_id | int | | |
| sel_p_quan | int | | |
| sel_price | varchar(40) | | |
| sel_date | date | ➤ | |

➤ purchase

| Column Name | Data Type | |
|-------------|-------------|--|
| pid | int | Primary Key |
| p_name | varchar(20) | |
| p_cat | varchar(30) | Foreign Key, Related to Category Table |
| p_sel_id | int | Foreign Key, Related to Seller Table |
| p_price | int | |
| p_quantity | int | |
| pur_date | date | |

➤ reg(for sign-up)

| Column Name | Data Type |
|---------------|--------------|
| first_name | varchar(20) |
| last_name | varchar(20) |
| email | nvarchar(50) |
| password | int |
| conf_password | int |

➤ stock

| Column Name | Data Type | |
|-------------|-------------|-------------|
| prod_id | int | Primary Key |
| prod_name | varchar(20) | |
| prod_cat | varchar(20) | |
| prod_img | varchar(50) | |
| prod_quan | int | |
| prod_price | int | |

➤ Supplier

| Column Name | Data Type | |
|-------------|--------------|-------------|
| s_id | int | Primary Key |
| s_name | varchar(20) | |
| s_email | nvarchar(20) | |
| s_mno | nvarchar(10) | |
| s_address | nvarchar(40) | |

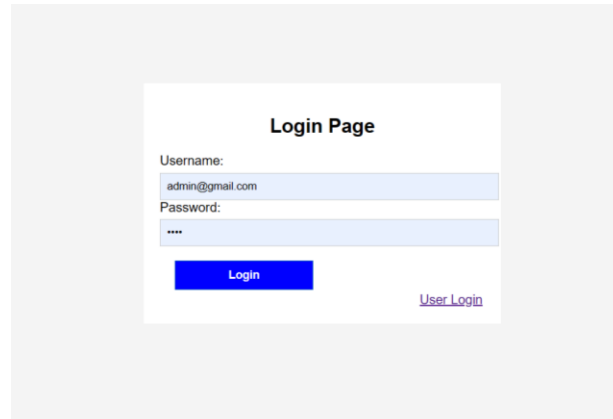
➤ user_cart

| Column Name | Data Type | |
|-----------------|-------------|--|
| cart_user_email | varchar(40) | |
| cart_prod_id | int | |
| cart_quan | int | |
| cart_price | int | |

Screens

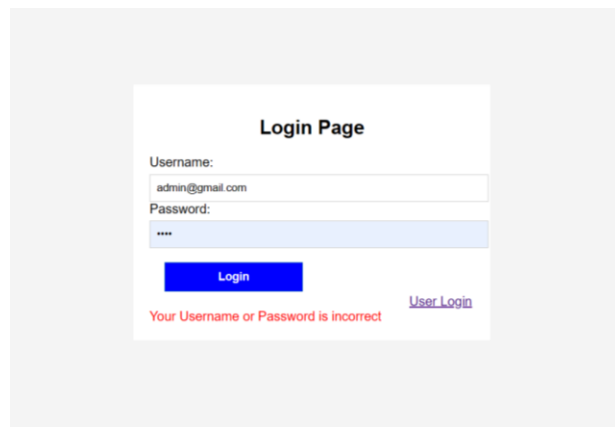
(Admin Side)

➤ Admin Login



A screenshot of a web application's admin login page. The page has a light gray background. In the center, there is a white rectangular box titled "Login Page". Inside this box, there are two input fields: "Username:" with the value "admin@gmail.com" and "Password:" with four asterisks. Below the password field is a blue button labeled "Login". To the right of the "Login" button, there is a link labeled "User Login" in purple text.

- This is admin login. Where the admin login to admin@gmail.com to operate to the system.



A screenshot of the same admin login page as above, but with an error message. The "Username:" field now contains "admin@gmail.com" and the "Password:" field contains four asterisks. Below the "Login" button, there is a red error message that reads "Your Username or Password is incorrect". The "User Login" link is still present in purple text to the right of the error message.

- To login to the account the correct username and password is to be input. If you input wrong username or password then it shows with red colour that “Your Username or Password is incorrect.”

➤ Product Details Page

The Food Emporium
Orders
Product
Category
Purchase
Supplier
Employee

Product Details

Product ID
3

Product Name
e.g. Banana


Product Category
--Select Option --

Product Image
Choose File No file chosen



Product Quantity

Product Price

Edit Save Delete



Manage Products

| ID | Name | Category | Image | Quantity | Price |
|----------|--------|----------|--|----------|-------|
| Select 1 | Apple | Fruit |  | 0 | 100 |
| Select 2 | Banana | Fruit |  | 0 | 5 |

- In this Product page the name of the product is to be inputted.
- ID is auto incremented.
- Name of the product is displayed.
- Category dropdown option is given so from their product category is to be selected.
- Image of the product is to be choose from the gallery
- Product quantity will be 0 by default because it is increment when the product is purchased.
- The price of product is to be inputted (price of 1 piece).
- Then there are Edit, Save, and Delete options given to edit, save or delete.

The Food Emporium

Orders
Product
Category
Purchase
Supplier
Employee

Product Details

Product ID

3

Product Name

e.g. Banana

Product Category

--Select Option --

Product Image

Choose File

No file chosen

Product Quantity


Product Price

Name,Category,Image,Quantity,Price Required



Edit

Save

Delete



Manage Products

| ID | Name | Category | Image | Quantity | Price |
|----------|--------|----------|---|----------|-------|
| Select 1 | Apple | Fruit |  | 0 | 100 |
| Select 2 | Banana | Fruit |  | 0 | 5 |

- It is compulsory to fill each and every detail. If you skip any detail then there will be required message displayed at the end of the details with the red colour font as shown in the above picture.

➤ Categories Page

The Food Emporium

OrdersProductCategoryPurchaseSupplierEmployee


Categories

Category ID
2


Category Name

Category Image
Choose File No file chosen

EditSaveDelete



Manage Products

| c_id | c_name | Image |
|----------|--------|--|
| Select 1 | Fruit |  |

- In this Category page, we can add update or delete any category name.
- Category id is auto incremented.
- Category Name we have to add.
- Category Image we have to upload an image of a category we want to add.

The Food Emporium

Orders
Product
Category
Purchase
Supplier
Employee

Categories

Category ID

3

Category Name

Category Image


Choose File

No file chosen



Edit

Save

Delete



Manage Products

| c_id | c_name | Image |
|----------|------------|--|
| Select 1 | Fruit |  |
| Select 2 | Vegetables |  |

- As we can see the above image we can add any category we want to by filling up the textbox and then by clicking on save button.

The Food Emporium

Orders
Product
Category
Purchase
Supplier
Employee

Categories

Category ID

3

Category Name

Name,Image Required

Category Image


Choose File

No file chosen



Edit

Save

Delete



Manage Products

| c_id | c_name | Image |
|----------|------------|--|
| Select 1 | Fruit |  |
| Select 2 | Vegetables |  |

- It is compulsory to fill each and every detail. If you skip any detail then there will be required message displayed at the end of the details with the red colour font as shown in the above picture.

➤ Purchase Detail Page

The Food Emporium

OrdersProductCategoryPurchaseSupplierEmployee

Purchase Details

Product ID

6

Product Name

--Select Option --

Product Category

--Select Option --

Supplier

--Select Option --

Product Price


e.g. 120

Product Quantity

e.g. 2

Purchase Date

04/04/2024



Manage Purchase

| ID | Name | Category | Seller ID | Price | Quantity | Purchase Date |
|----------|------------|------------|-----------|-------|----------|---------------|
| Select 1 | Apples | Fruit | 1 | 150 | 5 | 02-03-2024 |
| Select 3 | Banana | Fruit | 1 | 15 | 2 | 04-04-2024 |
| Select 4 | Strawberry | Fruit | 2 | 100 | 3 | 04-04-2024 |
| Select 5 | Tomato | Vegetables | 1 | 10 | 3 | 05-04-2024 |

- In Purchase details page, we can add, update and delete operations.
- Product ID is auto incremented.
- Product Name is to be selected from the Dropdown list; names are added to this dropdown list from the purchase page.
- Product Category is also be selected from dropdown list whose names are added from Category Page.
- Product Supplier is also be selected from dropdown list whose names are added from Supplier Page.
- In Product Price of the product is to be input as per item.
- In Product Quantity the quantity of the product has to be input as per needed.
- In Purchase date the date of purchase is to be inputted.

Purchase Details

Product ID
5

Product Name
Tomato

--Select Option --
Apple
Banana
Strawberry
Tomato
Carrot

Product Price
10

Product Quantity
3

Purchase Date
05/04/2024



Manage Purchase

| | ID | Name | Category | Seller ID | Price | Quantity | Purchase_Date |
|--------|----|------------|------------|-----------|-------|----------|---------------|
| Select | 1 | Apples | Fruit | 1 | 150 | 5 | 02-03-2024 |
| Select | 3 | Banana | Fruit | 1 | 15 | 2 | 04-04-2024 |
| Select | 4 | Strawberry | Fruit | 2 | 100 | 2 | 04-04-2024 |
| Select | 5 | Tomato | Vegetables | 1 | 10 | 3 | 05-04-2024 |

- As it is seen there are options in a dropdown from which the item/product is to be selected.

Purchase Details

Product ID
6

Product Name
--Select Option --

Product Category
--Select Option --

Supplier
--Select Option --

Product Price
e.g. 120

Product Quantity
e.g. 2

Purchase Date
05/04/2024



Manage Purchase

| | ID | Name | Category | Seller ID | Price | Quantity | Purchase_Date |
|--------|----|------------|------------|-----------|-------|----------|---------------|
| Select | 1 | Apples | Fruit | 1 | 150 | 5 | 02-03-2024 |
| Select | 3 | Banana | Fruit | 1 | 15 | 2 | 04-04-2024 |
| Select | 4 | Strawberry | Fruit | 2 | 100 | 2 | 04-04-2024 |
| Select | 5 | Tomato | Vegetables | 1 | 10 | 2 | 04-05-2024 |

Name,Category,Seller,Price,Quantity Required

Edit Save Delete

- It is compulsory to fill each and every detail. If you skip any detail then there will be required message displayed at the end of the details with the red colour font as shown in the above picture.

➤ Supplier Details:

The Food Emporium

OrdersProductCategoryPurchaseSupplierEmployee

Supplier Details

Supplier ID

3

Supplier Name

Supplier Email


Supplier Mobile Number

Supplier Address

Edit

Save

Delete



Manage Products

| | s_id | s_name | s_email | s_mno | s_address |
|----------|------|------------------|--------------------|------------|-----------|
| Select 1 | | Karamsad Grocery | karamsad@gmail.com | 9685741230 | Anand |
| Select 2 | | Gajanand | gajanand@gmail.com | 9874561597 | Anand |

- In this Supplier page, we can add update or delete any category name.
- Supplier ID is auto incremented.
- Supplier Name we have to add.
- Supplier Email is to be added.
- Supplier Mobile number is to be added.
- Supplier Address is also to be added in Supplier Details Page.

Supplier Details

Supplier ID

3

Supplier Name

Supplier Email

Supplier Mobile Number

Supplier Address

Name,Email,Mobile Number,Address Required

Edit

Save

Delete



Manage Products

| | s_id | s_name | s_email | s_mno | s_address |
|----------|------|------------------|--------------------|------------|-----------|
| Select 1 | | Karamsad Grocery | karamsad@gmail.com | 9685741230 | Anand |
| Select 2 | | Gajanand | gajanand@gmail.com | 9874561597 | Anand |

- It is compulsory to fill each and every detail. If you skip any detail then there will be required message displayed at the end of the details with the red colour font as shown in the above picture.

➤ Employee Details:

The Food Emporium

OrdersProductCategoryPurchaseSupplierEmployee

Employee Details

Employee ID

3

Employee Name

Employee Category

--Select Option --


Employee Email

Employee Password

Edit

Save

Delete



Manage Products

| emp_id | emp_name | emp_cat | emp_email | emp_pass |
|----------|--------------|------------|------------------|----------|
| Select 1 | Kartik Patel | Fruit | kartik@gmail.com | 1010 |
| Select 2 | Sunny Copra | Vegetables | sc@gmail.com | 1111 |

- In Employee details page, we can add, update and delete operations.
- Employee ID is auto incremented.
- Employee Name is to be added.
- Employee Category is also be selected from dropdown list whose names are added from Category Page.
- Employee Email is to be added.
- Employee Password is be inputted in numbers.

Employee Details

Employee ID
3

Employee Name

Employee Category
--Select Option --

Employee Email

Employee Password

Name,Email,Password Required



Manage Products

| emp_id | emp_name | emp_cat | emp_email | emp_pass |
|----------|--------------|------------|------------------|----------|
| Select 1 | Kartik Patel | Fruit | kartik@gmail.com | 1010 |
| Select 2 | Sunny Copra | Vegetables | sc@gmail.com | 1111 |

- It is compulsory to fill each and every detail. If you skip any detail then there will be required message displayed at the end of the details with the red colour font as shown in the above picture.

➤ Orders Page:

| | | | | | | |
|-------------------|--------|---------|----------|----------|----------|----------|
| The Food Emporium | Orders | Product | Category | Purchase | Supplier | Employee |
|-------------------|--------|---------|----------|----------|----------|----------|

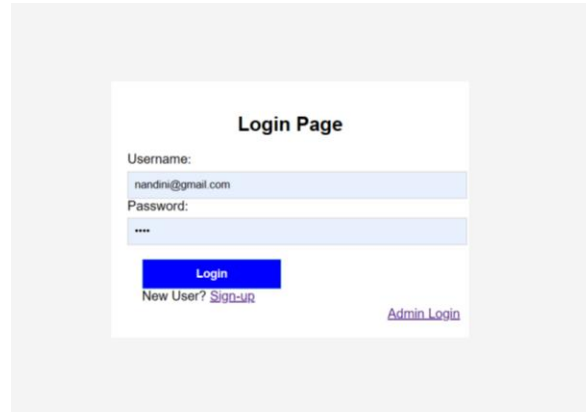
Orders

| Name | Email | Product Image | Product Name | Product Category | Quantity | Price | Sell Date |
|---------|-------------------|---|--------------|------------------|----------|-------|------------|
| Nandini | nandini@gmail.com |  | Apple | Fruit | 1 | 50 | |
| Nandini | nandini@gmail.com |  | Apple | Fruit | 1 | 50 | |
| Nandini | nandini@gmail.com |  | Apple | Fruit | 1 | 50 | 03-03-2024 |
| Nandini | nandini@gmail.com |  | Apple | Fruit | 1 | 50 | 03-03-2024 |
| Nandini | nandini@gmail.com |  | Strawberry | Fruit | 2 | 50 | 04-04-2024 |

➤ In orders page, the orders are displayed which are brought by users from user-cart page.

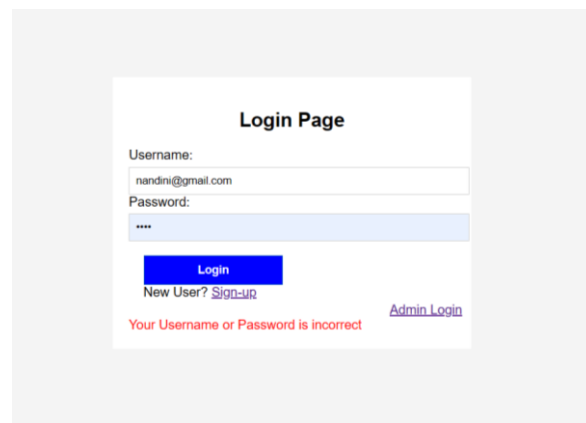
➤ **USER SIDE:**

➤ User side:



A screenshot of a web application's login page. The page has a white background with a light gray border. At the top, the title "Login Page" is centered. Below the title, there are two input fields: "Username:" with the value "nandini@gmail.com" and "Password:" with four asterisks. A blue "Login" button is positioned below the password field. Under the button, there is a link "New User? Sign-up" and another link "Admin Login" to the right.

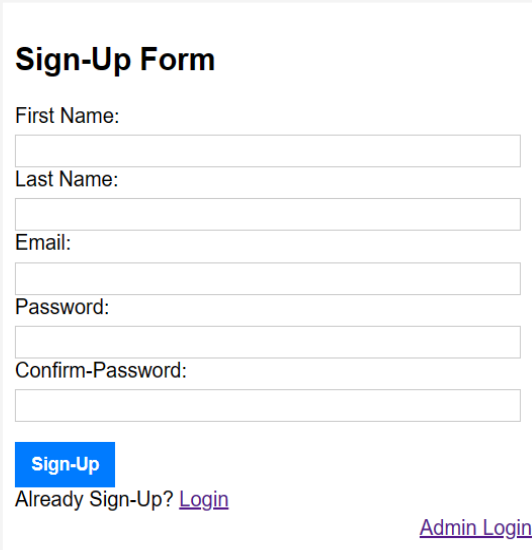
➤ To login to user side the correct user id and password is to be inputted.



A screenshot of the same login page as above, but with an error message. The "Username:" field contains "nandini@gmail.com" and the "Password:" field contains four asterisks. The blue "Login" button is still present. Below the button, the error message "Your Username or Password is incorrect" is displayed in red text. The links "New User? Sign-up" and "Admin Login" are also visible.

➤ To login to the account the correct username and password is to be input. If you input wrong username or password then it shows with red colour that “Your Username or Password is incorrect.”

➤ Sign-Up Form:



Sign-Up Form

First Name:

Last Name:

Email:

Password:

Confirm-Password:

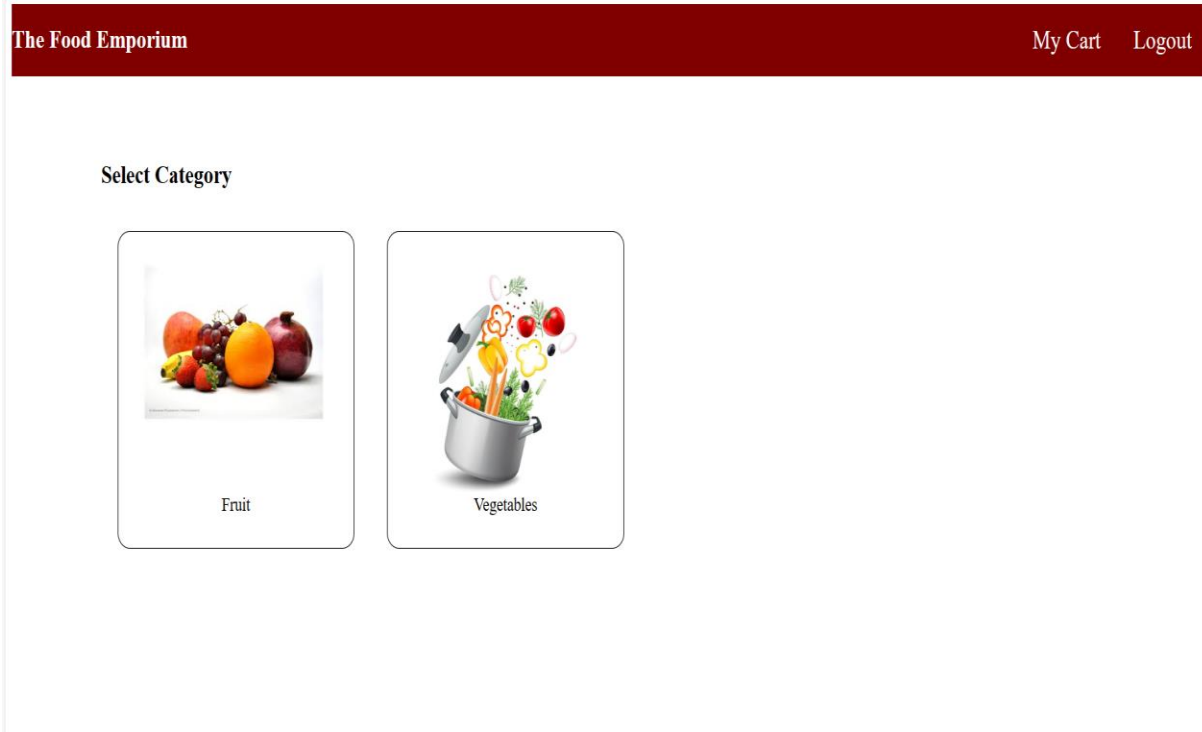
[Sign-Up](#)

Already Sign-Up? [Login](#)

[Admin Login](#)

- Registration form is for those who haven't registered.
- Once the registration is done by filling every detail like First Name, Last Name, Email, Password and Confirm Password.

- Display Category:




- This is the page where the categories are displayed and by selecting the categories the product items are displayed.


➤ Product List:

The Food EmporiumMy CartLogout


Product Details



Apple
Available Quantity : 10
Price : ₹100
Your Ask :
Add To Cart



Banana
Available Quantity : 5
Price : ₹5
Your Ask :
***Out Of Stock**
Add To Cart



Strawberry
Available Quantity : 5
Price : ₹50
Your Ask :
Add To Cart

End Of List

- As seen here the fruit category is selected so all the fruits which are there in stock is displayed here.



Product Details

| | | |
|---|---|---|
|  <p>Apple Available Quantity : 0 Price : ₹100 Your Order : <input type="text"/> <input type="button" value="Add To Cart"/></p> |  <p>Banana Available Quantity : 0 Price : ₹5 Your Order : <input type="text" value="1"/> *Out Of Stock <input type="button" value="Add To Cart"/></p> |  <p>Strawberry Available Quantity : 0 Price : ₹50 Your Order : <input type="text"/> <input type="button" value="Add To Cart"/></p> |
|---|---|---|

End Of List

- As there is 0 items means there is so stock available so if you select it and add it to cart it will show *Out of stock.




Product Details

| | |
|---|---|
|  |  |
| Tomato | Carrot |
| Available Quantity : 0 | Available Quantity : 0 |
| Price : ₹10 | Price : ₹10 |
| Your Order : <input type="text"/> | Your Order : <input type="text"/> |
| <input type="button" value="Add To Cart"/> | <input type="button" value="Add To Cart"/> |

End Of List

- As seen here the fruit category is selected so all the fruits which are there in stock is displayed here.

Product Details

| | | |
|--|--|--|
|  Apple Available Quantity : 10 Price : ₹100 Your Ask : <input type="text" value="1"/> Remove From Cart |  Banana Available Quantity : 5 Price : ₹5 Your Ask : <input type="text" value="3"/> Remove From Cart |  Strawberry Available Quantity : 5 Price : ₹50 Your Ask : <input type="text"/> Add To Cart |
|--|--|--|

End Of List

- After selecting the product by clicking on, add to cart the items are added to cart.

➤ My Cart Page:

My Cart

| Id | Image | Name | Category | Quantity | Price | | |
|----|---|--------|----------|----------|-------|------------------------------------|---------------------------------------|
| 2 |  | Banana | Fruit | 3 | 5 | <input type="button" value="Buy"/> | <input type="button" value="Remove"/> |
| 1 |  | Apple | Fruit | 1 | 100 | <input type="button" value="Buy"/> | <input type="button" value="Remove"/> |

- In this page to confirm the product that customer wants to buy or remove options are given.

Limitations

- **Verification of Product Images:** Ensuring the authenticity and quality of product images uploaded by sellers may pose a challenge, potentially leading to discrepancies between displayed images and actual products received by customers.
- **Compatibility Issues:** Older versions of Visual Web Developer may lack compatibility with newer technologies and libraries, limiting the ability to leverage the latest features and optimizations available in modern web development.
- **Security Vulnerabilities:** Out-dated development tools and frameworks may not receive regular security updates, exposing the system to potential vulnerabilities and threats.
- **Performance Limitations:** Older versions of development environments and frameworks may have performance limitations or inefficiencies that could impact the scalability and responsiveness of the e-marketplace platform, especially as the user base grows.
- **Limited Language Features:** Older versions of ASP.NET or C# may lack support for newer language features and constructs, hindering the ability to write efficient and maintainable code.
- **Reduced Community Support:** With newer versions of development tools and frameworks being more commonly used, there may be reduced community support and resources available for troubleshooting issues or seeking guidance on development challenges.

Conclusion

- Understanding of ASP.NET and C#: Developing this project has likely deepened your understanding of ASP.NET framework and C# programming language, enabling you to effectively implement various features and functionalities within the platform.
- Practical Application of Visual Web Developer: Working with Visual Web Developer 2010 has provided hands-on experience in using an integrated development environment (IDE) for web development, enhancing your proficiency in building web applications.
- Knowledge of Database Management: Creating a multi-seller e-commerce platform involves database management for storing and retrieving product listings, user information, and order details. This experience likely improved your understanding of database design and management.
- User Interface Design and User Experience: Designing the customer and seller dashboards, implementing filters, and optimizing the user experience have honed your skills in user interface design and usability, ensuring a seamless and intuitive browsing experience for users.
- Security Considerations: Implementing user authentication, managing sensitive user data, and safeguarding against security vulnerabilities have increased your awareness of security best practices in web development.
- Product Management and Order Processing: Developing features for sellers to manage product listings and orders, as well as implementing order processing and cart functionality for users, has provided insights into the complexities of e-commerce platforms and transaction management.

- Problem-solving and Troubleshooting: Overcoming challenges and debugging issues encountered during the development process has sharpened your problem-solving and troubleshooting skills, equipping you with valuable techniques for resolving technical issues.
- Project Management and Time Management: Planning, organizing, and executing the project within specified timelines has enhanced your project management and time management skills, demonstrating your ability to deliver results within constraints.
- Continuous Learning and Growth: Lastly, embarking on this project has emphasized the importance of continuous learning and growth in the field of web development, encouraging you to stay updated on emerging technologies and best practices to further improve your skills and expertise.
- In conclusion, developing an e-marketplace platform using ASP.NET with C# in Visual Web Developer 2010 has provided valuable insights, learning experiences, and skill enhancements across various aspects of web development, preparing you for future endeavours in the field.

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