Inventory System Capstone Project Proposal

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I. Introduction

I proposed real-time implementation of an inventory management system for an on-site business-like restaurant, grocery store and alike. Inventory management is the process of efficiently monitoring the constant flow of units into and out of an existing inventory. This process usually involves controlling the transfer in of units in order to prevent the inventory from becoming too high, or dwindling to levels that could put the operation of the company into difficulties. Inventory management is very important for big business and private owned organizations especially where there are a lot of orders are being placed everyday and there are lot of materials and the maintenance is really important which the system will do and also will record the time taken to process an order and this system is really important as it can help the organizations to be alerted when the level of inventory is very low .and focuses on the three aspects of inventory management and prevent from failures in the future .

Inventory System also demands a solid understanding of how long it will take for those materials to transfer out of the inventory to be established. By Knowing these two important lead key aspects makes it possible to know when to place an order and how many units must be ordered to keep production running smoothly.

II. Purpose and Description of the System

Inventory management is key to maintaining a profitable, organized, and productive business. For some companies, practicing inventory management is simple: they take inventory every week or so by walking through a storage closet and checking to see if they're low on anything. But other companies must take inventory management quite seriously, tracking every item the minute it arrives, moves, or is used up.

Also, to help businesses easily and efficiently manage the ordering, stocking, storing, and using of inventory. By effectively managing your inventory, you'll always know what items are in stock, how many of them there are, and where they are located.

III. Objectives of the Project

General Objectives

The objectives of inventory management are operational and financial. In operational, materials and stock should be available in sufficient amount whereas, in functional, the minimum working capital should be locked in.

Specific Objectives

1. To ensure a continuous supply of materials and stock so that production should not suffer at the time of customer demand.
2. To avoid both overstocking and under-stocking of inventory.
3. To maintain the availability of materials whenever and wherever required in enough quantity.
4. To optimize various costs indulged with inventories like purchase cost, carrying a cost, storage cost, etc.
5. To keep material cost under control as they contribute to reducing the cost of production.
6. To eliminate duplication in ordering stocks.
7. To minimize loss through deterioration, pilferage, wastage, and damages.
8. To ensure everlasting inventory control so that materials shown in stock ledgers should be physically lying in the warehouse.
9. To ensure the quality of goods at reasonable prices.
10. To facilitate the furnishing of data for short and long-term planning with a controlled inventory.
11. To supply the required material continuously.
12. To maintain a systematic record of inventory.
13. To make stability in price.

IV. Planning and Analysis

Collect inventory data - Data helps companies acknowledge strengths, weaknesses, success patterns, and areas for improvement. Recognize what inventory needs to be regulated, like physical inventory. This process will create a basis to determine what methods follow from this step forward.

Build systemize process – It will determine how the current process will be organized by creating an identification method to improve the manual process to systemize the process. List all process need to automate and sorted it base on the sequence.

Create a system – Develop inventory software that help to solve the inventory issue from manual process. Also provide a helpful web base interface for quickly updating data and keeping information accurate.

Utilize of software – Knowledge transfer or training to all user and required them to use the new inventory system.

V. System Design /Flow

The proponents design and layout of the new system according to the gathered information from the informants. The proponents designed the layout of the system based from the gathered information. And in this phase the proponents started to analyze the data gathered and started the documentation in each requirement

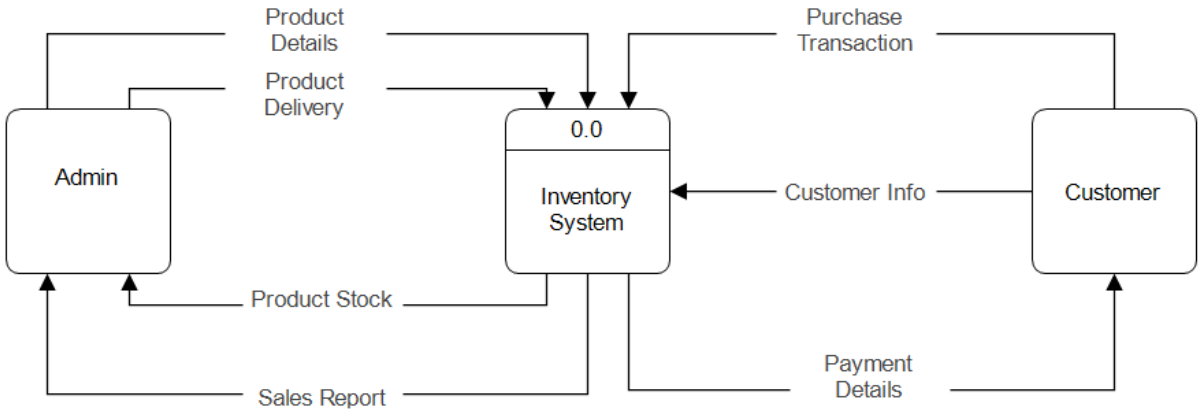
Level 0 for DFD Diagram of Inventory System

The diagram's arrows show the direction in which the data input flowed. The major function is labeled as the "inventory system," and its name sparks the discussion under it.

The external entities that cause the system to perform a certain function are as follows:

- Customers
- System Admin

As a result, the following illustrations begin at the system's DFD level 0.



Level 1 for DFD Diagram of Inventory System

The first level DFD of the inventory system describes each of the system's primary sub-processes. This level represents the context diagram's "extended viewpoint."

Each of them complements in showing how exactly the inventory management system works. The sub-processes are:

- Manage Customer Information
- Manage Sales Information
- Manage Stocks
- Manage Transaction and Payments

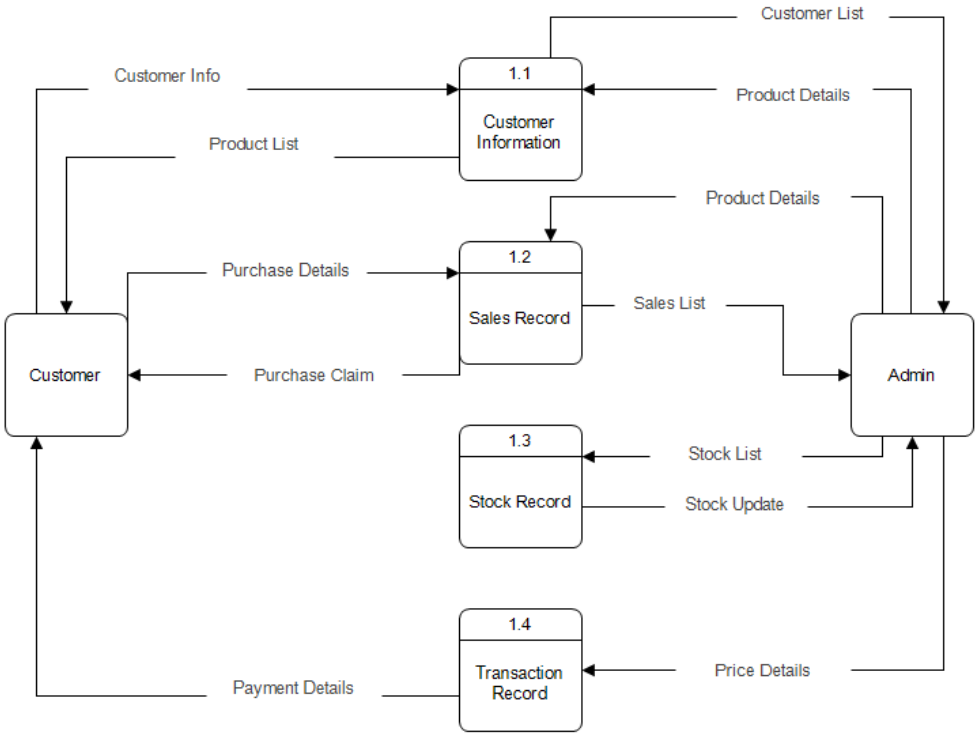
The process of managing customer information includes the gathering of the customer's basic data. This data is used for transactions, purchasing, and inventory purposes.

Now, the system also has to keep track and manage the business sales, which happens when a customer buys something from the store through the system.

In the case of inventories, the system possesses an algorithm that automatically monitors and manages stocks for the establishment. This enables the admin (owner) to manage the business efficiently. Its management will be based on the count of products and purchasing inputs.

The system also manages the transactions and payments of each customer to complete the overall function. Then the transactions were saved in the database for inventory purposes.

Be aware that the basis for these concepts comes from the basic activities associated with managing practical inventories. The suggested idea can be used as is or altered to serve your intended purpose.



VI. Development

This Inventory Management System was develop using PHP and MySQL Database. It is a simple system created using HTML, CSS design, JavaScript, Bootstrap, and Ajax. This Inventory management system is all about selling and buying products. It is a simple project that monitors the stock quantity. This system has a pleasant user interface and it is user-friendly. The system generates reports for the list of Items, Sales, Vendor, Customer, and Purchases. Each of these reports can be printed and exported to CSV, Excel, and PDF.

Features:

- User Registration
- User Login
- Item Management
- Purchases Management
- Sales Management
- Customer Management
- Generates Reports

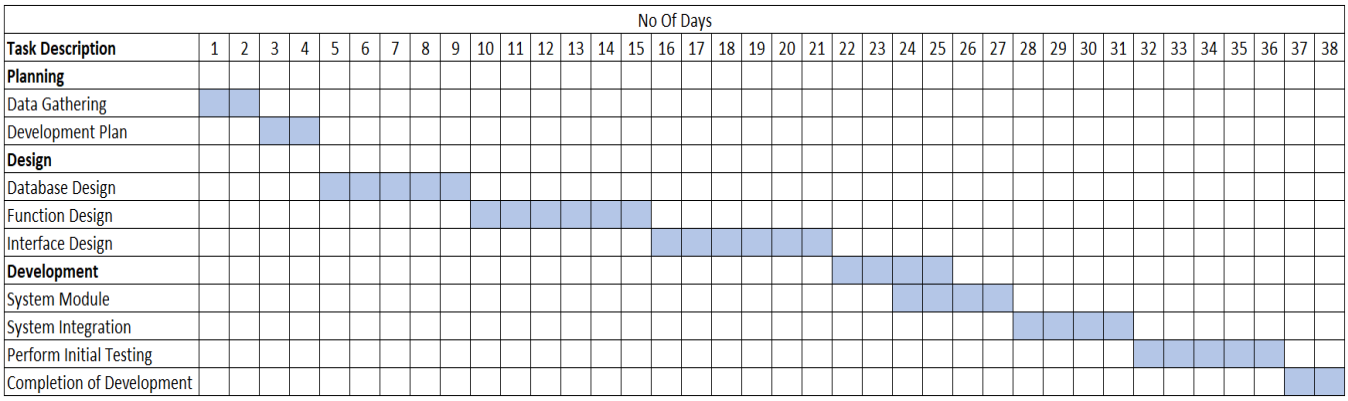
VII. Testing

The tasks that was carried out in the final stage of the system development life cycle is explained as below:

Three different types of testing methodology that was used for implementing the application and are as follows:

1. **Unit testing:** after coding in the implementation phase, a unit test was performed upon on the code.
2. **User acceptance testing:** was performed by the client to check that the application meet the requirements.
3. **System Integration Testing:** making sure that all different webpages of the application is well able to communicate with each other.

VIII. Timeline



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