**Preliminary Investigation Report**

Gamma Rocket Stars

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**Introduction**

Gamma Rocket stars was contacted by the manager of the local supermarket, who was interested in getting a web-based Inventory management system to manage the inventory of the store. The system would cover ordering inventory from vendors, manage the inventory of the store, and create invoices for the customers. Various reports would be included, including an Inventory Restock report, a Negative Items On Hand Report, and Inventory Summary Report.

**Systems Request Summary**

The Supermarket has the following requirements of the system.

The system must be capable of handling up to 100 unique items, and expandable when the store grows. The website should be easily navigable, and user friendly.

Items must be able to be added to the system, so that as new items come into the store, they can be added to the master inventory list.

Inventory must be able to be tracked, including when an item should be reordered, if an item is incorrectly marked as negative on hand, and should be able to generate reports showing what items should be reordered.

**Preliminary Investigation Findings**

After investigation, Gamma Rocket Stars proposes the following for the implementation of the Supermarket Inventory Management system.

A web-based client, written in HTML, CSS, and PHP, with a linked MySQL Database for the inventory.

The website will consist of a main page, separated into three sections. The first section will deal with the management of the inventory on a day-to-day basis, allowing the user to view the inventory, receive items into inventory, create orders for a customer, view invoices, and add customer information.

The second section will cover inventory reports, allowing users to generate restock reports, negative on hand reports, and inventory summary reports.

The third section will handle vendor functions, such as adding vendor to the system, and placing an order from a vendor.

As the more pressing need is for digital management of the inventory itself, the two stages should be implemented. The first stage will focus on managing the inventory, while the second stage will focus on billing and invoicing customers and placing digital orders with a vendor.

**Recommendations**

Gamma Rocket Stars recommends that an inventory management system be constructed, following the above guidelines.

**Time and Cost Estimates**

The time for the project must be no longer than 16 weeks, to be completed by the 25th of April 2023, for a final presentation on that date. The cost will be negligible, as it will be a school project, and the supermarket will not be charged.

**Expected Benefits**

The local Supermarket’s inventory will be able to be managed digitally, instead of the paper books and manual ordering that they have been relying on since the store opened.

Because reports can be generated on demand, the store inventory can be known at any time, instead of necessitating a manual count or manual tracking of the inventory.

Vendor Orders can be placed digitally, reducing the amount of paper waste, and streamlining the process of receiving inventory into the store.

Users will be able to be trained and integrated much easier than the outdated paper tracking method.

Managers will be able to keep better track of the inventory, and make sure that they have items on hand to sell to customers.

Expected monetary benefits from the new inventory management system are projected to be in the thousands, due to inventory being on hand to sell, and better tracking of the items on hand, reducing waste and ensuring that items are always on hand when needed.