

Problem

A small confectionery needs an efficient accounting system and requires that the invoicing and inventory management is fast and accurate, it is necessary to implement a unit conversion tool for the merchandise, for example from arroba to pound, from pounds to kilograms, and vice versa. It is required that the system can determine the price according to the type of customer, and the amount of the purchase, like wholesale, retail, etc. So the application must have at least 3 types of prices, also, it must calculate the price with taxes (VAT), and consider the tax variable over time. The system also requires them to give reports of the stock of the products available, count the amount of each product, add in case of implementing new products, or eliminate items in case of not selling those products anymore. And it needs a fast and efficient billing system.

Overview

The confectionery “Dulces Travesuras” has a deficient accounting system that only allows to perform the invoicing in a slow way, the business has four employees, one is in charge of cleaning, two are in charge of accounting system management and the last one is in charge of sweet's production. The objective is to replace the accounting system with a new one, that also implements more functionalities such as the unit conversions in terms of merchandise and the allocation of prices according to the type of customer that will allow users to carry out the work of buying and selling sweets in a more optimal and efficient way.

Background

The confectionery business is a commercial establishment, where the main activities are the manufacture and sale of confectionery products such as candies, the sale to the public in its own establishments or through third parties, and the distribution of confectionery products to other commercial establishments.

The confectionery business must have an accounting system. This program is a comprehensive tool that collects, processes, stores, and analyzes financial and accounting information quickly and efficiently, automating long and complex processes and freeing up time for strategic analysis. This system must be secure, i.e., it must have authentication and verification, so only the administration area will be able to do changes, and prevents third parties from using the system, it must adapt to the needs of the business as it grows or expands, it must be easy to understand and learn how to use it, must be intuitive, it must be available every time the system is needed, and it must facilitate the user's work, for example, in mathematical calculations, taxes, gains, losses, balance or convert weight units. The reports generated by an accounting system are:

- **Balance sheet:** Describes the assets, liabilities and equity of a business.
- **Income statement:** A financial report that shows in detail the company's income and expenses during a given period.
- **General Ledger:** It records, in an orderly and individual manner, the income, expenses and other movements of the accounting accounts of a company.
- **Cash flow statement:** This report shows the cash movements that a company generates during a specific period, for example, a quarter or semester of the commercial year.
- **Taxes and withholdings report:** This is the fiscal information of the business.

Accounting system

To evaluate the performance of the accounting system in the confectionery, we can evaluate it in the following way: an initial quantity of products will be implemented in the inventory, the daily operations (sales, inventory search and conversions) will be managed and recorded to measure the efficiency in inventory management and invoicing. The reports generated by the accounting system will be verified according to the sales made in test mode. Also for the speed test of the billing systems, we will compare how long both systems take to perform the same tasks. We also have to find the limits of our program, and implement strict and precise constraints, so that we can avoid errors that might appear in our test.

Evidence

