UNIVERSIDAD DE LAS FUERZAS ARMADAS

E.S.P.E.

COMPUTER SCIENCE DEPARTMENT

7996: OBJECT ORIENTED PROGRAMMING

INSTRUCTOR: PHD. EDISON LASCANO

SOFTWARE REQUIREMENTS

T03-Gaman GeekLords: Bonilla Jairo, Cajilima Lady, Carrera Nahir & Chillo Nicolay

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Requirements

Management software for "Entre hilos y algodón"

Problem:

We need a system that helps us calculate the cost of production, calculate the hours of work, that gives us a report on the information and materials of a product, as well as that provides us with an agenda type to take into account the products that do not are exhausted, to understand the system, the calculation of production costs should be taken into account based on the cost of materials and labor, which will offer an easy and simple program to use.

Overview:

In independent manual labor businesses, it is very common to find traditional organization systems based on manual agendas, without inventory control and manual cost calculations, which in many cases result in failures that harm the enterprise. This type of business uses these methods due to the variety of products they produce and in some cases due to the lack of staff. These businesses need to keep a record of all their movements and facilitate calculation and organization.

Background:

The cost elements directly affect the obtaining the production costs of the manual work of dolls and with it the fixing of prices. In addition, if the indirect costs of the products are not taken into account, there can be no guarantee that the costs are real, it would be advisable to implement a cost model that guarantees the real costs of production and thus set prices. The most appropriate pricing method is based on cost. The introduction of a cost of production system is necessary since it allows to determine the real costs of production and to achieve competitive prices. Establish an adequate accounting system that allows the control of raw materials, labor and indirect manufacturing costs of the products made.

It is necessary to consider the viability of the product or service, that is, the cost: what is the cost of producing this product? How much do you want to earn in the manufacture of the dolls? this is a business that has to generate its own resources, therefore, the necessary formulas must be added to the system, to estimate the appropriate costs

Material cost per product	quantity of product x price per unit

Cost of the hour of work	[(basic salary * 1.40%) /30] / 8
total cost of production per product	material cost per product + labor hour cost * labor hours per product

Based on the above factors, the determination of the profit percentage can be implemented in the system. For example, if you want to use 30%, add the profit percentage of 30% to 100%. Multiply the cost of each doll by 130%.

Analyst Comparison:
The software will have an option to create a profile for the user and will have an option to verify, also an option to update the basic salary. It will have a minimum of 3 tabs where we will first have a list of the materials used to make the products, in them you will have the option to update the prices; In another tab we will have the entire inventory list, organized in images, within the images we will have the product information: name, description, what materials are used, what is the amount of material used and the price, this price will be made automatically with the help of a small formula where it is calculated as follows:

(Sum of the price of materials per unit * amount of material used) + cost of labor hours * hours invested in the product

Sum of price of materials per unit: Sum of all materials used in the product obtained from the general list of materials.
Labor hour cost = ((basic salary * 1.40%)/30 days) 8 hours
1.40% represents legal costs (we say, vacations, etc.)

And finally in the third tab, we will have the user's agenda, where you can find information about pending orders, you will have the option to add new orders and cancel them in the same way.
On the other hand, you will be able to get an inventory report, where you will be able to know how much product you have in stock and you will get an alert when you have a minimum of product, this will help you to be aware of how much product there is, if it is missing, you will be able to replace it; there will be another report where it tells you the

pending orders, and finally a general report, these reports will have the option to be downloaded.

Google doc document link:

https://docs.google.com/document/d/1z_HdXvArzuGyl9rXZJDOEfexGEBMsEvzq4r9jvkL_X4/edit?usp=sharing