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Project Profile

1. I've programmed for two and a half years, mainly using Java, the Eclipse IDE and Sublime Text as code editors. Although I'm not including a group project within this file, I have also worked within a group using Git and GitHub.

I have a passion for technology and as such I've undertaken some personal projects such as building PC's, installing the operating system, and drivers, giving some physical maintenance as well as attending hackathons.

Main Projects:

Inventory management software for the [redacted] Company

- 6 months work, detailed below
- Working language: Java
- An application that allowed keeping track of the inventory for a new product line for the company. An easy to use interphase was requested as well as reading and registering changes on an excel document (CSV file). Project included research of the business, problem identification, solution proposal, application design, client feedback and application development.

Mathematical function evaluation application

- Half a month
- Working language: Java
- Easy way to evaluate different mathematical functions and curves seen in a university course as selected by the user which then provided the desired parameters.

2. Inventory management software for the [redacted] Company

The program consists of a graphic interphase with different windows, which allow the selection of each of the different locations owned by the company, followed by the management of product arrival and sales of each product. The data is saved and accessed from a CSV file as requested by the company and a notification indicates a low stock.

The project was carried out and managed in the following way:

- Client research
    - Obtain a good understanding of the client's profile, industry and general situation. Develop interview questions.
- Product and problem discussion with the client (Interview)
    - Question about the situation, problem and identify possible solutions
- Product research
    - Obtain the new product line's relevant data. Categories, names, etc.
- Decision of program components and relevant technique
    - Decision of class distribution and viability of needed Java packages and elements

- Time table creation
- Core programming
- Graphical user interphase development
- Database programming and linking
- Testing and improvements
- Feedback from client
- Further developments
- Final feedback from client
- Implement changes
- Provide documentation and instructions to the client
    - All relevant documentation and a video explaining how to use the program were provided

Objective and goal of the project (Success criteria)

The objective was to help keep track of the available inventory in each stock and signal once it was running low, allowing a timely restock for each location and at the same time provide an excel document with the current data.

Success criteria established after consulting with client:

- The program must manage the inventory for every product of the new product line provided by the client
- An excel spreadsheet must be created as a database and store the current inventory for each product in each location
- An alert must be displayed once a restock was in order
- Graphic interphase must be easy to learn and use
- Instructions on how to use the program should be provided

Problem solved by the project

The problem identified by the company was a lack of control on the stock availability for each location. This lead to products running out without being restocked as well as bigger than necessary restocks.
A secondary problem identified was a lack of tech knowledge by some of the workers.

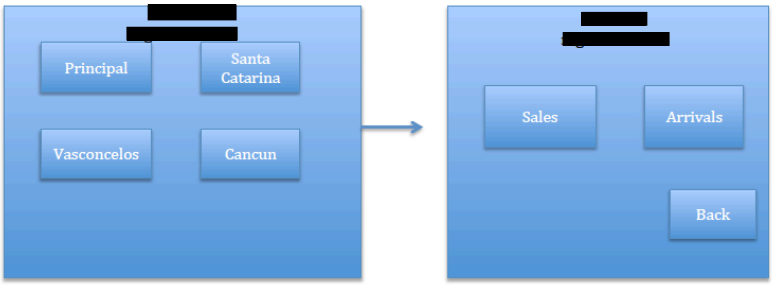
I could provide a more visual and streamlined way to manage inventory while keeping track of information within a workable spreadsheet as well as reminding the user the need of a restock.

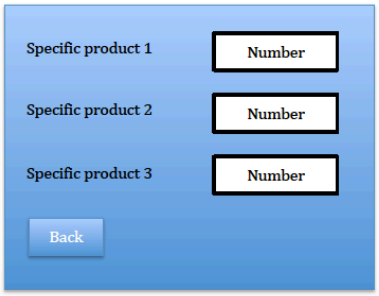
Biggest effort and creativity

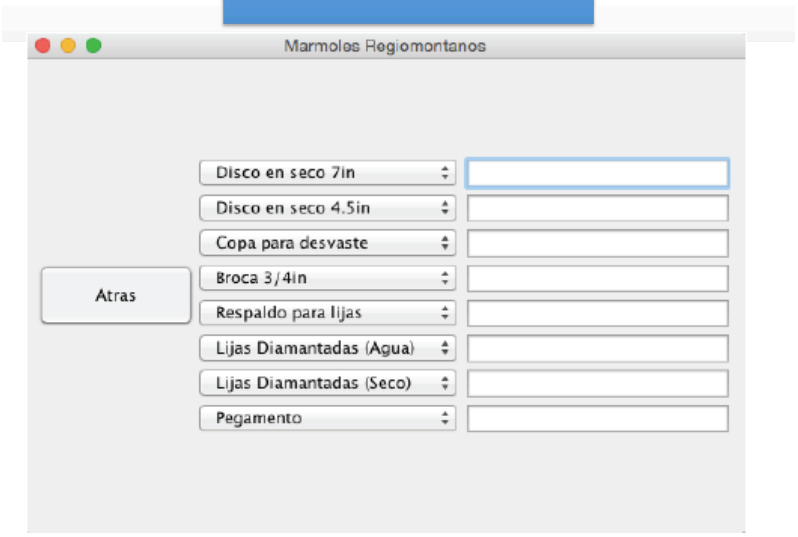
The hardest and most rewarding part of carrying out the project was deciding the relevant program components and techniques to be used. Identifying the needs of the client, additional problems they might not be considering and proposing viable solutions. All of these things must be considered when planning the layout of the interface, organization and hierarchy of the data as well as planning the completion of the project within an acceptable time frame.

Example diagrams

Initial Interphase flowchart examples and running application







	A	B
1	Producto	Cantidad
2	Disco en sec	
3	Granito	0
4	Marmol	83
5	Porcelanato	0
6	Disco en sec	
7	Granito	0
8	Marmol	78
9	Porcelanato	0
10	Copa para de	
11	Gruesa Milin	0
12	Gruesa Estar	0
13	Mediana Mil	0
14	Mediana Est	0
15	Fina Milimet	0
16	Fina Estanda	0
17	Broca 3/4in	
18	Milimetrica	0
19	Estandar	0
20	Respaldo par	
21	Milimetrica	0
22	Estandar	0
23	Lijas Diaman	
24	50	0
25	100	0
26	200	0
27	400	0
28	600	0
29	800	0
30	Lijas Diaman	
31	50	0
32	100	0

Part of the data structure and organization