Criterion A: Planning

Funds Management System

Client: Mr Sajjad Bawa

Advisor: Dr Ambreen Sajjad

Defining the Problem

My father, Mr Sajjad Bawa, is a finance manager who works at the automobile company, Mohammed Yousef Naghi Motors, situated in Jeddah. It is a group which runs with a group of companies. He needs an efficient funding management program that allows him to process the funds of 3 group businesses that funds from the finance department.

1. BMW

2. JLR

3. Hyundai

At the moment, the different group companies send their request of funding to the finance department, in different currencies, depending on the business requirements. This is saved in an excel file manually. Mr Sajjad says that the issue he has with this current system is that they may enter false details into the excel file, such as misspelling the division name, which then results in missing the fund requirements of the group companies. He was also unable to make detailed reports on the payments made by the business so therefore; this program would be very suitable for his needs. He would have to manually create reports and send them to the finance department.

Therefore, the program I will create allows him to be more efficient and there is a smaller cause of error, and also make the program more user-friendly and a lot less time consuming by adding drop-down menus to reduce the amount of effort. The focus is to improve the fund management system that is present in Mohammed Yousef Naghi Motors, through programming in Java. The reason I chose to do this is because my father works in the business, and in the same field as well, so this will benefit him greatly and the stress level will go down as work will be a lot more natural and efficient.

Rationale for the proposed solution

I have chosen to program this using Java, using NetBeans. I chose this programming language over any other due to the fact that Java is an object-oriented programming language. This is useful because code can be localised. This is important for this program because there is a lot of confidential information in these fund requests that should not be editable unless truly intended. Therefore, accessors and mutators allow for encapsulation and editing and accessing data in an object is not as risky. I have also decided to use SQL (Structured Query Language). This is because you can manipulate related tables which is very useful when keeping track of amount pending, and amounts paid for. After conducting an interview with my client, I decided to create a program which would allow the user to manage their funds at ease, and also allow for all the necessary processes and calculations to be completed without the user having to do much themselves. Object-oriented programming makes this a lot easier, as you can divide a program based on objects making the programming process a lot less complex.

Success Criteria

As per Appendix 1, the following success criteria was determined according to the requirements which were clearly specified by Mr Sajjad in my interview with him

1. The program interface should be user friendly

2. The user should only be allowed to add fund requests for 3 divisions

3. The user should be able to access reports on fund requests

4. There should be successful and accurate currency conversions

5. The user should be easily able to edit fund requests

6. The user should be notified if they are taking too long to pay the funds (1 week)

7. The company's logo should be present at the top corner of each panel

8. All sections of the program should be clearly separated for the user to easily navigate

9. All data shown in the program should update whenever a change has been made

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