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Software Development 1 Section 200

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Project 2 Milestone

Abstract:

This paper will detail the motivations behind this project, as well as its applications. The basic structure of its code will be outlined, and a description of how the user will interact with this program will follow.

Introduction:

This program is a simple tool that can be used by people who wish to keep track of their daily tasks and productivity over time. As someone with ADHD, a program like this would be extremely useful in helping identify patterns in my productivity over time, making it easier to identify what other factors are affecting my productivity. Based on personal experience and knowing many others that struggle with staying organized, I believe that it has a broad user demographic and practical applications.

Detailed System Description:

The program will take user input and use that input to create objects. The user will be asked to input the date, in day/month format, what specific tasks they had to do, and how many of them they completed. Each date will be a new object iteration whose variables are the task

list and amount of tasks completed. These inputs will also be stored in an external database, either a .txt file or an excel sheet, so that if users wish to see specific data from a certain day, it can easily be recalled, or they can view all of the data on the external sheet. Then, using basic algebra, the rate of productivity for the day will be calculated by dividing the number of tasks they actually completed by the number of tasks they had to complete, and multiplying it by 100 to get the percentage. The program will calculate the weekly and monthly productivity by pulling the data for the past 7 days and past 30 days (there will be a do statement to handle months with 28 or 31 days), adding up the total number of tasks completed, the total number of tasks meant to have been completed, and then performing the aforementioned algebraic operation. This data will be drawn from where it is stored in arrays created if the date entered by the user satisfies an if statement determining each new week and new month. Once calculated, the productivity statistics will be displayed.
Then, the program will ask the user if they want to see the task list or data from any specific day, week, or month, by inputting "day" and the date, "week" and the week, or "month" and the month. It will pull the data for that time period from the external database and display it for the user.

User Manual:

To use this program effectively as possible, the user should only enter one set of data per day; if they accidentally type in a previous date an if statement will check if the object for that date has already been created, and if it has, prompt the user to enter a new date. Users should enter the data daily to prevent holes in the data or miscalculations. Users should

never manually tamper with the external database when viewing it, and only input data via the program, not directly to the external database.

Conclusion:

This program provides a simple, user-friendly way for users to track their daily tasks and productivity over time. The added functions of calculating the productivity and being able to individually recall specific dates makes it much more useful than other task-helper apps like Notes on iOs, where you can write down task lists but not much else, or TaskCode, which lets you check off which tasks you've completed but doesn't calculate productivity for it.

UML Diagram: