De La Salle University- Manila
Gokongwei College of Engineering

PROLOGI
Programming Logic and Design

Project Proposal

SOS: Student Organizer Software (Prioritization To-do list)

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I. Project Description

Overview

The Student Organizer Software also known as SOS is a program that shows the current weekly schedule of deadlines and showcases an order of what task to prioritize first. Unlike any typical to-do list organizers, this software is unique in a way that it includes an algorithm that will help the student know and gather their thoughts as to what task should be completed first. This is accomplished by using Eisenhower's Urgent/Important principle wherein the prioritization of tasks will be determined by a certain criteria. This principle is a time management strategy that divides tasks on certain quadrants if they are the following: a. Urgent and Important, b. Not urgent but important, c. urgent and not important, d. not urgent and not important, to be able to distinguish which tasks are needed to be focused on to ensure optimal productivity (Indeed, 2022). Additionally, another unique feature of this program is that it considers the difficulty level of a certain task. The program is catered especially towards students who receive a hefty amount of workload each week and are too overwhelmed on what task to start first.

The program will be made using the C-language. It will be accomplished by asking the user to input the specific task and on which day of the week they are due, for each task the program will also ask the urgency and importance of the task by a given criteria list, then it will ask its difficulty level from a scale of 1-4. Overall, the prioritization of each task will be determined by two factors which are the urgency/importance and the difficulty level. With these, the optimal priority to-do list will be created.

Problem statement

Procrastination is everyone’s enemy, especially towards students. In studies, it is shown that an estimate of 80%-95% of college students procrastinate (Shatz, 2023). The issue of procrastination and poor time management in students have been an ongoing problem. With several distractions like gadgets and outside factors, it is even more difficult to manage one's time and accomplish needed tasks. This has impacted a lot of students negatively in terms of academic performance and mental health. Especially with face to face classes slowly coming back, students are overwhelmed by the sudden increase of workload given to them in a short amount of time. This made our team decide to create this project as fellow students who are also suffering the same problem. The project plan aims to contribute in abolishing procrastination and promote good time management habits.

Objectives

a. To create a prioritization to-do list
b. To help students organize their weekly tasks
c. To showcase the deadlines of the student’s weekly tasks
d. To evaluate the task prioritization using Eisenhower’s Urgency/Importance principle and difficulty level
e. To help students reach optimal productivity

II. IPO

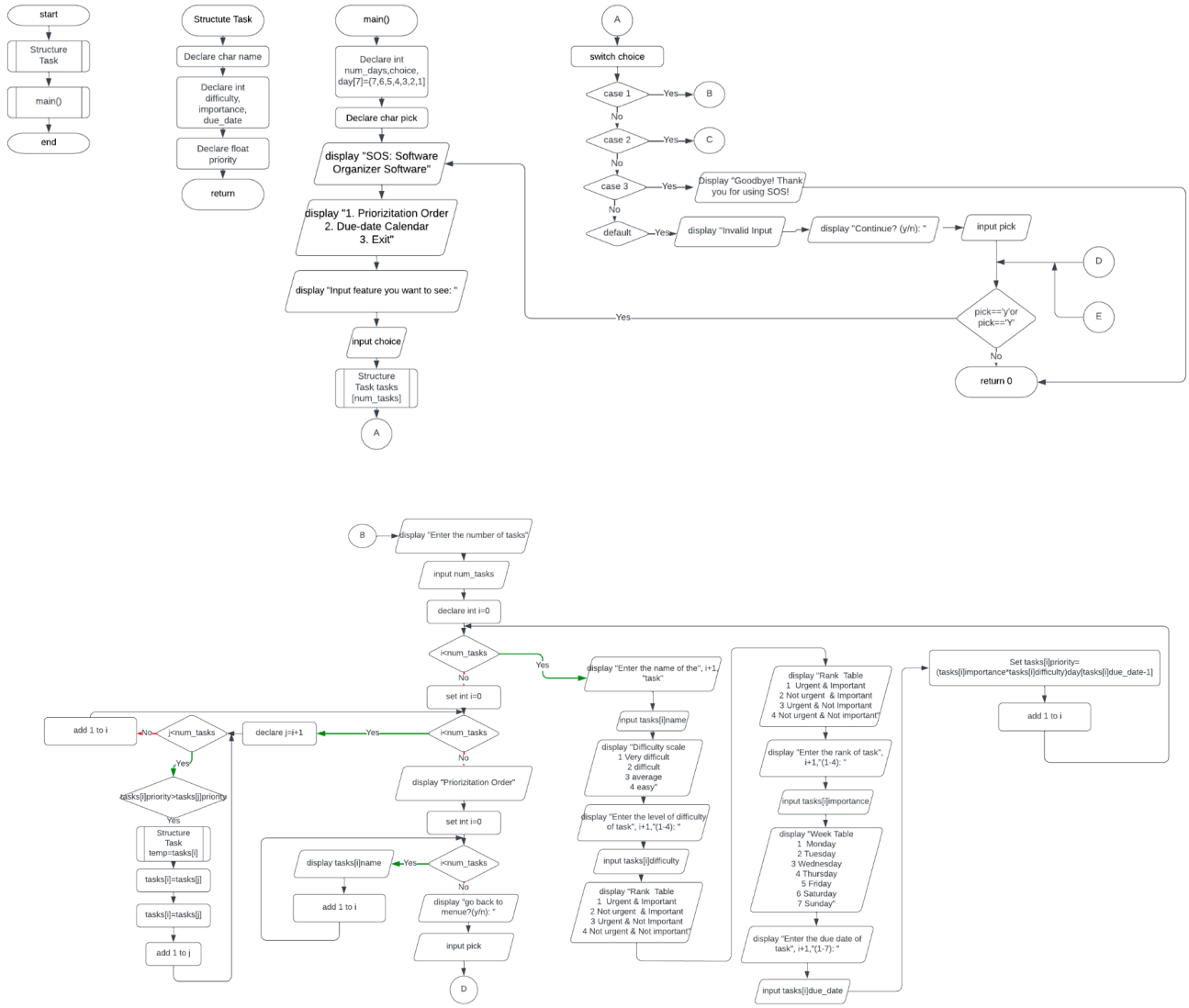
Present and discuss the IPO model.

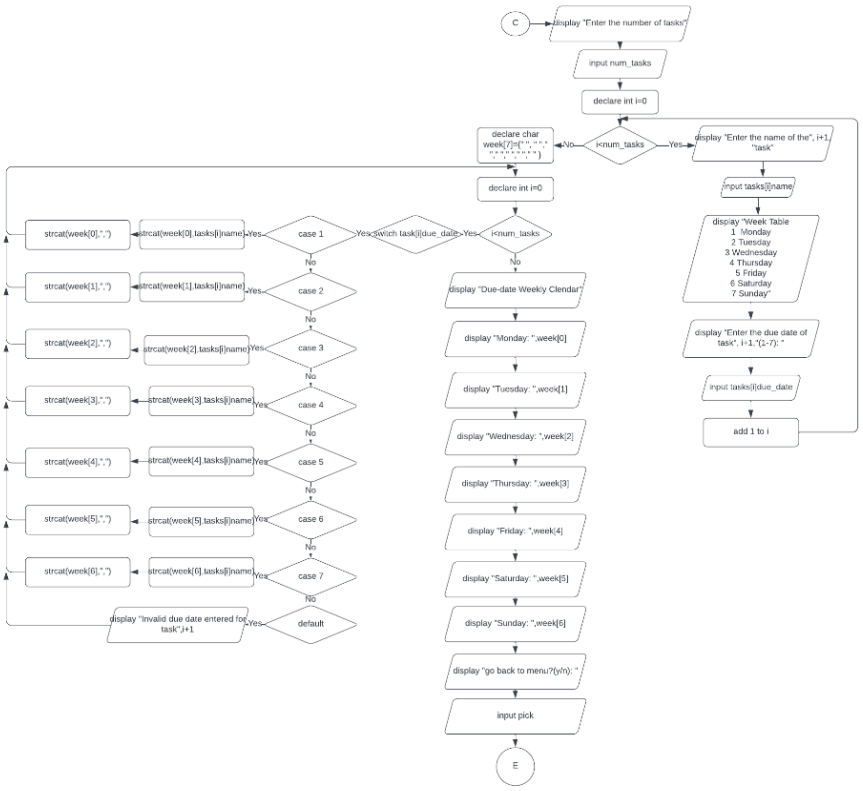
INPUT	PROCESS	OUTPUT
num_tasks choice name difficulty importance due_date	name[100] day[7]={7,6,5,4,3,2,1} week[7][100] looping the code when num_tasks is more than one Select case for choice : prioritization order , due-date weekly calendar , or exit priority = (difficulty * importance) / day[due_date-1] using if statement to make decisions on the priority Select case for due_date: 1,2,3,4,5,6,7 repeating the progress if choice = ‘y’ or ‘Y’	prioritization order priority due-date weekly calendar due_date

In the program, the first is to declare the variables and ask the user to input the choice the user wants to make and a switch statement is applied; 1 for the prioritization order and 2 for the due-date weekly calendar, and 3 for exiting the program. Then ask the user to input the number of tasks that the user wants to input using the “num_tasks” variable. If the inputted value is more than 1, the for loop is applied for repeating case 1. Next is constructing the switch case. In case 1, the variable “name” is applied for getting the name, “difficulty” for knowing how difficult the task is with 1 for the most difficult and 4 for the least difficulty. Next is the “importance” variable with the same rating as “difficult”. After that will be calculating the priority of each task using the formula “priority = (difficulty * importance) / day[due_date-1]”. Next is to define the priority level and rank them. For Case number 2 for the due-date weekly calendar, the variable that would be used is the name, due_date, and an array will be used for storing the tasks of the users each day in a week. A switch case is used for displaying the output of the tasks. Moreover, another for loop is used if the “num_task” is greater than 1. Next is case number 3, here is if the

user didn’t decide to make either a prioritization order or a due-date weekly calendar. In addition after the ending of the switch cases, a while loop is applied for knowing if the user would like to go back to the menu. If yes, then repeat the whole process, if no, then end the program.

III. Methodology





The program for our project will be using several concepts such as if statements, switch statements, arrays, input function, for-loops, and do-while loops. Additionally, we are going to make use of structure functions as seen above in the second flowchart, “Structure Task”. We did this in order to make the storage of inputted data easier since we are planning to display several inputs and order them in ascending order. Another new concept that we are going to apply is the strcat function. This function is used to concentrate the strings of the array and input string of the user in order to display the inputted task into the day it is due.

In the main flowchart we begin by printing the title of the program, we proceed by adding three options for the user to select from. The user will decide from the three options in the selection, picking option one will bring up the number of task the user wants to insert into the program, the program will now proceed with the name of the task the user decides, the program will ask for the difficulty of the task for the user to input the difficulty of the task. The program scales the difficult 1 being the most difficult and 4 being the easiest. The program will print a table for the user to rank the task based on how urgent and important the task is, the program will then print the week table for the user to input then they need the task to be finished. The code will calculate the priority by difficulty x importance / the reverse number of the current due date and print the priority order with the task names to the user before asking the user if they want to go back to the main menu or not. Picking option two will bring up the number of tasks the user wants to insert into the program, the program will now proceed with the name of the task the user decides. The program will now print the week table for the user to select the due date of the task 1 representing Monday to 7 representing Sunday. The program will place the name of the task on the selected due date and print it according to the selected due date, depending on the

number of tasks there are, the number of names the program will place next to the selected date. The program will ask the user if they wish to return to the main menu or not. Finally option three will print “Goodbye! Thank you for using SOS!” and the program ends.

IV. Schedule of Activities

The timetable below showcases the planned schedule of activities to be completed during the duration of the project making.

Person Assigned	Task	Start Date	Accomplishment Date
All	Initial Project Proposal	Mar 6, 2023	Mar 6, 2023
Creation of Final Project Proposal			
Barja	Project Description	Mar 13, 2023	Mar 19, 2023
	Creation of code draft		
	Schedule of Activities		
Chua	IPO		
Uy and Barja	Methodology		
All	Finalization of Project Proposal	Mar 19, 2023	Mar 19, 2023
Submission of Final Project Proposal			Mar 20, 2023
All	Creation of program (code)	Mar 19, 2023	Mar 30, 2023
Creation of Project Documentation			
Barja	Introduction	Mar 25, 2023	Mar 30, 2023
Uy and Chua	Review of Related Literature	Mar 25, 2023	Mar 30, 2023
All	Methodology	Mar 28, 2023	Apr 1, 2023
All	Result and Discussion	Mar 28, 2023	Apr 1, 2023
Uy and Chua	Conclusion	Mar 28, 2023	Apr 1, 2023
Barja	Appendices	Mar 28, 2023	Apr 1, 2023
All	Finalization of Paper	Apr 1, 2023	Apr 3, 2023
Submission of Project Documentation			Apr 3, 2023

Creation of Project Demonstration			
All	Poster creation	Apr 10, 2023	Apr 13, 2023
Uy	Script/content organizer	Apr 8, 2023	Apr 10, 2023
Chua	Presentation Creation	Apr 10, 2023	Apr 13, 2023
All	Record video	Apr 11, 2023	Apr 13, 2023
Barja	Edit Video	Apr 13, 2023	Apr 16, 2023
Submission of Project Demonstration			Apr 17, 2023

V. References

Indeed Editorial Team. (2022, July 22). *What Is Eisenhower's Urgent vs. Important Principle?* Indeed Career Guide. https://www.indeed.com/career-advice/career-development/eisenhowers-urgent-vs-important-principle?fbclid=IwAR0NcwDy1D_v7A8X22cgqrzFTFsE0XBPP6P_TM3mTKq-JXxdLdpb114FePA

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