Project Proposal Document

Project Title

Smart Study Planner: A Task Organizer with Reminders

Problem Statement:

Students often struggle with organizing their school tasks, deadlines, and exams. Forgetting due dates can cause unnecessary stress and lower academic performance. While many productivity apps exist, they are often too complex or not tailored for students. A simple and easy-to-use study planner designed specifically for managing the deadlines of schoolwork is needed.

Project Objectives

1. To create a user-friendly application that allows students to record and manage tasks.
2. To integrate a reminder system that alerts users before a task deadline.
3. To implement file handling using JSON/CSV so that tasks are saved and retrieved easily.

Planned Features

- Add, edit, and delete tasks.
- Categorize tasks by type (assignment, project, exam, etc…).
- Input and store deadlines for each task.
- Display reminders for upcoming deadlines.
- Save and load tasks using JSON/CSV file handling.

Planned Inputs and Outputs

- **Inputs:** Task name, category, deadline, notes.
- **Outputs:**
  - List of upcoming tasks displayed in order of deadline and category.
  - Reminders/alerts for tasks nearing their due date.
  - JSON/CSV file that stores all tasks for future use.

Flowchart

```
                    ╭─────────────╮
                    │     Main     │
                    ╰──────┬──────╯
                           │
                           ▼
          ┌────────────────────────────────┐
          │ Integer category, day, month,  │
          │      year, currentDay,         │
          │   currentMonth, currentYear    │
          └────────────────┬───────────────┘
                           │
                           ▼
          ┌────────────────────────────────┐
          │   String taskName, Notes,      │
          │   categoryResult, input,       │
          │          deadline              │
          └────────────────┬───────────────┘
                           │
                           ▼
                ┌──────────────────────┐
                │    category = 0       │
                └──────────┬───────────┘
                           │
                           ▼
            ╱──────────────────────────────╲
           ╱  Output "Please enter the      ╲
           ╲    name of your task."         ╱
            ╲──────────────┬───────────────╱
                           │
                           ▼
                ╱──────────────────────╲
               ╱    Input taskName       ╲
                ╲──────────┬────────────╱
                           │
                           ▼
            ╱──────────────────────────────╲
           ╱  Output "Enter the category of  ╲
           ╲         your task:"            ╱
            ╲──────────────┬───────────────╱
                           │
                           ▼
              ╱────────────────────────╲
             ╱  Output "1. Assignment"   ╲
              ╲──────────┬──────────────╱
                         │
                         ▼
              ╱────────────────────────╲
             ╱   Output "2. Project"     ╲
              ╲──────────┬──────────────╱
                         │
                         ▼
              ╱────────────────────────╲
             ╱    Output "3. Exam"       ╲
              ╲──────────┬──────────────╱
                         │
                         ▼
                ╱──────────────────────╲
               ╱    Input category       ╲
                ╲──────────┬────────────╱
                           │
                           ▼
          ┌────────────────────────────────┐
          │    categoryResult =            │
          │  CategoryTypefind(category)    │
          └────────────────┬───────────────┘
                           │
                           ▼
            ╱──────────────────────────────╲
           ╱  Output "Please enter the day   ╲
           ╲   of your assignment."         ╱
            ╲────────────────────────────────╱

                    ┌───────┐
                    │   A   │
                    └───────┘
```

A

Input day

Output "Enter the month number of the deadline"

Input month

Output "Enter the year of the deadline."

Input year

Output "Please enter your notes for the task."

Input Notes

Output "Task name:" & taskName

Output "Category:" & categoryResult

Output "Deadline:" & day & "/" & month & "/" & year

Output "Notes:"

Output Notes

Output "This will be put in a JSON or CSV file, please wait. (I do not know how this will work)"

B

B

Output "Please press any key and enter to enter the current date."

Input input

Output "Welcome back! please enter the following:"

Output "Day today:"

Input currentDay

Output "The current month:"

Input currentMonth

Output "And the current year:"

Input currentYear

deadline = deadlineReminder (day,month,year,currentDay, currentMonth,currentYear, categoryResult)

Output deadline

End

```
                                          categoryTypefind
                                          (Integer Category)

                                          String categoryType

                          False              category = 1              True

                  False        category = 2        True

                                                                              categoryType = "Assignment"

          False      category = 3      True

                                                  categoryType = "Project"

    Output "Sorry, wrong input,
    please pick a category type        categoryType = "Exam"
          from 1-3"

                                          Return String categoryType
```

```
deadlineReminder
(Integer day, Integer month, Integer year, Integer currentDay, Integer
currentMonth, Integer currentYear, String categoryResult)
```

String deadlineResult

year < currentYear
- False
- True → deadlineResult = "It is overdue, please do it as soon as possible."

month < currentMonth
- False
- True → deadlineResult = "It is overdue, please do it as soon as possible."

day < currentDay
- False
- True → deadlineResult = "It is overdue, please do it as soon as possible."

day = currentDay
- False
- True → deadlineResult = "It is due today! Please pass it now so you won't have any minus points."

currentday <= day + 3
- False
- True → deadlineResult = "Its deadline is almost near, please try to do it now."

currentday > day + 4
- False
- True → deadlineResult = "It is far from the deadline, but still give your best to do the assessment."

Return String deadlineResult