Problem Statement: Task Planner

Problem Description:

The Task Planner aims to provide a solution for users to effectively organize and manage their tasks. Users often struggle to keep track of their tasks and prioritize them. The Task Planner will help users maintain a list of tasks, with the ability to add, update, read, and delete tasks.

User Requirements:

User-friendly interface:

1. The Task Planner should have an intuitive and easy-to-use interface.

    a) UI will consist of the following elements

        i. Add Parent Task and Sub-Task

        Parent Task

            1. Task ID

                a) Input Box

            2. Task Name

                a) Input Box

            3. Start Date

                a) Date format

            4. End Date

                a) Date Format

            5. Status

                a) Dropdown

                    i. In-Progress

                    ii. Completed

                    iii. DuePassed

                    iv. Canceled

        Sub-Task

            6. SubtaskId

                a) It will be auto-generated

            7. Sub-task name

            8. Start Date

9. End Date

10. Status

2. Data representation of the parent task and subtask

a) Parent Task

ID	Name	StartDate	EndDate	Status	Edit	Delete

i. Sub Task

Sub-ID	Name	StartDate	EndDate	Status	Edit	Delete

Technical Requirements:

1. JavaScript implementation: The Task Planner should be developed using JavaScript.

2. Modern web browser compatibility: The Task Planner should be compatible with modern web browsers.

3. No Local Storage

Constraints:

1. Parent Task ID
   a) It should be unique
      i. The ID cannot be reused even for the id associated with parent task is deleted
2. Sub TaskID
   a) It is auto generated based on the parent task id
3. All the field is mandatory
   a) No Empty
4. Task Name
   a) It should be alphabets only
5. StartDate and EndDate Validation
   a) Eg:
      i. StartDate : 30th August 2023
         1. Restricts the user from selecting the EndDate before 30th August 30, 2023
      ii. EndDate: 30th August 2023
         1. Restricts the user from selecting the StartDate after 30th August 2023
6. Edit Validation
   a) The user is not allowed to use the Parent ID already in use or if it is deleted
      i. Eg:
         1. Parent ID - 101
            a) If the user update with 102
               i. The 102 is already use
                  1. Display the error message

        ii.   The 102 not used
            1. Allow to update the parent ID with 102
        iii. The 101 is now available to be use for the new parent task
            1. As 101 is not assigned to any of the task(Nor with deleted parent task)

b) Status
   i.   Eg:
      1. Consider Current Date : 30th August 2023
      2. StartDate : 27th August 2023
      3. EndDate: 29th August 2023
      4. Allow the following option for the Status dropdown
         a) Due-Passed
         b) Completed
         c) Canceled
      5. Consider Current Date : 30th August 2023
      6. StartDate : 29th August 2023
      7. EndDate: 1st September 2023
      8. Allow the following option for the Status dropdown
         a) In-Progress
         b) Completed
         c) Canceled
   ii. Display the different color representation for the status data

7. Delete
   a) Parent task
      i. Delete the parent task with subtask associated with it
   b) Sub Task
      i. Delete the subtask and not the parent task
8. Search Functionality
   a) Parent Task
   b) Sub Task
   c) Status
   d) Start Date
   e) End Date

Evaluation parameter
   1. Communication and presentation skill
   2. Task should be completed with all validation
   3. UI/UX
   4. Programing pratices
   5. Code Flow understanding
   6. Basics of the JavaScript

All The Best