

FUNCTION Main

 INITIALIZE TaskList as empty list

 WHILE (True)

 DISPLAY "1. Add Task"

 DISPLAY "2. Edit Task"

 DISPLAY "3. Delete Task"

 DISPLAY "4. Mark Task as Completed"

 DISPLAY "5. View Tasks"

 DISPLAY "6. Sort Tasks"

 DISPLAY "7. Exit"

 INPUT userChoice

 SWITCH userChoice

 CASE 1:

 CALL AddTask

 CASE 2:

 CALL EditTask

 CASE 3:

 CALL DeleteTask

 CASE 4:

 CALL MarkTaskCompleted

 CASE 5:

 CALL ViewTasks

 CASE 6:

 CALL SortTasks

 CASE 7:

 EXIT

 DEFAULT:

 DISPLAY "Invalid choice. Please try again."

 END SWITCH

END WHILE

END FUNCTION

FUNCTION AddTask

INPUT "Enter task description: " AS description

INPUT "Enter due date (YYYY-MM-DD): " AS dueDate

INPUT "Enter priority (1-5): " AS priority

task = CREATE Task(description, dueDate, priority, False)

ADD task TO TaskList

DISPLAY "Task added successfully."

END FUNCTION

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FUNCTION EditTask

CALL ViewTasks

INPUT "Enter task number to edit: " AS taskNumber

IF taskNumber IS valid THEN

    INPUT "Enter new description: " AS description

    INPUT "Enter new due date (YYYY-MM-DD): " AS dueDate

    INPUT "Enter new priority (1-5): " AS priority

    TaskList[taskNumber].description = description

    TaskList[taskNumber].dueDate = dueDate

    TaskList[taskNumber].priority = priority

    DISPLAY "Task updated successfully."

ELSE

    DISPLAY "Invalid task number."

END IF

END FUNCTION
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FUNCTION DeleteTask

CALL ViewTasks

INPUT "Enter task number to delete: " AS taskNumber

IF taskNumber IS valid THEN

REMOVE TaskList[taskNumber]

DISPLAY "Task deleted successfully."

ELSE

DISPLAY "Invalid task number."

END IF

END FUNCTION

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FUNCTION MarkTaskCompleted

    CALL ViewTasks

    INPUT "Enter task number to mark as completed: " AS taskNumber

    IF taskNumber IS valid THEN

        TaskList[taskNumber].completed = True

        DISPLAY "Task marked as completed."

    ELSE

        DISPLAY "Invalid task number."

    END IF

END FUNCTION
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FUNCTION ViewTasks
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  FOR EACH task IN TaskList
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    DISPLAY task.number, task.description, task.dueDate, task.priority, task.completed
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  END FOR
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END FUNCTION
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FUNCTION SortTasks

 DISPLAY "Sort by: "

 DISPLAY "1. Due Date"

 DISPLAY "2. Priority"

 INPUT sortChoice

 SWITCH sortChoice

 CASE 1:

 SORT TaskList BY dueDate

 CASE 2:

 SORT TaskList BY priority

 DEFAULT:

 DISPLAY "Invalid choice."

 END SWITCH

END FUNCTION