

Algorithm:

1. Start the program.
2. Display a menu with options:
 - Add an event.
 - View events.
 - Search events.
 - Modify or delete an event.
 - Check schedule conflicts.
 - Set reminders.
 - Exit.
3. If the user selects Add Event:
 - Prompt for event title, date, time, and description.
 - Validate the date and time format.
 - Check for conflicts with existing events.
 - Store the event in an organized data structure.
4. If the user selects View Events:
 - Display events for a specific day, week, or month.
5. If the user selects Search Events:
 - Prompt for title or description.
 - Display matching events.
6. If the user selects Modify/Delete Events:
 - Prompt for event details.
 - Allow modification or deletion.
7. If the user selects Set Reminders:
 - Prompt for an event and set a notification.
8. If the user selects Check Schedule Conflicts:
 - Compare all stored events for overlapping times.
9. Repeat the menu until the user selects Exit.
10. End the program.

PSEUDOCODE:

BEGIN

WHILE True

 DISPLAY "1. Add Event"

 DISPLAY "2. View Events"

 DISPLAY "3. Search Events"

 DISPLAY "4. Modify/Delete Events"

 DISPLAY "5. Set Reminders"

 DISPLAY "6. Check Schedule Conflicts"

 DISPLAY "7. Exit"

 GET user_choice

 IF user_choice == 1 THEN

 CALL AddEvent()

 ELSE IF user_choice == 2 THEN

 CALL ViewEvents()

 ELSE IF user_choice == 3 THEN

 CALL SearchEvents()

 ELSE IF user_choice == 4 THEN

 CALL ModifyDeleteEvents()

 ELSE IF user_choice == 5 THEN

 CALL SetReminders()

 ELSE IF user_choice == 6 THEN

 CALL CheckScheduleConflicts()

 ELSE IF user_choice == 7 THEN

 EXIT

 ELSE

 DISPLAY "Invalid Option. Try Again."

 ENDIF

ENDWHILE

END

```
FUNCTION AddEvent()  
    DISPLAY "Enter Event Title:"  
    GET title  
    DISPLAY "Enter Event Date (YYYY-MM-DD):"  
    GET date  
    DISPLAY "Enter Event Time (HH:MM):"  
    GET time  
    DISPLAY "Enter Event Description:"  
    GET description  
    IF ValidateDateTime(date, time) == TRUE THEN  
        IF CheckConflict(date, time) == FALSE THEN  
            STORE event in event_list  
            DISPLAY "Event Added Successfully."  
        ELSE  
            DISPLAY "Schedule Conflict Detected."  
        ENDIF  
    ELSE  
        DISPLAY "Invalid Date or Time."  
    ENDIF  
END FUNCTION
```

FLOWCHART:

