1. Student Grade Calculator

Program Description: Create a program that calculates the final grade for a student based on assignments (30%), midterm exam (30%), and final exam (40%). The program should determine if the student passed (≥60%) or failed.

Key Features:

Input assignment scores, midterm score, and final exam score

Calculate weighted average based on predefined percentages

Determine pass/fail status

Display final grade and status to user

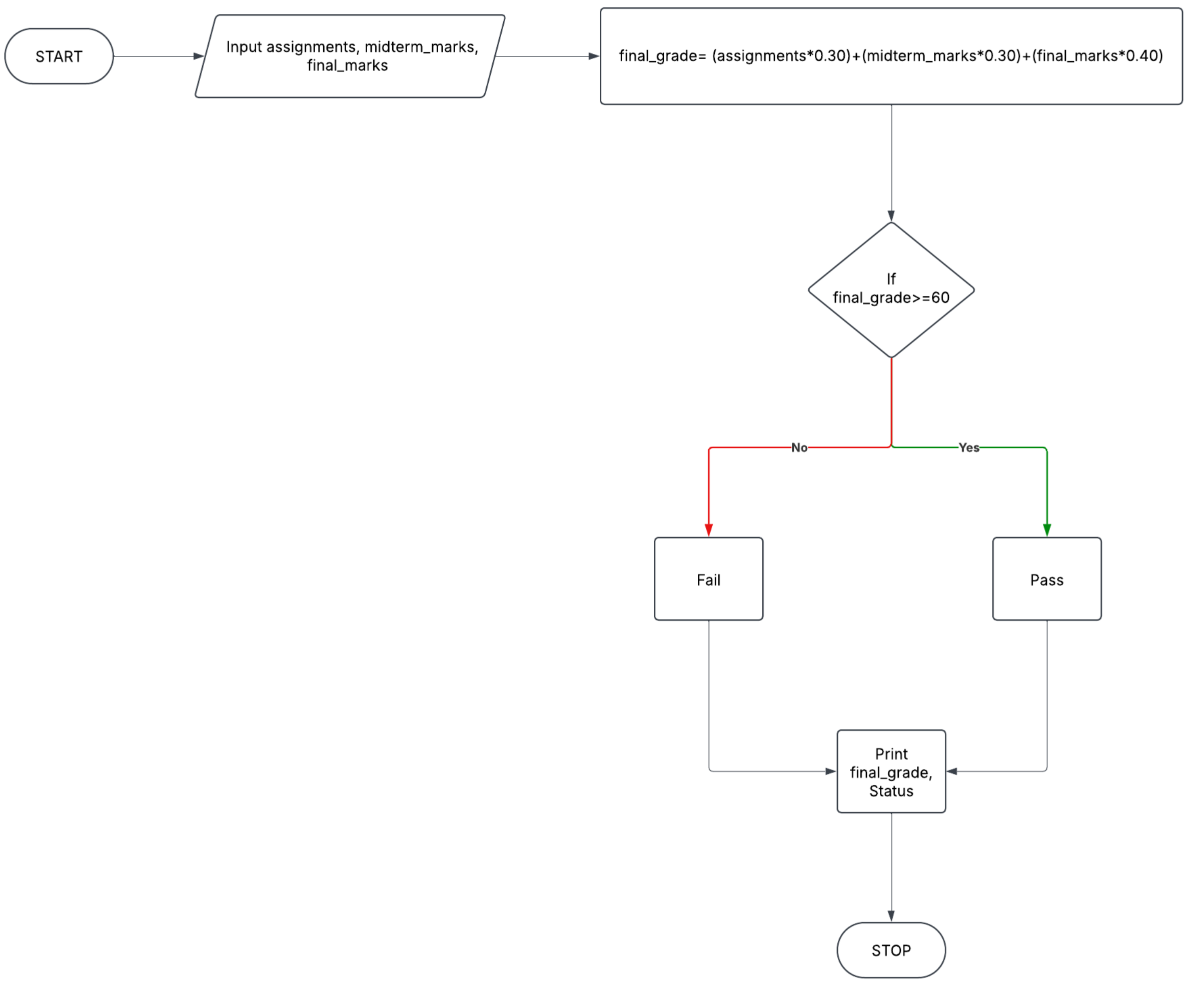
<u>Algorithm:</u>

```
Step 1: Start
Step 2: Input assignments, midterm_marks, final_marks
Step 3: Calculate final grade using weighted average
        Final_marks = (assignments*0.30)+ (midterm_marks*0.30)+ (final_marks*0.40)
Step 4: if final_marks>=60 then status= "pass"
        Else status= "fail";
Step 5: Print "final grade:", final_grade,%
        Print "status:", status
Step 6: Stop
```

<u>Pseudocode:</u>

```
Step 1: START

Step 2: INPUT assignment_marks, midterm_marks, finalexam_marks

Step 3: final_grade = (assignment_marks*0.30) + (midterm_marks*0.30) + (finalexam_marks*0.40)
Step 4: IF final_grade >= 60 THEN status = "pass"
            Else status="fail"

Step 5: PRINT "Final grade:", final_grade,"%"
            PRINT "status", status

Step 6: STOP
```

FlowChart:



START
Input assignments, midterm_marks, final_marks
final_grade= (assignments*0.30)+(midterm_marks*0.30)+(final_marks*0.40)
If final_grade>=60
No
Yes
Fail
Pass
Print final_grade, Status
STOP

2. ATM Banking System

Program Description: Develop a program that simulates an ATM with options to check balance, deposit money, withdraw money, and exit. The program should maintain a running balance and prevent withdrawals that would result in a negative balance.

Key Features:

- **Authenticate user with PIN**
- **Display menu of available operations**
- **Handle balance inquiries**
- **Process deposits and update balance**
- **Validate withdrawal requests against available balance**
- **Provide transaction receipts**
- **Allow user to exit system**

Algorithm:

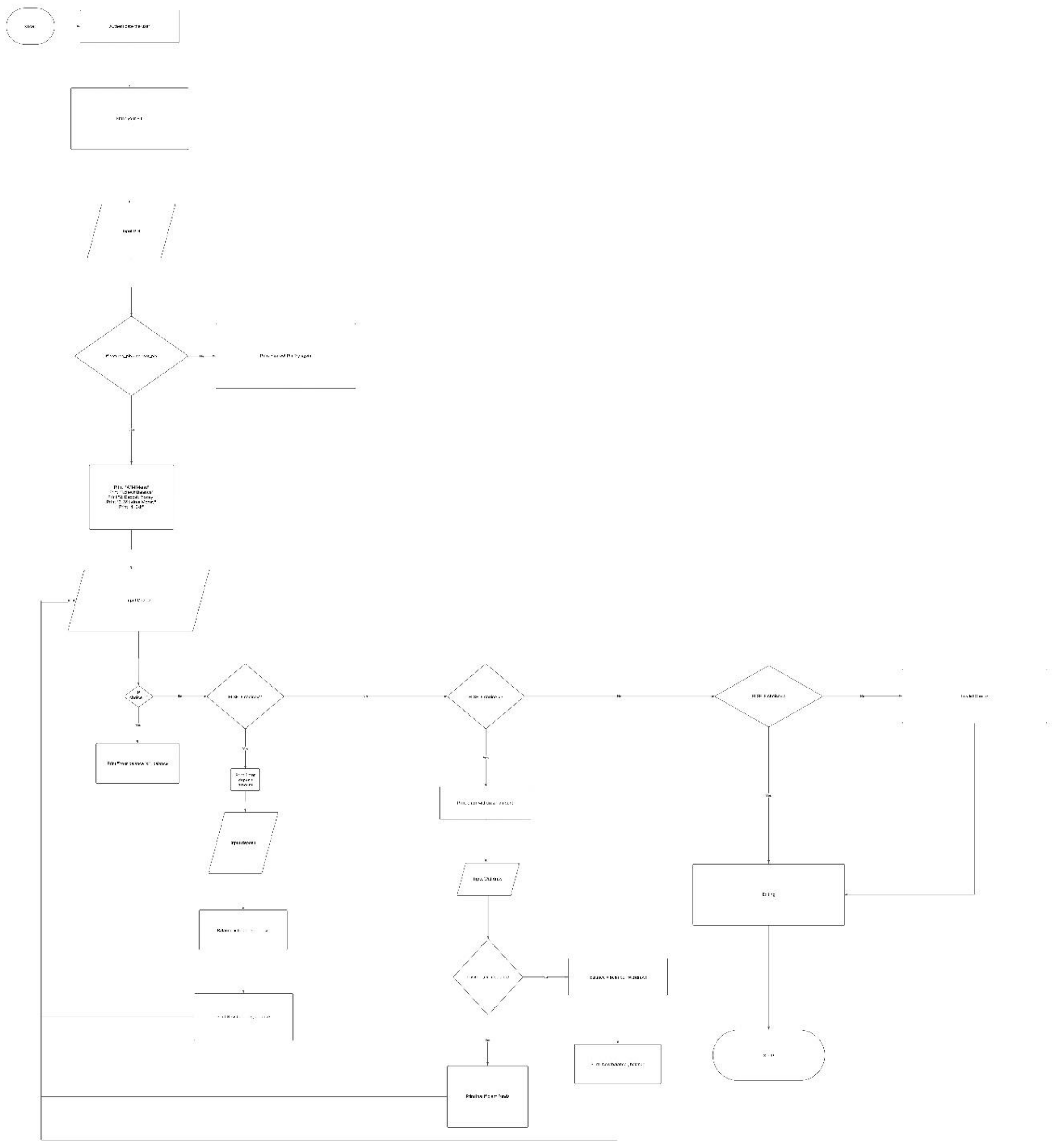
```
Step 1: Start
Step 2: Set initial balance
Step 3: Authenticate user:
        Get user to enter pin
        If pin is incorrect, allow up to 3 attempts before exiting
Step 4: Display menu:
        1. Check Balance
        2. Deposit Money
        3. Withdraw Money
        4. Exit
Step 5: Process user selection:
        If option=1 :> Display balance
        If option=2 :>
                Prompt user to enter deposit amount
                Add amount to balance
                Display new balance
        If option=3 :>
                Prompt user to enter withdrawl amount
                If amount>balance -> Display “Insuffient funds”
                Else, deduct amount from balance and display new balance
        If option=4 :>
                Exit the system
Step 6:  Repeat until the user exists
Step 7: Stop
```

Pseudocode:

```
STEP 1: START
Step 2: SET balance=1000
        SET correct_pin= 1234
        SET attempts = 0
        SET max_attempts = 3

Step 3: REPEAT
        PRINT “Enter your pin:”
        INPUT entered_pin
        IF entered_pin == correct_pin THEN
                BREAK
        ELSE
                INCREMENT attempts
                PRINT “Incorrect_pin. Try again”
        UNTIL attempts == max_attempts
        IF attempts == max_attempts THEN
                PRINT “Too many failed attempts. Exiting”
                STOP
        ENDIF
Step 4: REPEAT
        PRINT “ATM Menu:”
```

```
    PRINT “1. Check Balance”
    PRINT “2. Deposit Money”
    PRINT “3. Withdraw Money”
    PRINT “4. Exit”
    PRINT “Enter your choice:”
    INPUT choice
Step 5: Process user choice
    IF choice == 1 THEN
        PRINT “Your balance is:”, balance
    ELSE IF choice ==2 THEN
        PRINT “Enter deposit amount:”
        INPUT deposit
        Balance = balance+deposit
        PRINT “New balance:”, balance
    ELSE IF choice==3 THEN
        PRINT “Enter withdrawl amount:”
        INPUT withdrawl
        IF withdrawl > balance THEN
            PRINT “Insufficient funds.”
        ELSE
            balance = balance-withdrawl
            PRINT “New balance:”, balance
        END IF
    ELSE
        PRINT “Invalid option. Try again”
    ENDIF
    UNTIL choice == 4
Step 6: STOP
```

FLOWCHART:


Start
Authenticate the user
Input PIN
Print "ATM Menu"
Input Choice
Yes
No
Input deposit
Input Withdraw
Exiting

3. Inventory Management System

Program Description: Design a program that manages a store's inventory by allowing users to add new items, update quantities, remove items, and display the current inventory. Each item should have an ID, name, price, and quantity.

Key Features:

- **Add new products to inventory with unique IDs**
- **Update existing product information**
- **Remove products from inventory**
- **Search for products by ID or name**
- **Display current inventory status**
- **Track low stock items**
- **Generate inventory reports**

Algorithm:

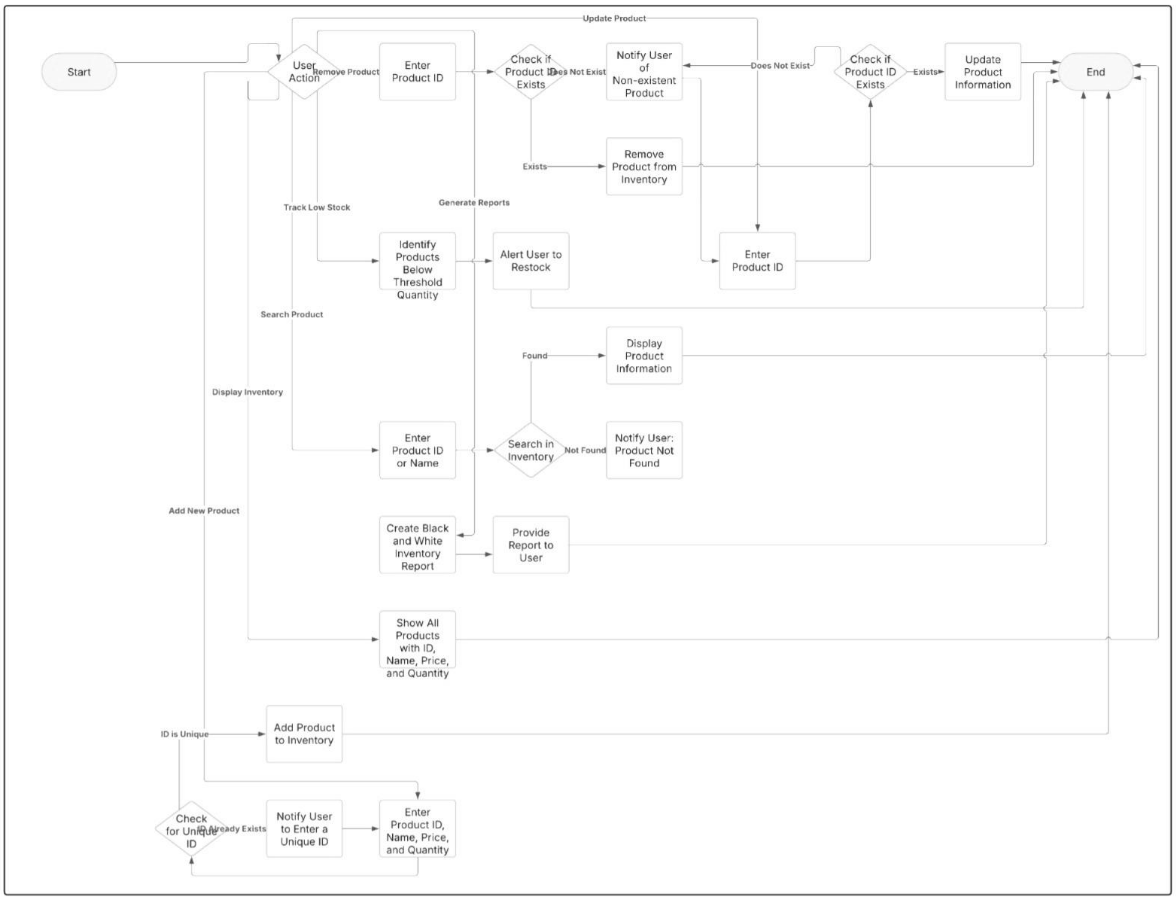
```
Step 1 : Start
Step 2: Initialize an empty inventory list
Step 3: Display Menu options
        1. Add a new product
        2. Update product quality
        3. Remove a product
        4. Search for a product
        5. Display all products
        6. View low stock items
        7. Generate Inventory report
        8. Exit
Step 4: Process user selection
        If option=1
                Input product ID, name, price and quality
                Ensure ID is unique
                Add product to inventory
        If option=2
                Input product ID
                If found, update the quality
                If not found, display an error
        If option=3
                Input product ID
                Id found, remove producr from inventory
        If option=4
                Input ID or name
                Display product details if found
        If option=5
                Print all products in the inventory
        If option=6
                Show products where quantity <  threshold
        If option = 7
                Display all inventory details in a structured format
        If option = 8
                End the program
Step 5: Repeat until the user selects Exit
Step 6: Stop
```

Pseudocode:

```
Step 1: START
Step 2:    DECLARE inventory as an empty list

 Step 3:  REPEAT
      PRINT "Inventory Management System Menu"
      PRINT "1. Add Product"
      PRINT "2. Update Product Quantity"
      PRINT "3. Remove Product"
      PRINT "4. Search Product"
      PRINT "5. Display All Products"
      PRINT "6. View Low Stock Items"
      PRINT "7. Generate Inventory Report"
      PRINT "8. Exit"
      PRINT "Enter your choice:"
      INPUT choice

      IF choice == 1 THEN
        PRINT "Enter Product ID: "
        INPUT product_ID
        PRINT "Enter Product Name: "
        INPUT product_name
        PRINT "Enter Product Price: "
        INPUT product_price
        PRINT "Enter Product Quantity: "
        INPUT product_quantity
        ADD (product_ID, product_name, product_price, product_quantity) TO inventory

      ELSE IF choice == 2 THEN
        PRINT "Enter Product ID to update: "
        INPUT product_ID
        IF product_ID EXISTS in inventory THEN
          PRINT "Enter new quantity: "
          INPUT new_quantity
          UPDATE inventory[product_ID].quantity = new_quantity
        ELSE
```

```
        PRINT "Product not found!"
    ENDIF

ELSE IF choice == 3 THEN
    PRINT "Enter Product ID to remove: "
    INPUT product_ID
    IF product_ID EXISTS in inventory THEN
        REMOVE product from inventory
    ELSE
        PRINT "Product not found!"
    ENDIF

ELSE IF choice == 4 THEN
    PRINT "Enter Product ID or Name to search: "
    INPUT search_term
    IF search_term EXISTS in inventory THEN
        DISPLAY product details
    ELSE
        PRINT "Product not found!"
    ENDIF

ELSE IF choice == 5 THEN
    DISPLAY all products in inventory

ELSE IF choice == 6 THEN
    PRINT "Low Stock Products (Less than 5 items)"
    FOR each product in inventory DO
        IF product.quantity < 5 THEN
            DISPLAY product details
        ENDIF
      ENDFOR

    ELSE IF choice == 7 THEN
      PRINT "Inventory Report:"
      DISPLAY all product details in a structured format

    ELSE IF choice == 8 THEN
      PRINT "Exiting System..."
      BREAK

    ELSE
      PRINT "Invalid Choice. Try again."
    ENDIF

Step 4:  UNTIL choice == 8
Step 5:  STOP
```

FLOWCHART:


Start
User Action
Remove Product
Enter Product ID
Check if Product ID Exists
Does Not Exist
Notify User of Non-existent Product
Update Product
Does Not Exist
Check if Product ID Exists
Exists
Update Product Information
End
Exists
Remove Product from Inventory
Track Low Stock
Generate Reports
Identify Products Below Threshold Quantity
Alert User to Restock
Enter Product ID
Search Product
Found
Display Product Information
Display Inventory
Enter Product ID or Name
Search in Inventory
Not Found
Notify User: Product Not Found
Add New Product
Create Black and White Inventory Report
Provide Report to User
Show All Products with ID, Name, Price, and Quantity
ID is Unique
Add Product to Inventory
Check for Unique ID
ID Already Exists
Notify User to Enter a Unique ID
Enter Product ID, Name, Price, and Quantity

4. Prime Number Checker

Program Description: Create a program that determines whether a given number is prime or not. A prime number is only divisible by 1 and itself with no other factors.

Key Features:

- Accept numerical input from user
- Verify if input is valid (positive integer)
- Use efficient algorithm to check for primality
- Display result with explanation
- Option to check additional numbers

Algorithm

1. **Start**
2. Prompt the user to enter a positive integer.
3. Validate the input (ensure it is a positive integer).
4. If the input is **less than 2**, print "Not a prime number."

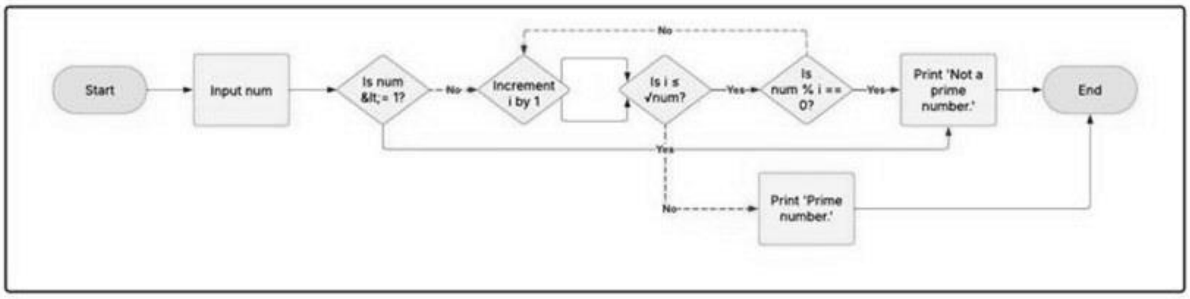
5. Check divisibility:
    - If the number is **2 or 3**, print "Prime number."
    - If the number is even or divisible by 3, print "Not a prime number."
    - Otherwise, iterate from **5 to √N** (increment by 6 each step) and check divisibility.
6. If no divisor is found, print "Prime number."
7. Ask the user if they want to check another number.
8. If **Yes**, repeat the process; if **No**, end the program.

Pseudocode:

```
Step 1: START
Step 2:  DO
  PRINT "Enter a positive integer:"
  READ number

  IF number < 2 THEN
    PRINT "Not a prime number"
    CONTINUE

  IF number = 2 OR number = 3 THEN
    PRINT "Prime number"
    CONTINUE

  IF number MOD 2 = 0 OR number MOD 3 = 0 THEN
    PRINT "Not a prime number"
    CONTINUE

  isPrime ← TRUE
  i ← 5
```

```
    WHILE (i * i) <= number DO
      IF number MOD i = 0 OR number MOD (i + 2) = 0 THEN
        isPrime ← FALSE
        BREAK
      ENDIF
      i ← i + 6
    ENDWHILE

    IF isPrime THEN
      PRINT "Prime number"
    ELSE
      PRINT "Not a prime number"
    ENDIF

    PRINT "Do you want to check another number? (Yes/No)"
    READ response
  WHILE response = "Yes"

  PRINT "Program Ended."
Step 3: END
```

FLOWCHART:



5. Temperature Conversion Tool

Program Description: Develop a program that converts temperatures between Celsius, Fahrenheit, and Kelvin. The user should be able to select the input and output temperature scales.

Key Features:

- Accept temperature value input
- Allow selection of source unit (C, F, or K)
- Allow selection of target unit (C, F, or K)
- Perform accurate conversion using correct formulas
- Display converted result with appropriate unit
- Option for multiple conversions

<u>Algorithm:</u>

Step 1: Start

Step 2: Display a menu for the user to select the source temperature unit: Celsius (C), Fahrenheit (F), or Kelvin (K).

Step 3: Accept the source temperature unit from the user.

Step 4: Prompt the user to enter the temperature value.

Step 5: Display a menu for the user to select the target temperature unit: Celsius (C), Fahrenheit (F), or Kelvin (K).

Step 6: Accept the target temperature unit from the user.

Step 7: Use conditional statements to apply the appropriate conversion formula:

- **Celsius to Fahrenheit**: $F=(C\times 9/5)+32$
- **Celsius to Kelvin**: $K=C+273.15$
- **Fahrenheit to Celsius**: $C=(F-32)\times 5/9$
- **Fahrenheit to Kelvin**: $K=(F-32)\times 5/9+273.15$
- **Kelvin to Celsius**: $C=K-273.15$
- **Kelvin to Fahrenheit**: $F=(K-273.15)\times 9/5+32$

Step 8: Display the converted temperature with the selected unit.

Step 9: Ask the user if they want to perform another conversion.

Step 10: If yes, repeat the process; otherwise, end the program.

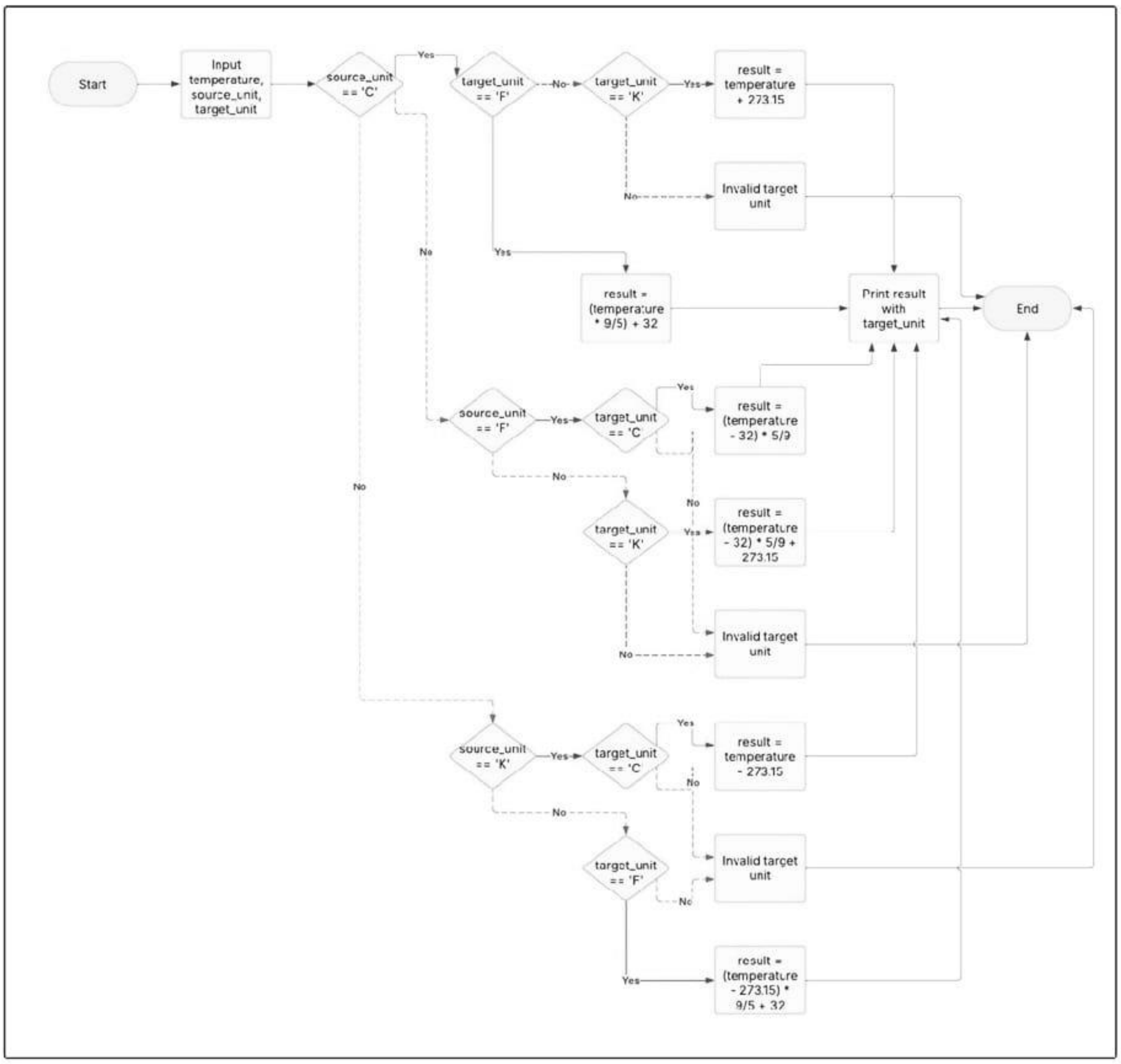
Step 11: Stop

Pseucode:

```
Step 1: BEGIN
 Step 2:   DISPLAY "Temperature Conversion Tool"


 Step 3:  DO
        DISPLAY "Select source temperature unit: (C, F, K)"
        INPUT sourceUnit


        DISPLAY "Enter the temperature value:"
        INPUT tempValue


        DISPLAY "Select target temperature unit: (C, F, K)"
        INPUT targetUnit


       Step 4: IF sourceUnit == "C" AND targetUnit == "F" THEN
            result = (tempValue * 9/5) + 32
        ELSE IF sourceUnit == "C" AND targetUnit == "K" THEN
            result = tempValue + 273.15
        ELSE IF sourceUnit == "F" AND targetUnit == "C" THEN
            result = (tempValue - 32) * 5/9
        ELSE IF sourceUnit == "F" AND targetUnit == "K" THEN
            result = (tempValue - 32) * 5/9 + 273.15
        ELSE IF sourceUnit == "K" AND targetUnit == "C" THEN
            result = tempValue - 273.15
        ELSE IF sourceUnit == "K" AND targetUnit == "F" THEN
            result = (tempValue - 273.15) * 9/5 + 32
        ELSE
            result = tempValue   // If source and target are the same
        ENDIF
```

```
  Step 5:   DISPLAY "Converted Temperature: ", result, targetUnit

  Step 6:   DISPLAY "Do you want to perform another conversion? (Yes/No)"
     INPUT choice
  WHILE choice == "Yes"

Step 7: END
```

FLOWCHART:



Start
Input temperature, source_unit, target_unit
source_unit == 'C'
Yes
No
target_unit == 'F'
target_unit == 'K'
result = temperature + 273.15
Invalid target unit
result = (temperature * 9/5) + 32
Print result with target_unit
End
source_unit == 'F'
target_unit == 'C'
result = (temperature - 32) * 5/9
result = (temperature - 32) * 5/9 + 273.15
source_unit == 'K'
result = temperature - 273.15
result = (temperature - 273.15) * 9/5 + 32

6. Library Book Management System

Program Description: Design a program that manages a library's book collection, allowing librarians to add books, remove books, check out books to members, and return books. Track availability status for each book.

Key Features:

- Maintain database of books (title, author, ISBN, status)
- Maintain database of library members
- Process for adding new books to collection
- Process for removing obsolete books
- Book checkout procedure with due dates
- Book return procedure with potential late fees
- Search functionality by title, author, or ISBN
- Report generation for overdue books

<u>Algorithm:</u>

Step 1: Start

Step 2: Display the main menu with options:

- Add a new book
- Remove a book
- Check out a book
- Return a book
- Search for a book
- Generate overdue report
- Exit

Step 3: Accept the user's choice.

Step 4: Based on the choice, perform the following operations:

Adding a New Book:

- Input book details (Title, Author, ISBN, Status = Available).
- Store book details in the database.
- Display confirmation message.

Removing a Book:

- Input ISBN of the book to be removed.
- Search for the book in the database.
- If found, delete the book record; otherwise, display an error message.

Checking Out a Book:

- Input ISBN and member ID.
- Search for the book in the database.
- If available, update status to "Checked Out" and set a due date.
- If unavailable, display an error message.

Returning a Book:

- Input ISBN of the book being returned.
- Search for the book in the database.
- If found, update status to "Available".
- Calculate late fee if the return date exceeds the due date.
- Display confirmation message and late fee (if applicable).

Searching for a Book:

- Input search criteria (Title, Author, or ISBN).
- Retrieve and display matching books.

Generating Overdue Reports:

- Identify books past their due date.
- Display details (Book Title, Member Name, Due Date, Late Fee).

Step 5: Ask the user if they want to perform another operation.

Step 6: If yes, repeat from Step 2; otherwise, exit.

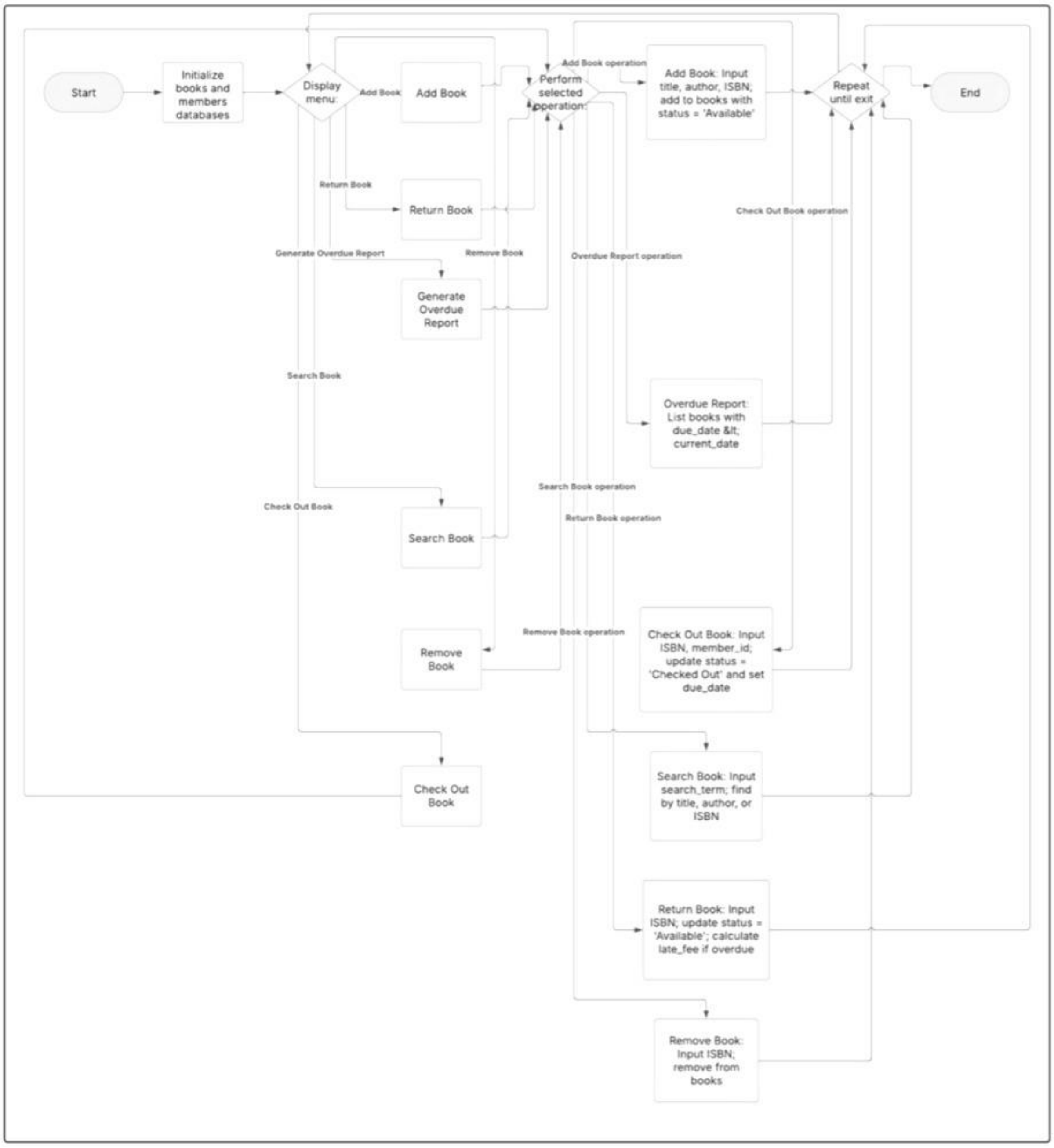
Step 7: STOP

Pseudocode:

```
Step 1: BEGIN
Step 2:  DISPLAY "Library Book Management System"
```

```
DO
    DISPLAY "Select an option:"
    DISPLAY "1. Add a New Book"
    DISPLAY "2. Remove a Book"
    DISPLAY "3. Check Out a Book"
    DISPLAY "4. Return a Book"
    DISPLAY "5. Search for a Book"
    DISPLAY "6. Generate Overdue Report"
    DISPLAY "7. Exit"
    INPUT choice

   Step 3: IF choice == 1 THEN
        DISPLAY "Enter Book Title:"
        INPUT title
        DISPLAY "Enter Author Name:"
        INPUT author
        DISPLAY "Enter ISBN:"
        INPUT isbn
        status = "Available"
        ADD book(title, author, isbn, status) TO libraryDatabase
        DISPLAY "Book added successfully!"

    ELSE IF choice == 2 THEN
        DISPLAY "Enter ISBN of book to remove:"
        INPUT isbn
        IF bookExists(isbn) THEN
            REMOVE book(isbn) FROM libraryDatabase
            DISPLAY "Book removed successfully!"
        ELSE
            DISPLAY "Book not found!"

    ELSE IF choice == 3 THEN
        DISPLAY "Enter ISBN to check out:"
        INPUT isbn
        DISPLAY "Enter Member ID:"
        INPUT memberId
        IF bookAvailable(isbn) THEN
            UPDATE bookStatus(isbn, "Checked Out")
            dueDate = GET_DUE_DATE()
            DISPLAY "Book checked out! Due date:", dueDate
        ELSE
            DISPLAY "Book is not available!"

    ELSE IF choice == 4 THEN
        DISPLAY "Enter ISBN of returning book:"
        INPUT isbn
        IF bookExists(isbn) THEN
            UPDATE bookStatus(isbn, "Available")
            lateFee = CALCULATE_LATE_FEE(isbn)
            DISPLAY "Book returned successfully!"
            IF lateFee > 0 THEN
                DISPLAY "Late fee: $", lateFee
        ELSE
            DISPLAY "Book not found!"

    ELSE IF choice == 5 THEN
        DISPLAY "Search by: 1. Title 2. Author 3. ISBN"
        INPUT searchType
        DISPLAY "Enter search term:"
        INPUT searchTerm
        SEARCH book(searchType, searchTerm) IN libraryDatabase
        DISPLAY "Matching books found: ", results

    ELSE IF choice == 6 THEN
        GENERATE overdueReport FROM libraryDatabase
        DISPLAY overdueReport

    ELSE IF choice == 7 THEN
        DISPLAY "Exiting system..."
        EXIT

    ELSE
        DISPLAY "Invalid option! Please select again."

    WHILE TRUE

    Step 4: END
```

FLOWCHART:


Start
Initialize books and members databases
Display menu:
Add Book
Add Book
Return Book
Return Book
Generate Overdue Report
Remove Book
Generate Overdue Report
Search Book
Check Out Book
Search Book
Remove Book
Check Out Book
Perform selected operation:
Add Book operation
Add Book: Input title, author, ISBN; add to books with status = 'Available'
Check Out Book operation
Overdue Report operation
Overdue Report: List books with due_date &lt; current_date
Search Book operation
Return Book operation
Remove Book operation
Check Out Book: Input ISBN, member_id; update status = 'Checked Out' and set due_date
Search Book: Input search_term; find by title, author, or ISBN
Return Book: Input ISBN; update status = 'Available'; calculate late_fee if overdue
Remove Book: Input ISBN; remove from books
Repeat until exit
End

7. Fibonacci Sequence Generator

Program Description: Create a program that generates the Fibonacci sequence up to a specified number of terms. The Fibonacci sequence starts with 0 and 1, and each subsequent number is the sum of the two preceding numbers.

Key Features:

- Accept number of terms to generate
- Validate input is reasonable (positive integer within limits)
- Generate sequence using efficient algorithm

- Display sequence with appropriate formatting
- Option to save sequence to file

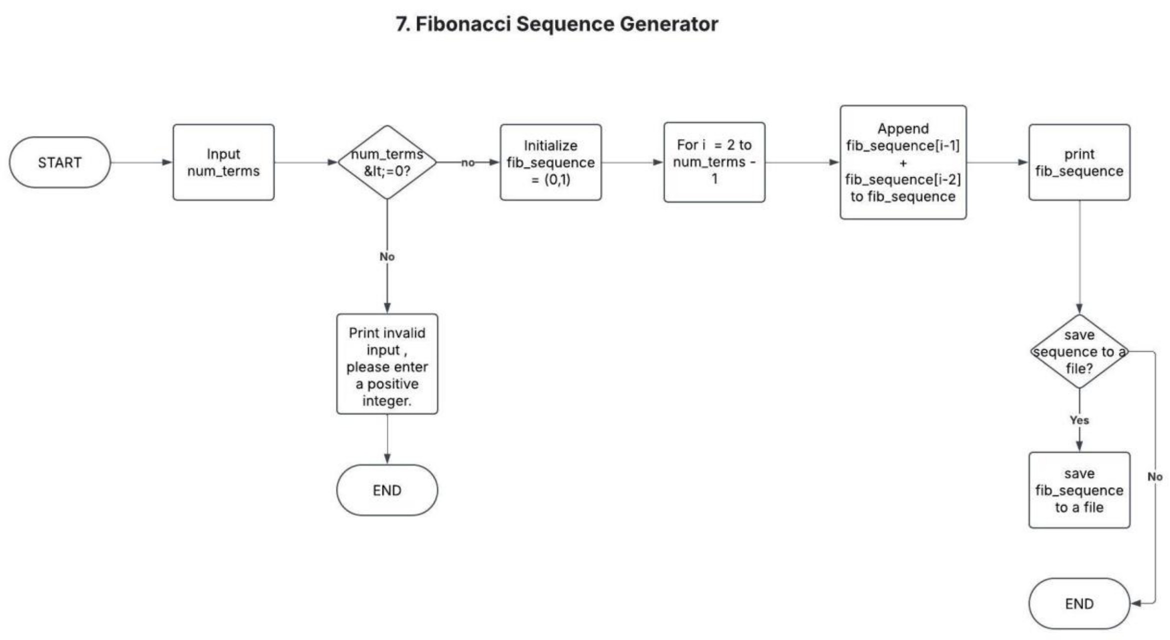
Algorithm:

```
Step 1: Start
Step 2: Input n
Step 3: Check if n is +ve
Step 4: If +ve, initialize a=0, b=1
Step 5: print a,b
Step 6: Use a loop to generate next Fibonacci numbers:
        c=a+b
        update a=b,b=c
        print c
Step 7: Stop
```

Pseudocode:

```
Step 1: BEGIN
Step 2:   PRINT "Enter the number of terms: "
  READ n

 Step 3:  IF n ≤ 0 THEN
    PRINT "Invalid input! Enter a positive integer."
    STOP
  ENDIF

  Step 4: SET first = 0, second = 1
  PRINT first, second

  Step 5: FOR i FROM 3 TO n DO
    SET next = first + second
    PRINT next
    SET first = second
    SET second = next
  ENDFOR

  Step 6: PRINT "Do you want to save the sequence to a file? (yes/no)"
  READ response

  Step 7:  IF response = "yes" THEN
    OPEN file "fibonacci_sequence.txt"
    WRITE sequence to file
    CLOSE file
    PRINT "Sequence saved successfully."
  ENDIF

Step 8: END
```

FLOWCHART:


7. Fibonacci Sequence Generator
START
Input num_terms
num_terms &lt;=0?
no
Initialize fib_sequence = (0,1)
For i = 2 to num_terms - 1
Append fib_sequence[i-1] + fib_sequence[i-2] to fib_sequence
print fib_sequence
No
Print invalid input , please enter a positive integer.
END
save sequence to a file?
Yes
save fib_sequence to a file
No
END

8. Calendar Event Scheduler

Program Description: Develop a program that allows users to schedule events on a calendar. Users should be able to add events with dates, times, and descriptions, view all events, and delete events.

Key Features:

- **Add events with title, date, time, and description**
- **Validate date and time inputs**
- **Store events in organized data structure**
- **Display events for a specific day, week, or month**
- **Search events by title or description**
- **Delete or modify existing events**
- **Set reminders for upcoming events**
- **Check for schedule conflicts**

<u>Algorithm:</u>

Step 1: Start

Step 2: **Initialize** an empty event list or database.

Step 3: **Display menu options**:

- Add event
- View events
- Search events
- Delete/Modify event
- Set reminders
- Exit

Step 4: **Add Event**:

- Ask the user for event title, date, time, and description.
- Validate date and time format.
- Check for schedule conflicts.
- If no conflict, store the event.

Step 5: **View Events**:

- Display events by day, week, or month.

Step 6: **Search Events**:

- Allow search by title or description.
- Display matching results.

Step 7: **Delete/Modify Events**:

- Ask for event title or date.
- Remove or modify event details.

Step 8: **Set Reminders**:

- Allow setting reminders for events.
- Notify the user when an event is near.

Step 9: STOP

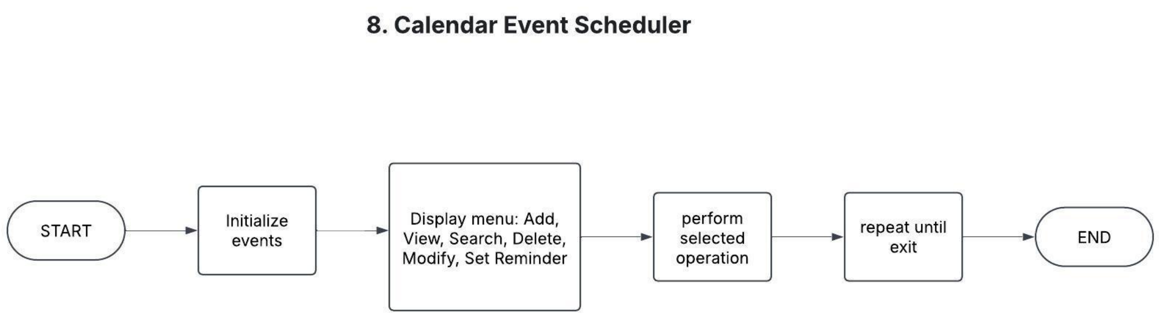
Pseudocode:

```
Step 1: BEGIN
Step 2:   DECLARE event_list as an empty array

  WHILE True DO
    PRINT "Calendar Event Scheduler"
    PRINT "1. Add Event"
    PRINT "2. View Events"
    PRINT "3. Search Event"
    PRINT "4. Delete/Modify Event"
    PRINT "5. Set Reminder"
    PRINT "6. Exit"
    PRINT "Choose an option: "
    READ choice

  Step 3:   IF choice = 1 THEN
```

```
    PRINT "Enter Event Title: "

    READ title

    PRINT "Enter Date (YYYY-MM-DD): "

    READ date

    PRINT "Enter Time (HH:MM): "

    READ time

    PRINT "Enter Description: "

    READ description


Step 4:     IF is_valid_date(date) AND is_valid_time(time) THEN

      IF check_conflict(date, time) = FALSE THEN

        ADD (title, date, time, description) to event_list

        PRINT "Event Added Successfully."

      ELSE

        PRINT "Schedule Conflict! Choose a different time."

      ENDIF

    ELSE

      PRINT "Invalid Date/Time Format."

    ENDIF


  ELSE IF choice = 2 THEN

    PRINT "View by: 1. Day 2. Week 3. Month"

    READ view_type

    DISPLAY events based on selection


  ELSE IF choice = 3 THEN

    PRINT "Enter search keyword: "

    READ keyword

    SEARCH event_list for matching title or description
    DISPLAY search results

  ELSE IF choice = 4 THEN
    PRINT "Enter event title or date to delete/modify: "
    READ event_key
    FIND event in event_list
    IF found THEN
      PRINT "1. Delete 2. Modify"
      READ action
      IF action = 1 THEN
        REMOVE event from event_list
        PRINT "Event Deleted."
      ELSE
        PRINT "Enter New Details: "
        UPDATE event
        PRINT "Event Modified."
      ENDIF
    ELSE
      PRINT "Event Not Found."
    ENDIF

  ELSE IF choice = 5 THEN
    PRINT "Enter event title to set reminder: "
    READ title
    FIND event in event_list
    IF found THEN
      PRINT "Enter reminder time before event (minutes): "
      READ reminder_time
      SET reminder
```

```
         PRINT "Reminder Set."
      ELSE
         PRINT "Event Not Found."
      ENDIF

   ELSE IF choice = 6 THEN
      PRINT "Exiting Program."
      BREAK
   ELSE
      PRINT "Invalid Option. Try Again."
   ENDIF
ENDWHILE
Step 5: END
```

FLOWCHART:


8. Calendar Event Scheduler
START
Initialize events
Display menu: Add, View, Search, Delete, Modify, Set Reminder
perform selected operation
repeat until exit
END