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UNIVERSITY INSTITUTE OF COMPUTING

PROJECT REPORT ON CALENDER

Program Name: BCA

Subject Name/Code: Data Structures(23CAT-201)

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ABSTRACT

Introduction:

This C++ calendar application allows users to generate a full yearly calendar by entering a specific year. The program performs essential calendar operations, such as determining leap years, calculating the start day of each month, and accurately displaying each month's layout based on the weekly cycle. This approach provides users with an intuitive calendar tool that dynamically adapts to any year input.

Technique:

The application is developed in C++ with a focus on structured programming principles. It employs the following techniques:

1. Function-Based Design: The use of separate functions for specific tasks, such as leap year checking, month display, and day alignment, helps maintain modularity and clarity in the code.
2. Conditional Logic for Calendar Structure: Conditional statements are used extensively to determine the number of days in each month, check for leap years, and manage line breaks within the monthly layout, allowing the calendar to dynamically adjust to different years.
3. Formatted Output with iomanip Library: The program uses the `iomanip` library to format the output, ensuring that day spacing and alignment of the calendar are visually consistent. Make it short

System Configuration:

- OS: macOS Sequoia
- Processor: Apple M2, 8-core CPU, 8-core GPU or higher recommended
- RAM: 4 GB (minimum); 8 GB recommended
- Development Environment: Any C++ IDE (e.g., Visual Studio, Code::Blocks) or Visual Studio Code with a C++ compiler (GCC or Microsoft C++ Compiler)

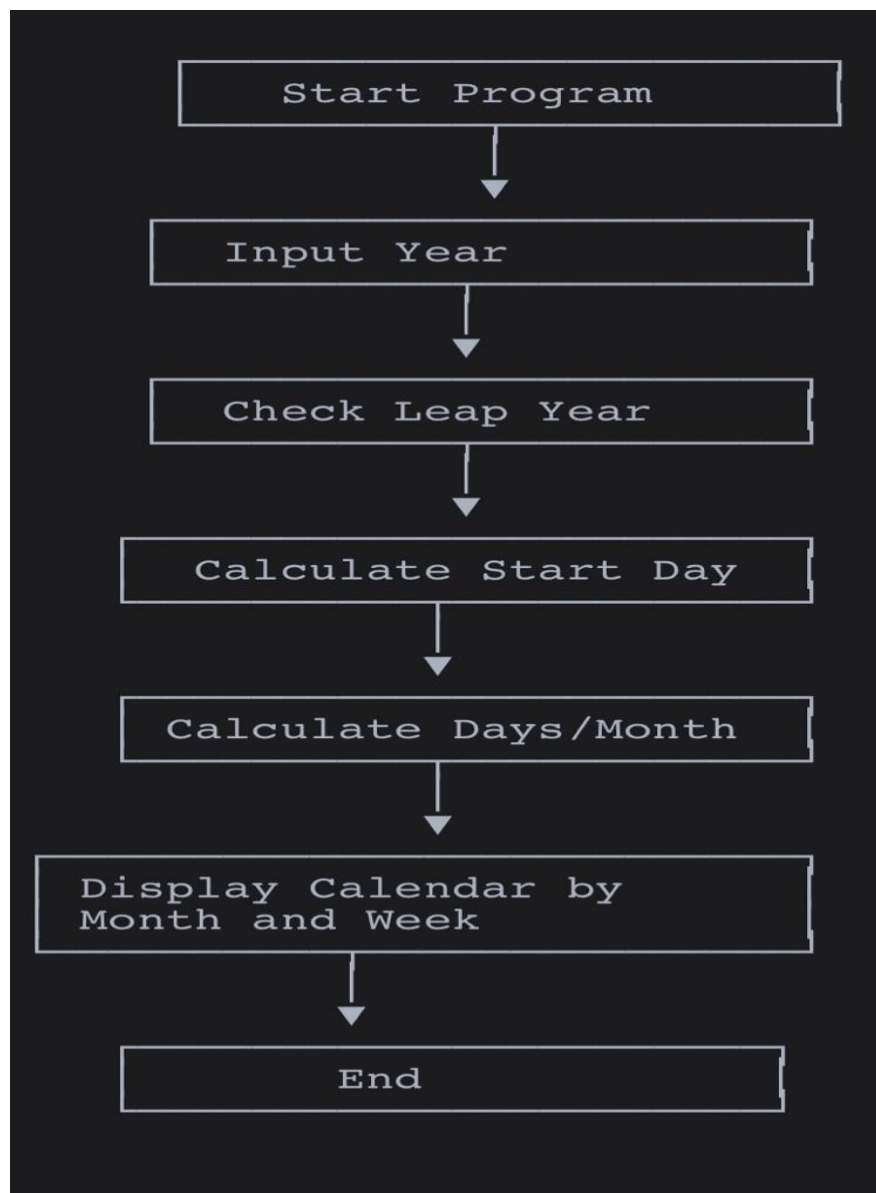
SUMMARY

Input:

Main Menu:

- The user is prompted to enter a year to generate the calendar for that specific year.

Process:





Output:

Enter the year : 2010

2010
January
S M T W T F S
1 2
3 4 5 6 7 8 9
10 11 12 13 14 15 16
17 18 19 20 21 22 23
24 25 26 27 28 29 30
31

February
S M T W T F S
1 2 3 4 5 6
7 8 9 10 11 12 13
14 15 16 17 18 19 20
21 22 23 24 25 26 27
28

March
S M T W T F S
1 2 3 4 5 6
7 8 9 10 11 12 13
14 15 16 17 18 19 20
21 22 23 24 25 26 27
28 29 30 31

April
S M T W T F S
1 2 3
4 5 6 7 8 9 10
11 12 13 14 15 16 17
18 19 20 21 22 23 24
25 26 27 28 29 30

May
S M T W T F S
1
2 3 4 5 6 7 8
9 10 11 12 13 14 15
16 17 18 19 20 21 22
23 24 25 26 27 28 29
30 31

June
S M T W T F S
1 2 3 4 5
6 7 8 9 10 11 12
13 14 15 16 17 18 19
20 21 22 23 24 25 26
27 28 29 30

July
S M T W T F S
1 2 3
4 5 6 7 8 9 10
11 12 13 14 15 16 17
18 19 20 21 22 23 24
25 26 27 28 29 30 31

August
S M T W T F S
1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30 31

September
S M T W T F S
1 2 3 4
5 6 7 8 9 10 11
12 13 14 15 16 17 18
19 20 21 22 23 24 25
26 27 28 29 30

October
S M T W T F S
1 2
3 4 5 6 7 8 9
10 11 12 13 14 15 16
17 18 19 20 21 22 23
24 25 26 27 28 29 30
31

November
S M T W T F S
1 2 3 4 5 6
7 8 9 10 11 12 13
14 15 16 17 18 19 20
21 22 23 24 25 26 27
28 29 30

December
S M T W T F S
1 2 3 4
5 6 7 8 9 10 11
12 13 14 15 16 17 18
19 20 21 22 23 24 25
26 27 28 29 30 31