DIGITAL CLOCK WITH DATE AND ALARM

Project Description:

This C++ project introduces a console-based digital clock with a seven-segment style interface, real-time and real date updates, and a flexible alarm feature. The clock showcases both 24-hour and 12-hour time formats, featuring AM/PM indicators as needed.

Key Features:

1. Seven-Segment Display: Utilizes predefined patterns for each digit (0-9), enhancing the visual appeal of the digital interface.

2. Real-Time and Date Updates: The clock dynamically updates the console display to accurately represent both the current time and date. The updating process includes:

- Incrementing the seconds variable with each iteration of the while loop.
- Upon reaching 60 seconds, incrementing the minutes variable by one and resetting the seconds to zero.
- Similarly, when the minutes reach 60, incrementing the hours by one and resetting the minutes to zero.
- Setting the hours to 00 when it reaches 24, adhering to the standard 24-hour time system
- Displaying the current date, including day, month, and year information.

3. Alarm Functionality: Users can set alarms using the clock's alarm feature. The functionality includes:

- Setting a specific time for the alarm to trigger.
- Receiving notifications when the specified time is reached.
- User-friendly interface for alarm setting and management.

Development Purpose:

This educational project serves as a practical demonstration of fundamental C++ programming concepts, including console graphics, time manipulation, user input handling, and the implementation of additional features like real-time date updates and

alarms. We developed this project to provide hands-on experience and create a learning resource for individuals interested in mastering the basics of console application development in C++.

Submitted By: TEAM_BIG_BANG

Name : Jafir Mia Tasin
Registration Number: 2021331023

Name : Sanjana Yesmin
Registration Number: 2021331047