

TITLE: Streak Sentinel

A Smart Streak-Maintaining Software

Team Members

1.Harsimran Singh - 2401030148

2.Medhansh kak - 2401030153

3.Aryan Sharma - 2401030159

Abstract

In the modern era of productivity tracking, maintaining streaks for daily habits, learning, and tasks is crucial for motivation and consistency. *Streak Sentinel* is an advanced streak-maintaining software designed to help users track their daily tasks efficiently. Users will log in using a secure file-handling system, ensuring personalized streak tracking.

The software will feature:

- **Task Management:** Users can add and view tasks.
- **One-Check-Per-Day System:** A complex time validation system ensures only one task check per day, preventing streak manipulation.
- **Intuitive Streak Visualization:** A calendar-based display will track progress, with potential graphical representations for enhanced user experience.
- **User-Friendly Interface:** A creative and interactive method to check daily tasks, making streak maintenance engaging.

This project will be implemented in C/C++, utilizing **file handling** for user data storage and **structured algorithms** to enforce the streak rules. The software's interface may evolve into a graphical version, but currently, it will include conio.h for smooth console-based interactions.

Topics and Concepts

1. File Handling (Core Feature)
2. Object-Oriented Programming (OOP)
3. Data Structures & Algorithms
4. Time-Based Logic (One Check Per Day)
5. UI concepts and other Basic concepts of SDF-1

Header Files and Libraries

`#include <iostream> // For input and output`

`#include <fstream> // For file handling`

`#include <string> // For handling strings`

`#include <ctime> // For time-related
functions`

`#include <conio.h> // For console-based UI
(Windows only)`