

Classroom Attendance Management System

A C Programming Project for Educational Institutions Etc.,

Presented by:

Sanjana B - CSE212

Sasikiran TT - CSE216

Tharunika SS - CSE253

Surya P - CSE246



Problem Statement

Current Challenges

Manual attendance is time-consuming, prone to errors, and difficult to manage over time.

Objective

Build a system that automates student registration and attendance tracking.

Solution

A structured C-based attendance management system with report generation capabilities.

Impact

Helps teachers save time and maintain accurate records.



Software Used

Development Tools

IDE: Code::Blocks, Dev-C++
Compiler: GCC, MinGW

Additional Tools

Git for version control.

Libraries

stdio.h, stdlib.h, string.h,
time.h

Operating Systems

Windows 11



Use Case Diagram



Admin

Manages all the records of the system.



Staff

Manages student records and attendance.



Student

Attendance Status Monitoring Capability

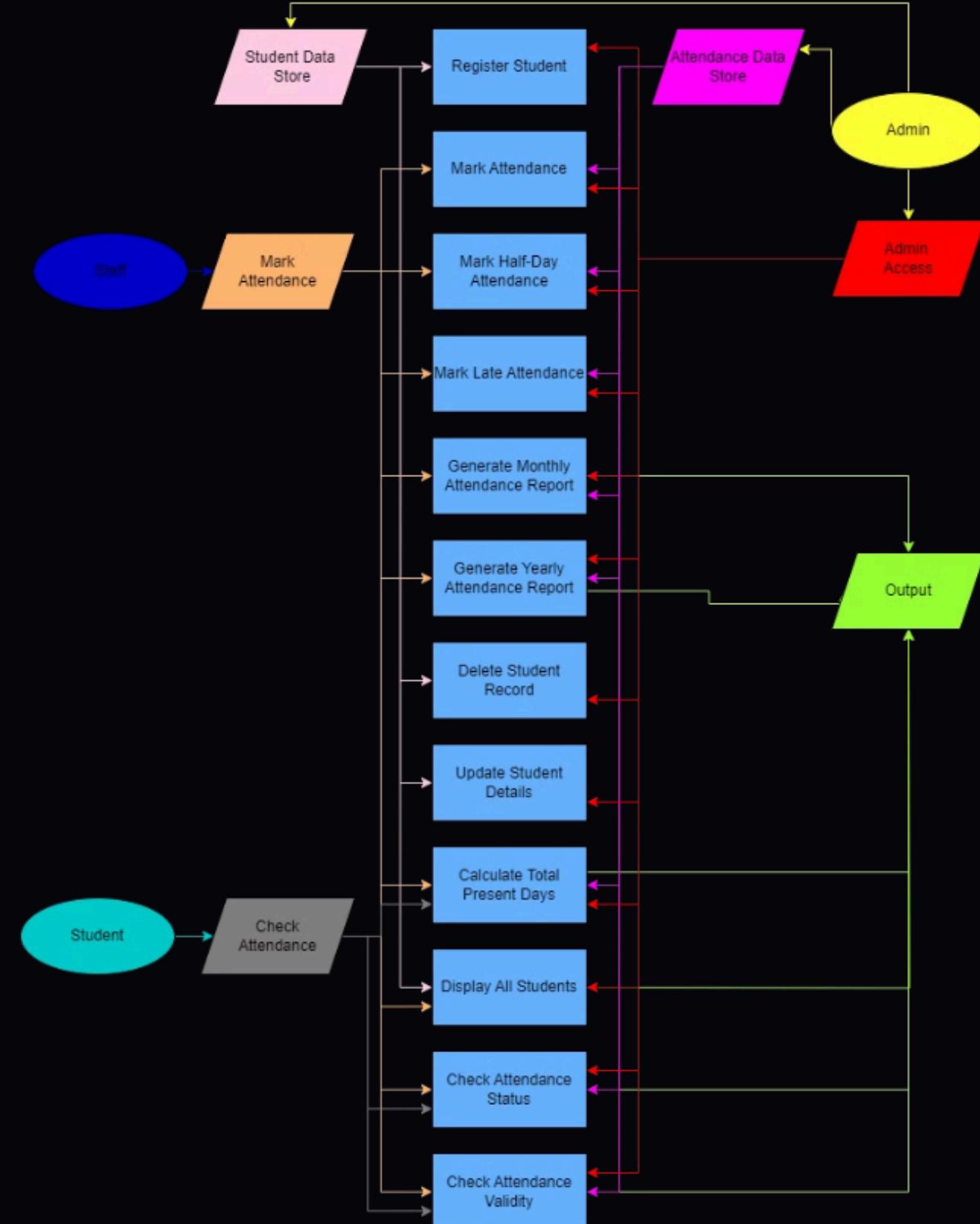
Data Flow Diagram



Input: Student data and attendance status

Processing: Updates records and calculates attendance percentage

Output: Monthly and yearly attendance reports





Core Modules – Student Management, Attendance Management



Functions

Register new students with ID, name, and initial attendance data.

Update or delete student records as needed.

Mark daily attendance as Present or Absent.

Mark half-day attendance for morning or afternoon sessions.

Track late entries and adjust attendance percentage accordingly.

Core Modules – Report Generation & Data Management

Report Types

Monthly Attendance Report for individual months.

Yearly Attendance Report showing overall attendance.

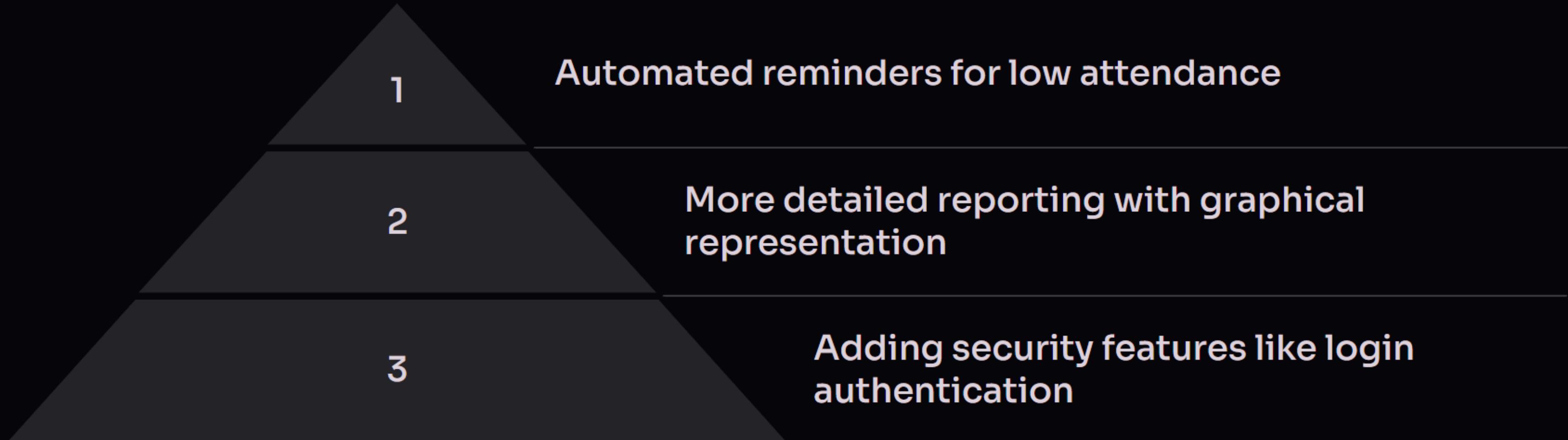
Data Handling

File handling ensures that data is saved securely.

Validation Checks

Ensures future dates and incorrect inputs are flagged as errors.

Future Work



Technical Challenges Faced

Data Integrity: Ensuring accurate and consistent attendance records.

Date Validation: Preventing future date attendance entries.

Error Handling: Managing invalid inputs and non-existent student records.



File Management: Properly saving and loading data from files.

Attendance Calculation: Correctly handling full, half, and late attendance.



Conclusion

Successfully developed a reliable classroom attendance system.

Simplifies attendance tracking and report generation.

Enhances efficiency and accuracy in managing student attendance.

Thank you for your attention!