Lecture Record Management System

Project Members

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Project Description

Lecture Management System is a console-based project written in C++. This project is developed with the help of file handling concepts to manage lecture, student, teacher, and course records efficiently.

The system stores all information in text files (.txt) using CSV format, which makes it easy to read, write, and manage records without using any database. This project is divided among three members, and each member worked on a specific module of the system.

My View – How the System Should Look

When the user runs or executes the program, it provides a menu-based interface where different options are available to manage records.

The system allows the user to:

- Add new records
- View saved records
- Count lectures conducted
- Check remaining lectures

All data is handled using ifstream, ofstream, and stringstream in C++.

Module Distribution (Group Work)

1. Lecture Management Module (Maryam)

This module is responsible for managing lecture records.

Features:

- Add lecture details
- Store lecture records in LectureRecord.txt
- Read all lecture records
- Count lectures conducted for a specific course
- Calculate remaining lectures in a semester

Lecture Information Stored:

- Lecture ID
- Course ID
- Date
- Time
- Block
- Room Number
- Lecture Type (Original / Makeup)
- Makeup Reason (Holiday, Teacher Absent, Event, Other)
- Lecture Number

This module helps in tracking both **original and makeup lectures** accurately.

2. Student Record Management Module (Sidra)

This module manages student-related information.

Features:

- Add student record
- Store data in StudentRecord.txt
- Read all student records

Student Information Stored:

- Student ID

- Student Name
- Semester
- Department

This module helps in maintaining a proper record of students enrolled in the system.

3. Teacher and Course Management Module (Zunair)

This module manages teacher and course records.

Teacher Management

- Add teacher record
- Store data in Teacher.txt

Teacher Information Stored:

- Teacher ID
- Teacher Name
- Department

Course Management

- Add course record
- Store data in Course.txt

Course Information Stored:

- Course ID
- Course Code
- Course Name
- Teacher Name
- Semester
- Department
- Total Lectures

This module connects teachers and courses with the lecture management system.

Files Used in the Project

The project uses the following text files for data storage:

- LectureRecord.txt
- StudentRecord.txt
- Teacher.txt
- Course.txt

All files are maintained in **CSV format** for easy data handling.

Concepts Used

- File Handling (ifstream, ofstream)
- stringstream for data parsing
- Functions
- Conditional statements
- Loops
- Menu-driven programming

Conclusion

The Lecture Management System provides a simple and effective way to manage lecture schedules, students, teachers, and courses using C++.
This project is developed with the help of group members' code, where each module works together to form a complete management system.
It demonstrates practical use of file handling, structured programming, and teamwork, making it suitable for academic purposes.