UNICOM Tic
MANAGEMENT SYSTEM

C# Final Project Report

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Acknowledgement

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Abstract

This project, titled 'Student Course Room Management System', is developed using C# (Windows Forms) and SQLite. It helps institutions manage student information, assign courses, allocate rooms, and prepare timetables efficiently. It aims to reduce manual work, improve accuracy, and streamline academic resource management.

Introduction

Managing students, classrooms, and schedules is a complex task in educational institutions. This project aims to provide a computerized system to handle such data efficiently using C# Windows Forms and SQLite database. It includes modules for student registration, course management, room allocation, and timetable scheduling.

Objectives

- To develop a simple and efficient management system for institutions.
- To automate the processes of student registration, course allocation, and timetable generation.
- To store data securely using a lightweight embedded database (SQLite).

Problem Statement

Manual systems for managing students, rooms, and courses are often error-prone and time-consuming. There is a need for a user-friendly software system that can manage these operations efficiently and accurately.

Existing System vs Proposed System

The existing manual systems suffer from inefficiencies like duplication, errors, and lack of centralized data. The proposed computerized system is designed to overcome these issues by offering structured data entry forms, database connectivity, and quick data retrieval.

System Design

The system is designed using a modular approach. It contains forms such as StudentForm, CourseForm, RoomForm, and TimetableForm. Each form connects to the SQLite database

via ADO.NET and performs CRUD (Create, Read, Update, Delete) operations on respective tables.

Implementation Details

The application is implemented in C# using Windows Forms. Each module uses event-driven programming to respond to user actions. Database operations are handled using SQLite commands embedded in controller classes. Data validation is also implemented to ensure proper data entry.

Technologies Used

- Programming Language: C#
- GUI: Windows Forms
- Database: SQLite
- Tools: Visual Studio
- Data Access: ADO.NET

Testing

The system was tested module-wise. Student registration, course assignment, room scheduling, and timetable generation were tested thoroughly. Input validation, error handling, and database integrity were also verified.

Conclusion

The Student Course Room Management System successfully automates institutional operations related to students, rooms, and schedules. It simplifies the data entry process, reduces manual errors, and allows for easy access to student-related data.

Future Enhancements

In the future, this project can be extended to include features like user login roles, report generation, cloud-based database support, and integration with SMS/email notification systems.


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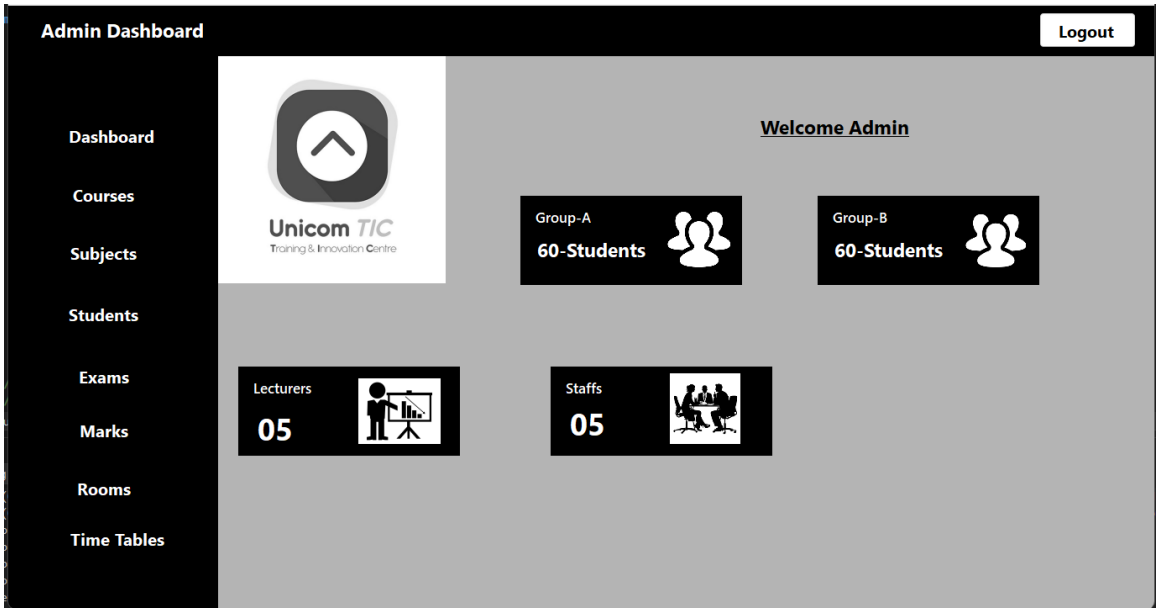
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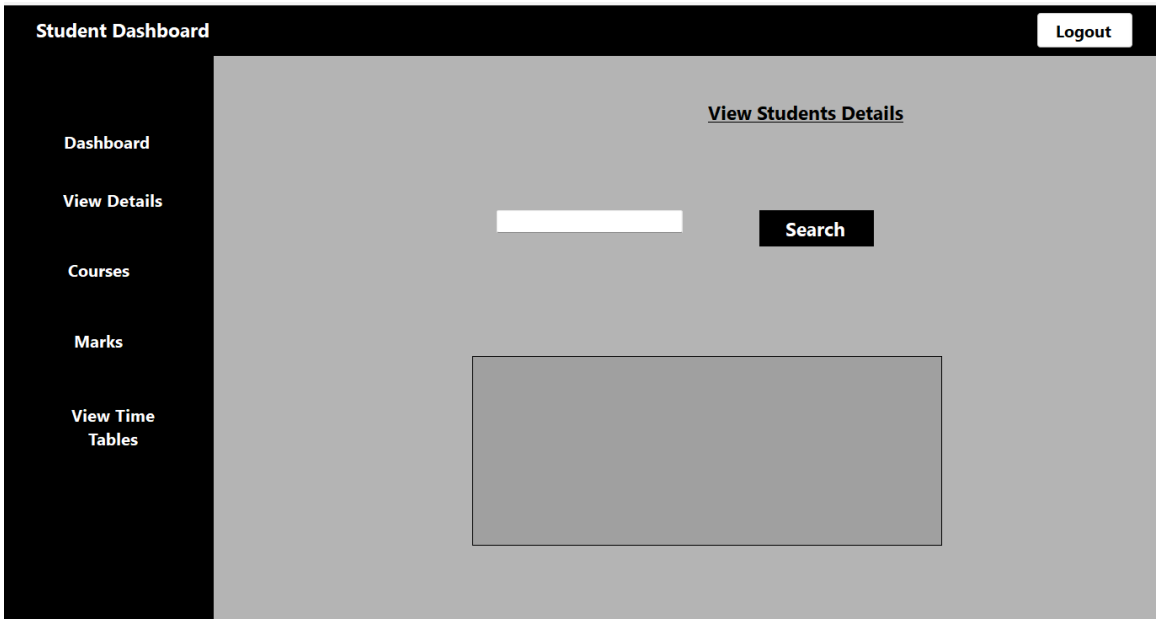
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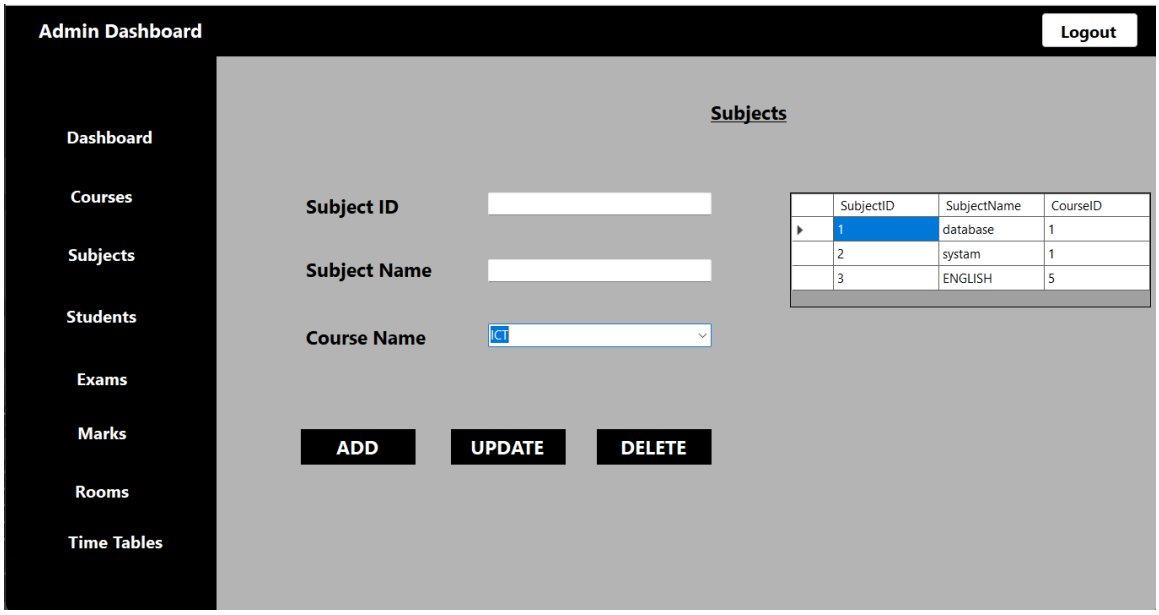
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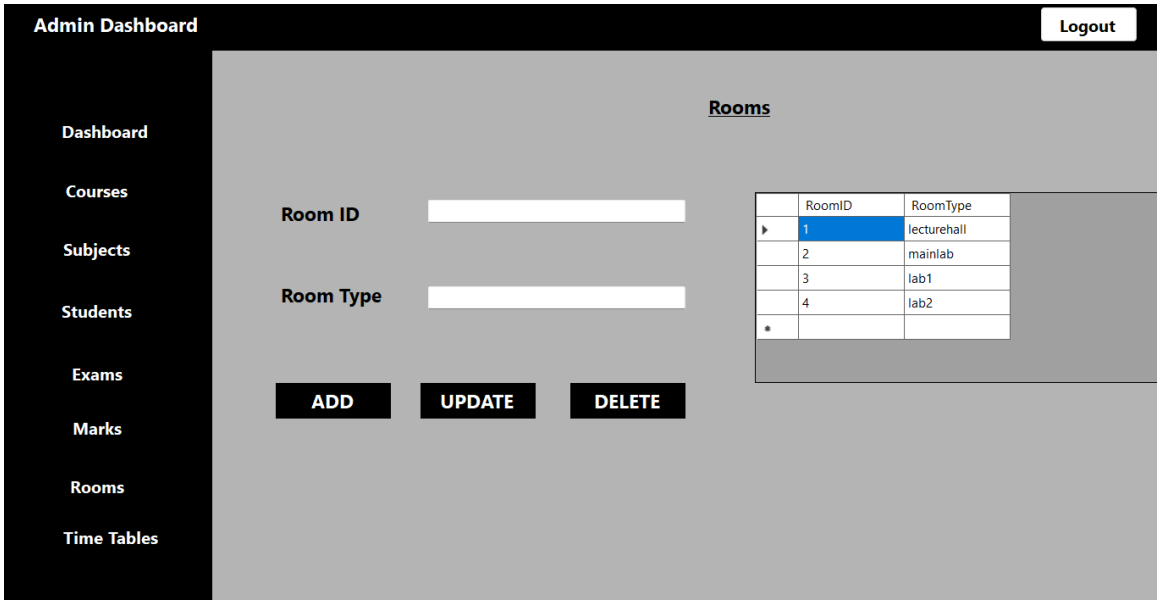
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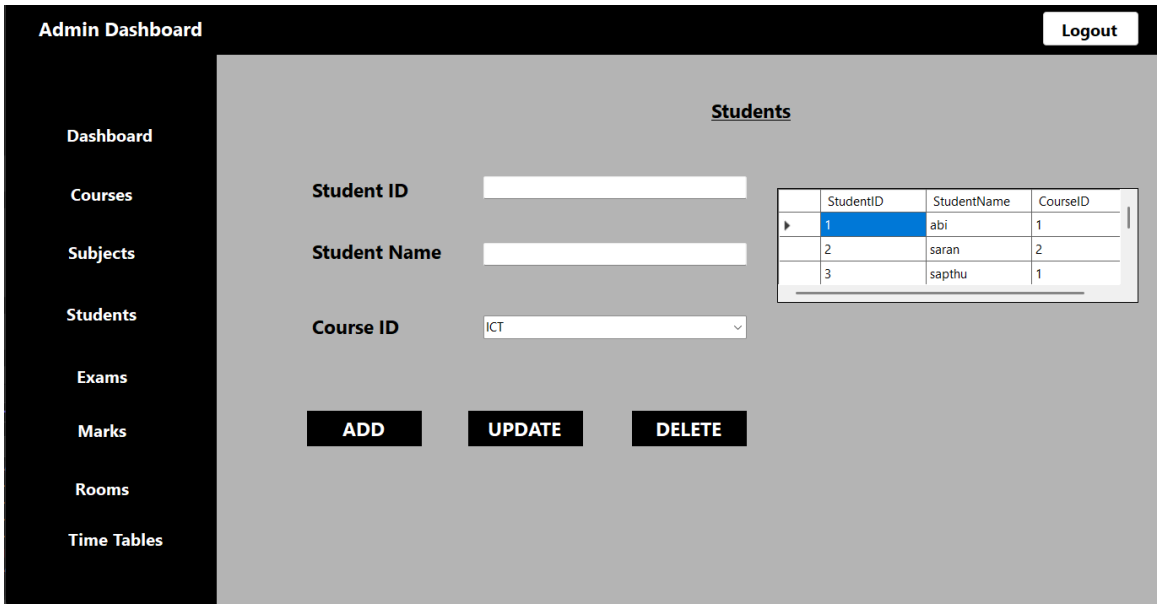
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