Unicom Tic Management System

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• UT No : UT010458

• Batch :2025

• Under the guidance of: Lecture and ChatGPT

Introduction & Acknowledgement

The "Unicom Management System" is developed using the MVC (Model-View-Controller) architecture with C# and SQLite. It is designed to manage students, staff, timetable, rooms, attendance, and exams. This project supports role-based login (Admin, Staff, Lecturer, Student) with password authentication, and each module supports full CRUD operations.

I thank my institution and staff for their support. My heartfelt thanks to my friends, AI tools and family for their motivation and encouragement.

Objective of the Project

- To manage educational institution data efficiently.
- To implement secure login with role-based access.
- To use proper design (OOP concepts, MVC) for better maintainability.
- To provide user-friendly UI in WinForms.
- To store and manage data securely using SQLite.

Extra Features

- Role-Based Login (Admin, Staff, Lecturer, Student)
- Password Access
- All Forms with Add, Update, Delete, View
- Try-Catch Exception Handling
- Data Persistence with SQLite
- Section-wise subject mapping

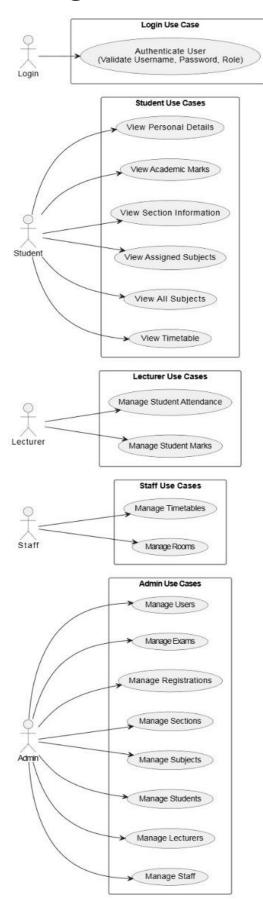
Technical Details

	<u>Feature</u>	Technology Used
•	Language	C#
•	UI Framework	WinForms
•	Architecture	MVC (Model-View-Controller)
•	Database	SQLite
•	Diagram Tool	Draw io
•	Project Planning	Excel (Gantt Chart)
•	IDE	Visual Studio

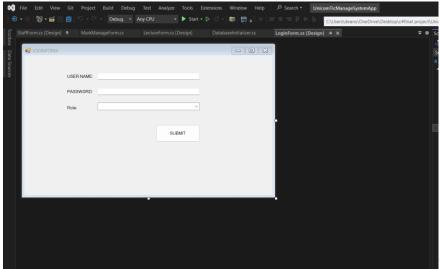
Budget Plan

<u>Item</u>	Estimated Cost (LKR)
 Developer 	15,000
 Domain Name 	3,000
 Server Hosting 	5,000
• Software Tools (VS, DB, Draw.io - Free)	0
 Maintenance (Yearly) 	4,000
Profit Margin	8,000
• Total	35,000

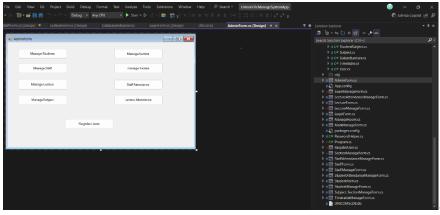
■ Design – Use Case Diagram



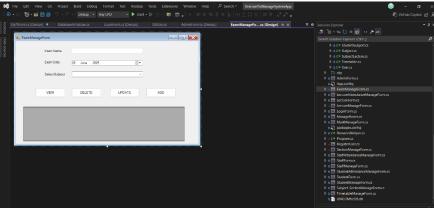
MVC Pattern(my code)



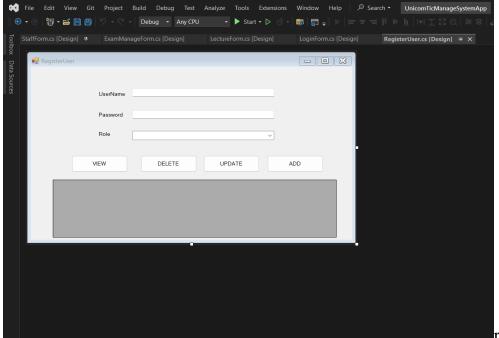
login form



admin form



exam form



register form

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Staffformus (Design) - # Login Formus Managefloomus (Design) Managefloomus Register/Design) Staffis Studentus -> X < 7 - $ Solution Explorer

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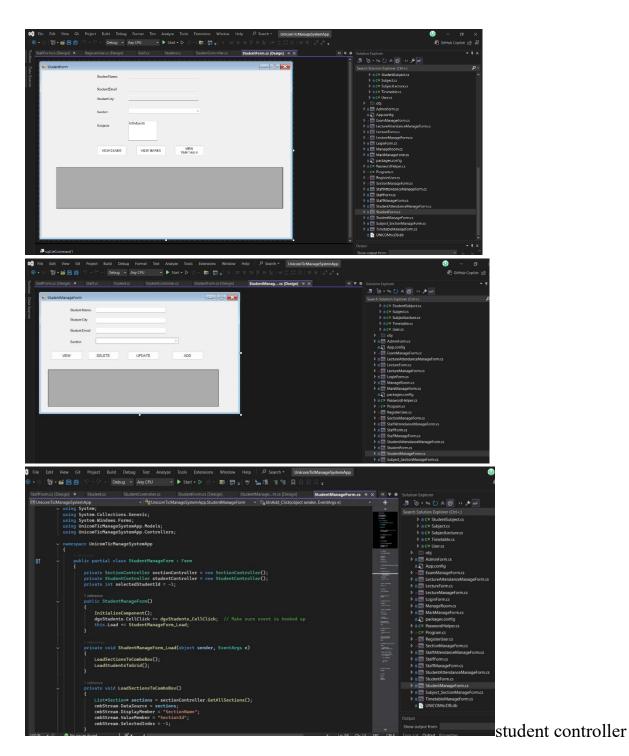
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using System.Linq;
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              using System.Text;
using System.Threading.Tasks;
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                                                                                                                                                    ▶ a C# UserController.cs

▲ ■ Data
             y namespace UniconTicManageSystemApp.Models
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                                                                                                                                                    P ≠ C# DbCones

■ Models

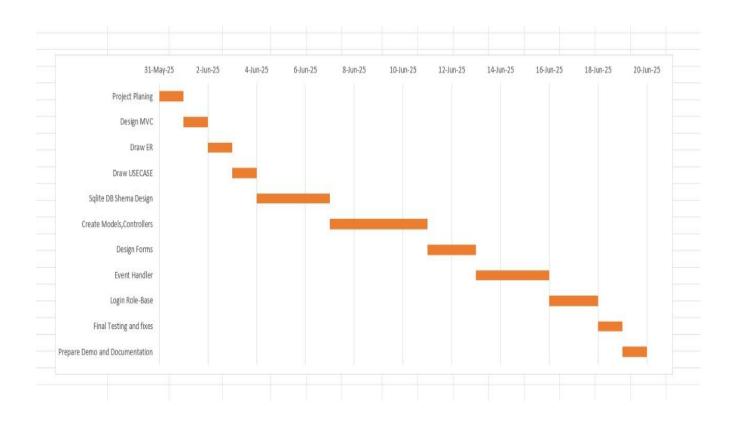
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                      public string Email ( get; set; )
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                   public string City ( get; set; )
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                      public int? SectionId { get; set; }
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                                                                                                                                                     D a C# Timetable.cs
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                                                                                                                                                   ▶ a  Adminform.cs
                                                                                                                                                     a 🎧 App.config
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student model class



Oop-student form :form

Gantt Chart



References

- Microsoft Documentation C# WinForms
- SQLite Official Documentation
- Draw.io Diagramming Tool