

UTS: ENGINEERING & INFORMATION TECHNOLOGY

SUBJECT NUMBER & NAME 31927 - Applications Development with .NET 32998 - .NET Applications Development	NAME OF STUDENT(s) (PRINT CLEARLY) <i>Adas Fatin</i> <i>Muhammad umer jamil</i>	STUDENT ID(s) 24506800 24890586
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NAME OF TUTOR Zohair Gandhi	TUTORIAL GROUP Tut06	DUE DATE 29/10/24
ASSESSMENT ITEM NUMBER & TITLE ASSIGNMENT-2: Group Project		
<ul style="list-style-type: none">- I confirm that I have read, understood and followed the guidelines for assignment submission and presentation on page 2 of this cover sheet.- I confirm that I have read, understood and followed the advice in the Subject Outline about assessment requirements.- I understand that if this assignment is submitted after the due date it may incur a penalty for lateness unless I have previously had an extension of time approved and have attached the written confirmation of this extension. <p>Declaration of originality: The work contained in this assignment, other than that specifically attributed to another source, is that of the author(s) and has not been previously submitted for assessment. I understand that, should this declaration be found to be false, disciplinary action could be taken and penalties imposed in accordance with University policy and rules. In the statement below, I have indicated the extent to which I have collaborated with others, whom I have named.</p> <p>Statement of collaboration: We have equally collaborated on this project as outlined in individual contributions</p> <p>Signature of student(s)</p> <p>_____ F.A. _____ M.J. _____ Date 28/10/24</p>		

31927 32998 Application Development with .NET .NET Application Development

ASSIGNMENT-2: Group Project

UniManage - University Student Organisation System

Introduction

Nowadays, being a university student means facing the challenge of juggling multiple subjects, assignments, and deadlines to make sure they are not forgotten and completed on time. The UniManage system provides an all-in-one platform for students to manage their subjects, track assignments and their grades, conveniently and through a simple user interface.

Project Purpose

The primary objective of UniManage is to help university students effectively organise their academic lives alone in one system. The application provides tools to manage subjects, track assignment progress and calculate grades. The system will enable students to add, modify, and delete subjects, with a dedicated subject dashboard that includes an assignment tracker and grade calculator.

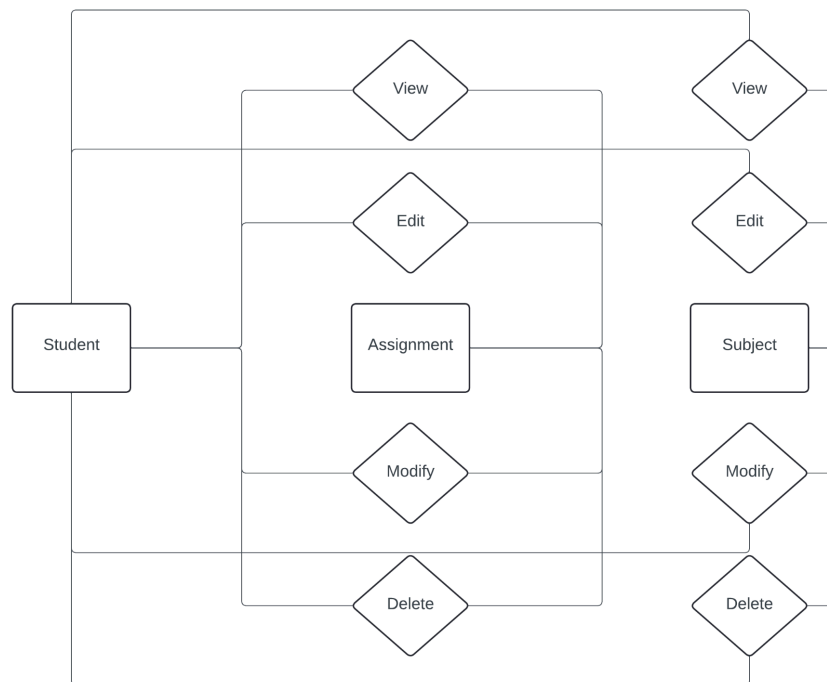
Development approach

The main development approach for this system was following the Model-View-ViewModel (MVVM) pattern. There were model, data, views, and viewmodel folders created that highlight this pattern integrating separation of concerns to ensure that the flow from user to input to database functionality is smooth.

The following frameworks and libraries were used to create this system:

- Entity Framework core for database management. The User, Subject, and Assignment tables are mapped to corresponding C# models, allowing the system to persist and retrieve data efficiently without writing raw SQL queries.
- An external MySQL database is used for managing persistent data. Which is coded to be automatically developed when the project is run.
- LINQ for querying the database and simplifying interactions with the EF models.
- WPF (Windows Presentation Foundation) for creating the user interface, providing modern, responsive, and resizable GUI components.
- NUnit for testing key functionalities

Flowchart



Team Contribution

Fatin Adas	<ul style="list-style-type: none">- Created report, completed initial intro, purpose and development approach- Completed the final DB setup- Completed the subjects feature and views(Add/delete/modify subjects)- Made the navigation bar, subject dashboard view- Completed the login function and view
Muhammad Umer Jamil	<ul style="list-style-type: none">- Created SignUp Function and View- Created Database Functionality- Completed Assignment Features (Add/delete/view/modify)- Created FlowChart Representation- Created To-Do-List