DESCRIPTION OF COURSEWORK

Course Code	SWE310
Course Name	Programming Elective II (2): .NET
Lecturer	Teo Bee Guan
Academic Session	2025/04
Assessment Title	Group Project

A. Introduction/ Situation/ Background Information

This assignment is aimed at building a fundamental web page using the .NET Framework. You will gain practical experience structuring web content with HTML, styling its presentation with CSS, and leveraging the .NET environment to serve this content to a web browser. The goal is to create a functional and visually presentable single-page website, laying the groundwork for understanding more complex web development concepts within the .NET ecosystem.

B. Course Learning Outcomes (CLO) covered

At the end of this assessment, students are able to:

CLO 3 Demonstrate teamwork in the development platform of .NET.

C. University Policy on Academic Misconduct

1. Academic misconduct is a serious offense in Xiamen University Malaysia. It can be defined as any of the following:
   i. **Plagiarism** is submitting or presenting someone else's work, words, ideas, data or information as your own intentionally or unintentionally. This includes incorporating published and unpublished material, whether in manuscript, printed or electronic form into your work without acknowledging the source (the person and the work).
   ii. **Collusion** is two or more people collaborating on a piece of work (in part or whole) which is intended to be wholly individual and passed it off as own individual work.
   iii. **Cheating** is an act of dishonesty or fraud in order to gain an unfair advantage in an assessment. This includes using or attempting to use, or assisting another to use materials

that are prohibited or inappropriate, commissioning work from a third party, falsifying data, or breaching any examination rules.

2. All assessments submitted must be the student's own work, without any materials generated by AI tools, including direct copying and pasting of text or paraphrasing. Any form of academic misconduct, including using prohibited materials or inappropriate assistance, is a serious offense and will result in a zero mark for the entire assessment or part of it. If there is more than one guilty party, such as in case of collusion, all parties involved will receive the same penalty.

D. Instruction to Students

1. This is a group project and you are required to work in a team of four members.
2. Due Date: **8 July 2025, 11:59 PM**
3. Submit on Moodle - Source Codes in a zipped Folder.

E. Evaluation Breakdown

No.	Component Title	Mark
1.	Part 1 – App Development	70
2.	Part 2 – Presentation	30
	TOTAL	**100**

F. Task(s)

Part 1 (70 Marks)

This project is a full-stack web-based task and project management system designed to help teams plan, organize, and track work effectively. It enables users to manage tasks across multiple projects, assign responsibilities, monitor progress, and collaborate through in-task comments and shared dashboards.

The system supports both individual productivity and team coordination, making it suitable for use in software development teams, academic project groups, and business operations.

It's similar to a simplified version of Trello or Asana.

Key Functional Modules

1. **User & Team Management**
   - Role-based access: Admin, Project Manager, Contributor
   - User registration and login (JWT-based authentication)
   - Assign users to specific projects
2. **Project Management**
   - Create, edit, archive projects
   - Add members to a project workspace
   - Define project goals and timelines
3. **Task & Subtask Management**
   - Create and assign tasks to team members
   - Support for task priority, due dates, and file attachments
   - Task status transitions: To-Do → In Progress → Done
4. **Collaboration**
   - Commenting system per task
   - Mention users to notify them
5. **Dashboard & Insights**
   - Personal dashboard: upcoming and overdue tasks
   - Project dashboard: overall progress, task distribution
   - Visual analytics (bar charts, pie charts, timelines)

Required Tech Stack

- **Frontend:** Built with React, using React Router, Axios, and optionally Tailwind CSS
- **Backend:** ASP.NET Core Web API, with Entity Framework Core and SQL Server
- **Authentication:** JWT-based login and role handling

Part 2: Group Presentation

Now that your app is ready, your team will present the task and project management system to a panel of potential buyers, corporate stakeholders, or angel investors. The goal is to demonstrate value, showcase core functionality, and build confidence that this solution can enhance operational efficiency, foster team collaboration, and promote work transparency.

Presentation Time

- Date: Week 15 Lecture Hours
- Duration: 10–15 minutes
- Include Q&A session (2–3 minutes)
- Every member should participate in the presentation.

Content Requirements

1. **Project Title & Overview**
   - Provide a clear and meaningful project title
2. **Problem Statement**
   - Explain the real-world problem your system is addressing
   - Identify the challenges faced by potential users without this system
3. **Project Objectives**
   - List the key goals or outcomes your team aimed to achieve
4. **Target Users**
   - Briefly describe the intended user group(s) (e.g., teams, students, businesses)
5. **Key Features**
   - List 4–6 core features of your system (e.g., task creation, project board, commenting, dashboards)
6. **Live Demonstration *(optional but encouraged)***
   - Show the actual working system (hosted or on localhost)
   - Demonstrate core features like task assignment or project creation

7. **Challenges & Solutions**
    - Describe 1–2 key technical or project management challenges
    - Explain how your team solved or addressed them

8. **Future Enhancements**
    - List 2–3 improvements or additional features you would add in the future

9. **Conclusion**
    - Recap the project's impact and value
    - Summarize what your team learned during development

APPENDIX 1

MARKING RUBRICS

Component Title	**Group Project**				**Mark**	**100**	
Criteria	**Score and Descriptors**					**Weight (%)**	**Marks**
	Excellent (25-30)	**Good (18-24)**	**Average (12-17)**	**Need Improvement (6-11)**	**Poor (0-5)**		
Part 1 (Core Feature Implementation)	All core features fully implemented and working smoothly (task, status, project, comment, dashboard)	Most features implemented with minor issues	Basic task management works; limited in other features	Only task creation and listing work; missing advanced features	Barely functional or mostly incomplete	30	
	Excellent (13-15)	**Good (10-12)**	**Average (7-9)**	**Need Improvement (4-6)**	**Poor (0-3)**		
Part 1 (Authentication & Role Control)	Secure login + registration + role-based access (e.g., Admin/User); JWT used properly	Basic auth working, minor security/logical flaws	Login works, but no roles or token handling.	Incomplete or insecure login only	Not working or missing entirely	15	
Part 1 (CRUD API Coverage)	Full CRUD for tasks, users, projects; RESTful and consistent	Mostly complete with few missing endpoints	Limited CRUD; some endpoints not tested	Only basic GET or POST works	CRUD operations missing or broken	15	
	Excellent (9-10)	**Good (7-8)**	**Average (5-6)**	**Need Improvement (3-4)**	**Poor (0-2)**		
Part 1 (Validation & Error Handling)	Both frontend and backend validations; user-friendly error feedback	Mostly covered; some error paths unclear or unhandled	Basic validation present, error handling inconsistent	Few validations; many silent or unhandled errors	No validation; app crashes or misbehaves frequently	10	

	Excellent (9-10)	Good (7-8)	Average (5-6)	Need Improvement (3-4)	Poor (0-2)		
Part 2 (Content Coverage)	Covers all required sections (title, problem, features, architecture, demo, conclusion)	Covers most key areas with good structure	Covers basics; some areas lack clarity or depth	Misses several important sections	Incomplete or irrelevant content	10	
Part 2 (Clarity & Delivery)	Clear voice, confident posture, natural flow; good pacing; presenters are well-prepared	Mostly clear; occasional stumbles; overall good presentation	Understandable, but includes frequent pauses or confusion	Hard to follow, low confidence, unclear speaking	Mumbled or disengaged; hard to understand	10	
Part 2 (Visual Aids)	Uses clear, consistent visuals (slides, diagrams, screenshots); visually appealing	visuals (slides, diagrams, screenshots); visually appealing Visuals mostly clear and helpful; minor inconsistencies	Basic visuals, lacks consistency or polish	Cluttered slides or missing key visuals	No visuals or unreadable slides	10	
					TOTAL	**100**	