A Distributor selling **Mobile Phones products** to authorized reseller / agents needs software with the following functions *(Một nhà phân phối bán **điện thoại** cho các Đại Lý cần phần mềm với các chức năng sau)*:

- Accountants shall be able to create Goods Received when the distributor imports goods (a warehouse receipt will include many items) (Win Form / Web Form) *Phát triển chức năng cho kế toán tạo Phiếu nhập kho khi công ty nhập khẩu hàng về (1 phiếu nhập kho sẽ gồm nhiều mặt hàng) (Win Form / Web Form)*

- Reseller / Agents shall be able to place an order of items and choose a payment method (Cash, bank transfer, Momo...). Reseller / Agents would also make an online payment and see the status of their orders (Webform) *(Phát triển chức năng Web cho phép đại lý có thể đặt danh sách mặt hàng và chọn hình thức thanh toán (Tiền mặt, chuyển khoản, Momo…). Đại lý có thể thanh toán online và xem tình trạng đơn hàng.*

- Accountants shall be able to create Goods Delivery Note to deliver goods to agents (print delivery slips), update the status of orders as being transferred and update the payment status of agents. (Win Form / Web Form). *(Phát triển chức năng cho kế toán làm phiếu xuất kho để chuyển hàng cho các đại lý (in phiếu xuất hàng), cập nhật tình trạng đơn hàng là đang chuyển và cập nhật tình trạng thanh toán của đại lý.*

- Accountants shall be able to view incoming/outgoing stock report, best-selling products and revenue report monthly. (Form/Report) *(Phát triển chức năng cho kế toán phép xem lại thống kê hàng ra hàng vào, mặt hàng bán chạy nhất, doanh thu của từng tháng.*

- **High Distinction(HD) Task: A B2C website (or Mobile App) to sell products (*),** can use any programing language but should connect to the same **MSSQL Server.** *(Dành cho SV lấy điểm cộng và điểm 9-10 Phát triển Website hay Moblie App bán lẻ để bán sản phẩm(*) (Bất kỳ Ngôn ngữ lập trình nhưng kết nối vào chung **MSSQL Server**))*

Software Products (50%)

 Staffs use: (need a login function)
- Windows Form Project Build: staffs of distributor use when they are in the office.
- Web Forms Project: staff of distributor use when they are working from home

 Agents use: (either need an Agent ID / Agent Login: should be created by staff)
- When agents make a payment can link with VNPay
- Agent order confirmation: can be sent via Zalo or Email

 B2C Ecommerce Website/Mobile App:
- Any technology but make sure that the website connects to the same database MSSQL.
- Should connect to database via API or class library instead of connecting directly to the MSSQL Database

Report (50%):
- Complete the report according to the template below (From Title Page to Section 6)
- Presentation / Video recording demo and screenshot (link youtube, github,..)
- The list of products/Agents should have about 20-30 records
- Self-suggested Database structure (submit script database file include insert into to check plagiarism)
- Submit source code (students are free to choose any technologies for (*))
- 2 Students per group, *replace "a company" with your given name of members. For example; Nguyen Van **An** & Tran Thuy **Tien** then "An Tien Co.,Ltd". Show your group logo on any form/report.*

Deadline : 7May2023. (-1 point for each date late)

Grade : Report: 50% (see the table below) + Demo & Presentation & Interview: 50%

Final Report requires the following outline.

Title Page Executive Summary
Table of Contents List of
Figures List of Tables

1. Introduction

1.1.   Purpose and Scope
1.2.   Product Overview (including capabilities, scenarios for using the product, etc.)
1.3.   Structure of the Document
1.4.   Terms, Acronyms, and Abbreviations

2. Project Management Plan

2.1.   Project Organization
2.2.   Lifecycle Model Used
2.3.   Risk Analysis
2.4.   Hardware and Software Resource Requirements
        (Do not forget to describe what *new* software or hardware each team member learned during the project)
2.5.   Deliverables and Schedule
2.6.   Monitoring, Reporting, and Controlling Mechanisms
2.7.   Professional Standards
2.8.   Evidence all the artifacts have been placed under configuration management
2.9.   Impact of the project on individuals and organizations
        (Include a description of what impact your project will have on individuals and society)

3. Requirement Specifications

3.1.   Stakeholders for the system
3.2.   Use case model
3.2.1. Graphical use case model
3.2.2. Textual Description for each use case
3.3.   Functional requirements
3.4.   Non-functional requirements

4. Architecture

4.1.   Architectural style(s) used
4.2.   Architectural model
4.3.   Technology, software, and hardware used
4.4.   Rationale for your architectural style and model

5. Design

5.1.   Database design
5.2.   Static model – class diagrams

5.3. Dynamic model – sequence diagrams
5.4. Rationale for your detailed design model
5.5. Traceability from requirements to detailed design model

6. Test Plan

6.1. Requirements/specifications-based system level test cases
6.2. Traceability of test cases to use cases
6.3. Techniques used for test generation
6.4. Assessment of the goodness of your testsuite (Which metrics were used for such assessment?)

7. Demo

7.1. Database
7.2. Source code
7.3. Testing

References
(Must be complete, correctly formatted using the standard for IEEE/APA Conference Proceedings)

Notes:
Serious violations may result in disciplinary action by Faculty, you will receive zero points including but not limited to:
- o Each other's plagiarism will receive a penalty with zero point for both the giver and the copier.
- o Plagiarism from online sources (if any) are more than **30% (based on words count)**
- o Failed to comply with the following requirements for report submission.

Rubrics Assessment:

Item	Rubrics	1	2	3
	Points /10	0-0.25	0.25 – 0.5	0.5 – 1.0
1/ Project Management Plan	1.0	- No clear project management plan, no analysis	- Good project management plan but have some lack of depth and detail	- Clear and correct project management plan
2/ Requirements Specification	1.0			
Use case diagrams	0.5	- No use case diagrams or having significant errors.	- Having use case diagrams but with some acceptable errors	- Having correct and sufficient use case diagrams
Use case specification	0.5	- No use case specification or	- Having use case specifications but with some acceptable errors	- Having correct and sufficient use case specifications

3

Item	Rubrics	1	2	3
	Points /10	0-0.25	0.25 – 0.5	0.5 – 1.0
		having significant errors.		
3/ Architecture design	1.0	- No architecture design or having significant errors.	- Having architecture design but with some acceptable errors	- Having correct and sufficient architecture design
4/ Design	2.0			
Mockup/Prototype	0.5	Only Wireframe	Only Mockup	Have Mockup & Prototype
Class diagrams	0.5	- No class diagrams or having significant errors.	- Having class diagrams but with some acceptable errors	- Having correct and sufficient class diagrams
Sequence diagrams	0.5	- No sequence diagrams or having significant errors	- Having sequence diagrams but with some acceptable errors	- Having correct and sufficient sequence diagrams
Database design	0.5	- No database design or having significant errors	- Having database design but with some acceptable errors	- Having correct and sufficient database design
5/ Build apps with at least 4 main functions	2.0	- No application - No demo	- Having runnable applications with acceptable bugs - Having video demo	- Having runnable applications with good, stable functionalities - High quality video demo
6/ Coding Convention	0.5	- No or minimal coding convention.	- Having coding convention but not thorough	- Having thorough coding convention
7/ Testing, Test case, Unit test	1.0	- No testing - No unit test	- Having testing and unit test but not thorought	- Having thorough testing and unit test
8/ SVN/GIT	0.5	- Not using GIT/SVN	- Using GIT/SVN but not thorough	- Using GIT/SVN throughout the whole project.
9/ Hình thức báo cáo, demo	1.0	- Do not use standard report - Having significant grammatical and stylistic errors	- Few significant errors/mistakes in report	- Rich in content - Minimal errors - No grammatical errors - Full references
10/ High Distinction Task or Extra Point	1.0			- B2C Web - Mobile App via API

Item	Rubrics	1	2	3
	Points /10	0-0.25	0.25 – 0.5	0.5 – 1.0
				- Or MVC Web well performance
Total	10 + **1**			

For Demo-Presentation- Interview, Point can be:

- Windows Form Project: max 4 pts
- Web Form Project: max 4 pts
- Unit Test Project: max 2 pts, automation test may be getting more point.
- B2C Web/Mobile App: used to add points to get credit for 9,10
- VNPay, Zalo, Email API: max 2 pts
- If you create both ASP.Net MVC & ASP.Net Web Core for different purpose, you can get bonus point…

Điểm gồm 2 phần :

- Phần báo cáo như mục đánh giá các phần ở trên
- Phần demo sản phẩm, thuyết trình và vấn đáp, các yếu tố cân nhắc điểm
  - o Windows Form Project: tối đa 4 điểm
  - o Web Form Project: tối đa 4 điểm
  - o Unit Test Project: tối đa 2 điểm, automation test có thể được nhiều điểm hơn.
  - o B2C Web/Mobile App: dùng để cộng điểm cho SV giỏi để lấy điểm 9,10
  - o VNPay, Zalo, Email API: tối đa 2 điểm
  - o Nếu bạn tạo cả ASP.Net MVC & ASP.Net Web Core cho các mục đích khác nhau, bạn có thể nhận được điểm thưởng…

Deadline: 7May2023. Tất cả các form, report, database table,… và báo cáo đều là English.

Technology:

i) C# with Windows Form / Web Form (**either ASP.Net MVC or ASP.Net Web Core**)

ii) (*): B2C Web or Mobile App: can use .php, React/NodeJS,… but same database MSSQL)

iii) Create project repository with GitHub. Both students are required to work together on GitHub

Roles in software development