



SCHOOL OF COMPUTER SCIENCES

CMT425 ENTERPRISE ARCHITECTURE SYSTEMS
ACADEMIC SESSION 2023/2024, SEMESTER 2

ASSIGNMENT 1
(15%)

ASSIGNMENT GUIDELINES

OVERVIEW

This is a group assignment of **FOUR** with individual components. The assignment involves analysing and evaluating suitable approaches to enterprise architecture for various types of enterprises.

No two enterprises are the same. Each has a unique combination of size, industry, ownership structure, and business objectives. Understanding these differences is essential to developing effective strategies and achieving success. Table 1 below describes the different types of enterprises with examples:

Table 1: Types of Enterprises

Type of enterprise	Description	Example
Small and Medium Enterprises (SMEs)	Small and Medium-sized Enterprises (SMEs) have relatively small revenue, assets, or number of employees. These enterprises usually operate in a single location or within a specific region. SMEs play a very important role in driving economic growth and innovation. They can be family-owned businesses, startups, or independent ventures.	Example 1: OldTown Berhad - A Malaysian-based company that operates a chain of cafes specialising in Malaysian-style coffee, tea, and local cuisine. Example 2: MyBurgerLab - A popular Malaysian burger joint that started as a small business and has grown into a well-known brand for gourmet burgers.
Large Corporations	Large corporations are defined by their significant resources, worldwide reach, and varied business operations. These enterprises usually operate in multiple industries and geographic regions, with thousands, or sometimes tens of thousands, of employees. Large corporations can have intricate organisational structures and hierarchical management systems.	Example 1: Petronas (Petroliam Nasional Berhad) - Malaysia's national oil and gas company, with operations spanning exploration, production, refining, and distribution. Example 2: Maybank (Malayan Banking Berhad) - Malaysia's largest financial services group, offering a wide range of banking, insurance, and investment services.

Multinational Corporations (MNCs)	Many large corporations have a global presence, operating in multiple countries. Such companies often have subsidiaries, branches, or affiliates in different parts of the world, which helps them leverage international markets, resources, and talent pools. These multinational corporations (MNCs) frequently engage in cross-border trade, investment, and strategic partnerships to expand their operations and reach a global audience.	Example 1: Intel Corporation - The multinational semiconductor chip manufacturer has a significant presence in Malaysia, with manufacturing facilities and research centers. Example 2: Nestlé Malaysia - A subsidiary of the global food and beverage company Nestlé, operating in Malaysia with a diverse portfolio of brands.
Government Agencies	Government agencies are organisations created by government authorities to execute functions or provide services to the public. These agencies operate within the public sector and are accountable for carrying out government policies, regulations, and programs. Government agencies can include departments, ministries, regulatory bodies, and public institutions at the local, regional, or national level.	Example 1: Lembaga Hasil Dalam Negeri Malaysia (Inland Revenue Board of Malaysia) - Responsible for administering taxation laws and collecting taxes in Malaysia. Example 2: Majlis Bandaran Pulau Pinang (Penang State City Council) - A local government authority responsible for governing and managing the city of Georgetown.
Non-Profit Organizations (NPOs)	Non-profit organisations are primarily established to serve the public good rather than generate profits for shareholders or owners. These enterprises usually focus on charitable, educational, humanitarian, or social causes and rely on donations, grants, and volunteer efforts to support their activities. Non-profit organisations can include charities, foundations, advocacy groups, and community organisations.	Example 1: Malaysian Red Crescent Society - The Malaysian branch of the International Red Cross and Red Crescent Movement, providing humanitarian aid and disaster relief. Example 2: Yayasan Salam Malaysia - A Malaysian non-profit organisation focused on poverty alleviation, community development, and education initiatives.
Social Enterprises	Social enterprises prioritise making a positive social or environmental impact while ensuring financial sustainability. These enterprises use market-based approaches to address societal challenges and bring about positive change. Social enterprises can operate in various sectors such as fair trade, renewable energy, healthcare, or education, promoting social innovation and sustainability.	Example 1: Teach For Malaysia - A social enterprise that aims to address educational inequality by recruiting and training promising graduates to teach in high-need schools. Example 2: Biji-biji Initiative - A social enterprise focused on sustainability and environmental conservation, offering educational workshops, upcycling products, and eco-friendly solutions.
Cooperatives	Cooperatives are businesses that are owned and controlled democratically by their members. These members can be employees, customers, suppliers, or residents of a community. Cooperatives operate based on principles such as voluntary membership, democratic governance, and equitable distribution of profits. These principles are what make cooperatives unique. Cooperatives can exist in various industries, including agriculture, retail, housing, and finance.	Example 1: Koperasi Bank Persatuan Malaysia Berhad (Bank Persatuan Malaysia Berhad Cooperative) - A cooperative bank providing financial services and products to its members. Example 2: Koperasi Serbaguna Malaysia Berhad (Malaysia Cooperative Union Berhad) - A cooperative union promoting the interests of various cooperative societies across Malaysia.
Startups	Startups are businesses that have recently been established and have the	Example 1: Grab - A Malaysian-founded technology company that

	potential to grow rapidly. They focus on innovation, disruption, or scalability and often operate in dynamic and rapidly evolving industries such as technology, biotech, or fintech. To support their growth and expansion, startups seek funding from venture capitalists, angel investors, or crowdfunding platforms.	offers ride-hailing, food delivery, and digital payment services across Southeast Asia. Example 2: iMoney - A Malaysian financial technology (fintech) startup that provides comparison platforms for financial products such as loans, insurance, and credit cards.
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ASSIGNMENT OBJECTIVE

CLO2: To analyse and evaluate suitable approaches to enterprise architecture for different types of enterprises.

TASKS

GROUP COMPONENT (70%)

Task 1: Choose the Type of Enterprise

As a group, you need to discuss and choose a specific type of enterprise to focus on for this project. You should consider the options for the enterprise based on Table 1 and ensure that the chosen type of enterprise aligns with your interests. Additionally, it should allow for meaningful exploration of enterprise architecture concepts. Lastly, you need to provide a solid justification for your type of enterprise.

Task 2: Propose a New Enterprise Based on the Selected Type

Brainstorm and propose a new enterprise concept or idea that reflects the principles of the CSVLOD model. Consider how the proposed enterprise can leverage CSVLOD principles such as Clarity, Simplicity, Visibility, Logical integrity, Operational pragmatism, and Disciplined automation. Develop a clear and concise description of the proposed enterprise, emphasising its alignment with CSVLOD principles.

Task 3: Decide on the Business Team and IT Team

Divide the group into two teams: the Business Team and the IT Team.

Business Team: This team will focus on defining the strategic goals, business processes, and stakeholder requirements of the proposed enterprise, emphasising clarity, simplicity, and operational pragmatism.

IT Team: This team will focus on designing the IT architecture and systems needed to support the operations of the proposed enterprise, emphasising visibility, logical integrity, and disciplined automation.

Task 4: Prepare the Enterprise Architecture (EA) for the Proposed Enterprise

Each team will collaborate to prepare a specific component of the Enterprise Architecture (EA) following the principles of the CSVLOD model:

Business Team Tasks:

- Define the strategic goals and objectives of the proposed enterprise with a focus on clarity and simplicity.
- Identify and analyse the core business processes, ensuring visibility and logical integrity.
- Prioritize stakeholder requirements and concerns, emphasising operational pragmatism.

IT Team Tasks:

- Design the IT infrastructure and systems architecture to support the operations of the proposed enterprise, emphasising visibility and logical integrity.
- Select and integrate appropriate software applications and platforms, ensuring disciplined automation.
- Develop data management and security policies and protocols aligned with CSVLOD principles.

Collaborate and integrate the outputs of both teams to create a comprehensive Enterprise Architecture (EA) document following the CSVLOD model. The EA document should reflect the principles of **Clarity**, **Simplicity**, **Visibility**, **Logical integrity**, **Operational pragmatism**, and **Disciplined automation**.

Individual component (30%)

For individual components, you are required to choose **ONE** from the following tasks:

1. Literature Review on other EA models/frameworks: Conduct a comprehensive literature review on the other EA models/frameworks. Explore existing research, articles, and publications discussing the principles, applications, and case studies related to the EA model/framework in the context of enterprise architecture.
2. Case Study Analysis: Identify and analyse real-world case studies or examples of enterprises that have successfully implemented the EA models/frameworks in their enterprise architecture practices. Evaluate the challenges, benefits, and outcomes of adopting the EA models/frameworks, and draw insights applicable to the group project.
3. Tool Evaluation: Research and evaluate enterprise architecture tools or software solutions that support implementing EA models/frameworks. Compare and contrast different tools based on their features, functionalities, compatibility with EA models/frameworks requirements, user-friendliness, and cost-effectiveness.
4. Stakeholder Analysis: Perform a stakeholder analysis to identify key stakeholders in enterprise architecture projects following the EA models/frameworks. Analyse their roles, interests, expectations, and influence on project outcomes, and develop stakeholder engagement strategies to foster collaboration and alignment.

DOCUMENTATION FORMAT AND GUIDELINES

Report submission **MUST** comply with the following formatting:

1. Font: Times New Roman or Arial.
2. Font Size: 11 pt.
3. Line spacing: 1.5 lines spacing.
4. Content alignment: Justify.
5. All pages must be properly numbered.
6. All figures and tables (if any) must have a caption.
7. A Table of Contents (TOC) must be generated.
8. A proper APA reference style must be used in the report.

SUBMISSION REQUIREMENTS

1. The assignment is to be submitted in groups of a maximum of 4 students in a **SINGLE submission**.
2. Percentage of total marks: 10%
3. Date assigned: 02 April 2024 (Tuesday)
4. **Due date: 10 May 2024 (Friday), latest by 5.00 pm**
5. Submission must be made in softcopy (submitted online) in **PDF format**.
6. Plagiarism is a serious academic offence. Offenders would be awarded an F grade.

ASSESSMENT CRITERIA

Group Component (70%)

1. Executive summary & Enterprise description (10%)
2. Business-focused artifacts (20%)
3. IT-focused artifacts (20%)
4. Quality of information (10%)
5. Report formatting (5%)
6. Citation & References (5%)

Individual Component (30%)

1. Quality of analysis of knowledge of the subject (20%)
2. Quality of Information (10%)