

# COMP1750 Revision

Macquarie University

6<sup>th</sup> of June, 2025



# Question 1

What are the five characteristics of good information?



Figure 1: "Good Question" - Shrek

## Answer: Question 1

- **Accurate** – correct and complete
- **Timely** – available with enough lead time for the usage
- **Just barely sufficient** – only as much as needed
- **Relevant** – to context and subject
- **Worth the cost** – benefits outweigh the costs

## Question 2

What are the principles of competitive advantage? If the product is YOU, how can you apply these principles?



Figure 2: Mark Zuckerberg Meta

## Answer: Question 2

### Through the product:

- Create a new product/service - something completely different from what you are now. e.g. completely changing your degree
- Enhance the existing product - elevating your knowledge in a particular area. e.g. you are already studying cyber security, so you get certifications relevant to your area, such as CompTIA Security+.
- Differentiate the existing product - put a spin in your skills or knowlegde. e.g. if you're aiming for IT position in health care, gain some knowledge about the health care area.

## Answer: Question 2 (Continued)

### Through the process:

- lock in the suppliers - unfortunately, this one is irrelevant.
- lock in the customers - make yourself indispensable in the organisation. e.g. difficult to replace
- establish alliances - networking within your area. e.g. join student groups and professional organisations.
- raise the barrier to market entry - difficult, unless you have a particular skills in a niche area.
- reduce costs - not ideal, because it means lower salary or pay rate.

## Question 3

What is information silo? What are the options to reduce them?

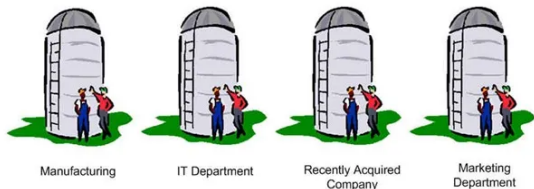


Figure 3: Departmental Silos

## Answer: Question 3

Information silo occurs when different functional area in an organisation store their data separately.

### Options:

- Leave as is (if better)
- Allow with mitigation mechanisms e.g. sending alert of data change to other functional area where the data are relevant
- Use enterprise systems:
  - CRM - CRM is a suite of applications, a database, and a set of inherent processes for managing all the interactions with the customer, from lead generation to customer service.
  - ERP - ERP is a suite of applications, a database, and a set of inherent processes for consolidating business operations into a single, consistent, computing platform.
  - EAI - EAI is a suite of software applications that integrates existing systems by providing layers of software that connect applications.



## Question 4

Why do data need to be cleansed before being used for business intelligence?



## Answer: Question 4

- dirty data - problematic data (C for gender, 250 for a person's age, typos, etc.)
- missing values - incomplete record (missing quantity in order record, student ID in enrolment record, etc.)
- inconsistent data - usually data collected overtime that may change (age range category in surveys may change due to change in target)
- data not integrated - different sources of data means that they need to be manually integrated
- wrong granularity - too fine or too coarse (may use different level of category, food (general) vs. snack, meal (more specific) vs. breakfast, lunch, dinner (even more specific))
- too much data - too many attributes (columns) or too many data points (rows)

## Question 5

What are the phases in SDLC? What's involved in each phase?

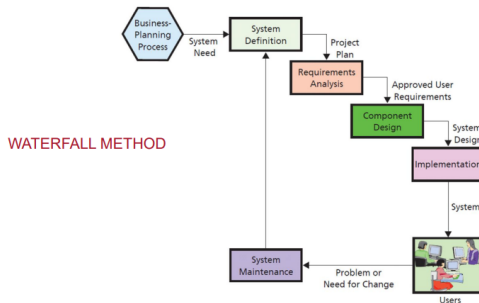


Figure 5: SDLC Waterfall Method

## Answer: Question 5

- 1 System definition - goal and scope, feasibility studies, project team, and plan
- 2 Requirement analysis - user interviews, evaluate the existing system, identify new feature and functions, and consider other aspects
- 3 Component design - design each components per requirements (hardware, software, data, procedure, people)
- 4 Implementation - build system components, unit testing, integrate components, integrated testing, system conversion
- 5 System maintenance - record change requests, prioritise, fix failures

## Question 6

What is BYOD? Why does it matter for organisations?

## Answer: Question 6

**Definition:** Bring Your Own Device - employees use personal devices in an organisation's network.

BYOD is Bring Your Own Device, so allowing employees and other stakeholders to use their devices for usage within the organisation, usually by joining their network.

Opening the network for uncontrolled devices cause many security risks. On the other hand, allowing BYOD increases productivity and reduces the cost for hardware. Therefore, it is important to have a policy and safeguards in place to minimise the risks.