A/ ASSIGNMENT RECAP

- Part 1 (Questions 1-5): Theories in the first four weeks
- Part 2 (Questions 6-12): Excel functions
- Part 3: Case study

B/ DETAILED GUIDELINES

1) **Part 1: Theories**

- **Information technology** focuses on (1) business skills and the use of technology to make decisions; (2) the selection, integration, and deployment of computing technology; and (3) technical skills, such as planning and deploying networking infrastructure, integrating databases, and building websites.

- **Data** is raw, unprocessed information, such as numbers, text, or images, used as input for computer systems to generate meaningful insights.
  For example: 5%, ISYS2056, RMIT, etc.

- **Information** is processed and organized data that provides meaning or context, facilitating understanding and decision-making.
  For example: ISYS2056 is the Business Information Systems Course.

- **Knowledge** is the meaningful understanding and application of information, derived from the interpretation and synthesis of data.
  For example: Business Information Systems is a core subject because its content is needed by all areas of business.

- **Forms of business analytics:** Descriptive, Predictive, and Prescriptive.
  - ➢ _**Descriptive Analytics:**_ focuses on summarizing historical data to provide insights into what has happened in a business. It involves reporting, scorecards and dashboards to describe past performance.
    For example: The highest sales figure at Hammer Vacuum Cleaners in 2013 in WA was achieved by Joan.
  - ➢ _**Predictive Analytics:**_ involves the use of statistical algorithms and machine learning techniques to forecast future outcomes based on historical data patterns. It helps businesses anticipate trends and make proactive decisions.
    For example: Historical consumer behavior and emerging trends suggest that introducing a new line of eco-friendly vacuum cleaners in 2024 could lead to a substantial boost in sales for Hammer Vacuum Cleaners.

- ➢ **Prescriptive Analytics:** goes beyond predicting future outcomes and suggests possible actions to optimize results. It provides recommendations for decision-makers on what actions to take to achieve desired outcomes.

  For example: Hammer Vacuum Cleaners recommends implementing targeted marketing strategies and promotions for the new eco-friendly vacuum cleaner line in 2024 to optimize sales performance based on predictive insights, consumer behavior, and market trends.

- News reporting agencies often want to find the public's opinion on current events. One particular agency is considering **two different strategies to collect this data** by collecting responses to online surveys. The two strategies are outlined as:
  - ➢ **Strategy One:** (1) Uses a database to store all of the survey responses, (2) Stores some data as text and some data as numbers; and (3) Will track extra information about the survey taker that won't be publicly visible.

    → *allows the agency to conclude more about the public's opinion because it tracks extra metadata.*
  - ➢ **Strategy Two:** (1) Uses a single spreadsheet to store all of the survey responses, (2) Stores all data as numbers; and (3) Will not track any information other than the survey responses.

    → *makes it hard to find trends and access particular pieces of the data.*

- **Usability heuristic for user interface design:**
  - ➢ **Aesthetics and minimalist design:** Dialogues should not contain information which is irrelevant or rarely needed. Every extra unit of information in a dialogue competes with the relevant units of information and diminishes their relative visibility.