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Yr&Section: 1st Year-1E Course: BSIS

**Laboratory Exercise 1: Introduction to Information Systems**

**Title:** Understanding the Components and Functions of an Information System

**Objective:**

By the end of this exercise, students will be able to:

1. Identify and describe the five components of an Information System.
2. Analyze how these components interact in a real-world example.
3. Understand the role of Information Systems in organizational decision-making.

**Background:**

An **Information System (IS)** is a set of interrelated components that collect, process, store, and distribute information to support decision making, coordination, control, analysis, and visualization in an organization.  
The five major components of an IS are:

1. **Hardware**
2. **Software**
3. **Data**
4. **People**
5. **Processes**

**Materials:**

* Computer or laptop
* Internet access
* Word processor

**Steps:**

**Part 1: Component Identification**

Choose an information system you are familiar with (example: **Learning Management System**, **Online Banking**, or **Inventory Management System**).

1. Name the system. **Student Grading System**
2. Identify and describe how each of the five components appears in that system:
   * **Hardware**: What physical devices are used? **Computer, keyboard, mouse** (keypad)
   * **Software**: What applications or platforms are used? **Java**
   * **Data**: What kind of data does it handle? **various types of data related to students academic performance and subject information.**
   * **People**: Who interacts with the system? **The student and the teachers or professor.**
   * **Processes**: What processes does the system support? **recording, calculating, and reporting student academic performance.**

Record your findings in a table.

**Part 2: Use Case Analysis**

Pick one process the system supports (e.g., student enrollment or placing an order).  
Answer:

1. What steps does the user take? **Step 1:**Type how many subject **Step 2** Type the data and the grade of the student **Step 3** automated calculate the grades of the student **Step 4** auto saved the data and the grades of the student.
2. What data is entered or accessed?  **grade and the name of the student or information**
3. How does the system process this data? **collecting student grade per subject and information and then using this data to calculate grades.**
4. What is the output? **Print the information of the student and calculate the overall grade of the student**

**Part 3: Reflection Questions**

1. How does the information system help improve efficiency or accuracy? **automating tasks, centralizing data, and Real time update**
2. What might happen if one of the components (like software or data) fails? **inaccurate, delayed, or inaccessible grades but you can input another.**
3. How could the system be improved? **Add database and apply it to weebsite or application.**

**Submission Requirements:**

* Completed table and written answers (typed, not handwritten)
* Format: Microsoft word document
* File name: Lastname\_Firstname\_ISLab1