



## WORKSHEET 19

School: Ba Sangam College  
Subject: Computer Studies

Year / Level: 11  
Name of Student: \_\_\_\_\_

Strand	6
Sub strand	6.1 Computers and Information Processing
Content Learning Outcome	Describe data and information

### Role of information processing in Decision Making

Data processing is the process of manipulating data in one or more of the following six procedures:

#### Collecting data

- ❖ Data may be collected from a number of sources.
- ❖ The most common form of data collection is data entry from source documents.
- ❖ For example, collecting test marks for Form six students.
- ❖ These marks are written on a sheet of paper and then can be entered into a database or spreadsheet for manipulation

#### Organizing data

- ❖ Data must be arranged into relevant categories so that the relationships between various facts can be seen

#### Combining Data

- ❖ This involves the combination of similar data to reduce the number of data items to be processed.

#### Sorting Data

- ❖ This involves the arrangement of data in the order that is needed e.g. alphabetical, ascending/descending, chronological (SEQUENTIAL) etc.

#### Manipulating Data

- ❖ This involves performing calculations on the data e.g. finding the average of a set of numbers, calculating the percentage of a quantity etc.

#### Summarizing

- ❖ Data is summarized based on the contents of the relevant categories as shown in the tables below.

Traditionally data is processed in 2 ways:

##### Batch Processing

Data is collected over several hours, days or even weeks (period of time). It is then processed all at once as a batch. Example a bank credit card account which is updated monthly or weekly or a passbook savings account which is updated at the end of the day.

##### Real Time Processing

Occurs when data is processed at the same time the transaction occurs. For example, ATMs and online bill payment systems. Real time processing is made possible by the availability direct access storage.

**Activity**

1. Differentiate between real time processing and batch processing

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2. List 3 application of databases in

- Business

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- Government

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- Home

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3. Briefly explain the following application areas of databases

- Inventory

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- Accounting

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- Mailing list management

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- Libraries

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- Banking

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