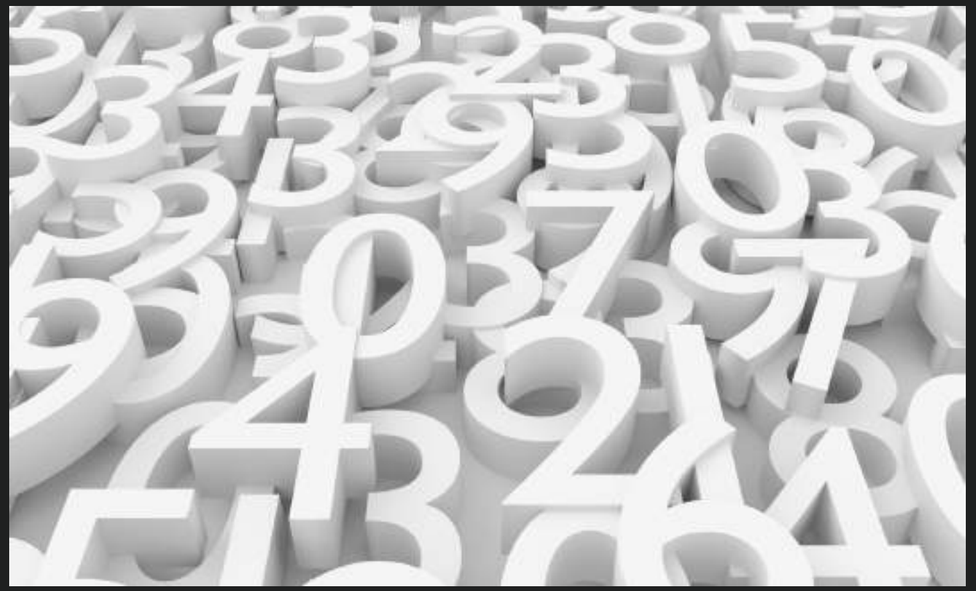
DATA, INFORMATION & INFORMATION SYSTEMS

Explore Now

WHAT IS DATA?

- Data Means RAW FACTS & FIGURES
- Facts, statistics used for reference or analysis
- Number, Characters, symbols, images, etc.
- **Data must be interpreted by a human or machine, to derive meaning**

DATA EXAMPLES



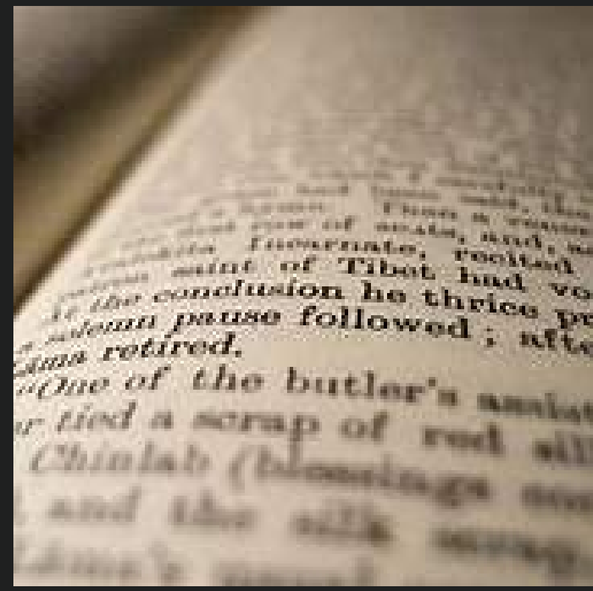


IMAGE DATA

TEXT DATA

ALPHANUMERIC DATA

AUDIO

- None of these data have any meaning until they are given a **CONTEXT & PROCESSED** into a useable form

WHAT IS INFORMATION?

01. Data that has been processed within a context to give meaning

02. Data that has been processed and interpreted

WHAT IS INFORMATION SYSTEM?

01. It is a collection of components that work together to provide information to help in the operations and management of an organization

02. An organized combination of people, hardware, software, communications Networks and data resources that collects, transforms, and disseminates information in an organization.

03. It is used to manage and process data to support the decision making process in the organization.

The Basic Process IS follows:

01

INPUT: Accepts the input data from outside the system

02

PROCESSING: calculates and in other ways manipulates the input ans stored data

03

STORAGE: retains input data and retrieves stored data

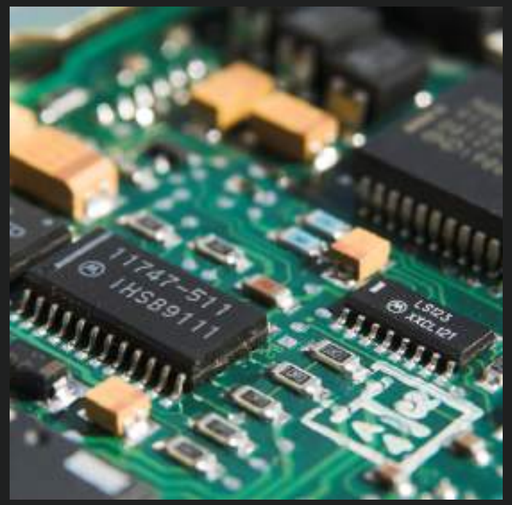
04

OUTPUT: produces results of processing for use outside the system

05

FEEDBACK: system collects feedback from users and evaluate its effectiveness to imporve the functionality of the system

COMPONENTS OF IS



HARDWARE

Includes computers and servers. Computer hardware is used to provide users access to the system and servers provide storage space.

NETWORKS

Local are networks (LANs), wide area networks (WANs), intranets and cloud networks allows users access from anywhere.

SOFTWARE

An integral part of IS. Operating systems provide underlying platforms and databases allows users to store and retrieve large amounts of data.

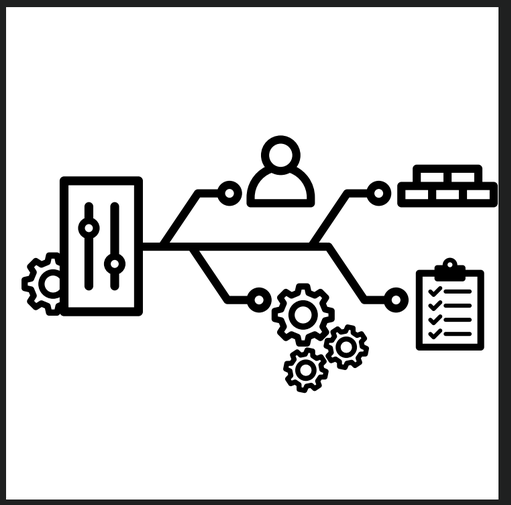
COMPONENTS OF IS

DATA

Includes structures data stored in databases and unstructured data. Accessible through applications within the system.

PEOPLE

Manage, configures hardware and software, troubleshoots issues and perform daily task in the system.



PROCESSES

IT leaders secure users accounts and create emergency backup plans through defining procedures.

TYPES OF INFORMATION SYSTEMS

MANAGEMENT INFORMATION SYSTEM

It refers to a system used to provide managers with tools to organize, evaluate, and efficiently manage departments within an organization.

DECISION SUPPORT SYSTEMS

It is a type of information system that supports business or organizational decision-making activities. DSS helps in analyzing data and making decisions by providing insights, forecasting, and modeling capabilities.

EXECUTIVE INFORMATION SYSTEM

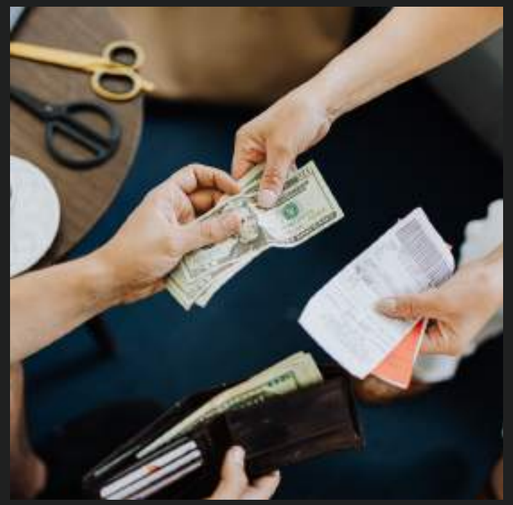
type of Management Information System (MIS) that provides top executives with easy access to internal and external information relevant to their strategic goals. It is designed to help executives make strategic decisions by presenting data in a summarized format, often through dashboards and reports.

TYPES OF INFORMATION SYSTEMS

KNOWLEDGE WORK SYSTEM

Computer-based systems that support knowledge workers, such as researchers, analysts and consultants, by helping them create reports and presentations.

TRANSACTION PROCESSING SYSTEM



an information system designed to handle and process data from business transactions. Its main objectives are to update records and generate reports, essentially performing record-keeping functions. Transactions are processed in two ways: batch processing and online transaction processing.

ANALYSIS/REACTION

Data consists of raw facts and figures like numbers, symbols, or images that don't carry much meaning on their own. When these pieces of data are processed and interpreted in a specific context, they turn into information, which provides valuable insights for decision-making. An Information System (IS) is a framework that combines people, hardware, software, networks, and data to manage and share information necessary for running an organization smoothly.

The functions of an IS are pretty straightforward. Input is about collecting data, while processing involves manipulating this data to make it useful. Storage ensures that data is saved and can be retrieved when needed. Output produces results that can be used externally, and feedback helps improve the system based on user experiences.

The components of an IS are crucial for its effectiveness. Hardware includes computers and servers that provide data access and storage. Networks like LANs and cloud services enable connectivity from different locations. Software, including operating systems and databases, supports data management and applications. Data comes in both structured (like databases) and unstructured forms (like emails). People—ranging from users to IT professionals—are essential for managing and maintaining the system. Lastly, processes ensure that data is secure, backed up, and handled efficiently.

Different types of Information Systems cater to various needs. Management Information Systems (MIS) help with departmental organization. Decision Support Systems (DSS) offer tools for analysis and forecasting. Executive Information Systems (EIS) provide summarized data for strategic decisions. Knowledge Work Systems (KWS) aid in creating reports and presentations. Transaction Processing Systems (TPS) manage everyday business transactions. Each of these systems plays a key role in transforming raw data into actionable insights, improving organizational effectiveness and strategic planning.

RESOURCES:

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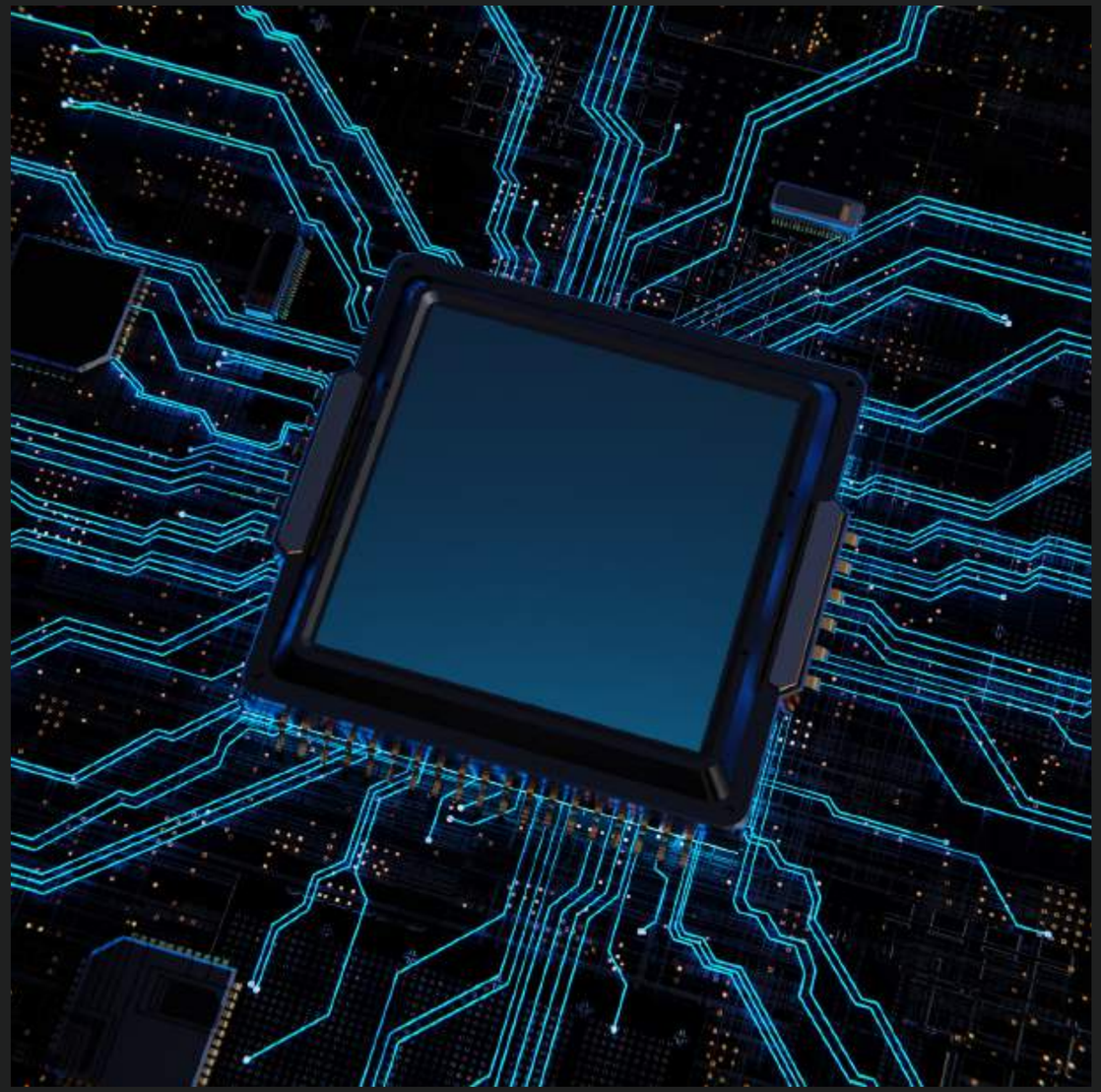

THANK YOU

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