Portfolio #2

Data & Information

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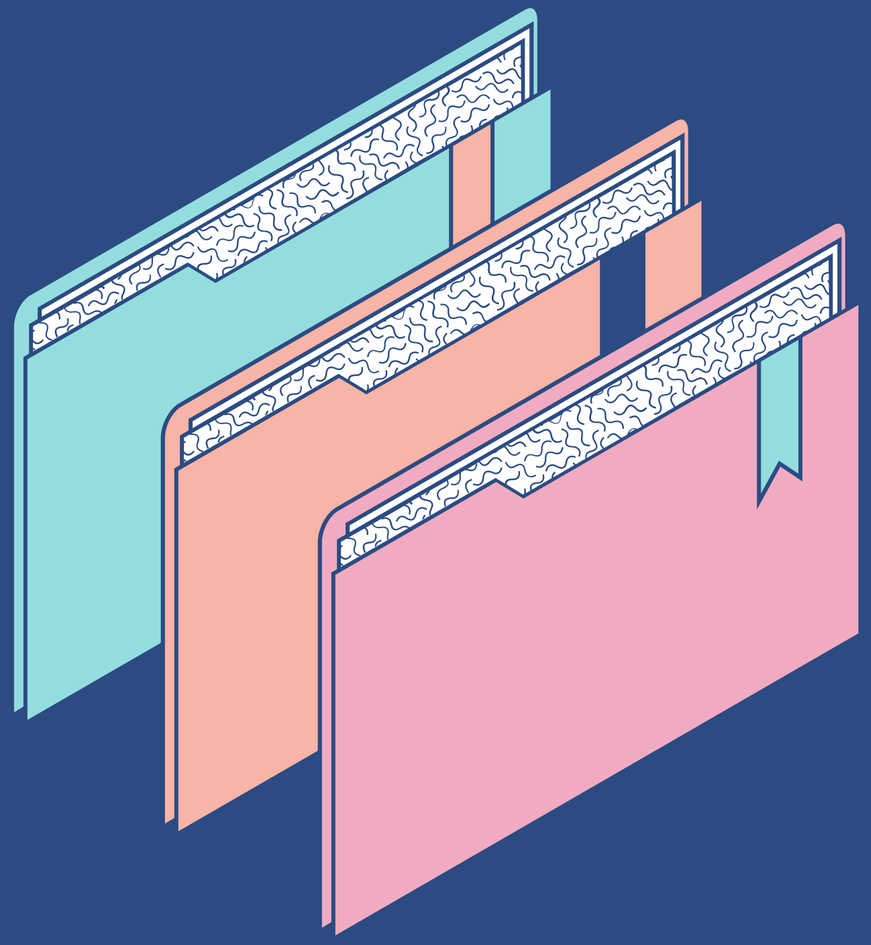
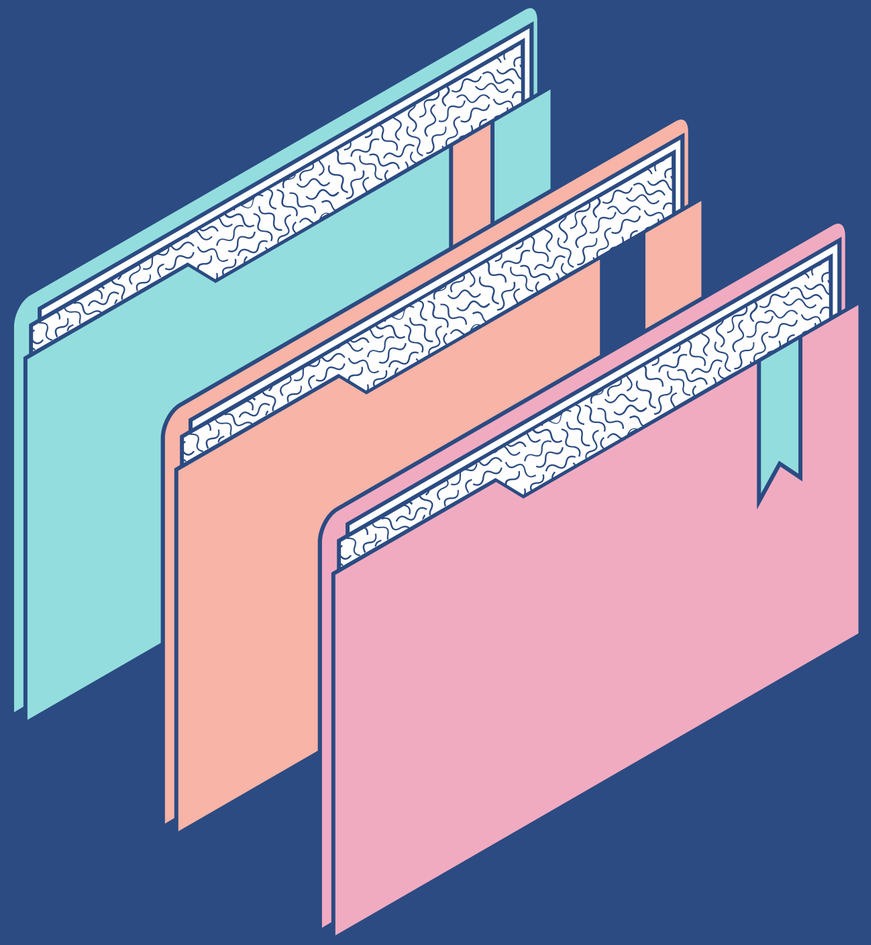


what is ***data***?

data are computerized representations of the characteristics of objects

it can be a mathematical symbol or text used to identify, describe, or represent something

it exists in different formats like text, image, sound, or video



what is **information**?

information is data combined with meaning

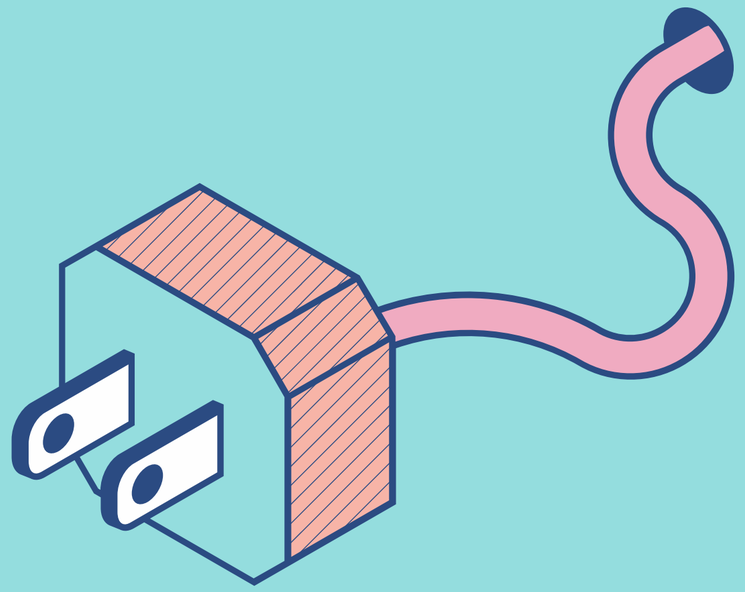
it is data that have been analyzed and given context by human beings

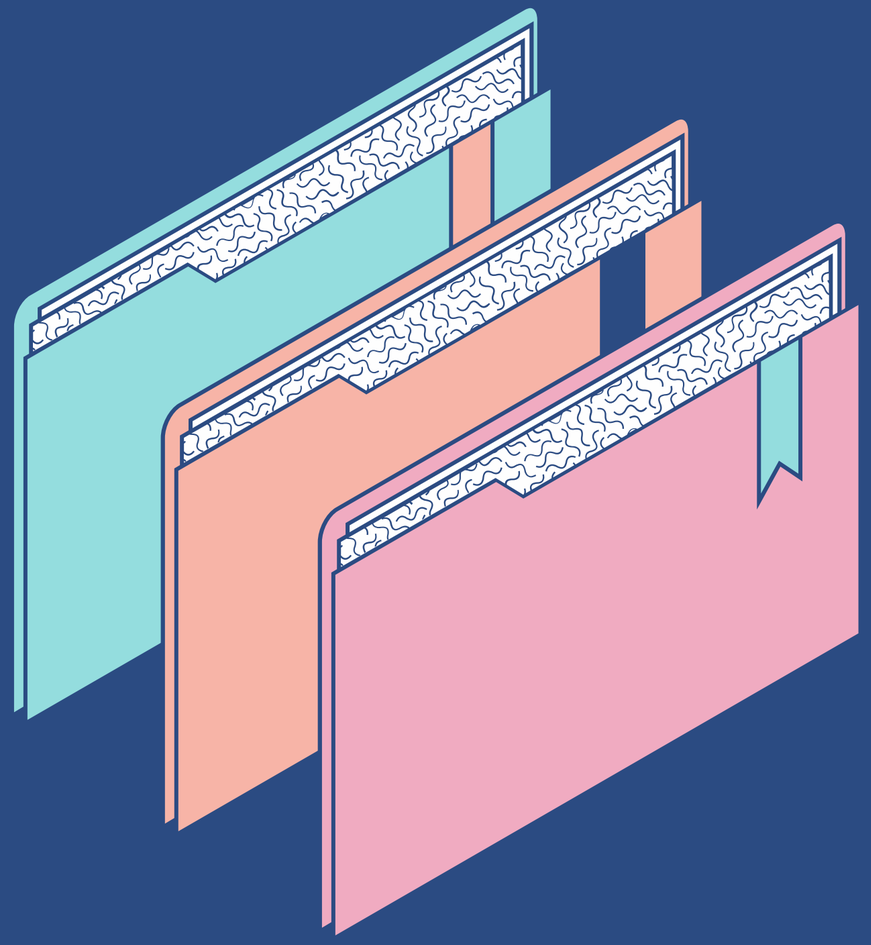
it is **useful** data; it answers the questions "who," "what," "where," and "when"

what is the difference?

Data are the basic individual items of numeric information, but without context, are *devoid of information*

Information is amenable to analysis and interpretation, through data and the *context* in which the data are assembled

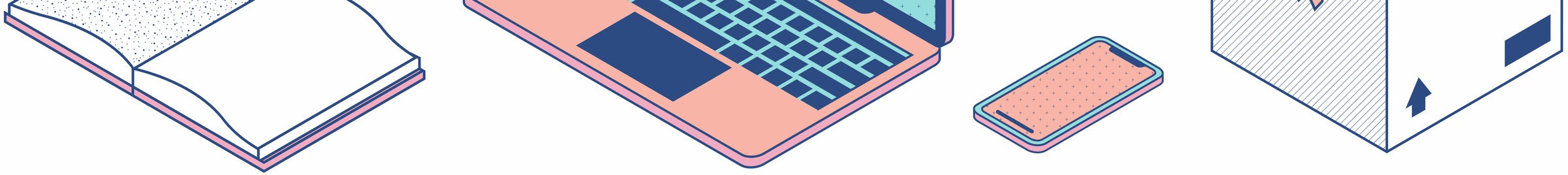




what about **knowledge**?

knowledge is information combined with experience, context, and interpretation

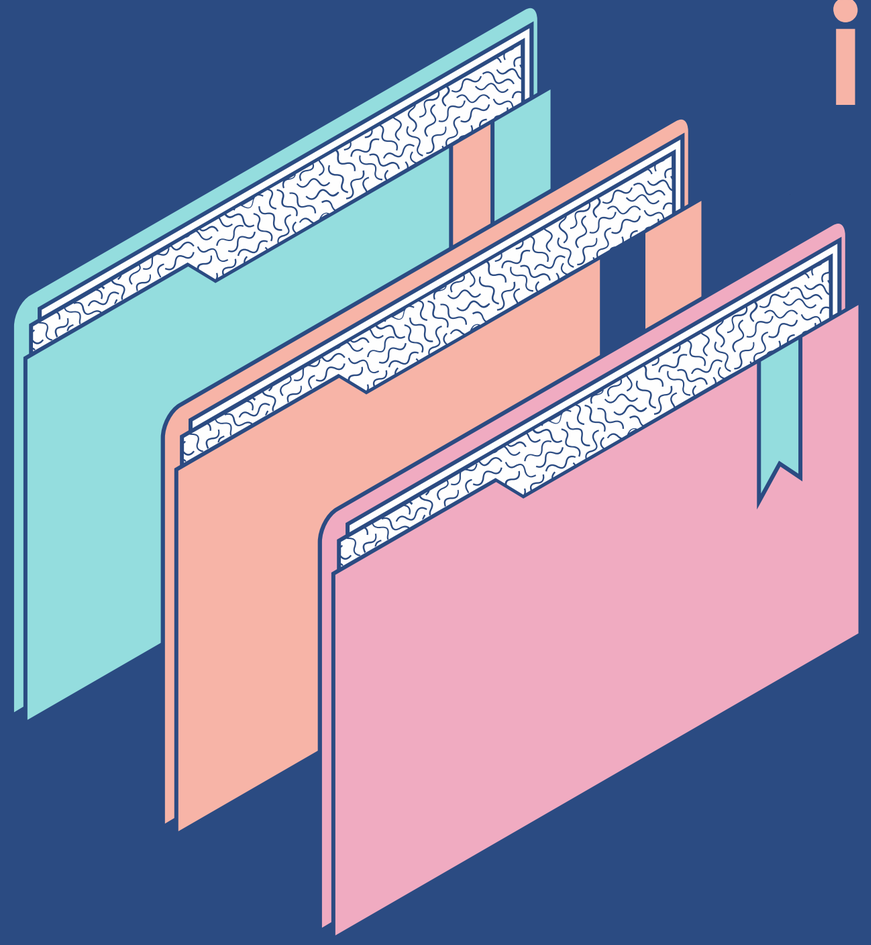
it is an appropriate collection of information that intends to be useful



digital information in information systems

the human cannot directly perceive the data stored in the system, because it is still only raw material; but they can reasonably believe that the data have been classified and organized in some way before they are given context

Information Systems



information systems

an information system is a set of interrelated components that collect, manipulate, and store information

it provides a feedback mechanism to help organizations in **decision-making** and ultimately increases their efficiency in business processes

information systems

are structured around **4** elements:

0
technology

includes the hardware, software, and telecommunications equipment

1
task

the activities in business processes

2
person

encompasses all people involved in the system

3
structure

the hierarchical structure of the relationships between the people components

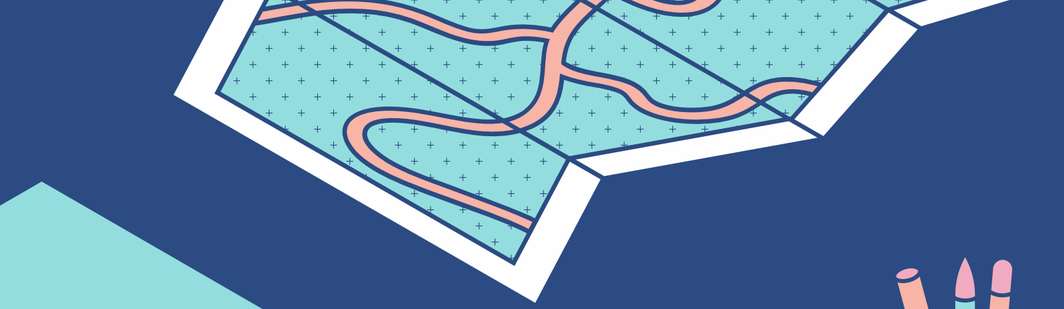
-- these ensure the efficient operation of the information system --

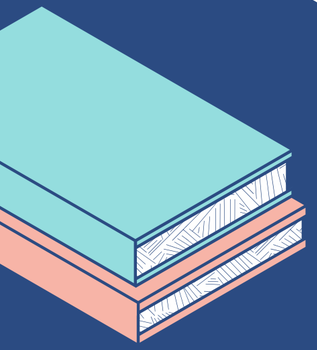
Decision-making in companies

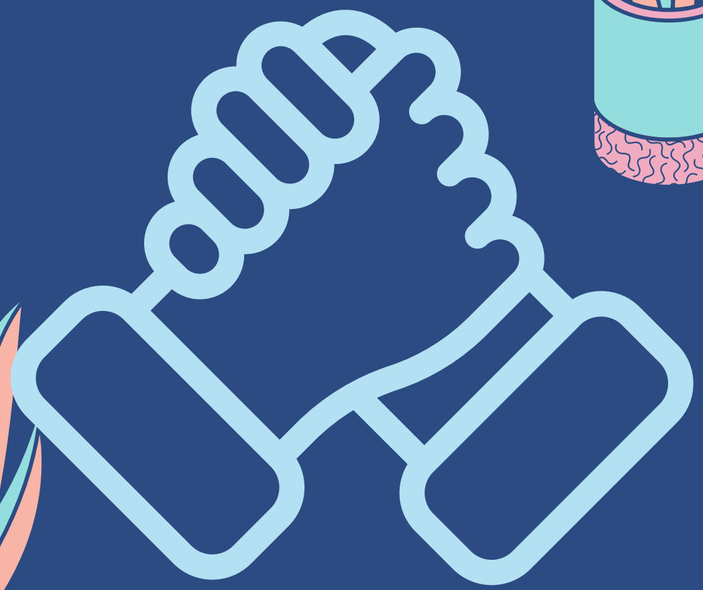
decisions are made at **all** levels of the company, operational or managerial.

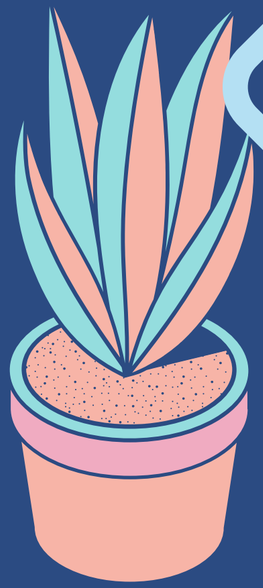
although some of these decisions are routine and frequent, improving hundreds or even thousands of "small" decisions adds value to the business

information systems achieve this, improving the efficiency and quality of decision-making in companies









Different types of Support Systems

in Information Systems

organizational structure

within an organization, employees at different hierarchy levels have very different information requirements:

lowest level
→ perform routine day-to-day operations (selling goods, etc.)

operational management
→ oversee transactions and operations

tactical management
→ make decisions on budgets, trends, and short-term activities

strategic management
→ define long-term objectives for the company

4 types of information systems have evolved to meet the needs of different managerial levels . . .

TPS

transaction processing systems

the operational level

performs the routine operations like keeping records, payroll, shipping merchandise, accounting, etc.

monitors the flow of transactions in the organization

MIS

management information systems

the managerial level

supports with oversight, control, decision-making, and administrative duties

asks, "is everything working correctly?"

summarizes business operations using data provided by the TPS.

DSS

decision support systems

the senior managerial level

supports decision-making for evolving issues

analyzes the data taken from TPS and MIS for significant company decisions

ESS

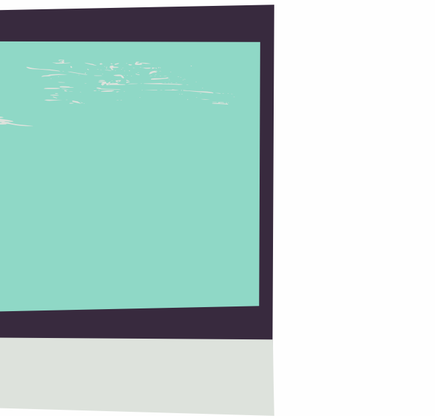
executive support systems

the executive level

assists top management with complex business decisions

uses business intelligence tools to analyze trends and make informed decisions at the highest level

Reaction



While researching about these topics, I learned more about data and information and what exactly differentiates them. While their concepts are similar, data is the "raw" end and giving it context turns it into information that people can use in their daily lives, or on the subject of business, that organizations use to make informed decisions regarding their business processes. I got a clearer picture of how businesses operate behind the scenes, and how information is the key of it all and basically drives the whole operation; and that businesses that make profit are truly just a continuous, circling flow of information. I learned about the different managerial positions that an organization is made of, and got insight into the roles that each position is given and what responsibilities they are assigned. Running a business is an insanely complex process. To help optimize this process, information systems were created and defined, and many types of them were developed to help a certain level in the organizational structure. TPS, or the transaction processing systems, are at the operational level and are support systems for routine operations like sales, material flow, keeping records, shipping merchandise, and the like. It is necessary for a business' day-to-day operation. MIS, or management information systems, are support systems for middle managers to oversee operations and administrative activities. This level helps regulate the processes in the TPS level. DSS, or decision support systems, are support systems for the senior class managers, who make decisions regarding evolving issues in business. These systems use internal data gathered from the two previous systems, as well as employ external sources to maximize the quality of decision making. Last, but not least, ESS, or the executive support system, is a support system for the highest level: the company's executives. This system addresses exceptional decisions that have to be made for the good of the company. The outputs and reports of the other support systems funnel back to ESS, so that it can answer the complex questions a company might have. Overall, I understood about how running a business is a very challenging and meticulous affair. But, deciding to use information systems to help get things going and greatly increase efficiency for your business would be a smart decision.

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