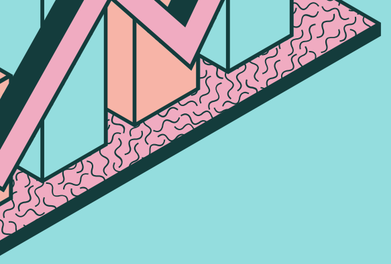
PORTOFOLIO #2

Data, information, and information systems

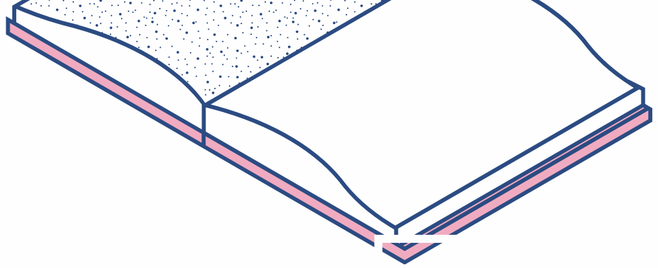
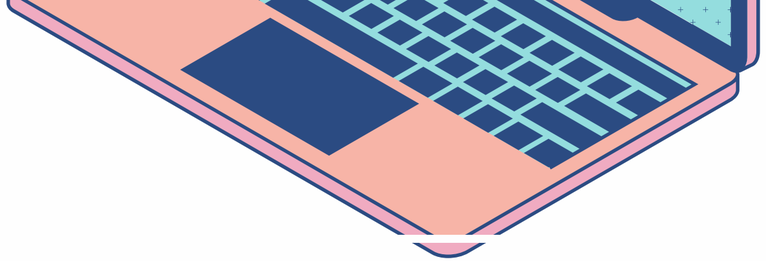
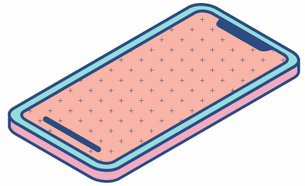
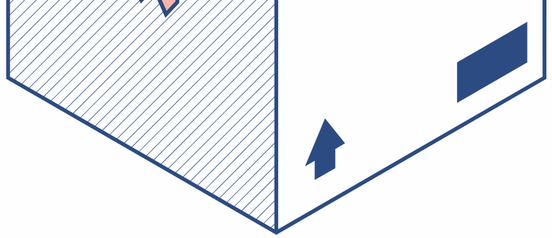
What is data and information?



Data

Data is raw, to be specific data is raw unorganized facts. Data can be represented in many ways such as smbols numbers, words, signals. These raw unorganized facts can be processed by computers to generate **information.**

Data is factual and correct in itself, but it has nomeaning until processed or interpreted.

Two forms of data

Quantative data

Data that is descriptive, it describes qualities or characteristics, not numbers.

It focua on what something is like.

Examples:

He has long hair

She has lots of energy

He is male

Qualitative data

It is data that is numerical, it describes data that measures quantities. It uses **numbers.**

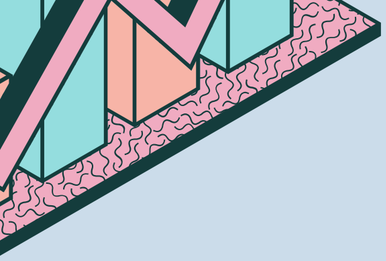
This can be counter and measured.

Examples:

4 legs.

5 cars.

232 mL



Information

Information is data that has been transformed and given meaning in a context. Whenever data is processed by. Computer, the output of it becomes information.

Information allows sharing and extending knowledge beyond our direct senses.

Informtion is stimuli that carries meaning to a receiver.

Data Vs Information

Data	*Information.*
Always **factual**.	Can be **wrong**.
Raw information.	Processed Data that is meaningful.
Qualititative or Quantitative	Presented in words, numbers, images or documents.
Independent.	Dependent on data.
No inherent meaning by itself.	Has meaning because it is structured and interpreted.

Why the Distinction Matters ?

- Confusion between the difference of data and information can lead misleading information, which can be harmful.
- Understanding both help makes better decisions based on accurate facts.
- Prevents mistakes and saves time most especially in scholar or professional settings.

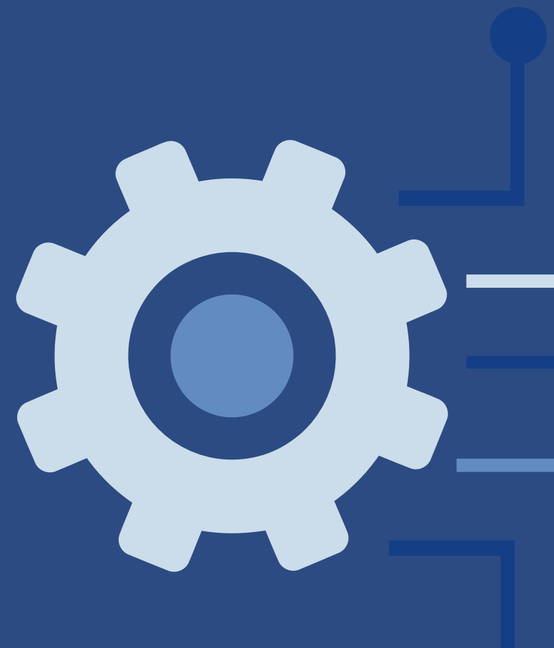
PORTOFOLIO #2

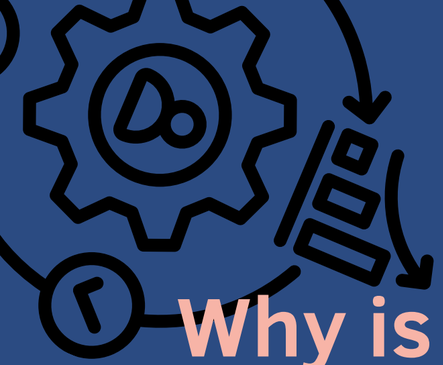
Information system

What is Information system?

Information system is the design, development, use, and impact of information and communication technologies within organizations and society. The systems in itself are elements that work together in a common objective and information is dat processed that is useful to mke decisions. With that in mind, information systems is not just only software, but hardware, the people, and processes that work together for gather, proces, storage nd show information to make decisions. This why this many business use IS and he technology is used like a tool to achieve this goal and it’s not only the main focus of IS

This field one can study a varied types of subjects like systems nd organizations, software life cycle, databases, programming paradigms, resources management, operations research, system analysis, computer networks and so on. It’s all what you need to understand the ctual informtion systems that they’re much more than just software.



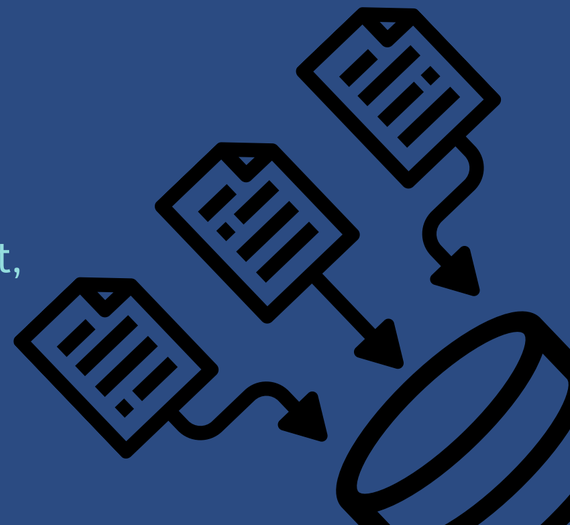


Why is Information system important?

Information system is basically everywhere, from the apps on your phone, to the computer you use and even the simpliest of things. They stremline everything from online banking and foodpanda deliveries to staying connected with loved ones on social medi. These systems work behind the screen to simplify our daily lives and tasks, provide instant access to information, nd connect us to the people and services we rely on everyday, making IS a fundmental key factor in our lives.

What is the purpose of Information system?

The main purpose of information system is to serve as a bridge between data and meaningful action. It does this by collecting, storing, processing nd nalzing data to tranform it into useful information. This transformation enables individuals and orgniztions to make informed and correct decisions. IS exist to solve the problem of data overload by providing clarity and insight, which empowers users to reach their goals effectively.



PORTOFOLIO #2

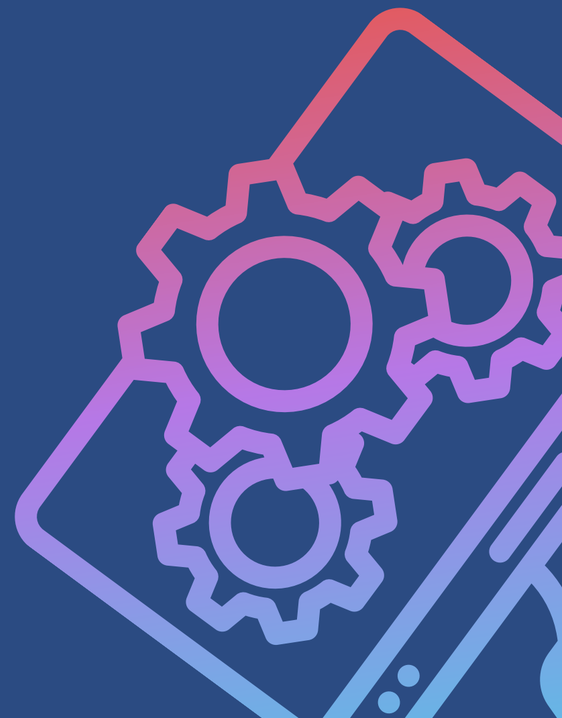
Support systems in Informtion System

Transaction Processing System (TPS)

TPS makes sure there is a seamless flow of dat and transaction within its organizations. Its a computerised system that processes, records, and manges transactions. These transactions can be anything from sales Purchases to inventory management, pauroll processing and order fulfilments.

Uses of TPS

- Banking and finance
- retail operations
- online commerce
- healthcare
- transportation and logistics

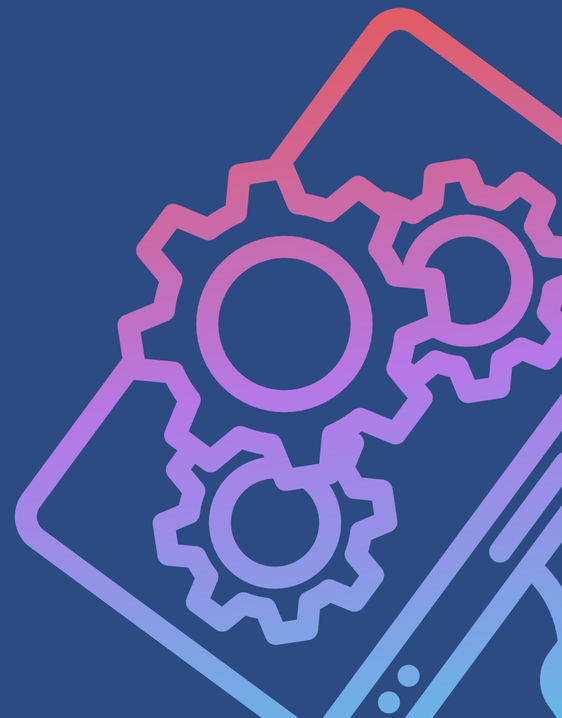


Management Information Systems (MIS)

MIS bridges the gp between dat and strategic decision mking. MIS is a comprehensive framework that leverages technology to process, gather, store nd give out information to support mangerial functions with an orgmiztion. MIS serves as a backbone of. Modern management, ensuring that decision-makers are equipped with accurate, timely, and relevant data.

Uses of MIS

- Performance monitoring
- resource management
- strategic planning
- decision support
- communication and collaboration

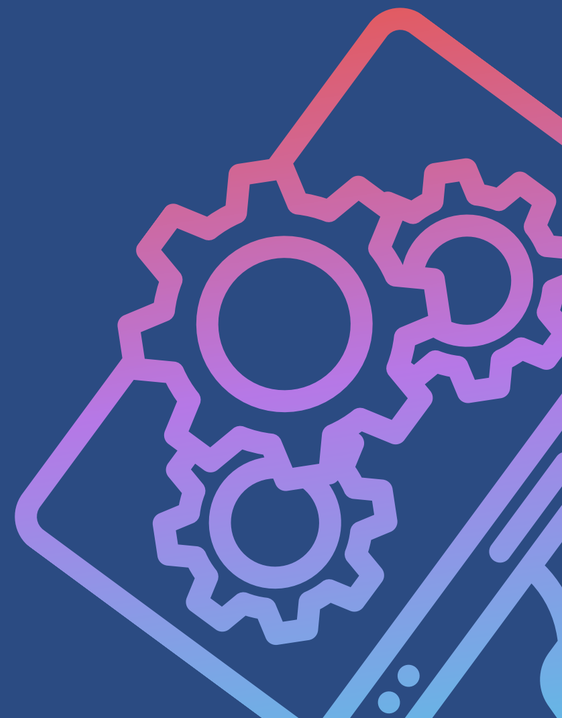


Decision Support Systems (DSS)

DSS are computer-based pplicaations made to assist decision-makers in solving difficult problems and making right choices. By harnessing advnced analytics, data modellling and artifical intelligence, DSS provide invluable insights, ensuring managers to navigate uncertainties, explore alternatives, and make well-informed decisions.

Uses of DSS

- Risk management
- strategic planning
- resource optimisation
- healthcare and diagnosis
- marketing and customer insights

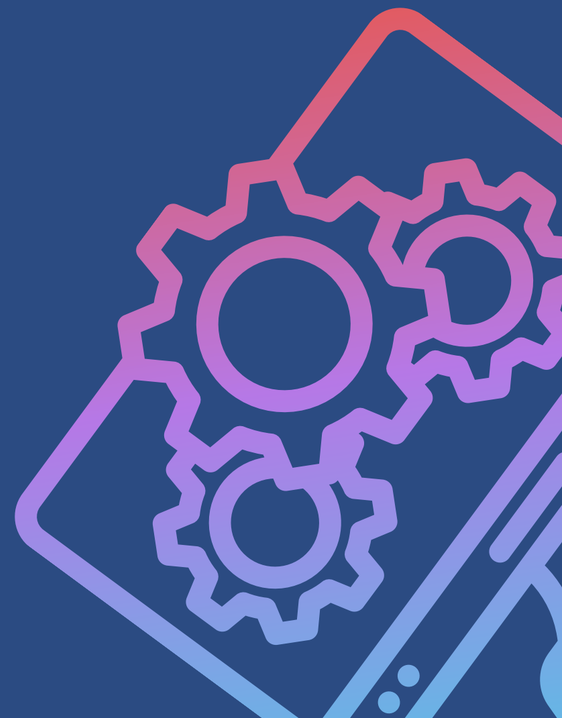


Executive Support Systems (ESS)

Ess is made to assist senior management in smrt decision-mking processes. Made to the needs of high-level executives, it provides comprehenvsive information from external nd internal sources, enabling leaders to analyze trends, assess organiztional performance, and make up long term strategies.

Uses of ESS

- Performance monitoring
- scenario analysis
- strategic decision-making
- competitor analysis
- communication and collaboration

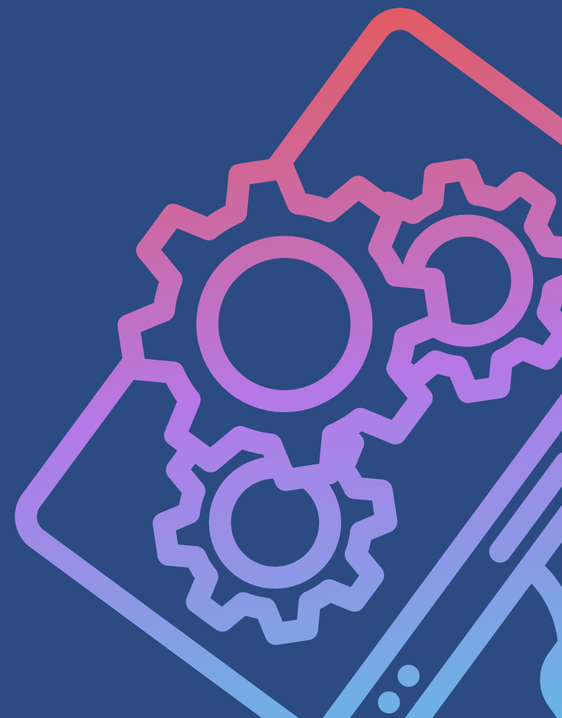


Office Automation Systems (OAS)

OAS aims to enhance productivity, foster colabroative work enviroments and sreamline workflowws. OAS refers to the collaboration of computer hardware, software, nd network connection to optimise routine office task nd facilitate effiient information management. This helps employees focus on more strategic and creative aspects of their work by automating mundane and time-consuming processes.

Uses of OAS

- Document management
- data analysis
- email and communication
- task automation
- collabortive work
- workflow automtion

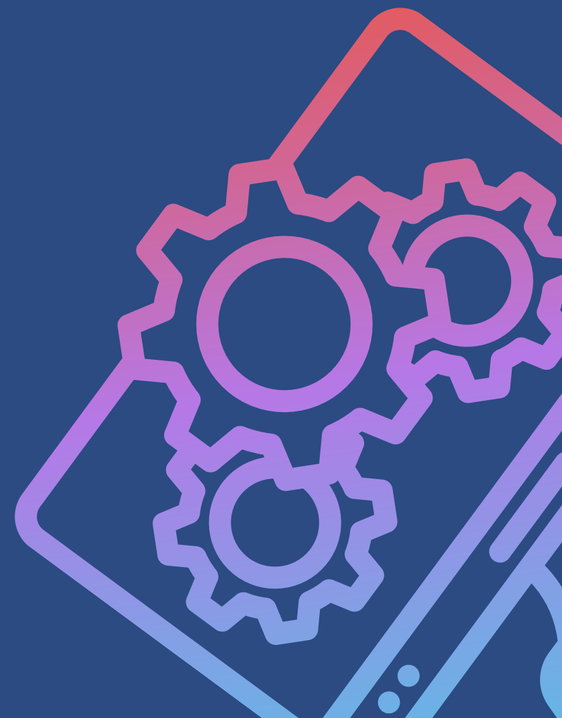


Business Intelligence Systems (BIS)

BIS comprises of a set of technologies, applications and processes tht analyze and transform data into insights which are meaningful. This helps businesses to gain a comprehensive understanding of their customers, operations and market dynamics. BIS empowers organizations to make informed decisions, idenitfy patterns, and forecast trends, thereby gining a competitive edge.

Uses of BIS

- Market intelligence
- operational optimisation
- forecasting and predictive analytics
- data analysis and reporting
- customer insights



reflection

This really clarified how raw data turns into something useful and how technology works with people to help us make decisions. It effectively bridged the gap between theory and the real world, both in organizations and in our personal lives.

The clearest takeaway for me was the difference between data and information. Data is just a bunch of neutral facts—it doesn't mean anything on its own. But once we process it and give it context, it becomes actual information we can use to communicate and make choices. This is a crucial distinction; confusing the two can lead to real mistakes and inefficiencies. It drove home the point that I need to be more critical, always asking myself if I'm looking at raw numbers or a meaningful interpretation.

The discussion on information systems was an eye-opener. I used to think of them as just software, but they're really a combination of hardware, people, and processes all working together. Seeing examples from online banking to food delivery apps made it clear how these systems are woven into everything we do. They're not just abstract concepts; they're active parts of our daily routine.

Learning about the different support systems—like TPS for daily transactions and DSS for strategic decisions—showed me how organizational decision-making is layered. What really stood out was how the technology scales with the level of responsibility. Basic systems handle the routine work, while advanced ones help with prediction and innovation. It shows that these systems are flexible frameworks, not rigid tools, designed to adapt to human needs.

In the end, this discussion gave me a much better understanding of the journey from data to action. It strikes a great balance between theory and practice, reminding me to not only analyze information carefully but also to appreciate the complex systems running our digital world.

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Thank you so much for listening!! :}