

Introduction to Business Requirements Modelling (BRM)

SSTC 2022

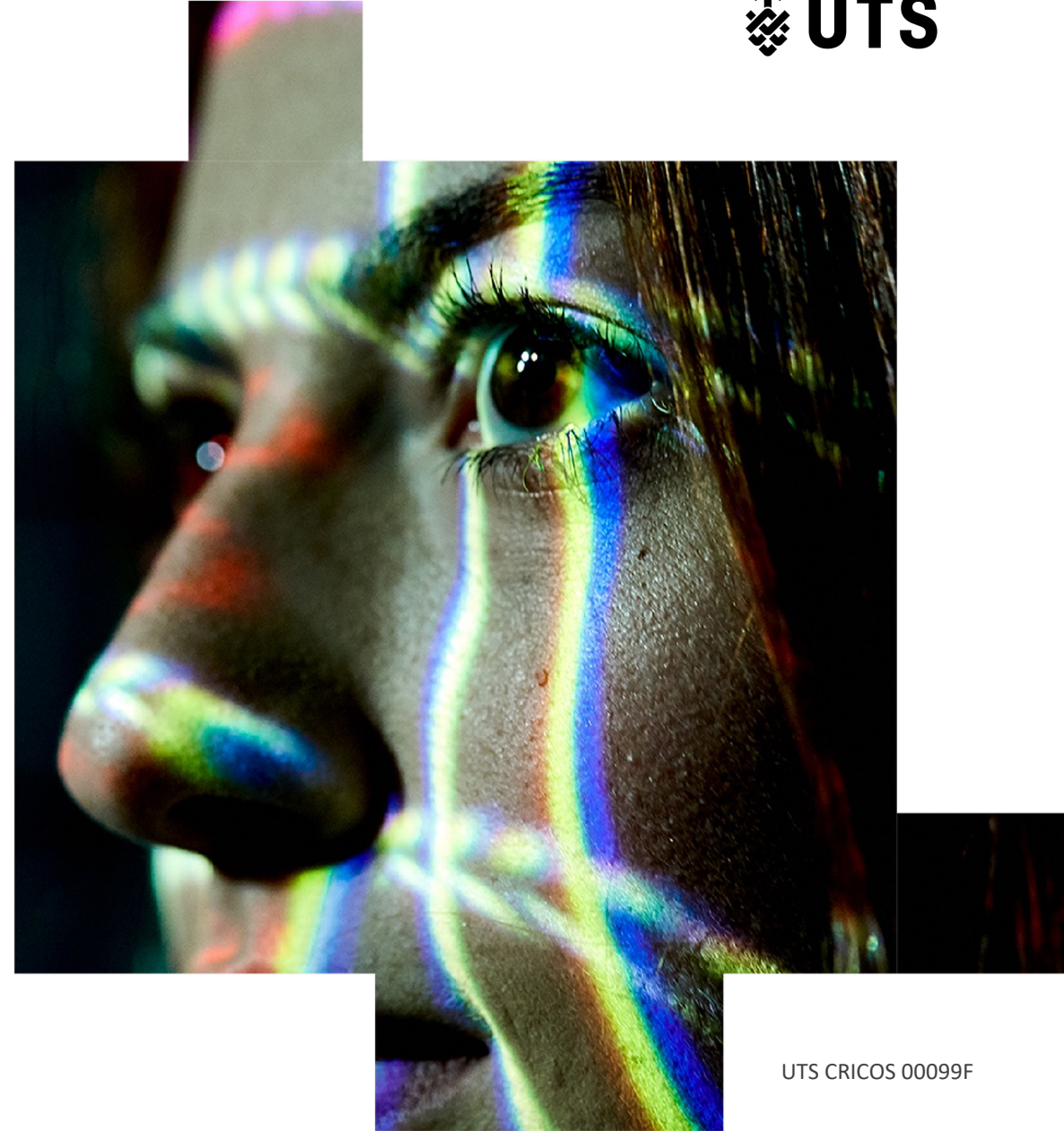
Module 1 - Lecture 1

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Introduction to BRM

1. Practical Info

- Staff
- Subject Structure/Program
- Assessment
- Expectations

2. Learning Outcomes

- Stakeholders & Requirements
- Requirements Modelling
- Business Analysis

- Staff
- Subject Structure/Program
- Assessment
- Expectations



**Practical
Info**

Teaching Staff

Subject coordinator

Dr. Flavio Pileggi (UTS, Subject Coordinator)

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Teaching Staff

Co-teachers

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Teaching Staff

Co-teachers

Liqing Liu (SSTC Co-teacher)

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Subject overview

Learning Objectives

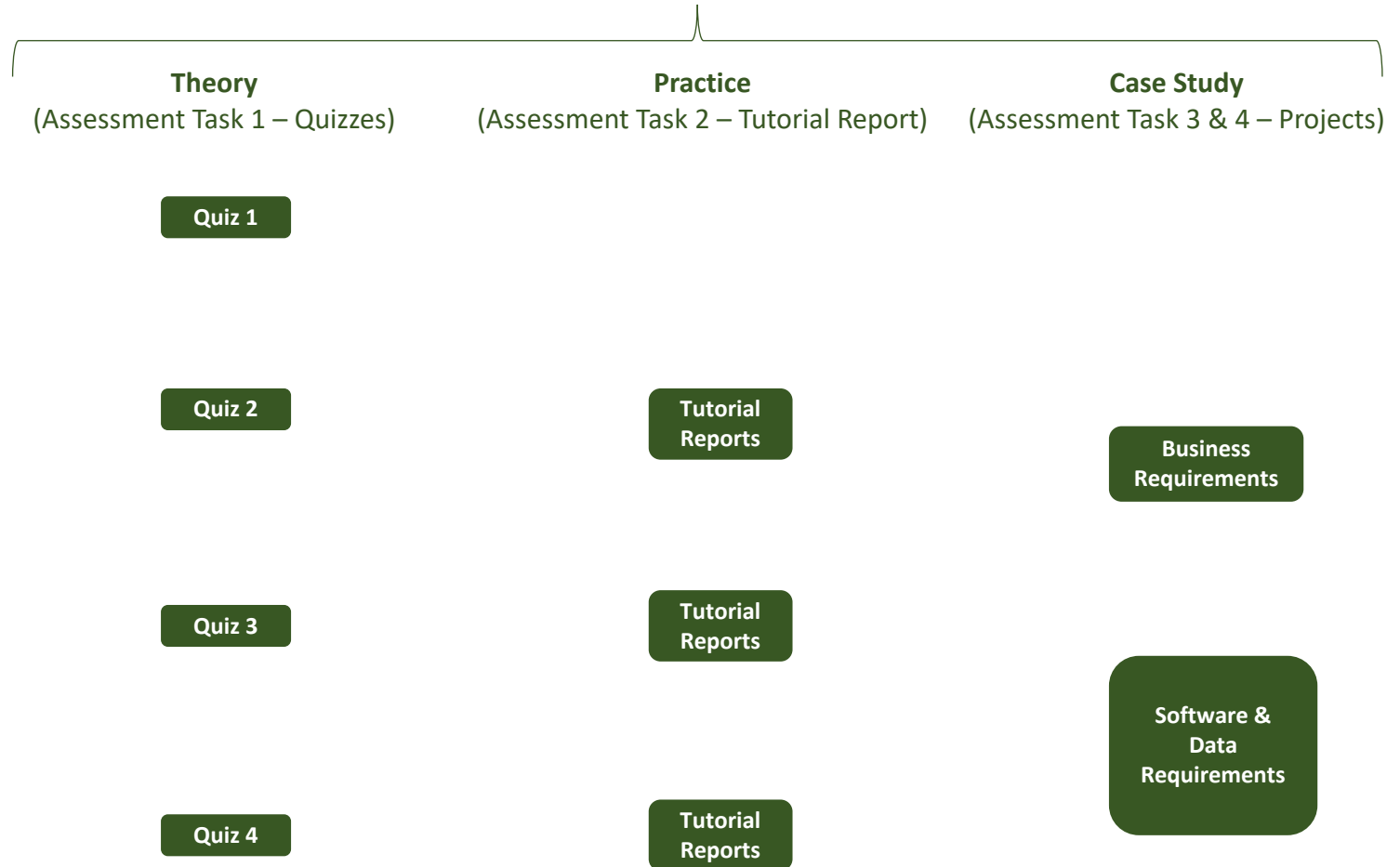
1. **Identify stakeholders, understand their needs**, and learn what/how to capture requirements in the system development process.
2. Apply **modelling and systems analysis techniques** that help understand the working of a business system.
3. **Document and specify** various requirements via Software Requirements Specification (SRS).
4. Develop various models using a range of systems analysis techniques to analyse and specify system and user requirements.
5. Work effectively in a **small team**.

Subject overview

Structure & Assessment

- **[Module 1] Introduction to BRM**
 - Business Requirements Modelling
 - Requirements Engineering
- **[Module 2] Business Requirements**
 - Requirements Elicitation
 - Requirements Analysis & Modelling
 - Requirements Specification & Documentation
- **[Module 3] Software & Data Requirements**
 - Software Requirements
 - Data Modelling & ERD
- **[Module 4] Object-Oriented Modelling**
 - O-O Approach & UML
 - Use Cases
 - Classes
 - Interactions
 - States & Events

Assessment



Subject overview

Expectations

Learning in a **foreign language** (English in this specific case) is a **huge challenge**.

Some additional difficulty may be related to **online delivery**.

But... we can do it **TOGETHER** with the support of local **co-teachers!** 😊

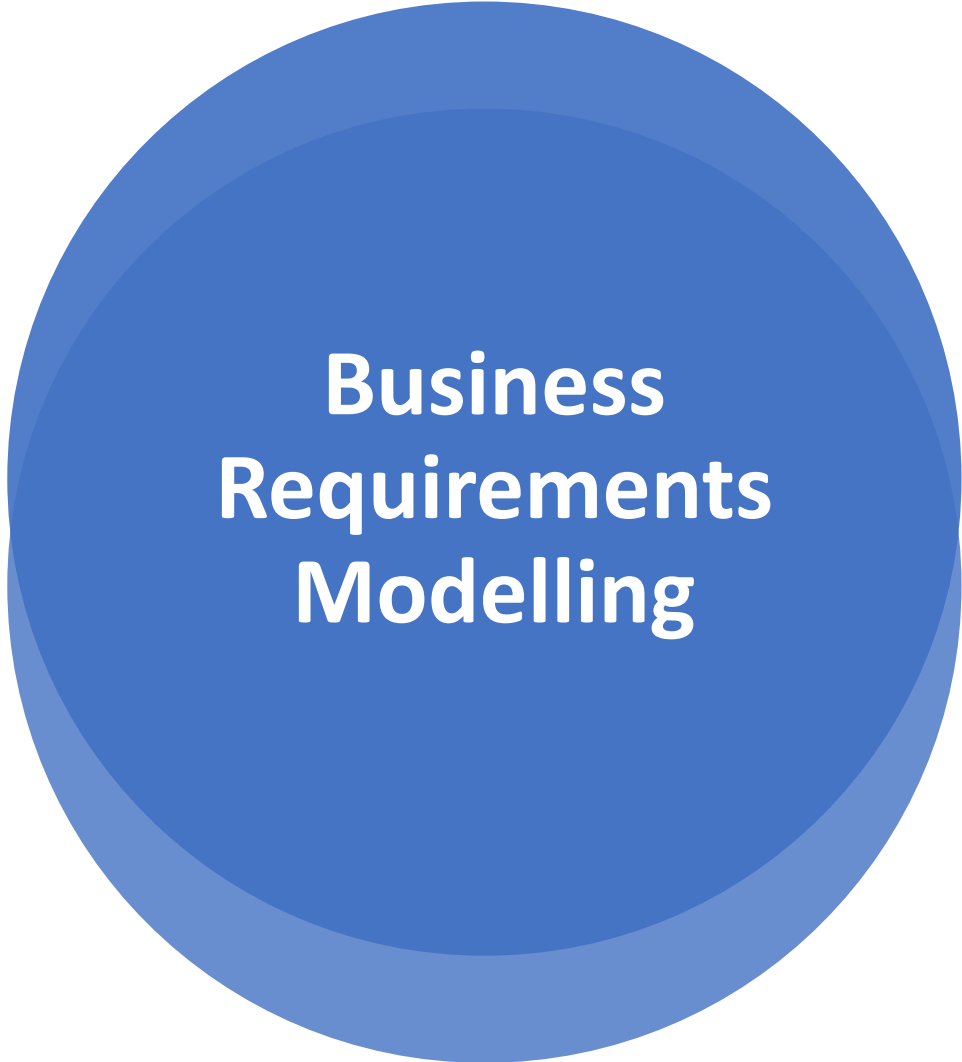
Subject overview

Expectations

How to be successful in this subject?

- Please **attend classes and tutorials**
- Please **develop the activities proposed in the tutorials**
- Please take into account the **assessment schedule** and study regularly
- Should you have **issues**, please let us know ASAP
- Please don't be shy, **we are here to help!** 😊

- Stakeholders & Requirements
- Requirements Modelling
- Business Analysis



Business Requirements Modelling

Why “Business Requirements Modelling”?

From the official description of the subject ...

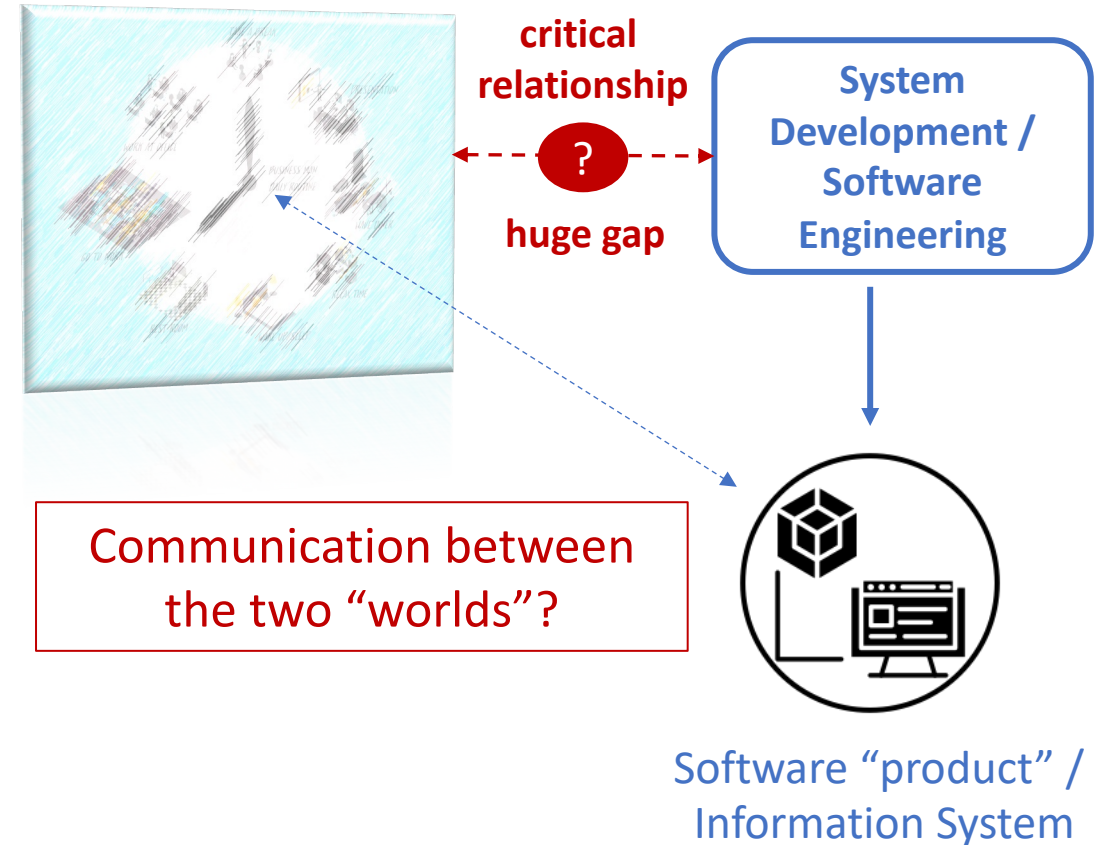
*“ This subject introduces information system concepts and describes how these concepts can be used to model business requirements. It outlines how **the ability to capture information** about the system in ways understood by its **eventual users** improves the final quality of the system.*

*An overview of agile and non-agile **software engineering principles, methods, tools and techniques** is presented and practised in small teams.*

*The subject introduces **various analysis approaches** found in contemporary system development including object-oriented methods, agile methods, business process modelling and entity-relationship modelling. It explores the relationships between these techniques and their application, and how they are used to **capture and model the business requirements**.*

Students apply various requirements elicitation, analysis, modelling and specification techniques to case studies in small teams. “

Business Context



Why “Business Requirements Modelling”?

Stakeholders

- A **stakeholder** is understood as an ***individual, team or organisation*** who have interest in, or participate, in a given business context.
- Stakeholders may be very **specific** of a given context (e.g. teachers, students) as well as more “**generic**” (e.g. End User, Owner, Subject Matter Expert).

Business Context



Let's first focus on the context ...

Why “Business Requirements Modelling”?

Stakeholders

- Failure to identify the **key stakeholders** is a serious issue, as it can mean failure to understand actual needs.

Name	Position	Project Role	...	Level of Interest	Level of Influence	Potential Management Strategies
Mike	VP of HR	Project Champion		High	High	Mike is very outgoing and visionary. Great traits for a project champion. He is concerned about financials and has an MBA. Keep him informed and ask for his advice as needed.
Lucy	Training Director	Project Sponsor		High	High	Lucy has a PhD in Education and knows training at this company. She is very professional and easy to work with, but she can stretch out conversations. Make sure she reviews important work before showing it to other managers.
Ron	Senior HR staff member	Led the Phase I project		Medium	Medium	Ron led the phase I project and is upset that he was not asked to lead this phase II project. He's been with the company for over 20 years and can be a good resource but he can also sabotage the project. Ask Lucy to talk to him to avoid problems. Perhaps give him a small consulting role on the project.
...						
...						

Business Context



Let's first focus on the context ...

<https://www.youtube.com/watch?v=BkUCcJwwwAQ&t=373s>

Why “Business Requirements Modelling”?

Requirements

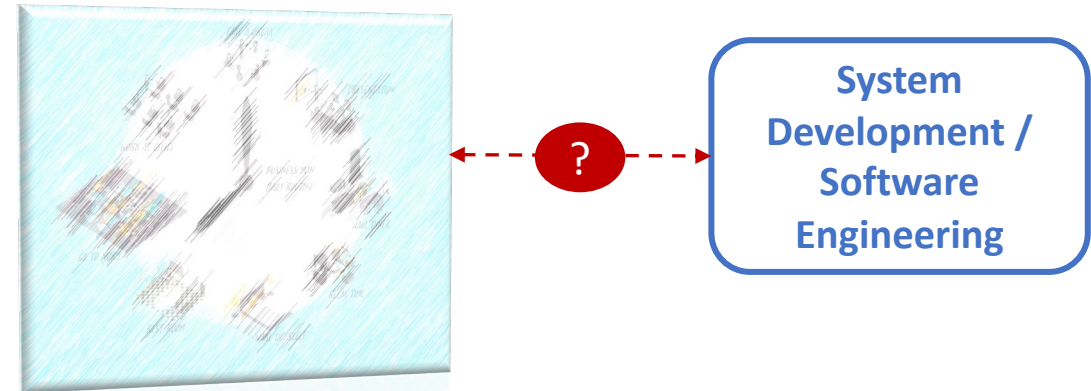
A **requirement** is:

- a condition or **capability needed** by a stakeholder to solve a business problem or achieve an objective
- a **usable representation** of a need.

Requirements focus on understanding **what kind of value** could be delivered if a requirement is fulfilled.

The nature of the representation may be a **document (or set of documents)**, but can vary widely depending on the circumstances.

Business Context



Most part of this
“relationship” is about
requirements

Why “Business Requirements Modelling”?

Requirements

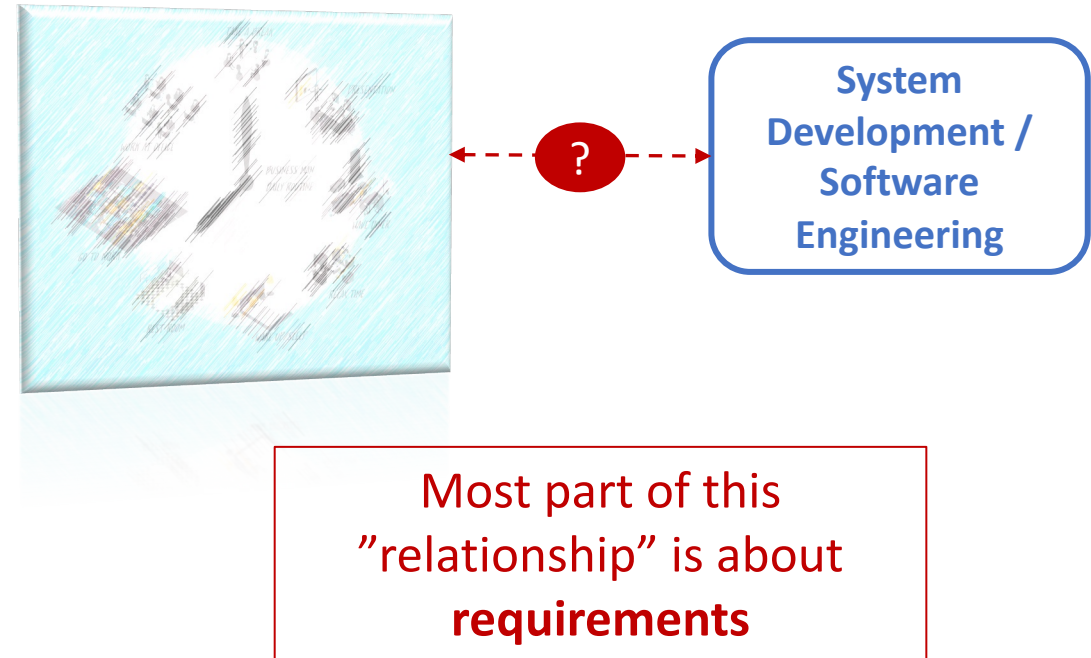
Example:

- a customer must be able to place an order for a book on the phone in less than 5 minutes between 9:00 AM and 5:00 PM (Monday to Friday).

and/or

- a customer must be able to place an order for a book via a 24/7 online system in less than 3 minutes.

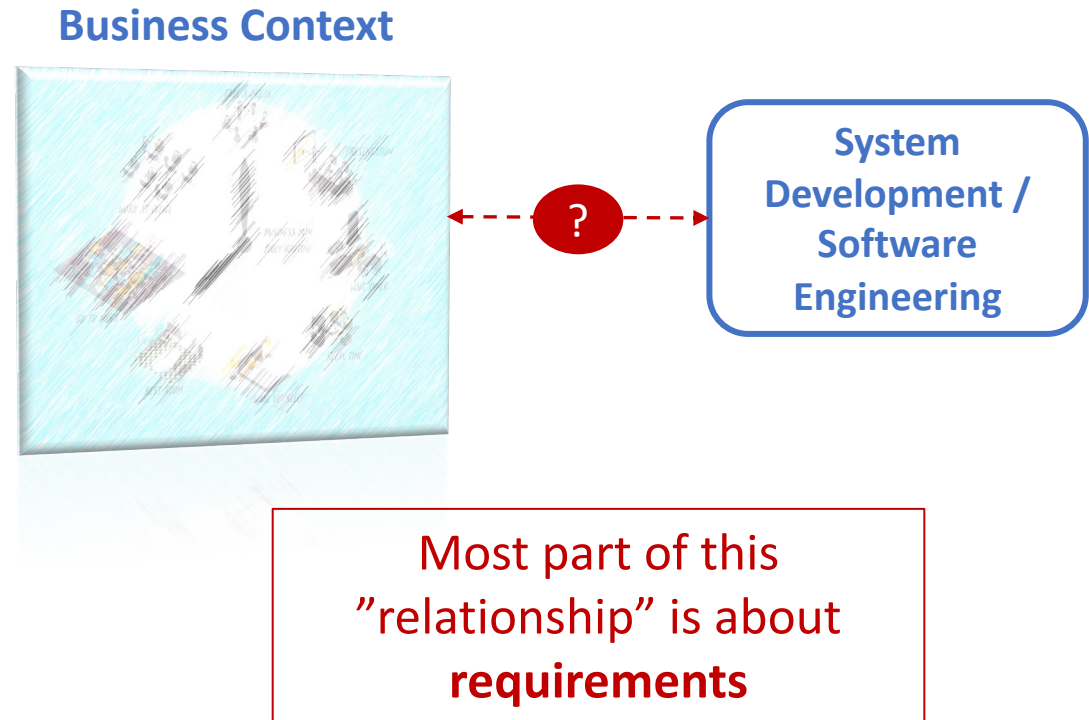
Business Context



Why “Business Requirements Modelling”?

Requirements

Requirements are needed for **developing a new or altering an existing** business process, service or product.



Why “Business Requirements Modelling”?

Modelling Requirements

*We got some bad news: there is **no predefined, “perfect”, universally accepted way to specify requirements***

- A **model** is a ***formal representation*** of a real-world entity or object or subject of interest.
- **We need a model** to specify requirements.
- The model has to address **different aspects** including (but not necessarily limited to) people, processes, system, context, quality, assumptions, constraints, etc.



People



Process



System aspects (e.g. data/software)



Context



Quality



Assumptions



Constraints

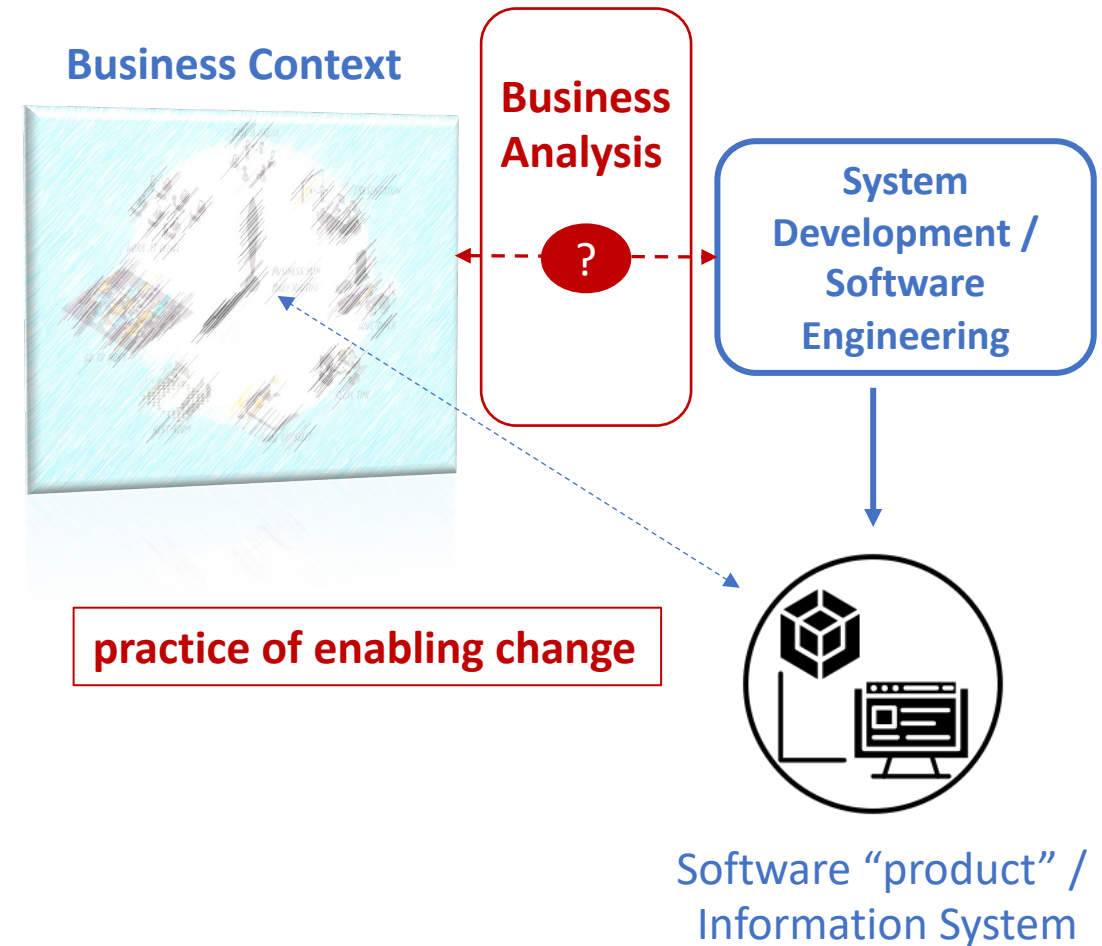


...

Why “Business Requirements Modelling”?

Business Analysis

- **Business analysis** is a *professional discipline of identifying business needs and determining solutions* to business problems.
- Solutions often include a **software-systems** development component, but may also consist of **process improvements, organizational change or strategic planning and policy development**.
- The person who carries out this task is called a **business analyst (BA)**.



WIKIPEDIA
The Free Encyclopedia

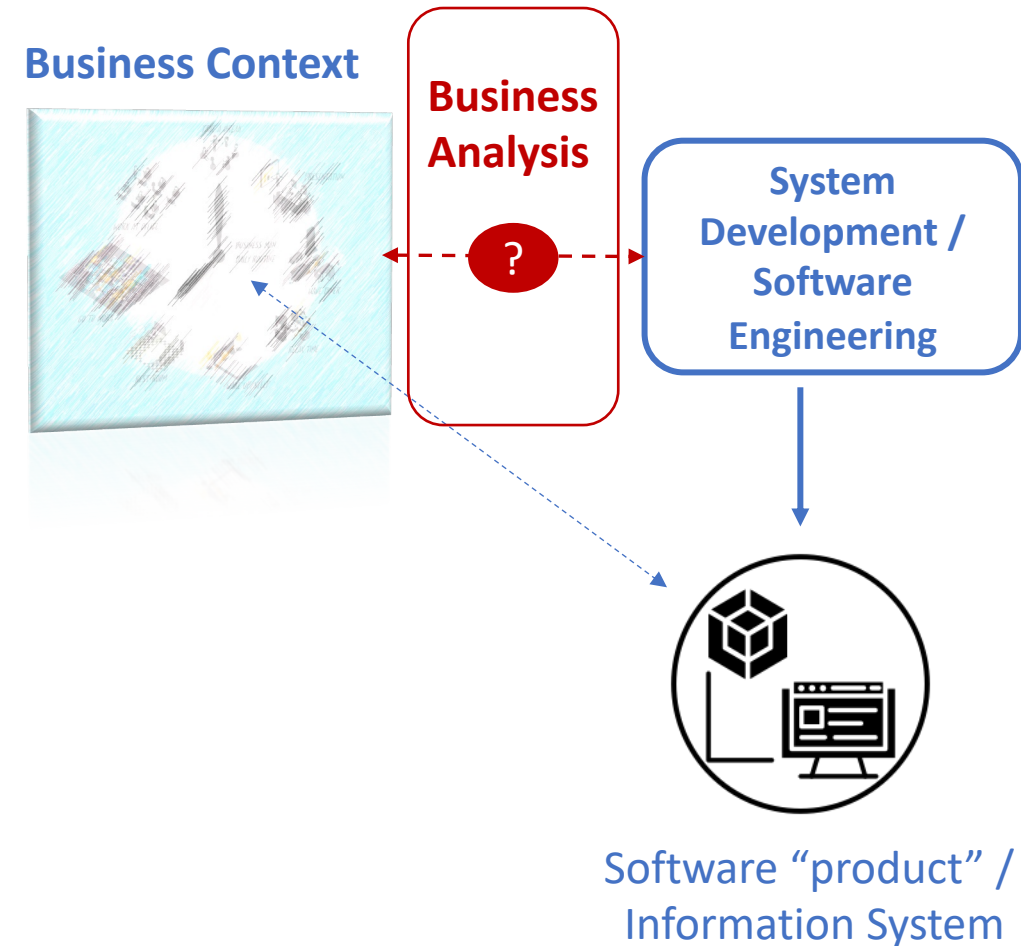
https://en.wikipedia.org/wiki/Business_analysis

Why “Business Requirements Modelling”?

Business Analysis

Typical Tasks/Activities:

- **Business/domain knowledge:** understand what does the business do
- **Understand problems and needs** of a business (requirements)
- Manage **stakeholders and communication** with them
- **Modelling:** develop and communicate business requirements models
- **Review business requirements** with stakeholders and obtain sign-off
- **Recommend** solutions, alternatives and cost estimates
- Engage in **testing/validation**



Why “Business Requirements Modelling”?

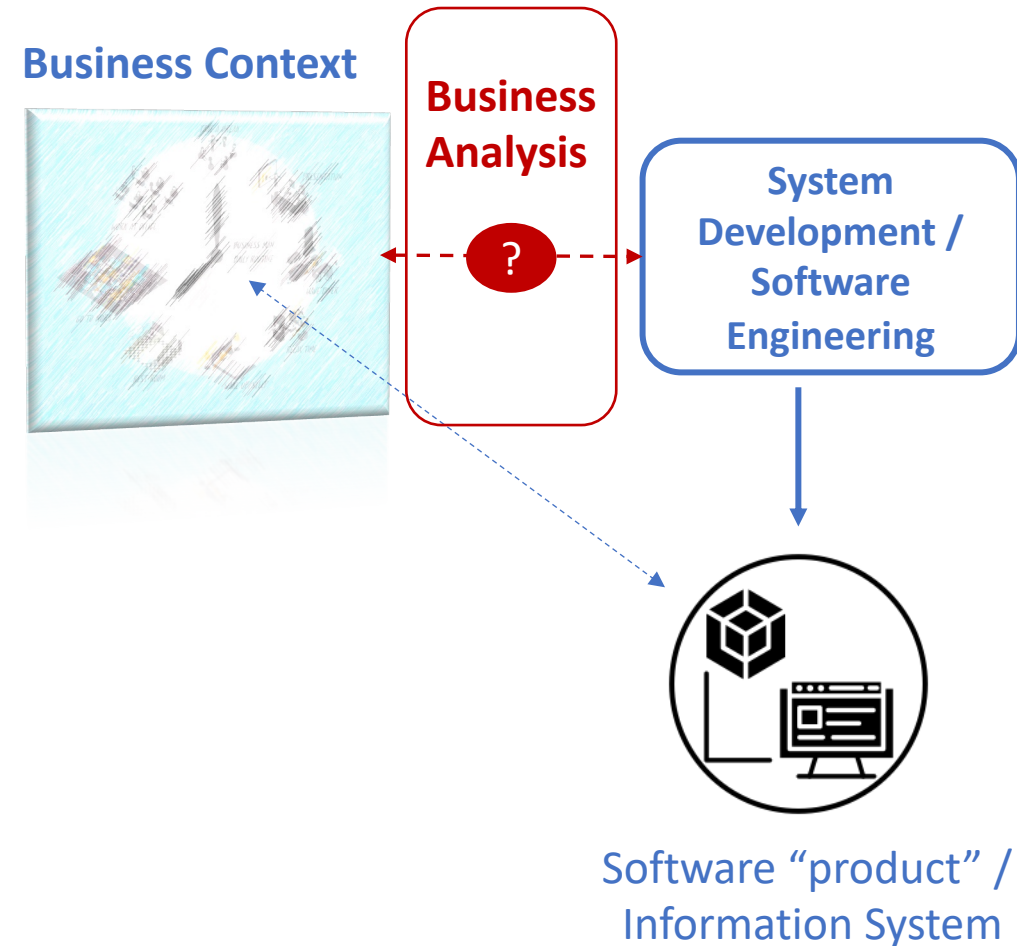
Business Analysis

BA is **demanded** ...

Many people (including students from multiple disciplines) find that role like **“attractive”**

Many paths may potentially bring you to play a BA role within an organization:

- You want to be a BA
- You are asked to be a BA
- ...



Why “Business Requirements Modelling”?

Business Analyst: skills and competencies

- Analytical Thinking and Problem Solving Skills
- Behavioural Characteristics/Skills
- Business Knowledge
- Communication Skills
- Interaction Skills
- Tools and Technology

Guide to the Business Analysis Body of Knowledge (BABOK)

Why “Business Requirements Modelling”?

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- **Analytical Thinking and Problem Solving Skills**
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*Creative thinking
Decision making
Learning
Problem solving
Systems thinking
Conceptual thinking
Visual thinking*

Guide to the Business Analysis Body of Knowledge (BABOK)

Why “Business Requirements Modelling”?

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- **Business Knowledge**
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Business acumen
Industry knowledge
Organisation knowledge
Solution knowledge
Methodology knowledge

Guide to the Business Analysis Body of Knowledge (BABOK)

Why “Business Requirements Modelling”?

Business Analyst: skills and competencies

- Analytical Thinking and Problem Solving Skills
- **Behavioural Characteristics/Skills**
- Business Knowledge
- Communication Skills
- Interaction Skills
- Tools and Technology

Ethics
Accountability
Trustworthiness
Organisation and time management
Adaptability

Guide to the Business Analysis Body of Knowledge (BABOK)

Why “Business Requirements Modelling”?

Business Analyst: skills and competencies

- Analytical Thinking and Problem Solving Skills
- Behavioural Characteristics/Skills
- Business Knowledge
- **Communication Skills**
- Interaction Skills
- Tools and Technology

Verbal Communication
Non-Verbal Communication
Written Communication
Listening

Guide to the Business Analysis Body of Knowledge (BABOK)

Why “Business Requirements Modelling”?

Business Analyst: skills and competencies

- Analytical Thinking and Problem Solving Skills
- Behavioural Characteristics/Skills
- Business Knowledge
- Communication Skills
- **Interaction Skills**
- Tools and Technology

Facilitation
Leadership and Influencing
Teamwork
Negotiation and Conflict Resolution
Teaching

Guide to the Business Analysis Body of Knowledge (BABOK)

Why “Business Requirements Modelling”?

Business Analyst: skills and competencies

- Analytical Thinking and Problem Solving Skills
- Behavioural Characteristics/Skills
- Business Knowledge
- Communication Skills
- Interaction Skills
- **Tools and Technology**

Productivity Tools
Business Analysis Tools
Communication Tools
Technology

Guide to the Business Analysis Body of Knowledge (BABOK)

Thank You!