Requirements

Module 2.

Requirements types

AGENDA

- Requirements sources
- Levels and types of requirements
- Functional requirements
- Nonfunctional requirements
- Explicit and Implicit requirements

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Requirements sources

HOW TO GET AN EFFECTIVE SOFTWARE REQUIREMENTS?

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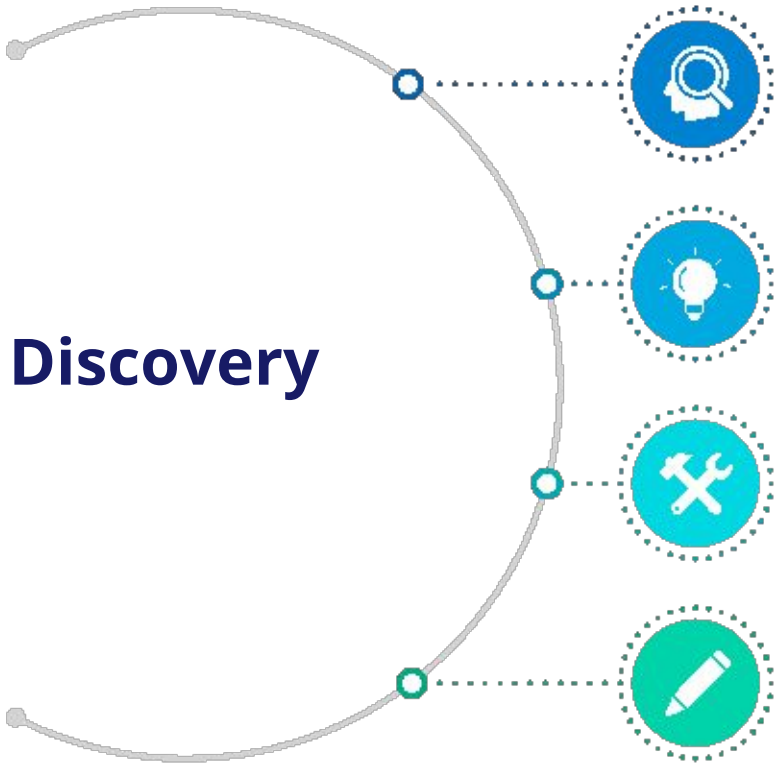
Requirements sources



Gathering

Analysis

Validation

Documentation

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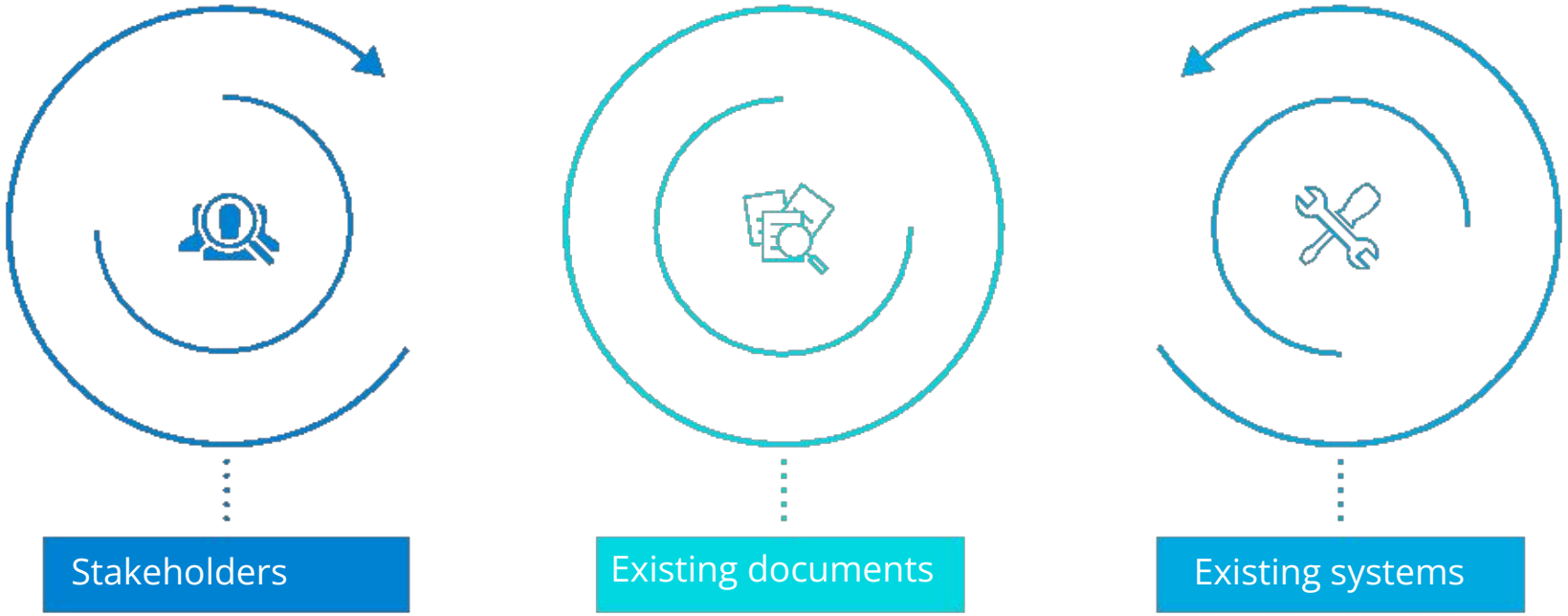
Requirements sources



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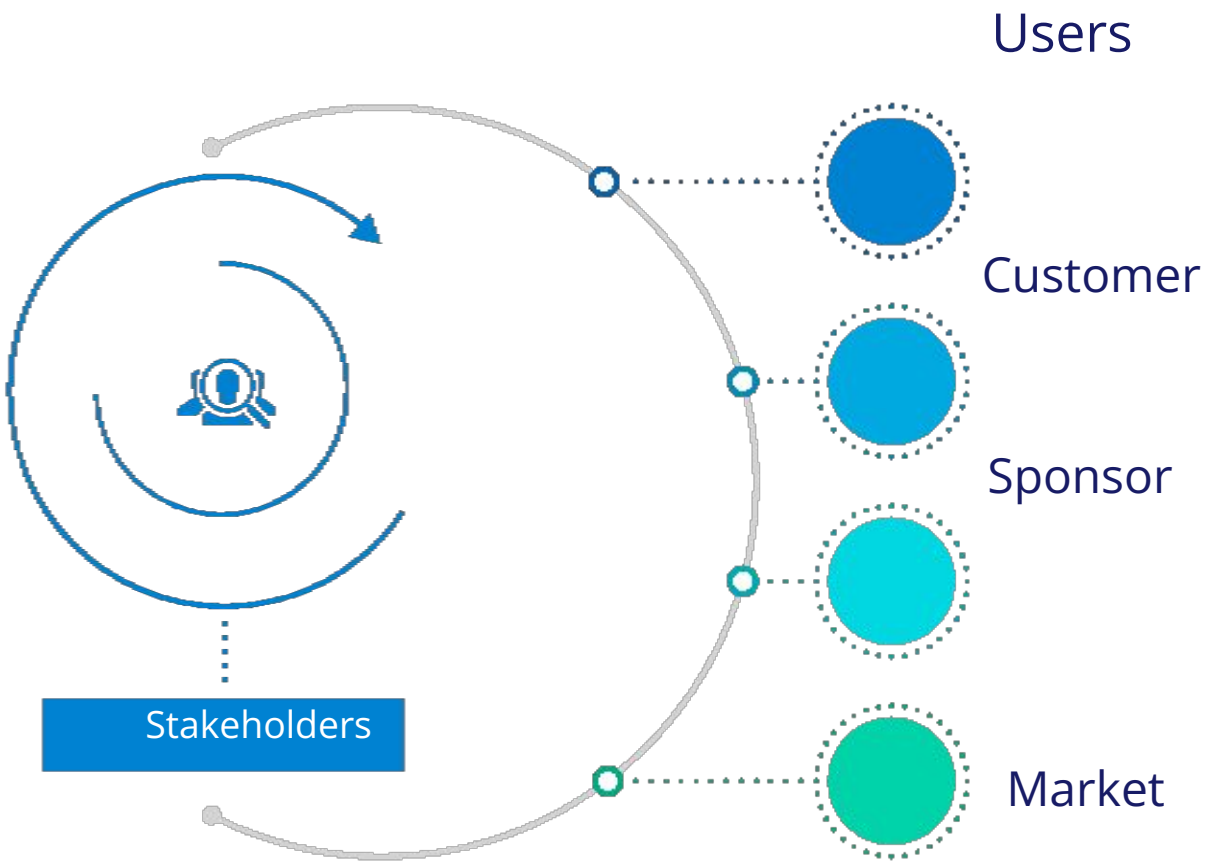
Requirements sources



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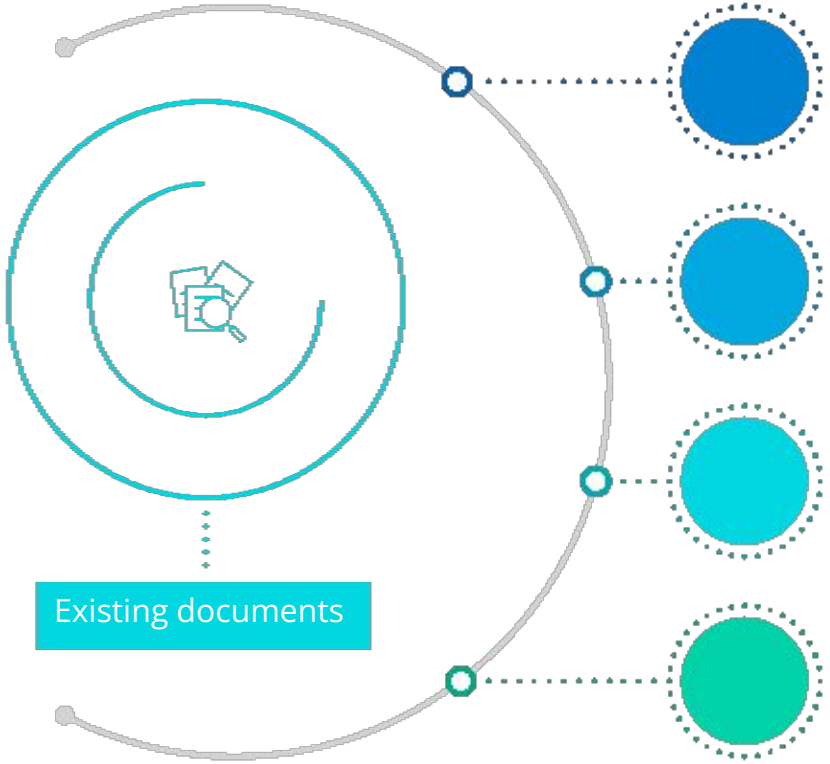
Requirements sources



Interface documentation

Strategy

Legal restrictions

Design documentation

Standards

Technical implementation

Constraints

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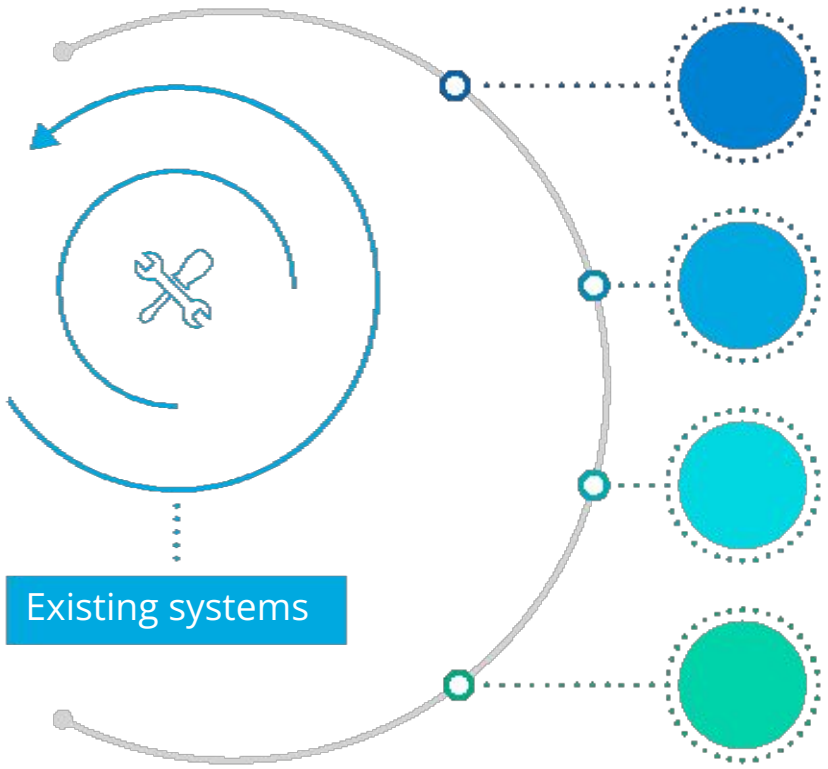
Requirements sources



Adjacent system

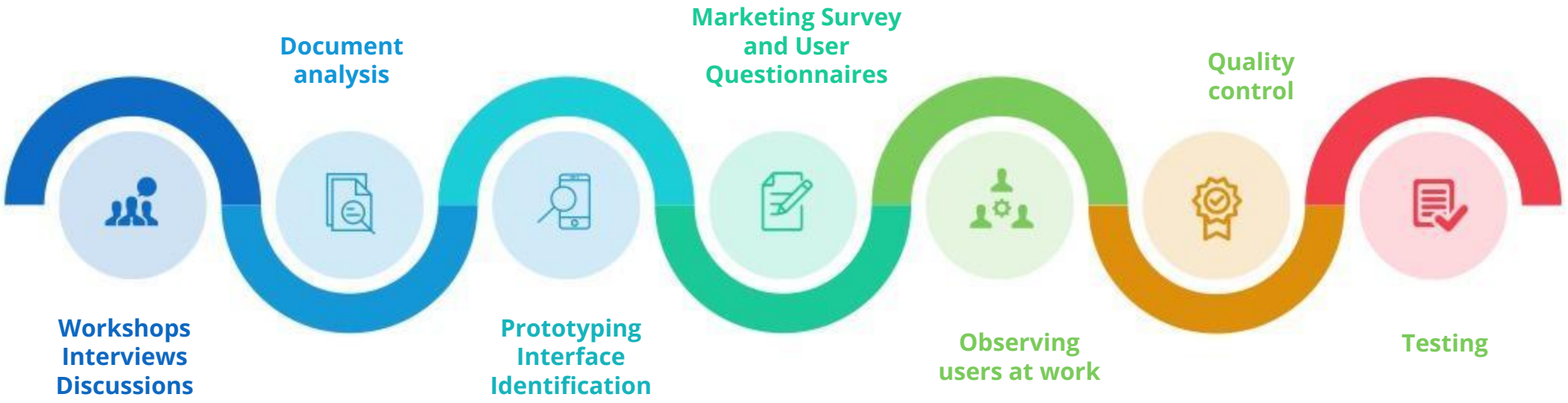
Previous versions

Reports

Trouble tickets

Elicitation Techniques

Elicitation Techniques



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Levels and Types of requirements

Functional

Business Level	BUSINESS REQUIREMENTS	WHY?
User Level	USER REQUIRMENTS	WHAT?
Product Level	FUNCTIONAL REQIURMENTS	WHAT?

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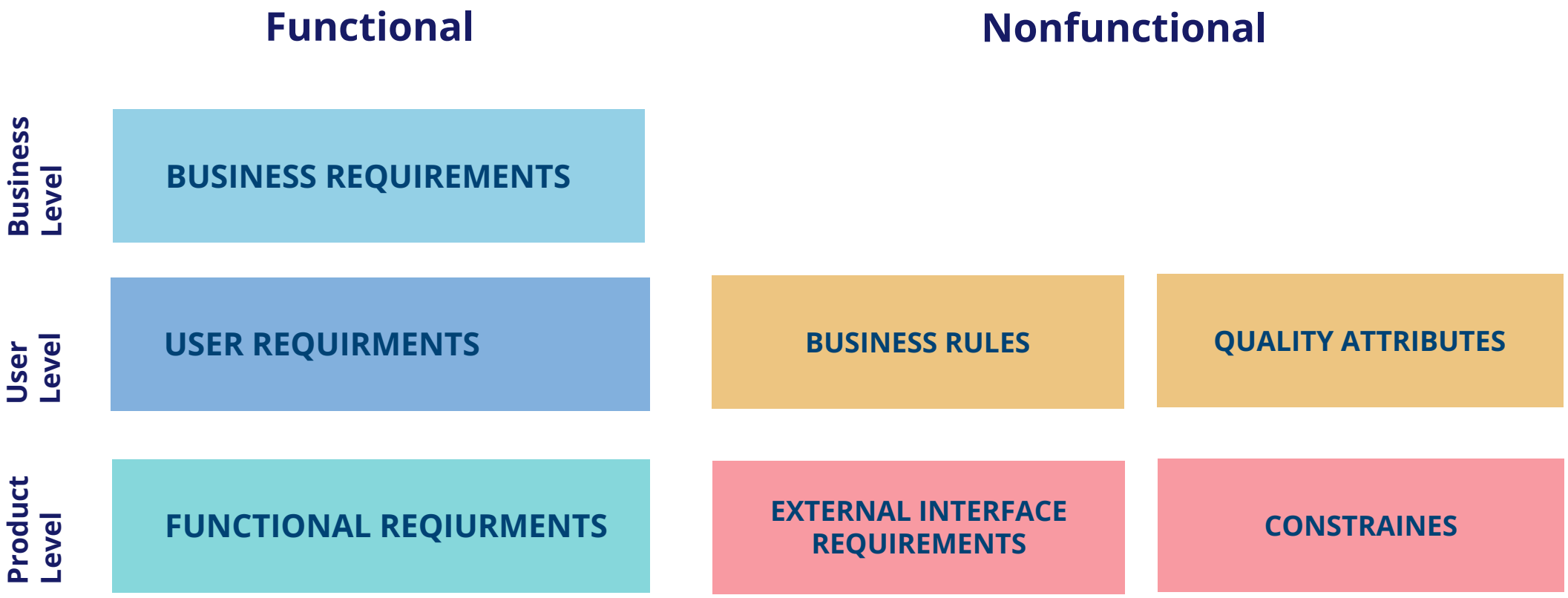
Levels and Types of requirements



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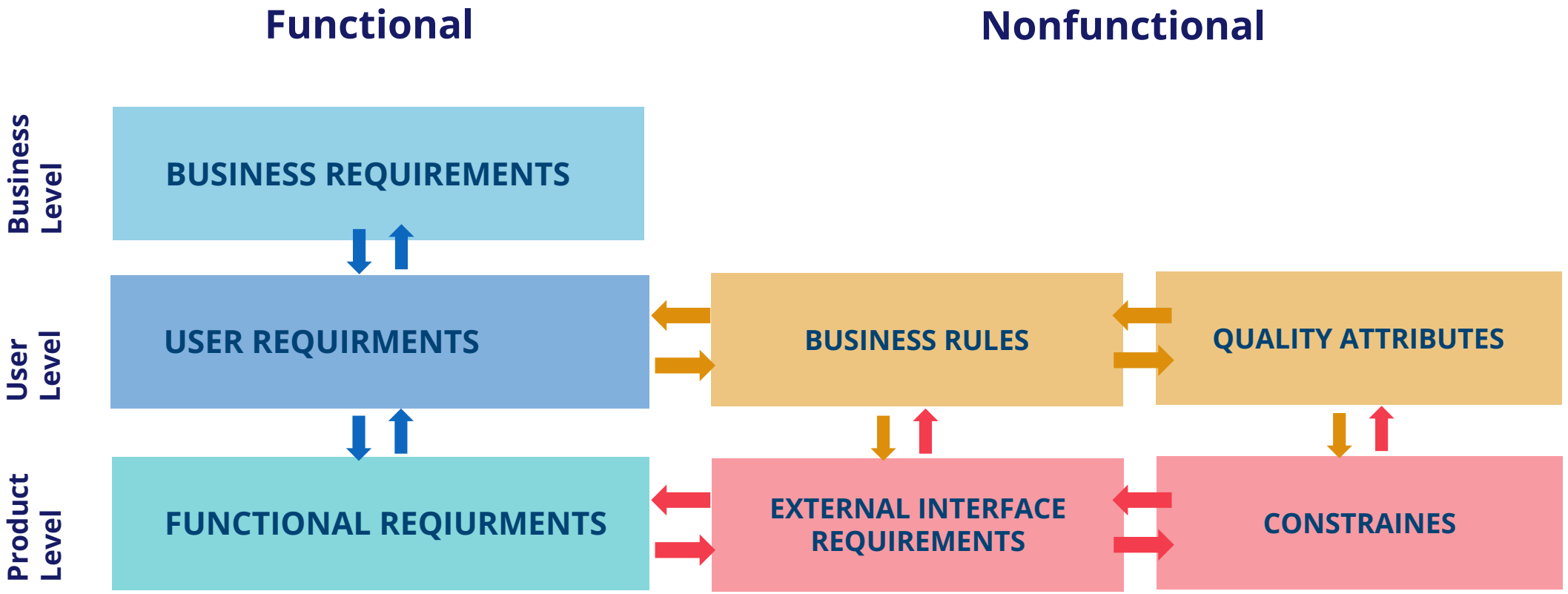
Levels and Types of requirements



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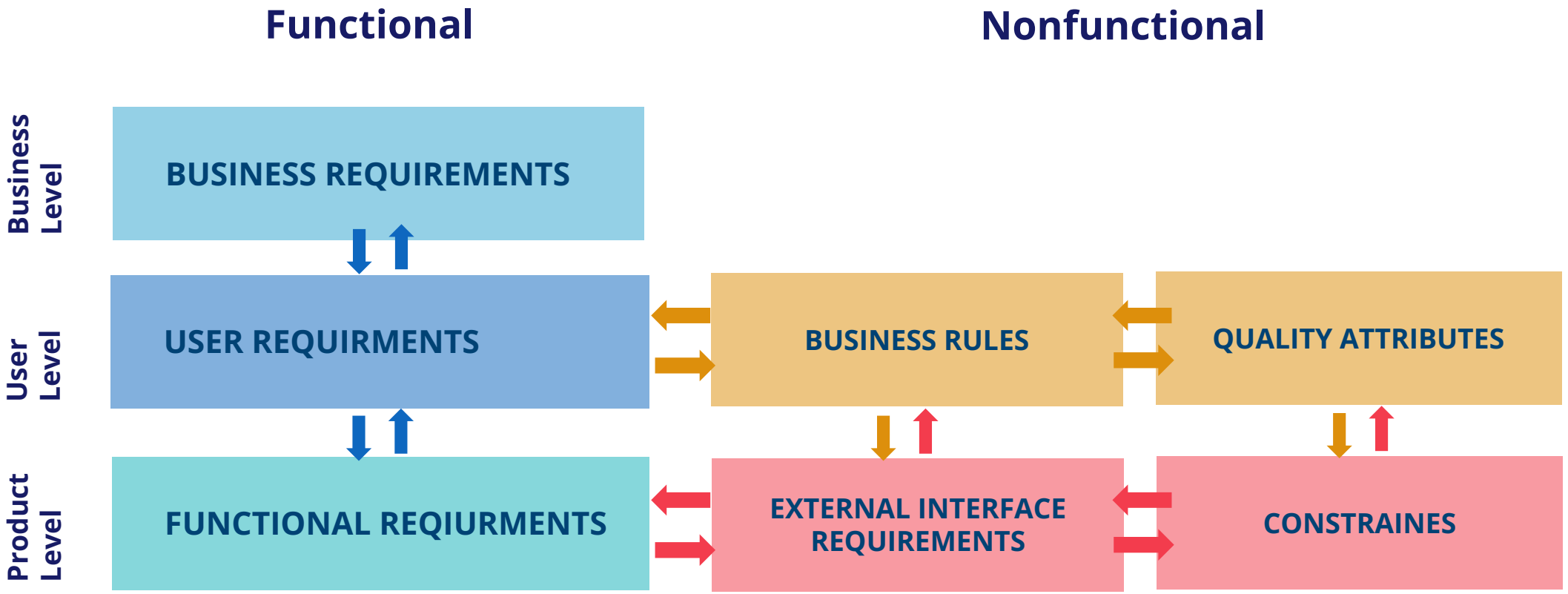
Levels and Types of requirements



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Levels and Types of requirements

Business Level	"OMS application should reduce errors and increase efficiency by automating the process of creating, managing and delivering orders "
User Level	“Customer should be able to create a new order” “Merchandiser should be able to check information about orders"
Product Level	“OMS application should have ‘Ordering’ tab for sorting, searching and filtering existing orders and for creating new orders.

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Traceability between Requirements

Traceability

is a technique that provides a relationship between different levels of requirements in the system

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Traceability between Requirements

Traceability plays several important roles:

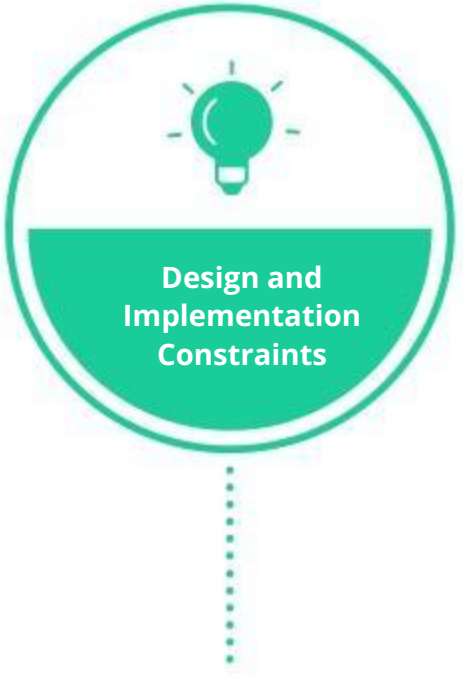
- Verifying that an implementation fulfills all requirements.
- Verifying that the application does only what was requested.
- Impact analysis
- Helping with change management

Nonfunctional Requirements

Corporate policies, Government regulations, Industry standards, Computational algorithms

Usability, Portability, Integrity, Efficiency, Robustness

Description of all inputs into and outputs from the software



Specific technologies, tools, programming languages, which should be used in the system implementation

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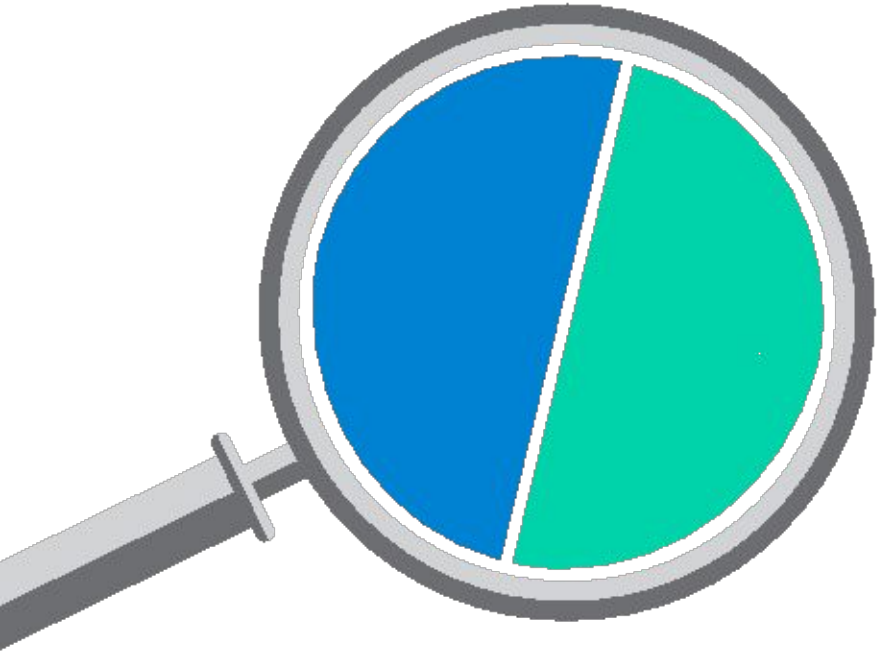
Explicit and Implicit Requirements



Explicit

Clearly defined and documented

Implicit

Hidden or ‘assumed’ and not stated explicitly

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Explicit and Implicit Requirements

- Password encryption
- Auto complete
- Short keys
- Default behavior of UI controls

Requirement Types. Example

	Req. ID	Requirements Description
Business Requirements	BR.01	Order Management System should be protected from unauthorized access.
User Requirements	UR.01	As User (any role) I want to Login so I can enter the System
Functional Requirements	FR.01	'Login' page should contain two fields 'User Name', and 'Password', checkbox 'Remember me' and two buttons – 'Login' and 'Reset'.
	FR.02	Registered Users shall be able to Login to System by providing Username &Password • Upon successful login to the system, Order Management System opens new window. The specialty is that different Roles see different tabs. • If the Credentials are not correct, then system notifies user about it and gives him another try
	FR.03	'Remember me' option on Login page saves last entered user name on current PC
Nonfunctional Requirements	NF.01	Performance: Upon providing correct credentials, User shall be redirected to the new window within 4 Seconds (max)
	NF.02	Platform Constraints: The Login Functionality shall behave same in different Platforms (Windows/Linux)
	NF.03	Portability: The System shall be portable enough for various devices such as: Laptop, Desktop, Mobile, Tablet

REQUIRMENT TYPES. EXAMPLE

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tOn he 'Login' page, pressing 'Enter' key should have the same effect as clicking on 'Login' button and pressing 'Esc' key as clicking 'Reset' button

Implicit Requirements

THANK YOU