Introduction to Matrix

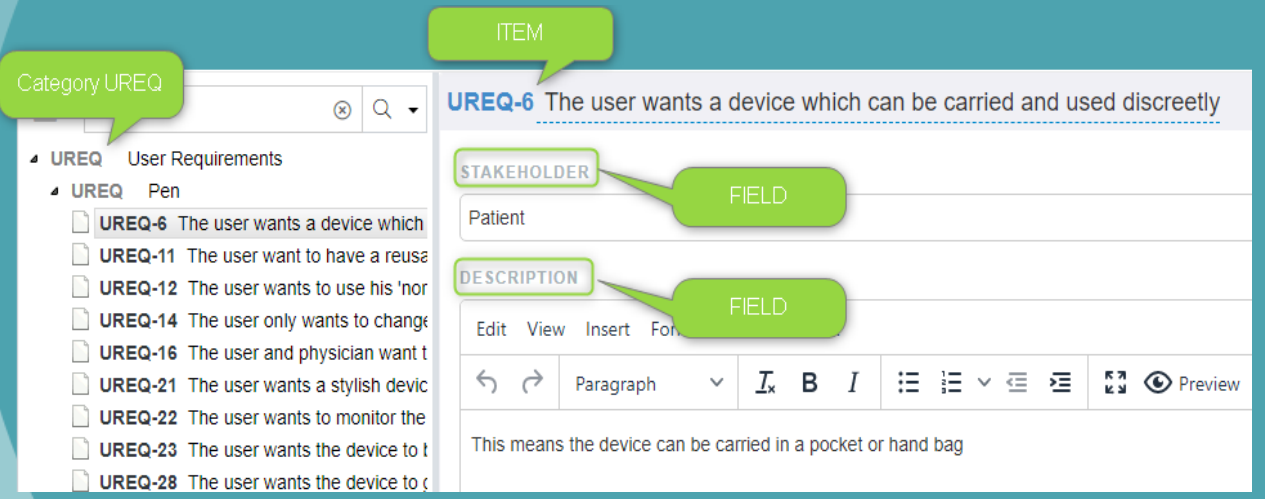
What do we call things?

Matrix
REQUIREMENTS

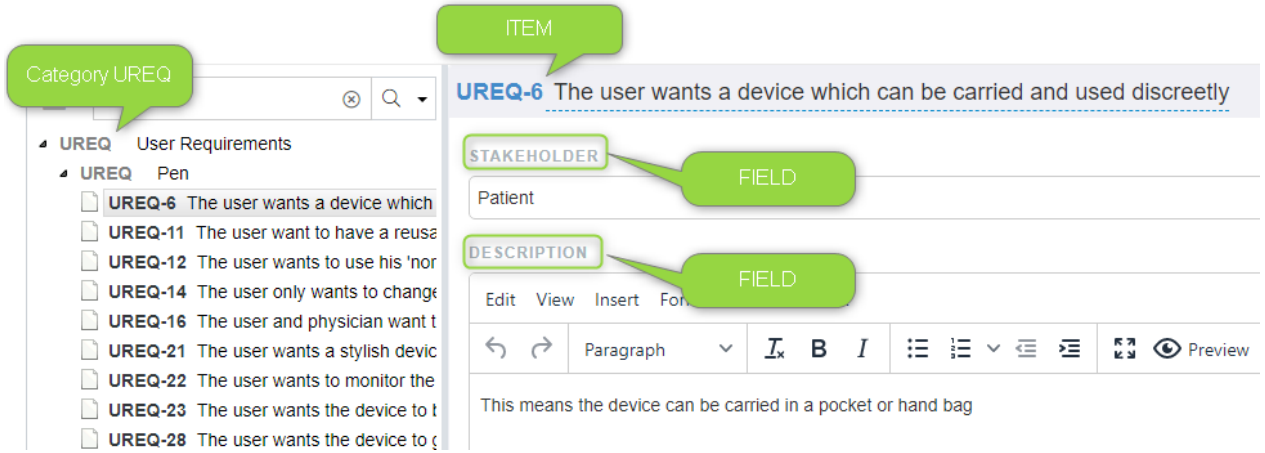
ITEMS, FIELDS & CATEGORIES

Matrix is designed to **store** pieces of structured **information** in a **database.**

- Each piece of information we call an **ITEM**
- Each item consists of several **FIELDS**
- A **CATEGORY** defines which fields exist in an item and groups them together



ITEMS, FIELDS & CATEGORIES



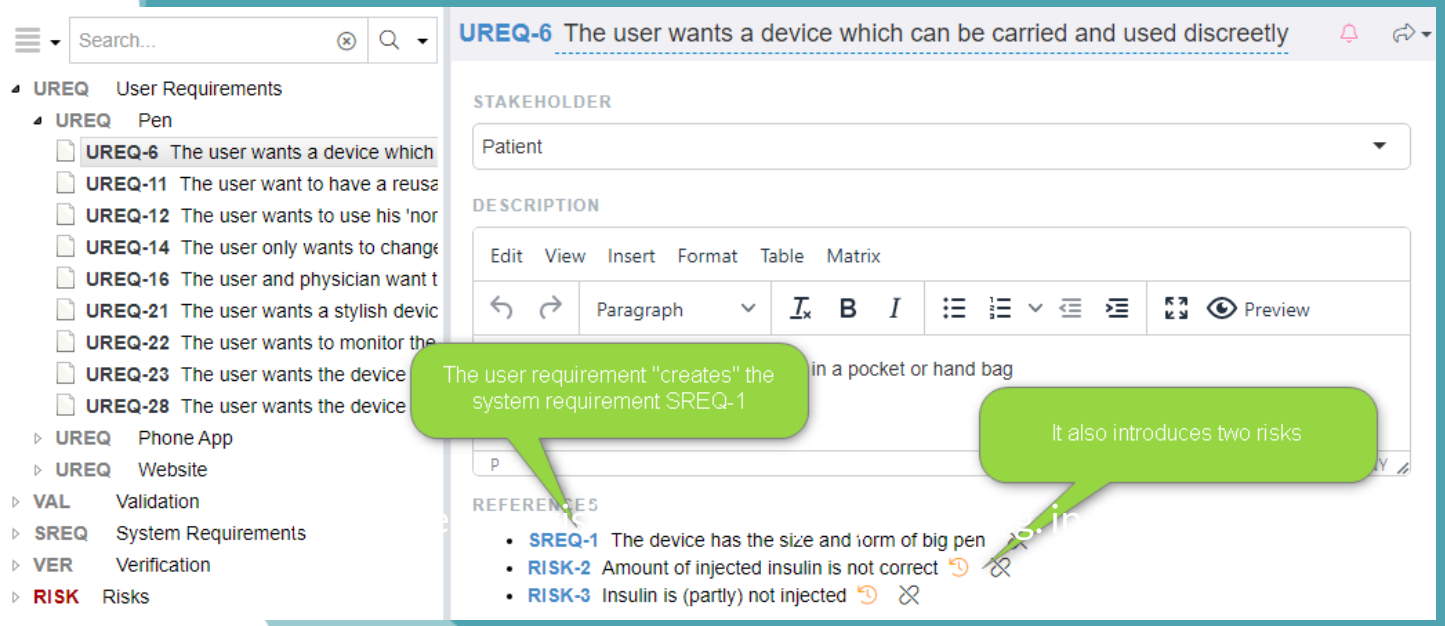
- You might have a **category, for User Requirements**, which
  - Is defined using a **unique prefix** for all user requirements, say UREQ
  - Is structured using different **fields** to **detail** each user requirement, for example, with a drop-down menu for the stakeholder and a description
- The database will have several user requirements for your product

  UREQ-1, UREQ-2, UREQ-3, …
- These are stored in a tree structure to allow you to easily group and find them

TRACEABILITY

- In a typical database you have many different categories with relationships between them
- These are expressed as TRACEABILITY rules
- There are **UP TRACES** and **DOWN TRACES**

  - The up or down designates the '**direction**' of a trace, e.g., if you have a user requirement you will need to break it down into system requirements.
  - In Matrix, you would for example **define a trace rule** that "a **UREQ** must have a trace **to SREQ". UREQ ➔ SREQ** is therefore a down trace.
  - Usually if there is a **down trace** there is one in other direction which is called an **up trace**, e.g., "a system requirement is derived from a user requirement" **UREQ ← SREQ**



DOCUMENTS

Matrix REQUIREMENTS

- **Documents** help you to get data from the **database** into **PDFs, Word or Excel**
- They can be records, plans, reports, minutes, …
- Documents are stored in the **CATEGORY DOC**
- Each Document contains several **SECTIONs** that can be
  - Just some text, a checkbox etc.
  - or the content of ITEMS in lists or tables
- To **freeze the content** of a DOC it is converted into **SIGN items** which can be **electronically signed** but otherwise won't change if the database items inside are changed

SUMMARY

CATEGORY → *Defines which fields exist for an item*

ITEM → *A database entry with several fields*

FIELD → *Holds some information as part of an item*

TRACEABILITY → *Links between items*

DOC → *A document to print the content of items*

SIGN → *An electronical signed document*

SECTION → *A specific type of paragraph composing a document*

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