In this thread I want to discuss database diagrams and entity relationship diagrams. I will define what database diagrams and entity relationship diagrams (ERDs) are. I will explain why database diagrams are used. I will discuss what tools can be used to create an ERD as well as what symbols are used in an ERD. So, what is a database diagram?

A database diagram is *“*essentially an abstract graphical representation of the structure of a database. It can be used both as a tool to assist in the design of a database and as a document that shows the structure of an existing database.” (Mortier, 2022) An entity relationship diagram “visualizes the relationships between entities like people, things, or concepts in a database.” (Entity Relationship Diagram (ERD) - What Is an ER Diagram?, n.d.) Lets consider the following list as to why database diagrams are used:

* Documenting database structure.
* Communicating database design decisions and providing a basis on which to discuss those decisions.
* Obtaining customer/stakeholder validation for a data model.
* Facilitating database version management and the generation of upgrade scripts.
* Smoothing out migration between model versions and even different database engines.

(Mortier, 2022)

According to an article that I found online, in 2022, the top 7 tools for creating your own ERD are listed below:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| * Lucidchart | * Creately | * DBDiagram | * ERDPlus | * DrawSQL |
|  | * QuickDBD |  | * Trevor.io |  |

(Marshall, 2022)

The following symbols are used in an ERD:

Graphical user interface, text, application

Description automatically generated

Table

Description automatically generated

(ERD Symbols and Meanings, n.d.)

In this thread we can see clear definition of both a database diagram as well as an entity relationship diagram. We can gather the importance of and the value that these diagrams add when looking at databases. There are tools listed above that can help us to create an ERD as well as a table that will help guide us and instruct on what to look for in an ERD.

References:

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