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DATA MODELING

THIS DOCUMENT WILL BE UPDATED AS AND WHEN APPLICABLE.

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DATA modeling is the process of describing information structures and capturing business rules to specify information system requriments.

The two types of Data Models techniques are

1. Entity Relationship (E-R) Model
2. UML (Unified Modelling Language).

Why we are using data models?

A **data model** helps design the database at the conceptual, physical and logical levels. **Data Model** structure helps to define the relational tables, primary and foreign keys and stored procedures.

TYPE OF DATA MODELS

They are three different types of data models:

**1)conceptual model:**

The main aim of this model is to establish the entities, their attributes, and their relationships.

2)Logical data model:

It defines the structure of the data elements and set the relationships between them

Customer : product:

|  |  |
| --- | --- |
| Customer name (string) | Product name(string) |
| Customer number (integer) | Product price (integer) |
|  |  |

3)physical data model:

A Physical Data Model describes the database specific implementation of the data model.

This is because of the richness of meta-data offered by a Physical Data Model.

Customer: product:

|  |  |
| --- | --- |
| Customer name (varchar) | Product name(varchar) |
| Customer number (integer) | Product price (integer) |
| Primary key customer number | Unique key product name |
|  |  |

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