

# RDBMS

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RDBMS stands for Relational Database Management System.

RDBMS data is structured in database tables, fields and records.

Each RDBMS table consists of database table rows. Each database table row consists of one or more database table fields.

RDBMS stores the data into a collection of tables, which might be related by common fields (database table columns).

RDBMS also provides relational operators to manipulate the data stored into the database tables.

## Degree Of Relationship

The degree of relationship refers to the number of participating entities in a relationship.

Relationship sets that involve two entity sets are binary (or degree two). Generally, most relationship sets in a database system are binary.

Relationships between more than two entity sets are rare. Most relationships are binary.

## Types of degree

- UNARY
- BINARY
- TERNARY

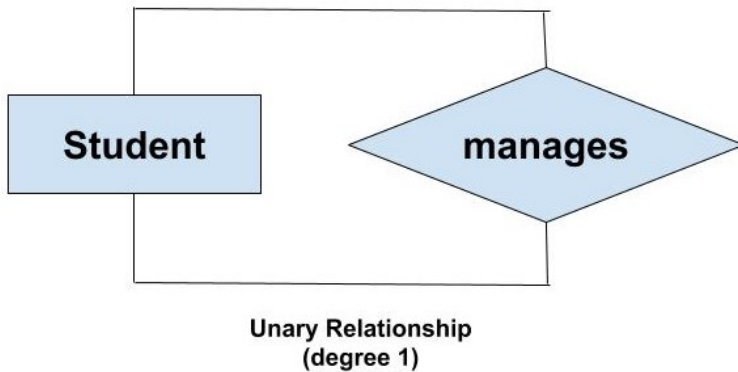
## UNARY

A relationship is unary when both the participating entity types are the same. Where such a relationship exists, we say the degree of the relationship is 1.

Example:

Here only one entity type in a relationship, and the minimum degree of a relationship is one.

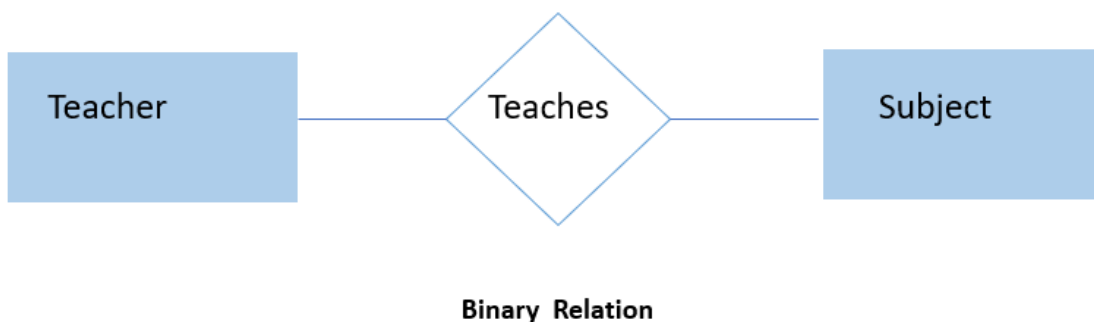
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## **BINARY**

If there are two entities involved in a relationship then it is referred to as a binary relationship.

When this type of a relationship is present, we say that the degree is 2. These can be easily converted into relational tables.



Example:

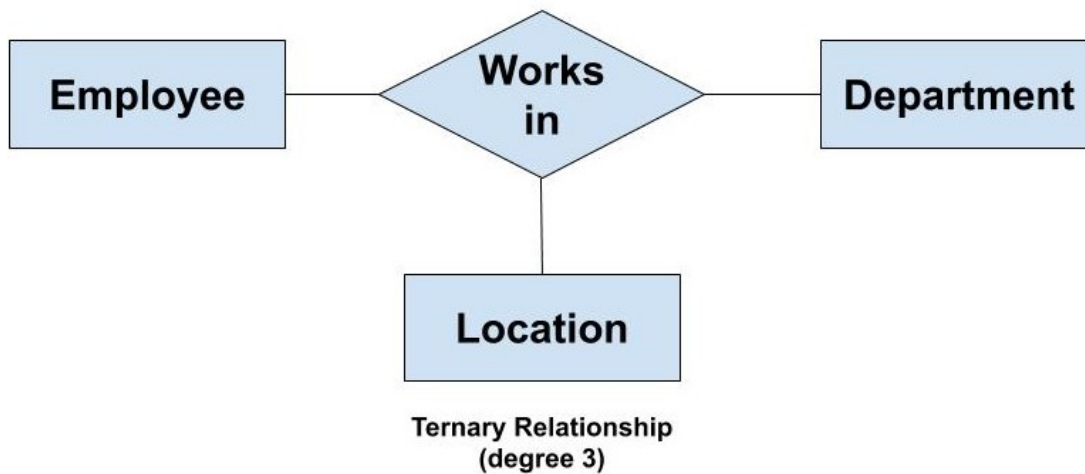
For example the relationship “a Teacher teaches one or more Subjects” represents a binary relationship.

## **Ternary Relationship**

If there are three entities involved then it is called a ternary relationship and so on.

When this type of a relationship is present we say that the degree is 3.

As the number of entities increases in the relationship, it becomes complex to convert them into relational tables.



There are three entity types: 'Employee', 'Department' and 'Location'. The relationship between these entities are defined as an employee works in a department, an employee works at a particular location. So, we can see we have three entities participating in a relationship so it is a ternary relationship. The degree of this relation is 3.

## DATABASE SCHEMA

The term "database schema" can refer to a visual representation of a database, a set of rules that govern a database, or to the entire set of objects belonging to a particular user.

It consists of a list of attributes and instructions that informs the database engine how the data is organized and how the elements are related to each other.

### Database Schema Type

There are three main database schema types that define different parts of the schema: logical, View and physical.

### Logical Schema

A logical database schema represents how the data is organized in terms of tables. It also explains how attributes from tables are linked together. Different schemas use a different syntax to define the logical architecture and constraints.

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### **Physical Schema**

The physical database schema represents how data is stored on disk storage. In other words, it is the actual code that will be used to create the structure of your database. In MongoDB with mongoose, for instance, this will take the form of a mongoose model. In MySQL, you will use SQL to construct a database with tables.

### **View Schema**

The view level design of a database is known as view schema. This schema generally describes the end-user interaction with the database systems.