

Relationships, Relationship Sets and Relationship Types

In this lesson, we will study the basics of relationships between entities.

We'll cover the following



- Relationships, relationship sets and relationship types
- Representation in ER diagrams

Relationships, relationship sets and relationship types

A relationship is an association between two entities, for example, an entity EMPLOYEE WORKS_ON PROJECT, which is another entity. However, note that different instances of employees will be working on different projects. So an employee, John WORKS_ON Project Netlife and maybe some other employee Sara (who is also an instance of an employee) WORKS_ON Project mForm.

So we can say that **relationship type** is simply the relationship that exists between two entities like WORKS_ON. While the set of similar associations at a point of time is called the **Relationship Set**.

The illustration below will help clear up the confusion:

Relationship type name:

Works_On

Relationship set:

EMPLOYEE (John) Works_On PROJECT (Netlife)
EMPLOYEE (Mark) Works_On PROJECT (Redlife)
EMPLOYEE (Sara) Works_On PROJECT (mForm)
EMPLOYEE (Steve) Works_On PROJECT (Netlife)

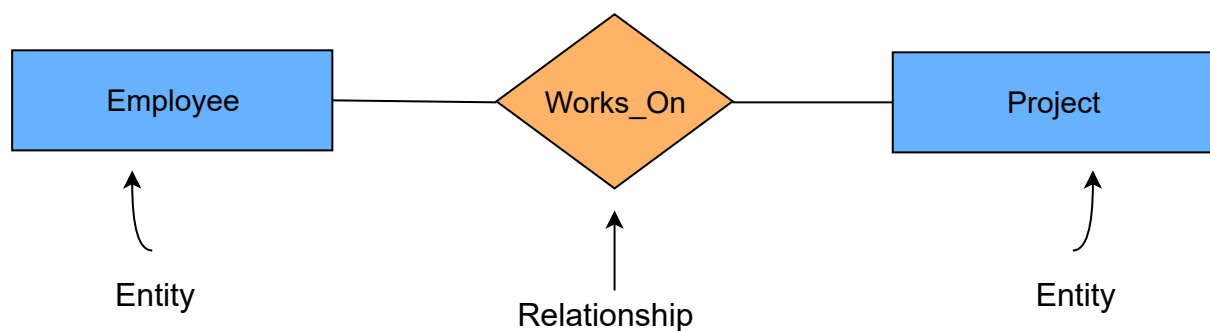
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Example of relationship type and set

Similar to the case of entity types and entity sets, a relationship type and its corresponding relationship set are customarily referred to by the same name.

Representation in ER diagrams

In ER diagrams, relationship types are displayed as diamond-shaped boxes, which are connected by straight lines to the rectangular boxes that represent the participating entity types. The relationship name is displayed in the diamond-shaped box. The diagram below illustrates this concept:



Representation of relationships in ER model

In the next lesson, we will learn about the degrees of relationship type.

