Constraints in an entity-relationship model

Constraints are only available in the NIAM view, and they are used for modeling limitations on the relations between entities. There are three types of constraints:

- **Uniqueness constraint** for indicating the key of an entity for uniquely identifying the entity. Is linked to attributes of an entity.
- **Exclusion constraint** for indicating that each of the entities excludes the other. Is linked to predicates of a fact.
- **Completeness constraint** for indicating that two entities together complete the collection. Is linked to predicates of a fact.

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Uniquely identifying an entity with uniqueness constraints

Like keys in a Crows Foot logical view, uniqueness constraints can be used for uniquely identifying an entity by linking it to one or more attributes in the entity. A single entity can have multiple uniqueness constraints.

To model the key, add a Uniqueness constraint object to the view. After that connect the key to the attributes in the entity you want to make a part of this key by using a Link relation.

![Uniqueness constraint example](image)

Setting a sequence number for uniqueness constraints

If multiple uniqueness constraints are used, it is possible to assign them a sequence number. To assign a sequel number, follow these steps:

1. In the view, select the uniqueness constraint, and then click ⚙.

![Sequence number setting](image)

2. In the Enter sequence number window, type the number and click OK.

The sequence number is now displayed in the constraint:
Displaying the name of a constraint relation

When a constraint is linked to an attribute in an entity or to a fact, only the constraint is shown with a relation to the other element. To explicitly show which element the constraint is linked to, you can display the name of the relation. To display the name, do as follows:

- In the view, select the constraint, and then click the name that appears below the constraint.

The name is now displayed below the constraint:

You can hide the name again by clicking it.