Data and Its Applications (CS4.301)

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Entity-Relationship (ER) Data Model

Relationships

Relationships relate distinct entities of one entity type to distinct entities of another entity type. Relationships of the same type are grouped into *relationship types*.

The *degree* of a relationship is the number of participating entities.

If the same entity type participates in a relationship in two places, it must have *roles*. A relationship having roles is called a *recursive relationship type*.

Relationships can have *constraints* on them:

- a cardinality constraint (for binary relationships), stating how many entities a certain number of entities can be related to.
- a participational constraint, which can be either total (every entity must be related) or partial (some entities must be related).