

IT 775

Database Technology

ER Modeling

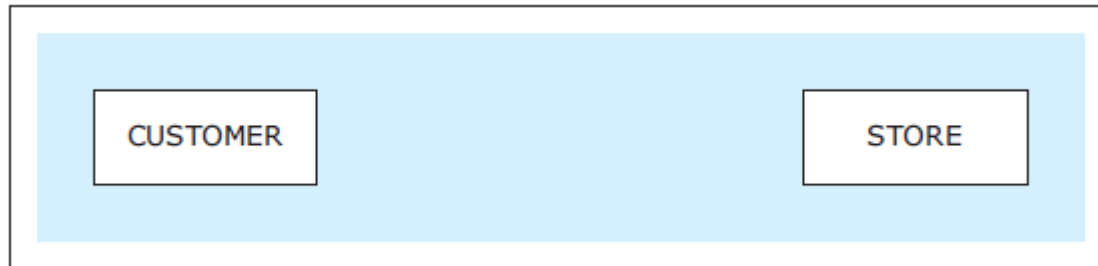
Entities

ENTITIES

- **Entities** - constructs that represent what the database keeps track of
 - The basic building blocks of an ER diagram
 - Represent various real world notions, such as people, places, objects, events, items, and other concepts
 - Within one ERD, each entity must have a different name

ENTITIES

Two entities



ENTITIES

- **Entity instances (entity members) - occurrences of an entity**
 - Entities themselves are depicted in the ER diagrams while entity instances are not
 - Entity instances are eventually recorded in the database that is created based on the ER diagram

WEAK ENTITY

- **Weak entity** - ER diagram construct depicting an entity that does not have a unique attribute of its own
- **Owner entity** - entity whose unique attribute provides a mechanism for identifying instances of a weak entity

ASSOCIATIVE ENTITY

- **Associative entity** - construct used as an alternative way of depicting M:N relationships
 - Associative entities do not have unique or partially unique attributes, and often do not have any attributes at all

ASSOCIATIVE ENTITY

- For relationships with a degree higher than 2, such as ternary relationships, associative entities provide a way to eliminate potential ambiguities in the ER diagrams