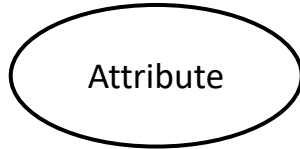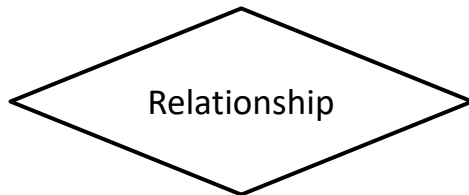# ER Diagram Conventions

Components

Entity

An entity is an object that is distinguishable from other objects.
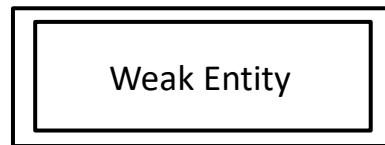
Attribute

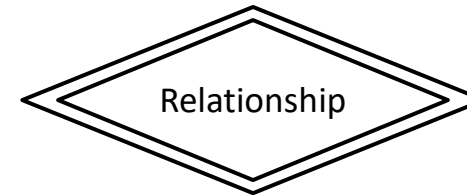An entity is represented by a set of attributes.

Relationship

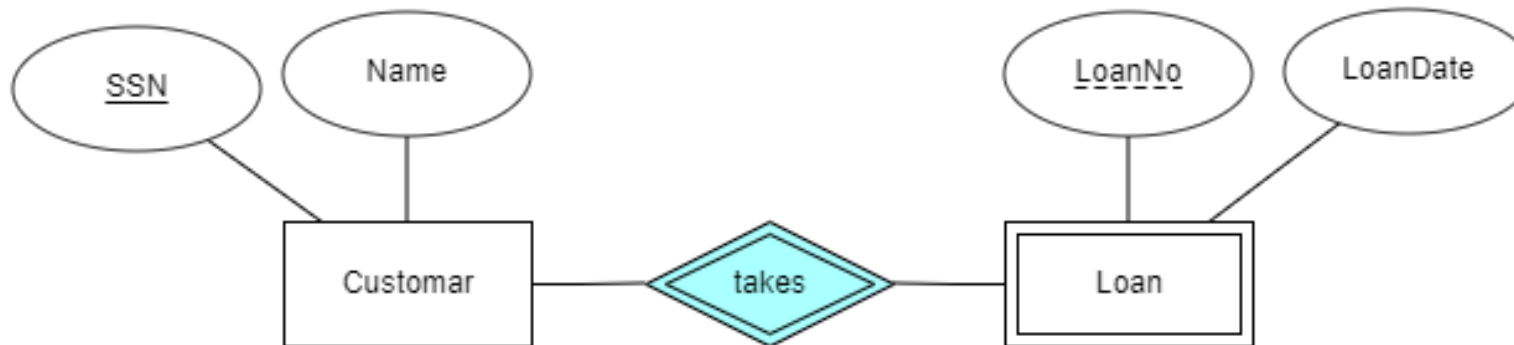A relationship between two or more entities can be possible.

Components

Weak Entity

A weak entity has no primary key, cannot be identified on their own, depends on another entity.
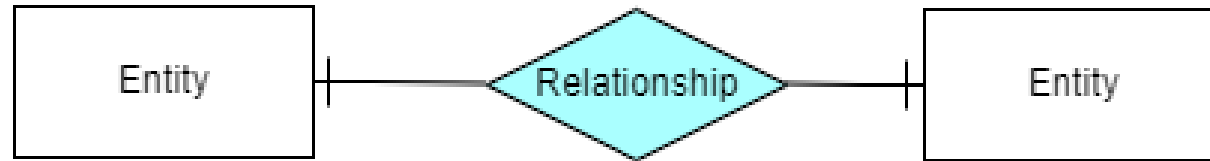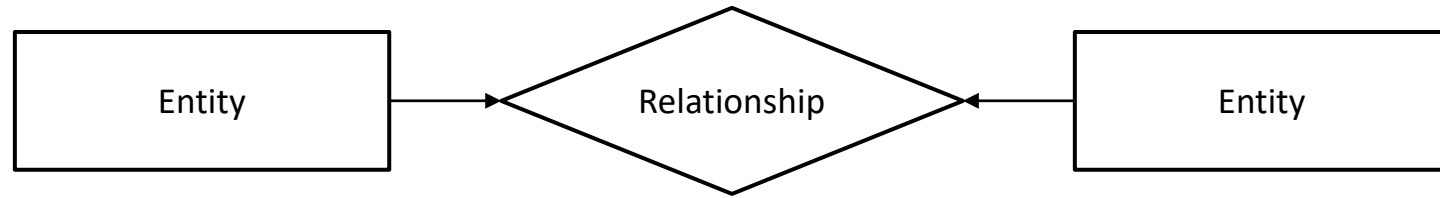
Relationship

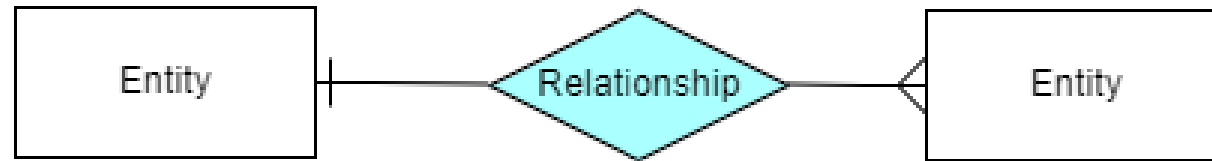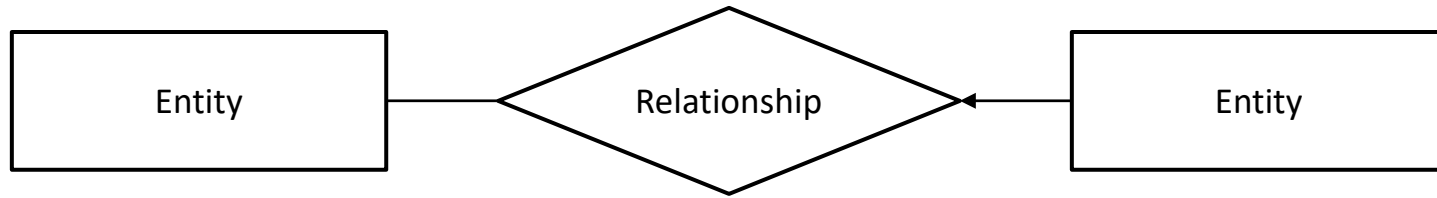An identifying relationship between a weak entity and a owner entity.
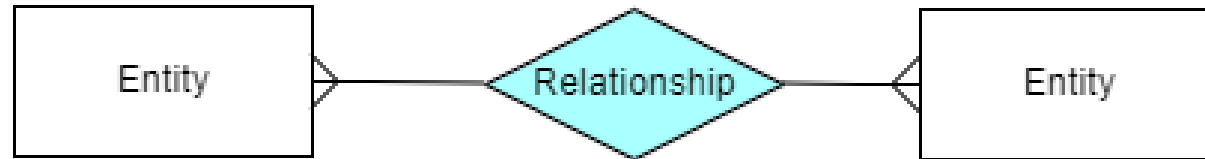

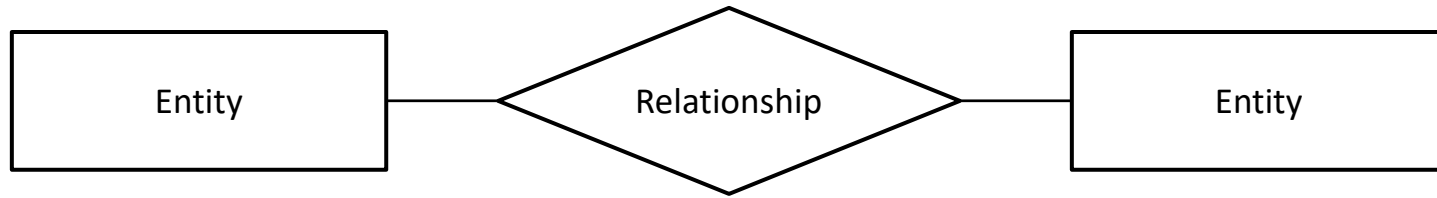Customer: Owner entity
Loan: Weak entity

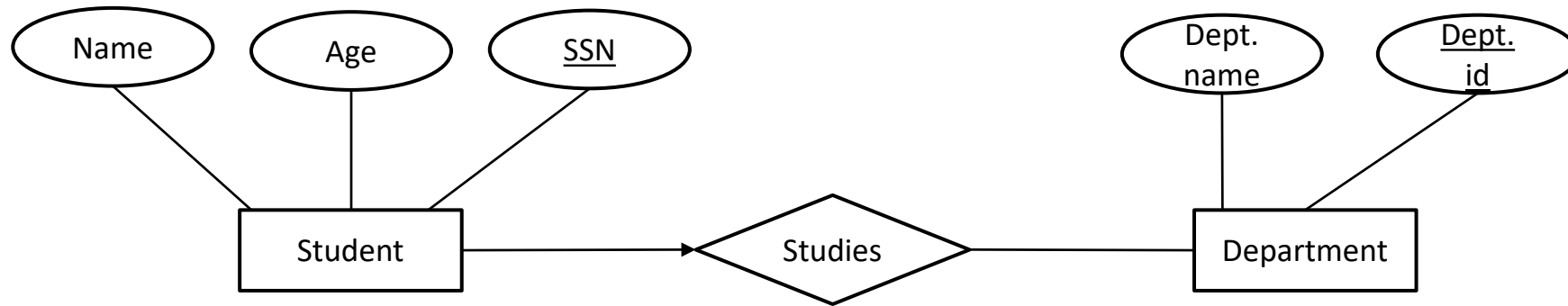# Key Constraints: One-to-one relationship

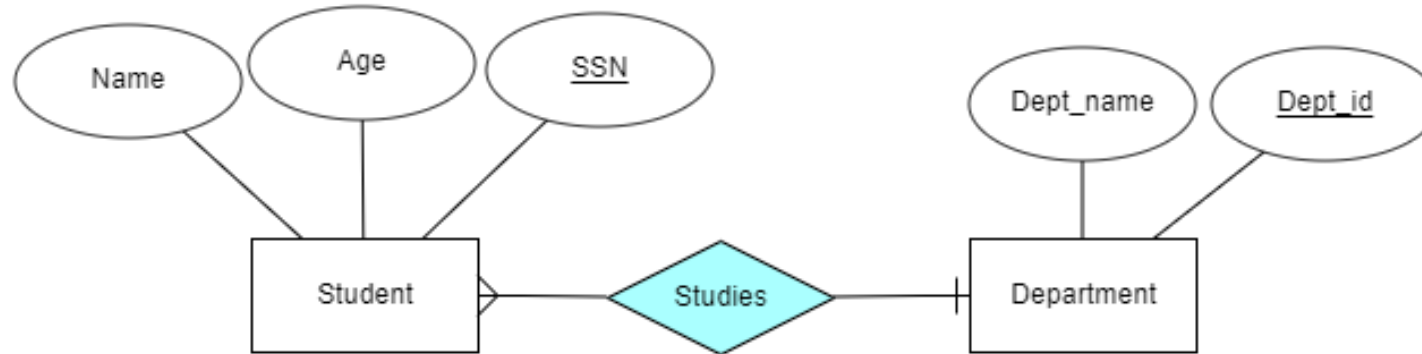# Key Constraints: One-to-many relationship
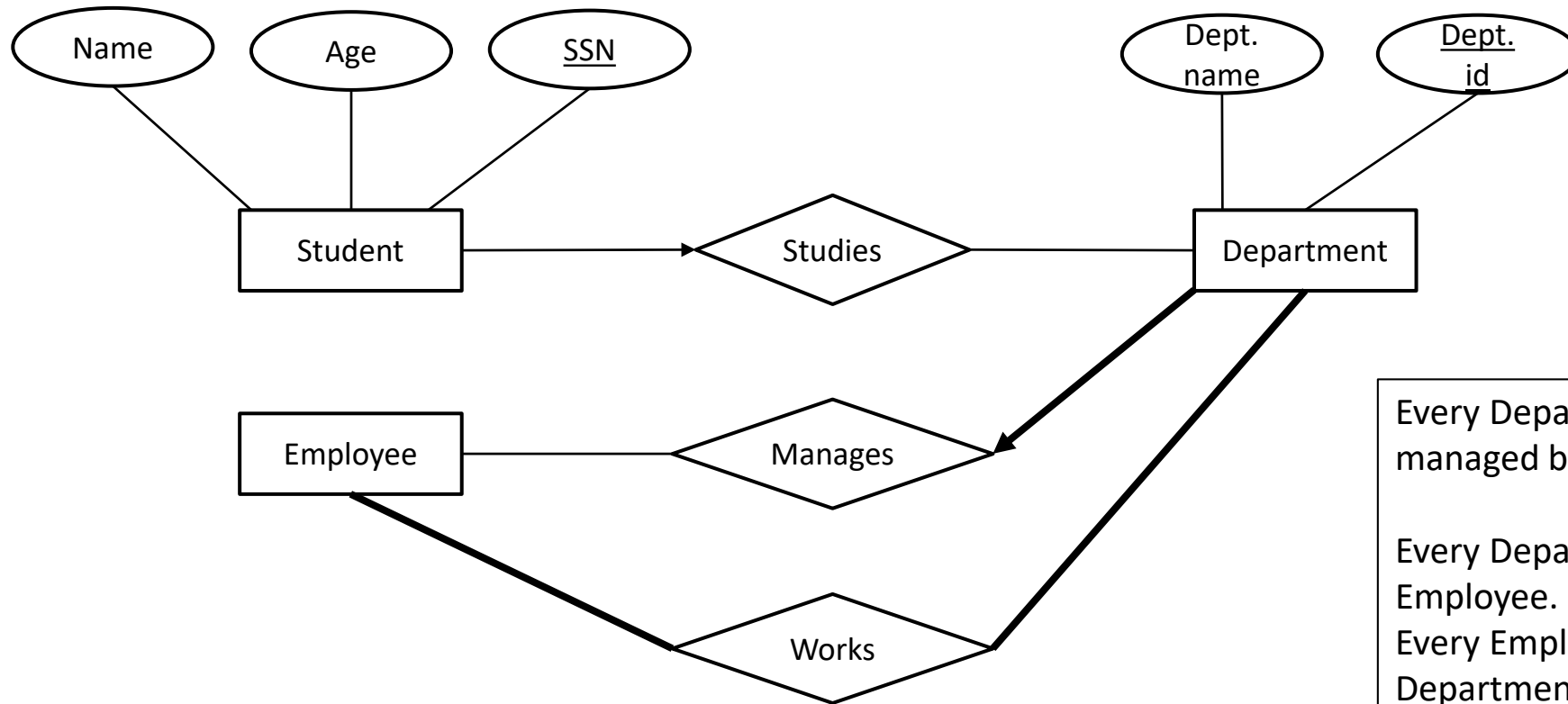
Key Constraints: Many-to-many relationship

ER Diagram: Example

Every Department may have multiple students.
A student studies in a Department.

Participation Constraints: Example

Every Department must be managed by one Employee.

Every Department must have an Employee.
Every Employee must work in a Department.

Participation Constraints: Example