

Database Design

5-2: Relationship Types

Practice Activities

Objectives

- Recognize and give examples of a one-to-one relationship
- Recognize and give examples of a one-to-many relationship
- Recognize and give examples of a many-to-many relationship
- Recognize redundant relationships and remove them from the ERD

Vocabulary

Identify the vocabulary word for each definition below.

	A relationship where each record in Table A can be related to one, and only one, record in Table B, and each record in Table B relates to one, and only one, record in Table A.
	A relationship where a single record in Table A can be related to one or more records in Table B, but a single record in Table B can only be related to one record in Table A.
	A relationship in which many records in one table match many records in another table
	Unnecessarily repetitive

Try It / Solve It

1. Identify the relationship types of the statements below

Type	Statement
	A snowboard instructor may instruct one or more snowboarders
	A bicycle may be owned by a child
	Classroom crayons may be used by students in a classroom
	A passport belongs to a person
	A female elephant gives birth to an elephant

2. Provide two examples for each relationship type.

Relationship Type	Example
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One-to-one	
One-to-one	
One-to-many	
One-to-many	
Many-to-many	
Many-to-many	

3. Draw an entity relationship diagram to represent the following:

- a. Each CLUB must be assigned to one and only one DEPARTMENT
- b. Each DEPARTMENT may be responsible for one or more CLUBs
- c. Each STUDENT may join one or more CLUBs
- d. Each CLUB may be composed of one or more STUDENTs