

Database Design

Relationship Transferability

Objectives

This lesson covers the following objectives:

- Describe and give an example of relationship transferability
- Understand the difference between transferable and nontransferable relationships
- Illustrate nontransferable relationships on ERDs

Purpose

Once a class has been allocated to a teacher, can that class later be transferred to another teacher, possibly in mid-semester? Usually yes, because if not, what would we do if the original teacher becomes sick?

Some health clubs allow memberships to be transferred from one person to another, but other health clubs don't. This business rule is normally determined by what is most efficient and most profitable for the club.

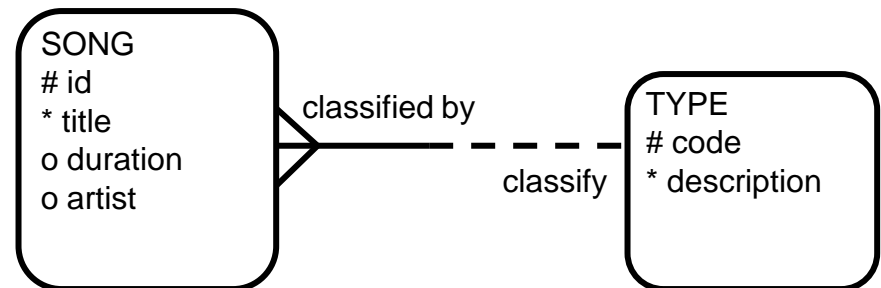
Relationship Review

Let's review a simple relationship between SONG and TYPE.

Optionality:

Can you have a TYPE that does not classify any SONG?

Must every SONG have a TYPE?



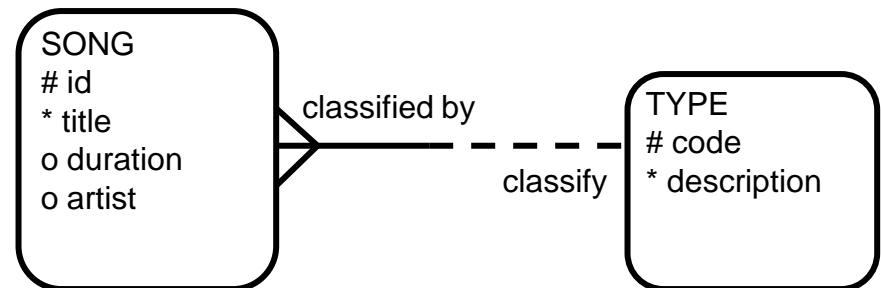
SONG and TYPE

Relationship Review (cont.)

Cardinality:

How many SONGs can be classified under one TYPE?

How many TYPEs can a SONG have?

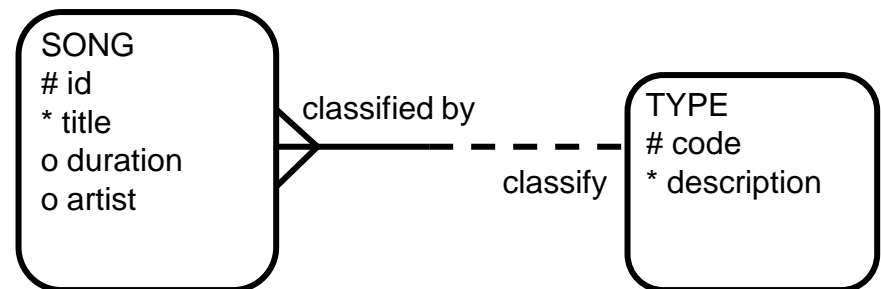


SONG and TYPE

Relationship Review (cont.)

Transferability:

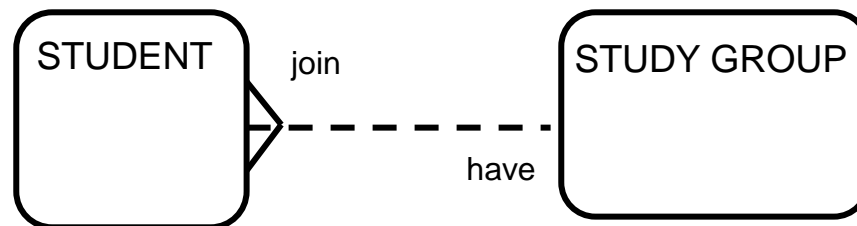
Can a SONG be changed from one TYPE to another TYPE?



SONG and TYPE

Relationship Transferability

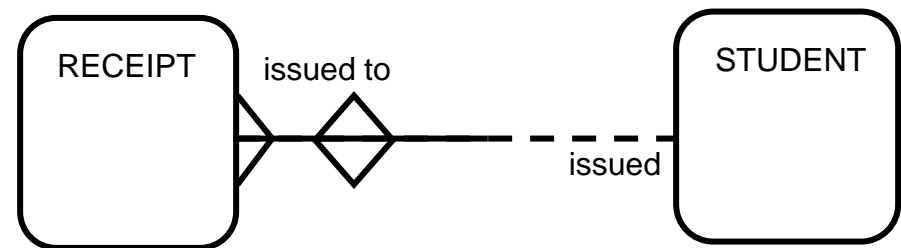
Transferable: A STUDENT being allowed to move from one STUDY GROUP to another. There is a relationship between STUDENT and STUDY GROUP that is transferable.



Transferable Relationship

Relationship Transferability (cont.)

Nontransferable: A STUDENT can be issued a RECEIPT for paying tuition fees, taking a certification exam, or purchasing items at the bookstore. Once a RECEIPT has been issued, it cannot be transferred to another STUDENT.

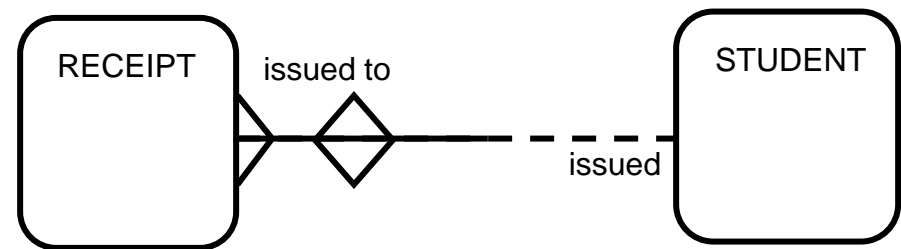


Nontransferable Relationship

A nontransferable relationship is represented with the diamond on the relationship.

Relationship Transferability (cont.)

If it was issued in error, it would have to be cancelled, and another RECEIPT would have to be written up. The relationship between STUDENT and RECEIPT is nontransferable.

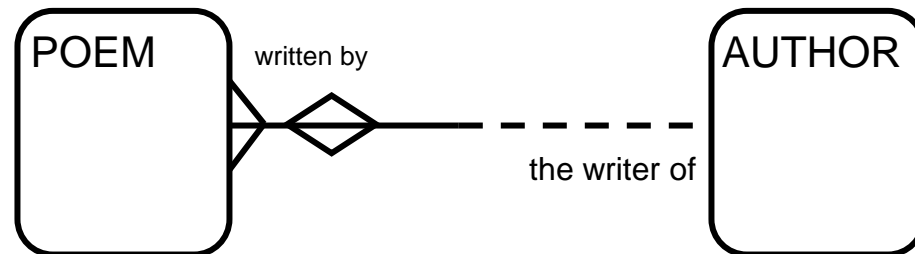


Nontransferable Relationship

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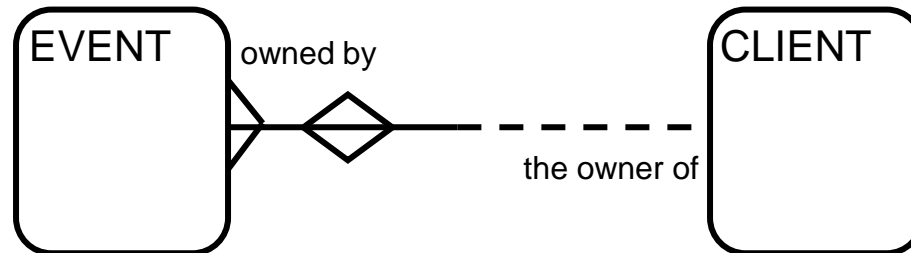
More Nontransferable Relationships

Ownership of a POEM belongs with its AUTHOR. Authorship is a relationship that cannot be moved to another person.



More Nontransferable Relationships (cont.)

In the DJ business, an EVENT is owned by the CLIENT. If there are questions about outstanding payments on an EVENT, that CLIENT cannot transfer responsibility to another person. He/she can designate a representative, but ultimate ownership still belongs with the original CLIENT.



Terminology

Key terms used in this lesson included:

- Nontransferable
- Transferable

Summary

In this lesson, you should have learned how to:

- Describe and give an example of relationship transferability
- Understand the difference between transferable and nontransferable relationships
- Illustrate nontransferable relationships on ERDs