

Example Relational Representation of 1:1 Compound Objects: (a) Example 1:1 Compound Objects and (b) Their Representation

(a)

MEMBER (MemberNumber, Name, Address, City, State, Zip, LockerNumber) LOCKER (LockerNumber, Type, Combination, Location)
(b)

Consider the assignment of a LOCKER to a health club MEMBER. A LOCKER is assigned to one MEMBER, and each MEMBER has one, and only one, LOCKER. Figure 7-6(a) shows the object diagrams. To represent these objects with relations, we define a relation for each object, and, as with 1:1 entity-relationships, we place the key of either relation in the other relation. Figure 7-6(b) shows the placement of the key of LOCKER in MEMBER. Note that LockerNumber is underlined in LOCKER because it is the key of LOCKER and is italicized in MEMBER because it is a foreign key in MEMBER.


General Transformation of 1:1 Compound Objects


In general for a 1:1 relationship between OBJECT1 and OBJECT2, we define one relation for each object, R1 and R2. Then we place the key of either relation (O1 or O2) as foreign key in the other relation, as in Figure7-7.

