

# Database Normalization #6

Let us take the example of a simple movie library. Each movie has a description, director, and serial number. Customers have a name, address, and membership number. Assume only one copy of each movie exists in the library. We are given the following relations and determinants. The keys for each relation are **CAPITALIZED**.

Relations (The key is CAPITALIZED):  
customer(name,addr,MEMBERNO)  
movie(DESCRIPTION,director,serialno)  
borrow(memberno,DATE,SERIALNO)

Determinants:  
description->director,serialno  
serialno->description  
serialno->director  
name,addr -> memberno  
memberno -> name,addr  
serialno,date -> memberno

The above relation is in **x\*\*NF** form where **x** may take the following values {1,2,3,3.5} corresponding to {1NF, 2NF, 3NF and BCNF} respectively.

**What is the maximum possible value of \*\*x** such that the above relation satisfies the \*x\*NF form? Your answer should only be restricted to one of these numbers:1/2/3/3.5 Do not leave any leading or trailing spaces.