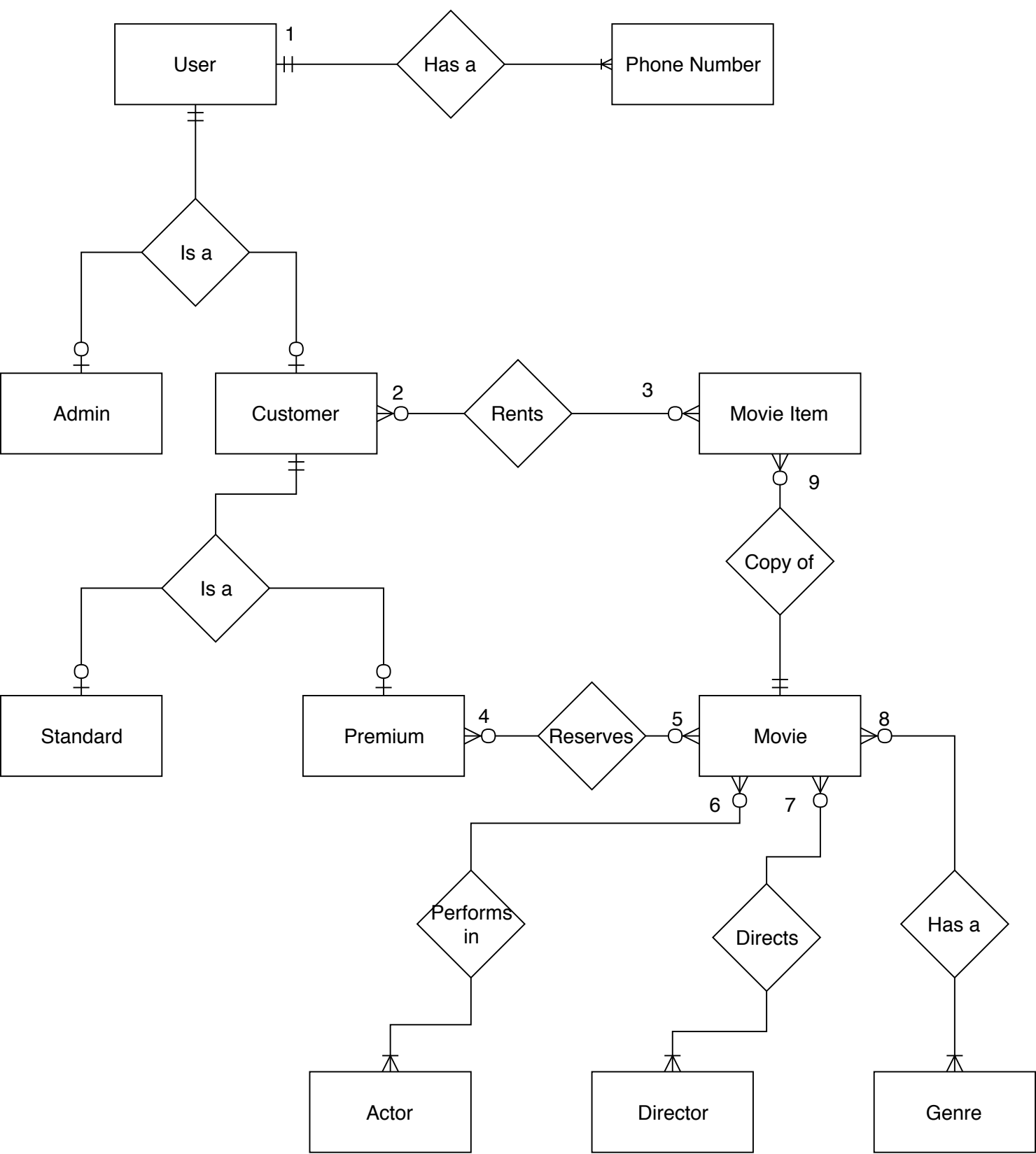


# Purple Box DVD

## Conceptual Database Design



1 Each phone number record is related to exactly one user.  
Phone numbers are not unique; it is possible for two users to have the same phone number.

2 A Movie Item can be related to 0 or more Customers  
It is possible for a Movie Item to be in the system before it is rented.  
A Movie Item may be rented many times and by different Customers.

3 A Customer can be related to zero or more Movie Items  
A Customer can exist in the system before they rent a Movie.  
A Customer can rent many movies. (The scenario specifies only 2 or 4 at a time but does not limit how many movies a Customer can rent over time.)

4 A Movie can be related to 0 or more Premium Customers  
It is possible for a Movie to be in the system before it is reserved by any Premium Customer.  
A Movie can be reserved many times and by different Premium Customers.

5 A Premium Customer can be related to zero or more Movie Items  
A Premium Customer can sign up for an account before they reserve a Movie.  
The scenario specifies the more part of this multiplicity.

6 An Actor can be related to zero or more Movies  
The scenario specifies it maintains Actors that are not related to any Movies - this provides the zero part of this multiplicity. The assumption is that it is possible for an Actor to be in one or more Movies.

7 A Director can be related to zero or more Movies  
The scenario specifies it maintains Directors that are not related to any Movies - this provides the zero part of this multiplicity. The assumption is that it is possible for a Director to work with one or more Movies.

8 A Genre can be related to zero or more Movies  
A Genre may be added before any Movie uses it.  
A Genre may be related to many Movies.

9 A Movie is related to zero or many Movie Items  
The scenario says "The store can have multiple copies of each movie" which specifies the many part of this. The assumption is that it is possible to add a Movie to the system before any copies (Movie Items) arrive.

