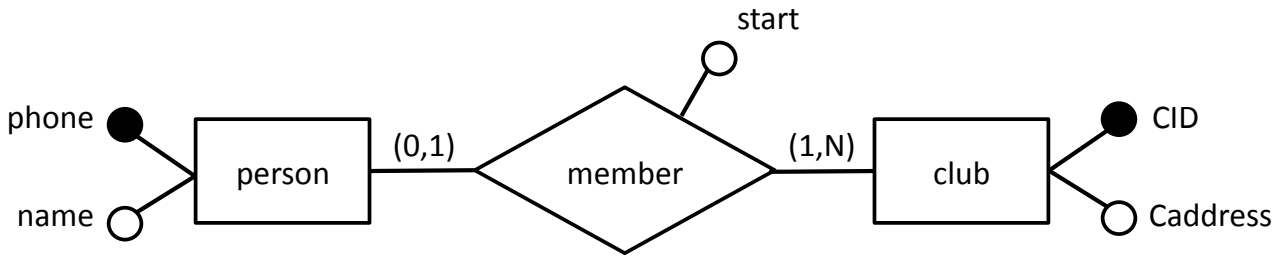
University of Toronto
CSC343, Winter 2017

ER Diagrams: Solutions

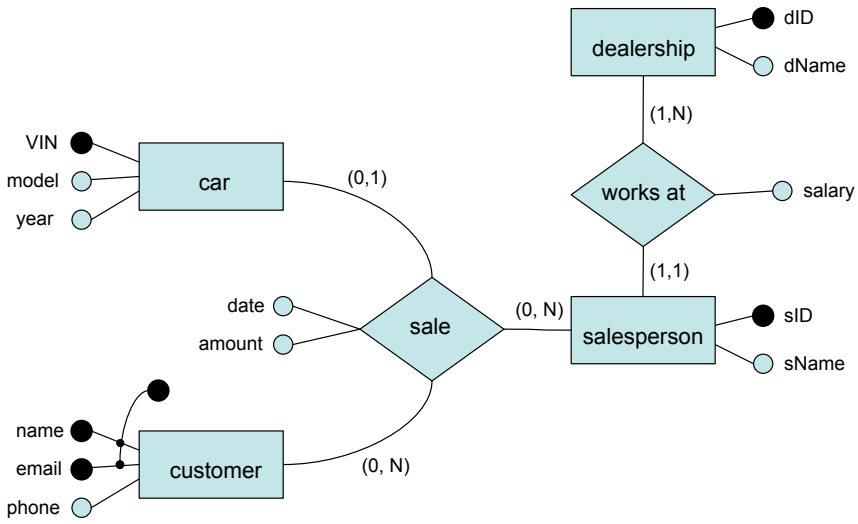
1. Consider the following ER diagram:



Which of these cardinalities is possible?

|person|	|member|	|club|	Is it possible?	
5	0	8	YES	[NO] should be |member| >= |club|
5	7	8	YES	[NO] at least 7 person for member to work
5	0	5	YES	[NO]
5	10	5	YES	[NO] not enough person to fill up member
11	3	4	YES	[NO] should be |member| >= |club|
11	9	4	[YES]	NO

2. Below is an Entity-Relationship diagram about car dealerships. It may or may not represent the domain well. Answer the questions below.



since each row in sale is a combination of car and salesperson

(a) A car sale cannot involve more than one salesperson.

[True] False

(b) There can be two cars with the same VIN as long as the model and year are different.

True [False] VIN is the key so no dup

(c) A salesperson can work at any number of dealerships. at least 1

True [False]

(d) There can't be more salespeople than dealerships.

True [False] could be all salespeople go to one dealership

(e) There can be multiple sales on the same date.

yes, sales alone is not key

[True] False

(f) Two salespeople can have the same sID as long as they work at different dealerships.

True [False] sID is the key so no

(g) This model contains a weak entity set.

True [False]

(h) The *works at* relationship is a one-to-many relationship.

[True] False yes, the maxes