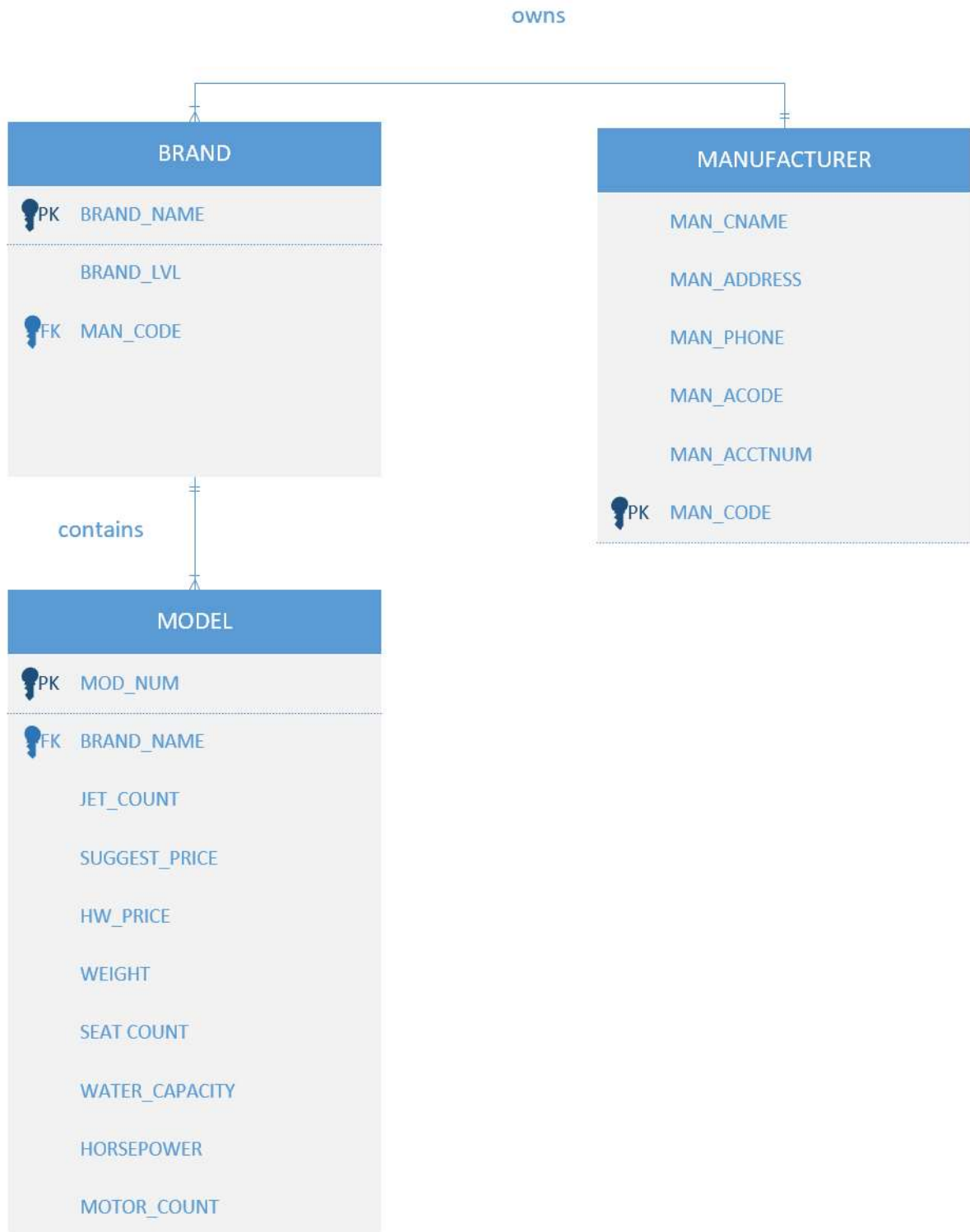
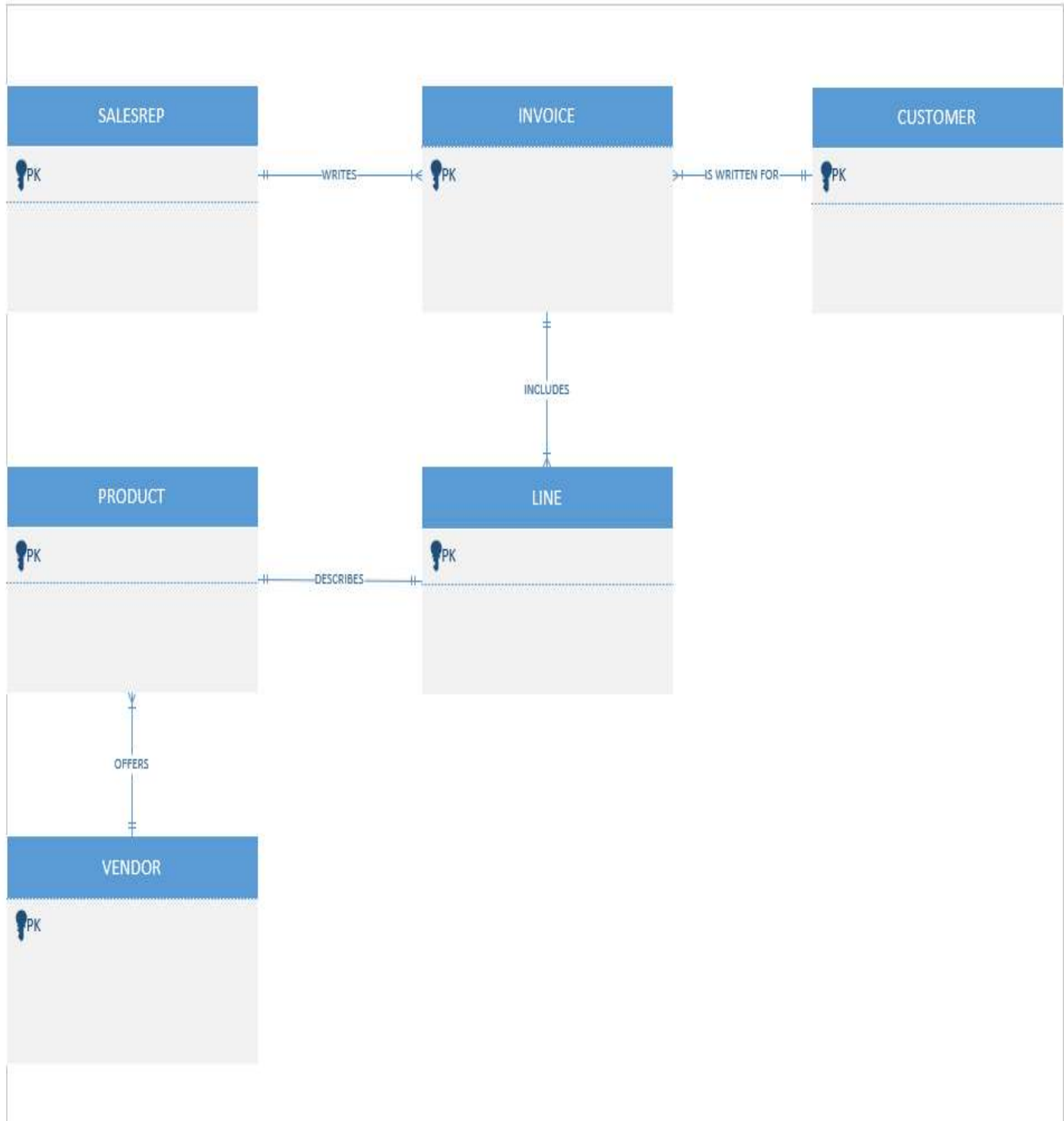


## Assignment 6

2. Create a complete ERD in Crow's Foot notation that can be implemented in the relational model using the following description of operations. Hot Water (HW) is a small start-up company that sells spas. HW does not carry any stock. A few spas are set up in a simple warehouse so customers can see some of the models available, but any products sold must be ordered at the time of the sale.
  - HW can get spas from several different manufacturers.
  - Each manufacturer produces one or more different brands of spas.
  - Each and every brand is produced by only one manufacturer.
  - Every brand has one or more models.
  - Every model is produced as part of a brand. For example, Iguana Bay Spas is a manufacturer that produces Big Blue Iguana spas, a premium-level brand, and Lazy Lizard spas, an entry-level brand. The Big Blue Iguana brand offers several models, including the BBI-6, an 81-jet spa with two 6-hp motors, and the BBI-10, a 102-jet spa with three 6-hp motors.
  - Every manufacturer is identified by a manufacturer code. The company name, address, area code, phone number, and account number are kept in the system for every manufacturer.
  - For each brand, the brand name and brand level (premium, mid-level, or entry-level) are kept in the system.
  - For each model, the model number, number of jets, number of motors, number of horsepower per motor, suggested retail price, HW retail price, dry weight, water capacity, and seating capacity must be kept in the system.



4.



5. A.

ENTITY	RELATIONSHIP	CONNECTIVITY	ENTITY
INSTRUCTORS	TEACH	1:M	CLASSES
INSTRUCTORS	MAY ONLY DO	1:M	RESEARCH
COURSES	MAY HAVE	1:M	CLASSES
TRAINEES	TAKE	1:M	CLASSES

B.

The relationship between Instructor and Classes

**Connectivity** - This is a 1:M as 1 instructor can teach many classes

**Cardinality** - This is 1 instructor teaches 0 or more classes since if a class has less than 10 people it is cancelled

**Existence dependency** - The classes Existence dependency depends on if there is more than 10 trainees and a instructor tied to it