

## Database Design Revision Questions

- Below is a partially completed Data Dictionary for the litters and puppies database. It contains the entity names and attribute names. State two other pieces of information that would be included in a data dictionary. (2)

Any from:

- **Attribute/Data type**
- **Size**
- **Validation**
- **Key**
- **Sample Data**

- Based on the information below complete the data dictionary.

Mr and Mrs Jones are dog breeders and want to have a relational database to keep track of litters and puppies. The number of puppies in each litter will be at least one. Each Puppy's gender will be M or F and the cost of the puppy will be between £150 to £850 inclusive. (8)

**Entity Name: Litter**

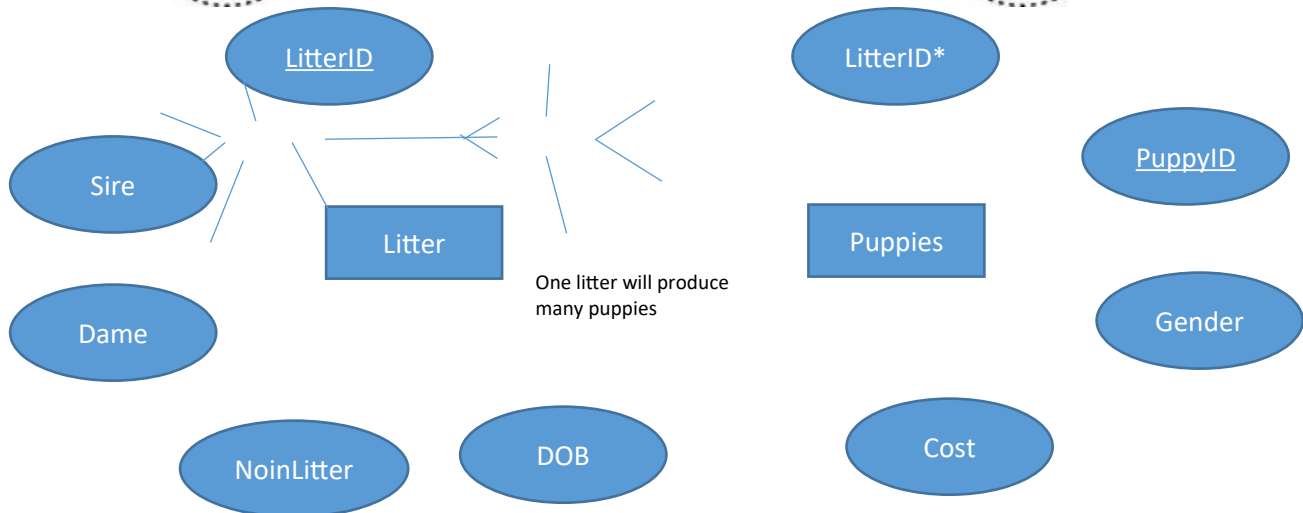
Attribute Name	Type	Size	Validation	Key
LitterID	Number	-	Presence Check	<b>Primary</b>
Sire	Text	10	-	-
Dame	<b>Text</b>	10	-	-
NoInLitter	Number	-	Range ( $\geq 1$ )	-
DateOfBirth	<b>Date</b>	-	Short Date	-

**Entity Name: Puppies**

Attribute Name	Type	Size	Validation	Key
PuppyID	Autonumber	-	Presence Check	Primary
Gender	Text	1	<b>Restricted Choice – M Or F</b>	-
Cost	Currency	-	Range ( $\geq 150$ and $\leq 850$ )	-
LitterID	<b>Number</b>	-	Lookup from litter	<b>Foreign</b>

- Draw the ER Diagram for the above entities litter and puppies. (5)

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4. Based on the information below complete the data dictionary.

BookMeAHoliday is a travel agent who books holidays to various destinations in Europe. They want to have a relational database to keep track of holidays and hotels. Each hotel grade is between 1 Star and 5 star and the price of a room per night is between £25 and £150. When booking the customer has a choice between 2-7 nights. (8)

### Entity Name - Hotel

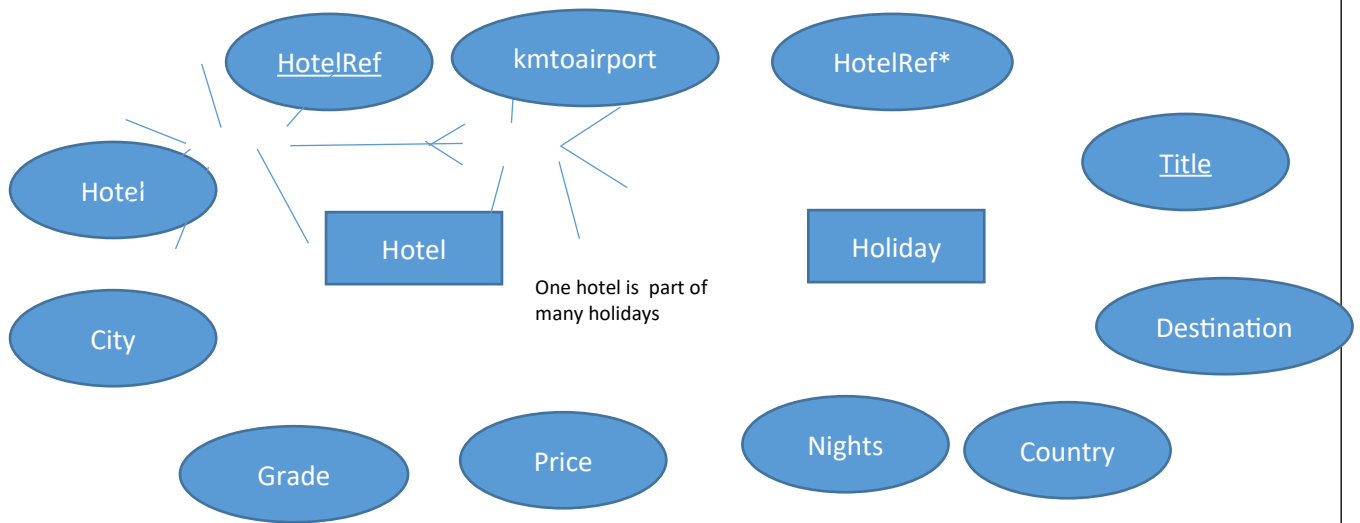
Attribute Name	Type	Size	Key	Validation
HotelRef	Text	4	Primary	Presence
Hotel	Text	30	-	-
City	Text	20	-	-
Grade	Text	6	-	Restricted – 1,2,3,4,5 star
Price	Currency	-	-	Range $\geq 25$ and $\leq 150$
kmAirport	Number	-	-	-

### Entity Name – Holiday

Attribute Name	Type	Size	Key	Validation
Title	Text	30	Primary	Presence
Destination	Text	20	-	-
Country	Text	20	-	-
DateDeparture	Date	-	-	Short Date
Nights	Number	-	-	Restricted 2,3,4,5,6,7
HotelRef	Text	4	Foreign	Lookup from Hotel

5. Draw the ER Diagram for the above Hotel and Holiday entities. (5)

# KIND POSITIVE YOURSELF



6. An office has 10 different meeting rooms available for staff to book. Each meeting room has a different name depending on the room number and level it is on for example, L1R1, L1R2, L2R1 etc. When creating a database, explain how validation could be added to this field. (2)

**One mark for each:**

- **Use of restricted choice**
- **Limited to room name**

7. Name and explain 2 types of validation that could be used within a database. (4)

**Any two of the following (must have a description and name):**

**Range check – makes sure the values entered falls within upper and lower limits**

**Length Check – makes sure the number of characters entered is of a set length**

**Presence Check – Used to make sure that data must be entered into a field**

**Restricted choice – Users can select info from a predefined list**