# Assignment 2

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As part of assignment 2 we got a Database Requirements document of data worms for our analysis and EER diagram.

We find that for most part the document is correct, short and to the point.
However in our opinion we found that the following requirements were missing.

- Details of the sponsors of the Dog Show.
- Details of the Trade Show which is part of the Dog Show.
- Details of website visitors who signed up for receiving updates.

But then database requirements are subjective and are open to constant correction.
What is an important requirement to one person may not be important to another.
What is an important requirement today may not be so tomorrow.

All the requirements mentioned in the document were correct and consistent.
The one inconsistency we found was in the Relationships part of the document.

The document implies that two entities are in a relationship if there is a common primary key attribute. More importantly the relationship types like owner **"OWNS"** the dog are also not specified and to illustrate this we copy paste below the relationships part of the document.

The relationships that exist between the entities are as follows:
1. Dog ---> Owner Common Attribute: Owner_Id {cardinality: 1:1}
2. Winners -> Dog : common attribute ——> Owner_Id {cardinality: 1:1}
3. Winners->Owner: common attribute ——> Owner_Id {cardinality: 1:1}

**n>=3 Relationships:**
List all the n>=3 relationships.
1.Ticket Buyers -> Events -> Judge -> Owner -> Dog -> Winner
● This is a n>=3 relationship which comprises many smaller relationships
like Event->Judge->Owner->Winner , Event->Judge->Owner->Dog ,
Ticket Buyers ->Events -> Owner->Winner etc.

So we  rectified it as follows with appropriate relationship types ..

1) Owner OWNS Dog
   a) Minmax constraint (1, 1) ---- (1, 1)
2) Dog BECOMES winner
   a) Minmax constraint  (0, 1) ---- (1, 1 )
3) Owner OWNS winner
   a) Minmax constraint  (0, 1) ---- (1, 1 )
   b) One owner may be related to 0 or 1 winner.
   c) One winner is related to only one owner
4) Events HAVE Judges
   a) Minmax constraint  (1, 1) ---- (1, 1 )
5) Ticket Buyers ATTEND Events
   a) Minmax constraint  (1, m ) ---- (1, n )
6) Owners BRING_DOGS_TO Events
   a) Minmax constraint  (1, 1) ---- (1, 1 )

And used them in drawing our EER Diagram.

# Enhanced ER Diagram



Owner
- First Name
- Last Name
- Address
- Owner_id
- E-mail id
- Event id
- Contact Number
- Date of Registration

Ticket Buyers
- Contact Number
- Date of Registration
- Status of Payment
- Event id
- E-mail id
- First Name
- Address
- Last Name

BRING_DOGS_TO ( 1, 1 ) ( 1, 1 )

ATTEND ( 1, m ) ( 1, n )

OWNS ( 1, 1 ) ( 1, 1 )

OWNS ( 0, 1 ) ( 1, 1 )

Dog
- Name
- Gender
- FK Owner_id
- Age
- Date of Birth
- Breed
- Category

Events
- Name
- Location
- Event_id
- Date
- seats available
- Timings

BECOMES ( 0, 1 ) ( 1, 1 )

HAVE ( 1, 1 ) ( 1, 1 )

winner
- Name
- Owner_id
- FK
- category
- category

Judges
- First Name
- Last Name
- Contact_number
- Address
- Event_id
- Category
- E-mail id