**One to many relationship:**

1. In a one-to-many relationship ,there will be two tables for two entities of the relationship. There will be no table for the relation.
2. Each entity will have all the attributes with their respective primary key. For the ‘Many’ side of the relationship, the primary key of the ‘one’ side will be a column of ‘many’ side as a Foreign Key.

In our “Pet Care Record System” database, the one to many relationships are:

* User\_Info Owns Pet
* User\_Info Submits Adoption\_Request
* User\_Info Gives Feedback
* Pet Has Appointment
* Pet Holds Medical\_Report
* Pet Receives Vaccination
* Veterinarian Administers Vaccination
* Veterinarian Creates Medical\_Report
* Veterinarian Gets Feedback

**Many to Many Relationship:**

1. In many-to-many relationships ,there will be three tables, Two for the two entities of the relationship and another one for the relation.
2. Each entity/table will have all the attributes with their respective primary key.The relation table will be created with the primary keys of the entities.

In our “Pet Care Record System” database, the many to many relationships are:

* Veterinarian Works\_at Clinic

**Multivalued Attributes:**

1. For multivalued attributes, we don’t include the multivalued attribute in that entity table.Rather we make a separate table for the multivalued attribute.
2. In the table of multivalued attributes, we make a table with that attribute and primary of that entity.

In our “Pet Care Record System” database, the tables of multivalued attribute are:

* User\_Info\_Email( **User\_ID, Emai**l)
* User\_Info\_Phone\_Number( **User\_ID, Phone\_Number**)
* Veterinarian\_Email(**Vet\_ID**, **Emai**l)
* Veterinarian\_Phone\_Number(**Vet\_ID**, **Phone\_Number**)
* Clinic\_Phone\_Number(**Clinic\_ID,Phone\_Number)**

**Composite Attributes:**

1. In composite attribute, Composite attributes are flattened out by creating a separate attribute for each component attribute.

In our “Pet Care Record System” database, the composite attribute are:

* Name: Fname,Lname
* Address: House\_no, Street, Thana, District

**Weak Entity Relationship:**

1. In a weak entity relationship ,there will be two tables for two entities of the relationship. There will be no table for the relation.
2. Each entity will have all the attributes with their respective primary key. For the ‘Many’ side of the relationship, the primary key of the ‘one’ side will be a column of ‘many’ side as a Foreign Key.
3. The foreign keys from the stronger side and primary key of weak side will combinedly make a primary key for weak entity table:

In our “Pet Care Record System” database, the weak entity relationships are:

* User\_Info Submits Adoption\_Request
* User\_Info Gives Feedback
* Pet Has Appointment
* Pet Holds Medical\_Report
* Pet Receives Vaccination
* Veterinarian Administers Vaccination
* Veterinarian Creates Medical\_Report
* Veterinarian Gets Feedback