

Computing for Business Analytics Homework 1

For the examples listed below, where relevant first draw the ERD with M:N relationships, then redraw the ERD and do what is necessary to eliminate these relationships.

1. Based on the following business rules, draw an ERD for:
 - A student can engage in one or more activities.
 - An activity can involve one or more students.

2. Draw an ERD based on the following business rules:
 - An OWNER can have many PETS.
 - A PET can have only one OWNER.

 - A PET can have many SERVICE TYPES
 - A SERVICE TYPE can be performed on many PETS.

3. Draw an ERD for a real estate firm that operates in many states.
 - Each state can have zero to many sales offices.
 - A sales office can be in only one state.

 - Each sales office has one or more employees.
 - An employee can work at only one sales office.

 - Each sales office has one employee who is a manager.
 - A particular employee can only manage one sales office.

 - A sales office may list zero or more properties for sale.
 - A property for sale may be listed by only one sales office.

 - A property for sale may have one or more owners.
 - An owner may own one or more properties.

Now pick an organization of your own choosing. It should have at least 5 entities, First prepare a high level ERD. Then modify the ERD to have no M:N relationships. Finally, prepare a version of the ERD with Entities, Attributes, Keys and Relationships.