Remy Lagrois

Section 402

09/14/2015

1. **a) A way to graphically represent logical relationships in data base.** The E-R model depicts different entity sets and their attributes and connects them via the relationship they have with each other. It also shows what kind of constraints the entities are under (eg cardinality of relationship, weak/strong entity, etc).
2. **b) A distinctly identifiable item, thing or object.** Entities are anything that have attributes that can be quantified in some way. For example they can be people, orders, inventory, or whatever else an organization is interested in storing.
3. **c) a collection of entities of the same type that share the same properties.** All entities in a set have the same attributes and same type of relationships to other entities. If you had an instructor entity then each instructor would the same attributes listed and no students would be included in that set.
4. **d) Relationships.** The relationship on the diagram indicates how the two entities interact with each other. For example the instructor entity ‘teaches’ the student entity.
5. **b) child.**The one side is the parent which may have many children but each child only has one parent.
6. **d) All of the above.** A simple attribute has a single value. A composite attribute will have multiple parts (eg name broken into first and last) and a multi-valued attribute has several different values (eg a class has many students).
7. **b) Diamonds.** Written inside the diamond is what that relationship is. Attributes may also be included outside and connected to the diamond.
8. **a) One-to-one.** A single arrow represents many to one or one to many, depending on direction of arrow. The side with the arrow pointing to it is the one side.
9. **d) Add a one-to-many relationship *instructorDepartment* that explicitly relates *instructor* to department and remove the *deptName* attribute from *instructor* entity set.** Each department will likely have more than one instructor and having the department name in instructor would be redundant with the established relationship.
10. **e) None of the above.** These are the basic components of the E-R model.
11. **c) identifier**An attribute that distinguishes entities.
12. **d) Every entity participates in at least one relationship of the given type.** For example if you have a class entity and a section entity then each section must participate in a class.
13. **c) Relationship between multiple entity sets*.*** Relationship sets depict instances of objects from one entity interacting with objects in another entity set. They will all have the same type of relationship (eg students ‘taking’ classes)
14. **b) Ovals.** Attributes may be represented inside ovals connected to an entity. The way the oval is drawn can represent the type of attribute it is or may branch showing composite/multivalued attributes.
15. **b) Many-to-one.**  The crows foot represents the ‘many’ side while the line represents the ‘one’ side.