Fidele Donadje

MIS 343

Assignment #1

1. Contrast the following items

a. Stored attribute and derived attribute

A stored attribute is a component of a database which has its values stored in a database while a derived attribute is one whose values can be calculated or derived from related stored attributes

b. simple attribute; composite attribute.

A simple attribute is an attribute that cannot be broken into smaller components while a composite attribute can be broken down in components.

c. Entity type; relationship type

An entity type is a collection of entity sharing common properties while a relationship type is a meaningful association between entity types.

d. strong entity type; weak entity type

A strong entity type is an entity that exists independently of other types of entities and has its own unique identifier while a weak entity type is an entity that depends on a strong entity and doesn't have a unique identifier.

e. degree; cardinality

The degree is the number of entity types that participate in a relationship while the cardinality is a restriction on the number of instances of one entity that can be associated with each instance of another entity

f. required attribute; optional attribute

A required attribute is an attribute that must have a value while an optional attribute can be left without value.

g. composite attribute, multivalued attribute

A composite attribute can be broken down in components while a multivalued attribute can have more than one value at a time for a given entity instance.

h. ternary relationship; three binary relationships

A ternary relationship is when three entities participate in a relation while three binary relationships are three different relationships where two entities participate.

2. #10

(See figure)

3.#13

a. Business rule for the relationship "Work for "

A student can work for different schools

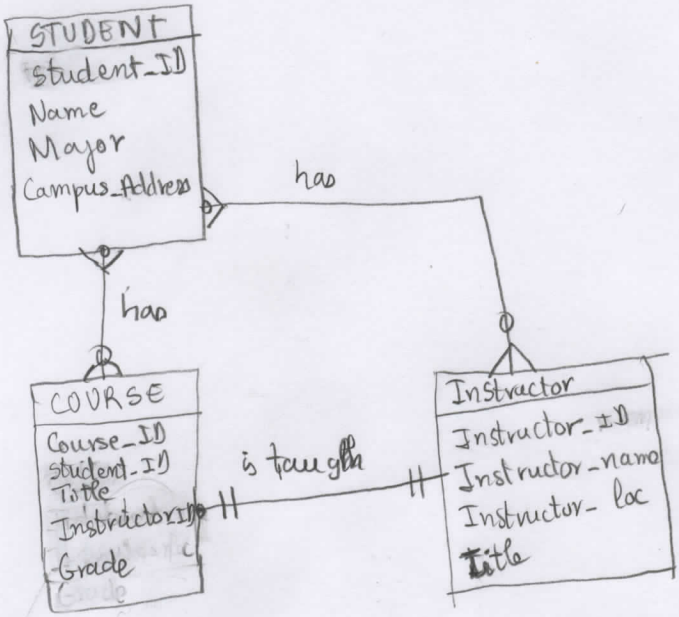
b. Business rule that makes the Located In relationship redundant

A student who belongs to a club

c. We will change the relationship to be different(#13 c figure)

4.#17d

#10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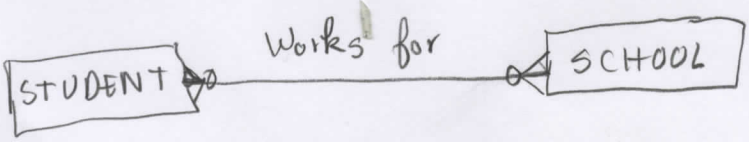
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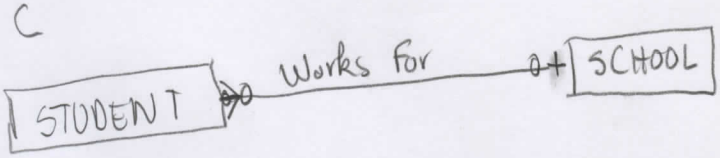
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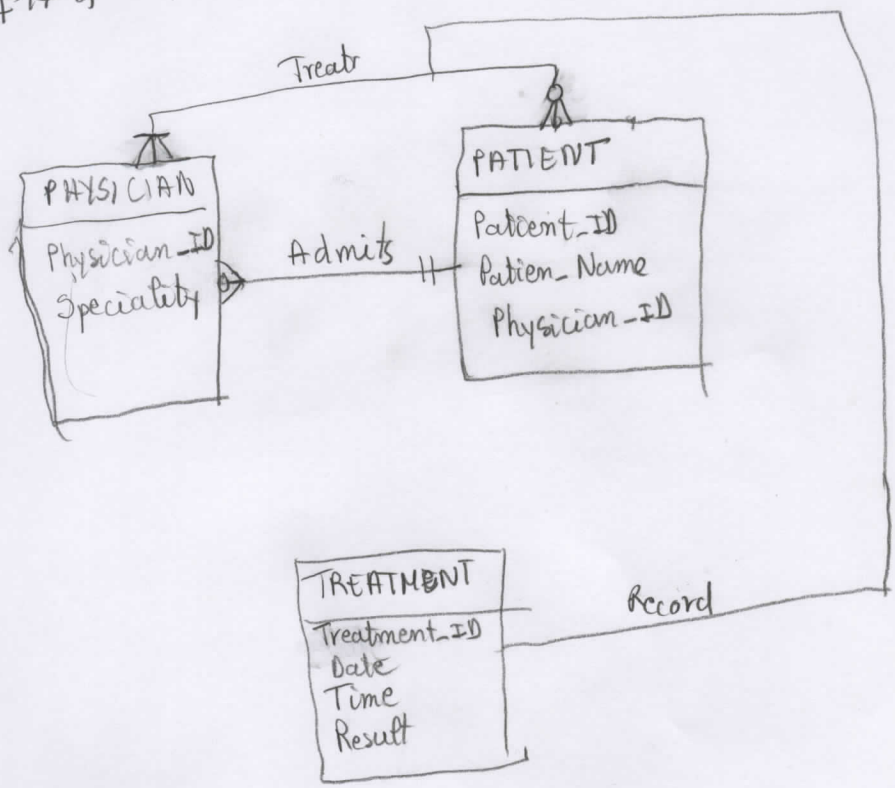

I draw more than one relationship between physician and patients because relationships "treats" and "Admits" are different

Since Physician can admit several patients, the same patient can be admitted by different physicians over time.