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**CS631-103**

**Assignment -2**

**10/07/2021**

**Part 1 - Define the following terms:**

* Entity: represents a real-world object or concept with an independent existence.
* Weak Entity: an entity that does not have a key attribute of its own.
* Attribute: represents some particular property of interest of an Entity.
* Attribute Value: data that further describes each entity.
* Relationship Instance: the set of tuples of a relation at a particular time.
* Composite Attribute: an attribute that can be divided into subparts, or basic attributes, with independent meaning.
* Multivalued Attribute: an attribute that may have a range of values for each individual entity.
* Derived Attribute: an attribute which value can be derived, determine, from other attributes.
* Key Attribute: an attribute which value is unique for each individual entity in the entity set.
* Value Set (Domain): set of values allow to be assigned to a specific attribute for each individual entity.

**Part 2 – Draw the following:**

|  |  |
| --- | --- |
| 1. PATIENT entity | Attribute and Type |
| Diagram  Description automatically generated | * Name: Atomic * SSN: Key * Address: Multivalued * Prescription: Composite * Age: Atomic |
| 1. DOCTOR entity | Attribute and Type |
| Diagram  Description automatically generated | * Name: Atomic * SSN: Key * Specialty: Atomic * Prescription: Composite * Years of Experience  (YofE): Atomic |

|  |  |
| --- | --- |
| 1. PHARMACY entity | Attribute and Type |
| Diagram  Description automatically generated | * Name: Key * Contract: Composite * Phone: Atomic * Drug: Composite * Address: Atomic |
| 1. DRUG entity | Attribute and Type |
| Diagram  Description automatically generated with medium confidence | * Trade Name: Key * Pharma Co: Atomic * Formula: Atomic * Pharmacy: Composite |
| 1. PHARM\_COMPANY entity | Attribute and Type |
| Diagram  Description automatically generated | * Name: Key * Phone: Atomic * Drug: Atomic * Contract: Atomic |

1. Draw the names of all relationships and its constraints.

Diagram

Description automatically generated**Part 3 – Design and draw the ER diagram for that.**

Diagram

Description automatically generated