**QUESTIONS**

**Ques1:** Make an ER diagram that describes the following data and relationships:

* A health care organization keeps track of its doctors and outpatient locations
* For each doctor it keeps track of the DoctorID (unique), DoctorName, and DoctorYearofMDGraduation (year graduated from medical school).
* For each output location it keeps track of the OLID (Outpatient Location ID; unique) and OLName (Outpatient Location Name).
* Each doctor works at exactly one outpatient location and each outpatient location must have at least one doctor working at it, but can have many doctors working at it.

**Ques2:** Make an ER diagram that describes the following data and relationships:

* A health care organization keeps track of outpatient locations and examination rooms within the outpatient locations
* For each outpatient location, the health care organization keeps track of the OLID (Outpatient Location ID; unique) and OLName (Outpatient Location Name)
* For each examination room the health care organization keeps track of the ERoomNumber (unique within its outpatient center, but an examination room in different outpatient locations can have the same ERoomNumber) and ERoomSize
* Each outpatient location must have at least one, but can have many, examination rooms, and each examination room is located in one outpatient location

**Ques 3:** Investco Scout is an investment research company. Create the ER diagram for the Investco Scout Funds Database, which is supposed to contain the following information:

* It will keep track of investment companies, the mutual funds they manage, and securities contained in the mutual funds.
* For each investment company, Investco Scout will keep track of a unique investment company identifier, a unique investment company name, and the names of the investment company’s multiple locations.
* For each mutual fund, Investco Scout will keep track of a unique mutual fund identifier, the mutual fund name, and the mutual fund inception date.
* For each security, Investco Scout will keep track of a unique security identifier, as well as the security name and type.
* Investment companies can manage multiple mutual funds. Investco Scout will not keep track of investment companies that do not manage any mutual funds. A mutual fund is managed by one investment company.
* A mutual fund contains one or many securities. A security can be included in many mutual funds. Investco Scout will keep track of securities that are not included in any mutual funds
* For each instance of a security included in a mutual fund, Investco Scout will keep track of the amount included

**Ques 4:** Snooty Fashions is an exclusive custom fashion design business. Create the ER diagram for the Snooty Fashions Operations Database based on the following data collection requirements:

* For each designer, the database must keep track of a unique designer identifier, unique SSN, and a name (which is composed of a first and a last name).
* For each customer, the database must keep track of a unique customer identifier, his/her name (which is composed of a first and a last name), and multiple phone numbers.
* For each tailoring technician, the database must keep track of a unique SSN and a name (which is composed of a first and a last name).
* For each outfit, the database must keep track of a unique outfit identifier, the outfit’s planned date of completion, and its price.
* For each fashion show, the database must keep track of a unique show identifier, as well as the date and location of the show.
* Each designer designs many outfits. Each outfit has only one designer.
* Each outfit is sold (in advance) to exactly one customer. Customers can buy one or many outfits (Snooty Fashions will not keep track of customers who have not made any purchases yet).
* Each tailoring technician must work on at least one outfit, but can work on many. Each outfit has at least one tailoring technician working on it, but can have many tailoring technicians working on it.
* Snooty Fashions will keep track of the date when a tailoring technician started working on a particular outfit.
* Each designer can participate in a number of fashion shows, but does not have to participate in any. Each fashion show can feature one or two Snooty Fashions designers (Snooty Fashions will not keep track of fashion shows that do not feature Snooty Fashions designers).