**CO1019: Databases & Web Applications - Database Lab 1**

**Student Name:**

**Student UserName:**

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- Solve the following exercises.
- Once you are finished, upload one zip file to TurnItIn:{Assessment DB_Lab 1} on your Blackboard, located under Week 5 -> Lab folder.
- Rename the file as follows: StudentUserName_DB_Lab1.zip (e.g. kgw34_DB_Lab1.zip).

**Task 1: Construct an E-R diagram for the following exercise using a simple drawing software such as: Microsoft Paint, or Microsoft Word (Shapes). Take into account the representation of: Keys, Relationships, and any other rules from the ER diagram concepts you learned in the theory lecture.**

**The description of the exercise is as follows:**

The hospital has a set of patients and a set of medical doctors related as follows. The doctors examine patients at different dates and may perform tests on them. Tests are associated with patients via a test-log. For the entity sets involved you may consider recording the following information:

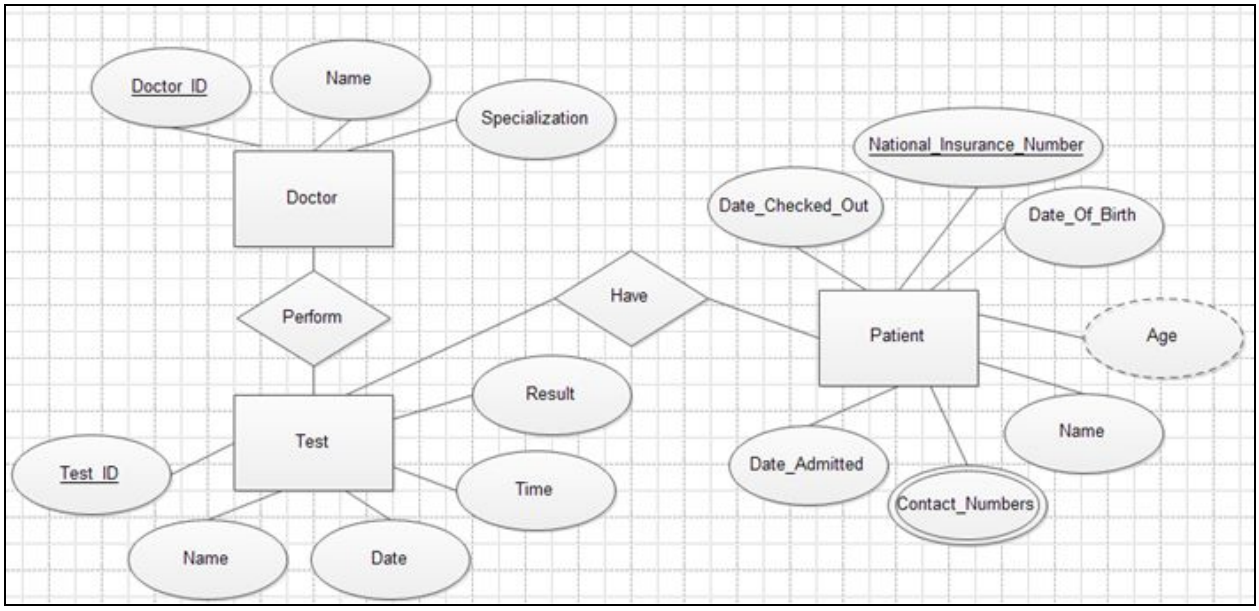
• Patient: national insurance number, name, date of birth, age, contact numbers, date admitted and date checked out;

• Doctor: doctor id, name, and specialisation;

• Test: test id, name, date, time, and result.

Answer:

In order to construct the E-R diagram for this solution, first we must carefully consider all the necessary entities and attributes. Secondly, there should be a clear representation of the relationship sets with attributes as well as the roles so that we are able to clarify semantics of the relationships.

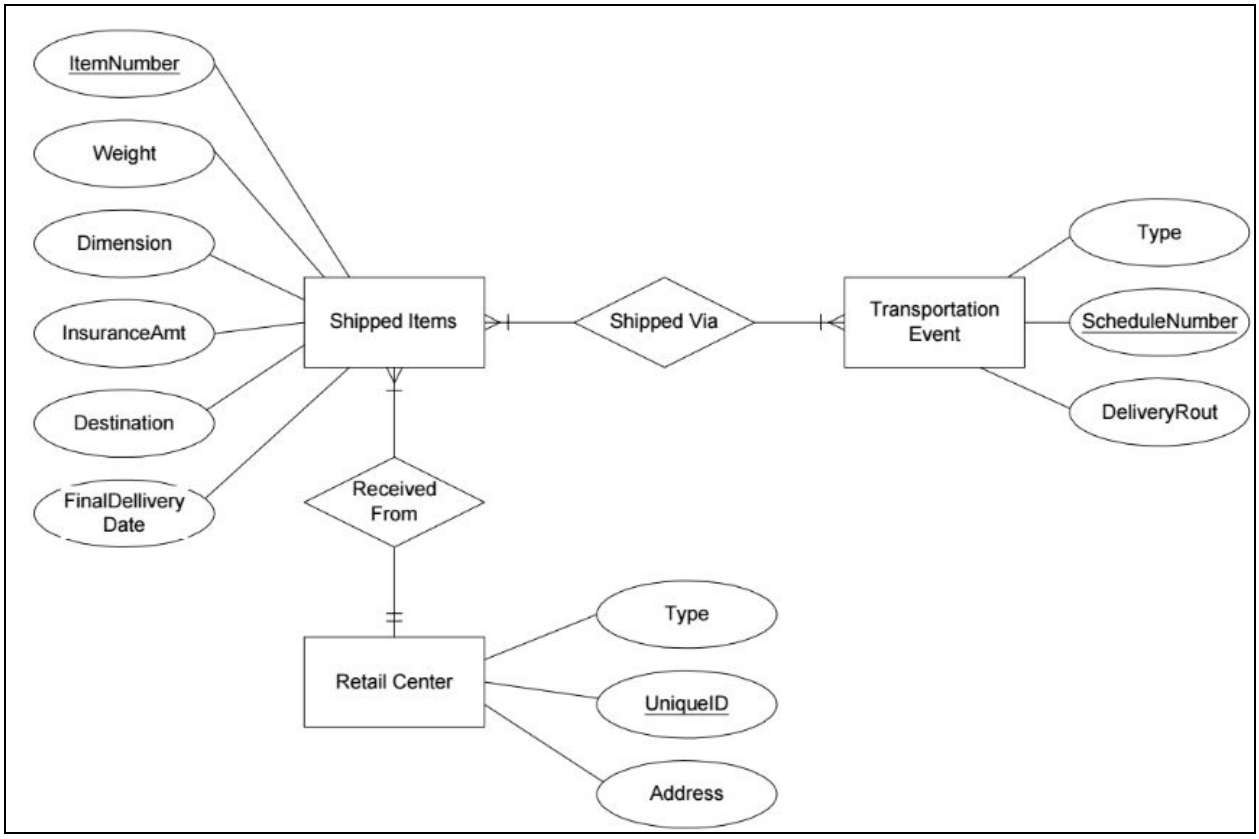



**Task 2: Construct an E-R diagram for the following exercise using a simple drawing software such as: Microsoft Paint, or Microsoft Word (Shapes). Take into account the representation of: Keys, Relationships, and any other rules from the ER diagram concepts you learned in the theory lecture.**

**The description of the exercise is as follows:**

UPS prides itself on having up-to-date information on the processing and current location of each
shipped item. To do this, UPS relies on a company-wide information system. Shipped items are the heart of the UPS product tracking information system. Shipped items can be characterized by item number (unique), weight, dimensions, insurance amount, destination, and final delivery date. Shipped items are received into the UPS system at a single retail center. Retail centers are
characterized by their type, uniqueID, and address. Shipped items make their way to their destination via one or more standard UPS transportation events (i.e., flights, truck deliveries). These transportation events are characterized by a unique scheduleNumber, a type (e.g, flight, truck), and a deliveryRoute.

Answer:


ItemNumber
Weight
Dimension
InsuranceAmt
Destination
FinalDellivery Date
Shipped Items
Shipped Via
Transportation Event
Type
ScheduleNumber
DeliveryRout
Received From
Retail Center
Type
UniqueID
Address