INFS 4790 / 5790
Design Scenario

The warehouse manager of "Lots Of Books" needs a system to track the placement of inventory items in the warehouse. The warehouse receives shipments of items from vendors. The items received in a shipment will be stored in various warehouse locations.   Draw the data model described below, and properly place all necessary foreign keys to implement the relationships described.

Entities required:
>Location
>Vendor
>Item
>Shipment

For the Location entity class, the following attributes will be needed:
>Location Number
>Location Capacity
>Location Count

For the Vendor entity class, the following attributes will be needed:
>Vendor Number
>Vendor Name
>Vendor Contact Person
>Vendor Phone

For the Item entity class, the following attributes will be needed:
>Item Number
>Item Description
>Item Size

For the Shipment entity class, the following attributes will be needed:
>Shipment Number
>Tracking Number
>Shipment Date
>Shipment Weight

The following relationships must be defined:
>Location is related to Item.
>Item is related to Shipment
>Shipment is related to Vendor.

Connectivities and Participation are defined as follows:
>An Item may have many Locations.
>A Location has only one Item.
>A Location may or may not have an Item.
>An Item may or may not have a Location.

>An Item may have many Shipments.
>A Shipment may have many Items.
>An Item may or may not have a Shipment.
>A Shipment must have an Item.
>The quantity of each Item in a shipment must be tracked.

>A Shipment has only one Vendor.
>A Vendor may have one or more Shipments.
>A Shipment must have a Vendor.
>A Vendor may or may not have a Shipment.