IT 340 Assignment2

E-R Model (50 Points)

Due Wednesday, April 21, by 11:59 PM

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You MUST do it in groups with both students in the same section.

Download the document from D2L and change the file name using your MNSU usernames.

Keep the following instructions and type your work below.

You must follow the given style. You could lose up to five points on the style.

Upload your document to D2L by the due time.

Everyone is required to create GitHub repository for this course, but I need only one GitHub submission for this

project. Add the link of GitHub in the D2L Dropbox description box.

Each group is required to use Microsoft Teams for communication while working on the project.

You must use the following style to do Phase I of the project.

1. Identify entity types with brief description

a) Wards – wards for patients

b) Patient – Patients In hospital

c) Staff – Staff/doctors in hospital

d) Appointment – scheduled appointments in hospital

e) Medication – Medications for patients

f) Items – Items/equipment/tools required for medical use.

g) Pharmacy – Pharmacy for medications(patients)

h) Requisition – requisitions for staff and accommodations

i) Suppliers – Medical suppliers for equipment

**2.** Identify relationship types with brief description. You must include the multiplicity and attributes if any.

Ward(0..1) assignsPatient (1..M)Patients

Attributes: Ward\_Name, Patient\_Name(first,last), Ward\_Number

**one Ward can have many Patients at one time**

**one Patient can have one Ward at one time**

Ward(0..M) assignsStaff (M..1)Staff

Attributes: Ward\_Number, Staff\_Number

**one Ward can have many Staff at one time**

**many Staff can have one Ward at one time**

Ward(0..M) orderRequisition (1..M)Requisition

Attributes: Ward\_Number, Requisition\_Number

**one Ward can have many Requisitions at one time**

**many Requisitions can be sent to one Ward at one time**

Ward(0..M) getsSurgical/Nonsurgical (1..M)Surgical/Nonsurgical Supplies

Attributes: Ward\_Number, Item\_Number, Suppliers\_Number

**one Ward can have many Surgical/Nonsurgical Supplies**

**many Surgical/Nonsurgical Supplies can be at one Ward at one time**

Ward(0..M) getPharmaceuticals (1..M)Pharmacy

Attributes: Ward\_Number, Drug/Item\_Number

**one Ward can have many Drug/Items at one time**

**many Drug/Items can be at one Ward at one time**

Staff(0..1) assignsAppointment (1..1)Appointment

Attributes: Staff\_Number, Appointment\_Number, Patient\_Number, Ward\_Number

**one Staff can only have one Appointments at one time**

**one Appointment can only have one Staff at one time**

Staff(0..M) getsRequisition (1..1)Requisition

Attributes: Staff\_Number, Requisition\_Number, Ward\_Number

**one Staff can have many Requisitions at one time**

**one Requisition can only have one Staff at one time**

Staff(0..M) assignPatient (1..M)Patient

Attributes: Staff\_Number, Patient\_Number

**one Staff can have many Patients at one time**

**many Patients can have one Staff at one time**

Patient(0..M) getsMedication (1..M)Medication

Attributes: Patient\_Number, Medication\_Number

**one Patient can have many Medications at one time**

**one Medication can have many Patients at one time**

Suppliers(0..M) hasSurgical/Nonsurgical (1..M)Surgical/Nonsurgical Supplies

Attributes: Suppliers\_Numbers, Item\_Number

**one Suppliers can have many Items at one time**

**one Item can have many Suppliers at one time**

**3.** Describe each entity type in detail

a) Ward

**Ward\_number**, Ward\_Name, Location, Number\_of\_Beds, Telephone

PRIMARY KEY: **Ward\_Number**

ALTERNATE KEY:

FOREIGN KEY:

b) Staff

**Staff\_Number**, First\_Name, Last\_Name, Address, Sex, Telephone, DOB, **NIN**, Position, **Ward\_Number**, Currently\_Salary, Hours/Week, Paid Weekly/Monthly, Permanent/Temporary, Qualification, Work\_Experience\_Position, Work\_StartDate, Work\_EndDate, Organization

PRIMARY KEY: **Staff\_Number**

ALTERNATE KEY: **NIN**

FOREIGN KEY : **Ward\_Number**

c) Patient

**Patient\_Number**, First\_Name, Last\_Name, Address, Telephone, DOB, Sex, Marital\_Status, Registered\_Date, Next\_of\_Kin, Kin\_Relationship, Kin\_Address, Kin\_Telephone, Doctor\_Name, Clinic\_Address, Clinic\_Telephone

PRIMARY KEY: **Patient\_Number**

ALTERNATE KEY:

FOREIGN KEY:

d) Appointment

**Appointment\_Number**, **Staff\_Number**, **Patient\_Number**, **Ward\_Number**, Date\_of\_Appointment, Room\_Number, Status, Type\_Of\_Appointment, Duration

PRIMARY KEY: **Appointment\_Number**

ALTERNATE KEY:

FOREIGN KEY: **Staff\_Number, Patient\_Number, Patient\_Number**

e) Medication

**Medication\_Number**, **Patient\_Number**, Units\_Per\_Day, Method, Start\_Date, End\_Date

PRIMARY KEY: **Medication\_Number**

ALTERNATE KEY:

FOREIGN KEY: **Patient\_Number**

f) Surgical/Nonsurgical Supplies

**Item\_Number**, **Suppliers\_Number**, Item\_Name, Item\_Desc, Quantity, Reorder\_Level, Cost\_Per\_Unit

PRIMARY KEY: **Item\_Number**

ALTERNATE KEY:

FOREIGN KEY: **Suppliers\_Number**

g) Pharmacy

**Drug\_Number**, **Suppliers\_Number**, Drug\_Name, Drug\_Desc, Dosage, Method, Quantity, Reorder\_Level, Cost\_Per\_Unit

PRIMARY KEY: **Drug\_Number**

ALTERNATE KEY:

FOREIGN KEY: **Suppliers\_Number**

h) Requisition

**Requsition\_Number**, **Staff\_Number**, **Ward\_Number**, **Drug\_Number**, Requisition\_Type, Quantity, Order\_Date, Delivery\_Date

PRIMARY KEY: **Requisition\_Number**

ALTERNATE KEY:

FOREIGN KEY: **Staff\_Number, Ward\_Number, Drug/Item\_Number**

1. Suppliers

**Suppliers\_Number**, First\_Name, Last\_Name, Address, Telephone, Fax\_Number

PRIMARY KEY: **Suppliers\_Number**

ALTERNATE KEY:

FOREIGN KEY:

4. Draw the E-R diagram Show the primary key for each table.