1. Identify the functional dependencies for the Well Meadows Hospital data. (20 points)
   My understanding of a functional dependency is that the determinant attribute is
   associated with one dependent attribute(1:1).
   ● patientNo -> fullName
      fullName is functionally dependent on patientNo; for each patient number, there
      is one patient full name
   ● drugNo -> name, description, dosage, methodOfAdmin
      name, description, dosage, and methodOfAdmin are each functionally dependent
      on drugNo; for each drug number, there is one name, one description, one
      dosage, and one methodOfAdmin
   ● patientNo, drugNo, startDate -> finishDate, unitsPerDay, wardNo, wardName,
      bedNo
      startDate, finishDate, unitsPerDay, wardNo, and bedNo are each functionally
      dependent on patientNo, drugNo and startDate; for the composite primary key
      (patientNo, drugNo, and startDate), there is one startDate, finishDate,
      unitsPerDay, wardNo, and bedNo

2. Identify all partial dependencies. Explain your answers. (10 points).
   My understanding of partial dependencies is that the dependent attribute depends
   on part of the primary key.
   ● patientNo -> fullName
      fullName is dependent on only patientNo
   ● drugNo -> name, description, dosage, methodOfAdmin
      name, description, dosage, and methodOfAdmin are dependent on only drugNo

3. Identify all transitive dependencies. Explain your answers. (10 points)
   My understanding of transitive dependencies is that the dependent attribute is
   transitively dependent on another dependency of attributes.
   ● drugNo -> name -> description, dosage, methodOfAdmin
      description, dosage, and methodOfAdmin are dependent on name; name is
      dependent on drugNo
   ● patientNo, drugNo, startDate -> wardNo -> wardName
      wardName is dependent on wardNo; wardNo is dependent on the composite
      primary key (patientNo, drugNo, and startDate)

4. List the relations that form the 2NF and also the 3NF Crow's Foot ERD for Well
   Meadows. For both the 2NF and 3NF normal forms you must clearly indicate all the
   primary keys and *foreign keys.* (20 points)

   2NF
   ● PATIENT(**patientNo**, fullName)
   ● DRUG(**drugNo**, name, description, dosage, methodOfAdmin)

- PATIENT DRUG START(**patientNo**, drugNo, startDate, finishDate, unitsPerDay, wardNo, wardName)

3NF
- PATIENT(**patientNo**, fullName)
- DRUG(**drugNo**, name) - FOREIGN KEY name referenced in DRUG NAME
- DRUG NAME(**name**, description, dosage, methodOfAdmin)
- PATIENT DRUG START(**patientNo**, drugNo, startDate, finishDate, unitsPerDay, wardNo, bedNo) - FOREIGN KEY wardNo referenced in WARD
- WARD(**wardNo**, wardName)

patient No	drug No	startDate	fullName	wardNo	ward Name	bedNo	name	description	dosage	method OfAdmin	unitsPer Day	finish Date
P10034	10223	24-Mar-14	Robert MacDonald	11	Orthopaedic	84	Morphine	Pain killer	10mg/ml	Oral	50	24-Apr-14
P10034	10334	24-Mar-14	Robert MacDonald	11	Orthopaedic	84	Tetracycline	Antibiotic	0.5mg/ml	IV	10	17-Apr-14
P10034	10223	25-Mar-14	Robert MacDonald	11	Orthopaedic	84	Morphine	Pain killer	10mg/ml	Oral	10	2-May-14