

Q1)1. Find the Entity types

Patients(patient\_name,address,age,SSN)

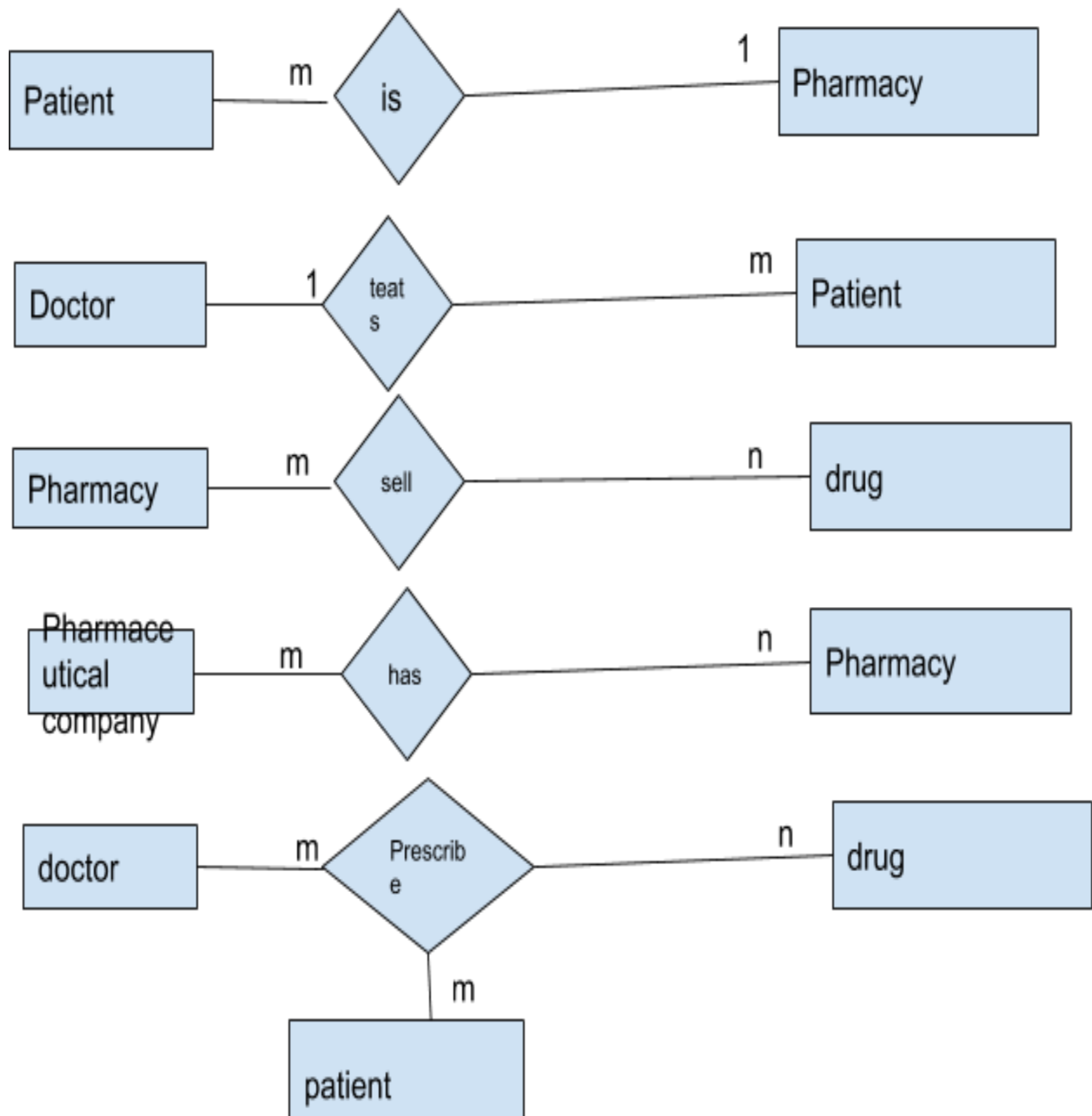
Doctor(doctor\_name,speciality and experience,SSN)

pharmacy(pharmacy\_name,address,phone\_number)

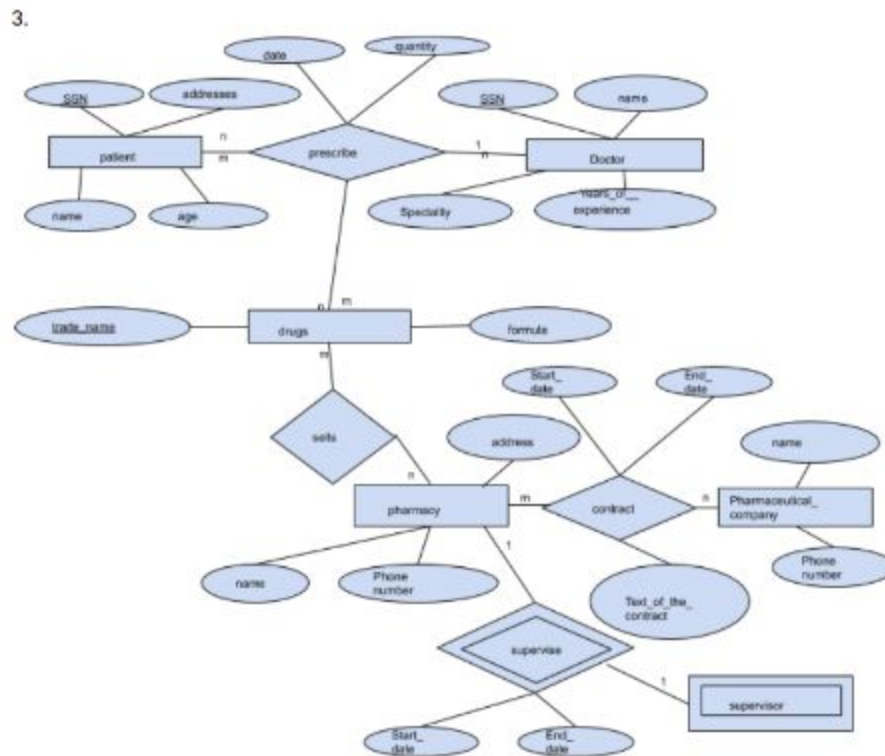
Pharmaceutical\_company(name,phone\_number)

Drug(rate\_name,formula)

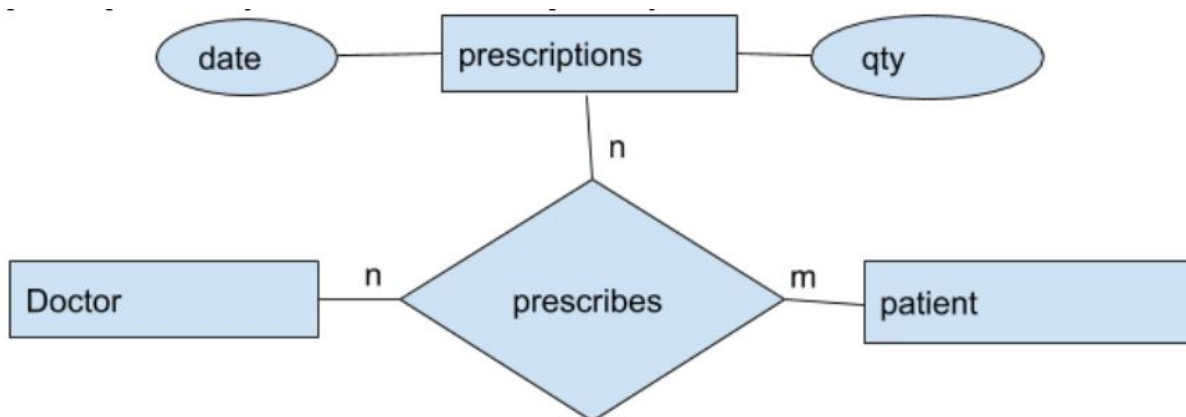
Q2)2. Draw ER diagram to each relationship separately.



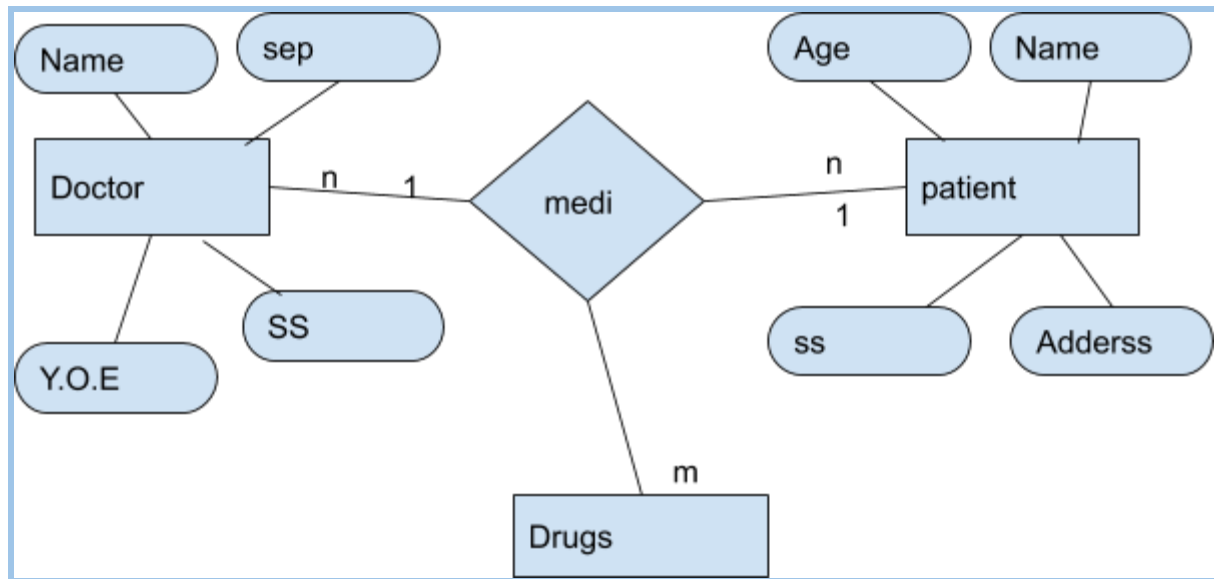
3. Draw a ER diagram that captures the above information.



4. How would your design change if each drug must be sold at a fixed price by all the pharmacies?



5. How would your design change if the design requirements change as follows: If a doctor prescribes the same drug for the same patient more than once, several such prescriptions may have to be stored separately?



6. Write Mongoose Schema for your diagram.

```
var doctorsSchema= new Schema({
  ssndactor:{type:String,index:true,unique:true,trim:true,required:true},
  name:{type:String,default:"raja"},
  speciality:{type:String},
```

```
year_exp:{type:Number,default:10}
```

```
var patientsSchema= new Schema({  
  ssndoctor:{type:Schema.Types.ObjectId,ref:'doctors',required:true},  
  address:{type:String,default:"Residence"},  
  age:{type:Number},  
  name:{type:String},  
  ssnpatient:{type:Number,index:true,unique:true,trim:true,required:true},
```

```
var pharmcoSchema= new Schema({  
  name:{type:String,index:true,unqiue:true},  
  phone:{type:Number},
```

```
var pharmaciesSchema= new Schema({  
  pharmname:{type:String,index:true,unqiue:true},  
  phone:{type:Number},  
  address:{type:String}
```

```
var drugsSchema= new Schema({  
  pharmconame:{type:Schema.Types.ObjectId,ref:'pharmco',required:true},  
  pharmname:{type:Schema.Types.ObjectId,ref:'pharmacies',required:true},  
  formula:{type:String},  
  tradename:{type:String,index:true,unique:true,trim:true,required:true},  
  
  },
```

```
var sellsSchema= new Schema({  
  pharmconame:{type:Schema.Types.ObjectId,ref:'pharmco',required:true},  
  pharmname:{type:Schema.Types.ObjectId,ref:'pharmacies',required:true},  
  tradename:{type:String,index:true,unique:true,trim:true,required:true},  
  price:{type:Number}  
  
  }
```

```
var prescribesSchema= new Schema({
  pharmconame:{type:Schema.Types.ObjectId,ref:'pharmco',required:true},
  ssndoctor:{type:Schema.Types.ObjectId,ref:'doctors',required:true},
  ssnpatient:{type:Schema.Types.ObjectId,ref:'patients',required:true},
  formula:{type:String},
  tradename:{type:String,index:true,unique:true,trim:true,required:true},
  date:{type:Date},
  qty:{type:Number}

})
```

```
var contractsSchema= new Schema({
  pharmconame:{type:Schema.Types.ObjectId,ref:'pharmco',required:true},
  pharmname:{type:String,index:true,unique:true,trim:true,required:true},
  startdate:{type:Date},
  enddate:{type:Date},
  text:{type:String},
  supervisor:String,

})
```