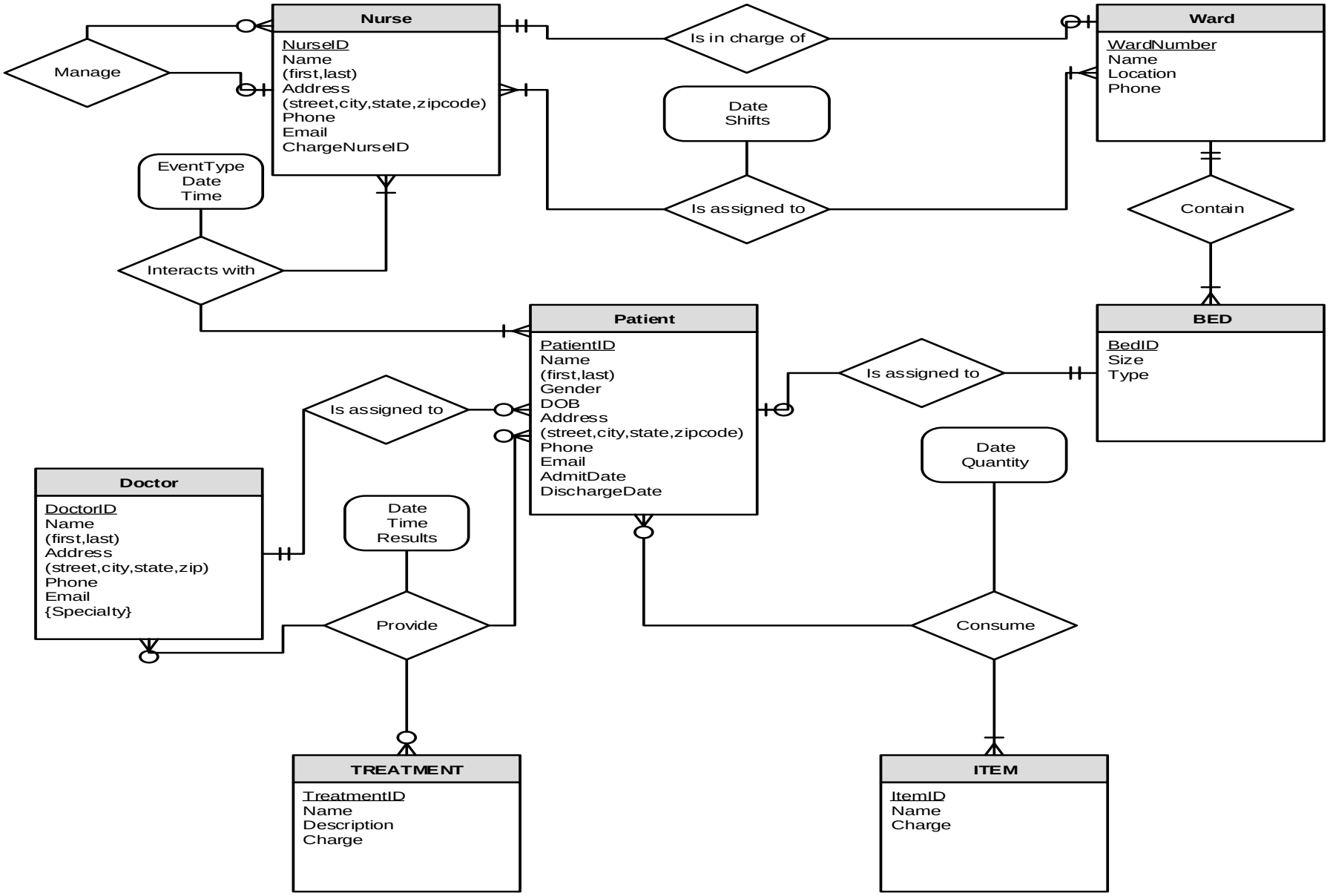
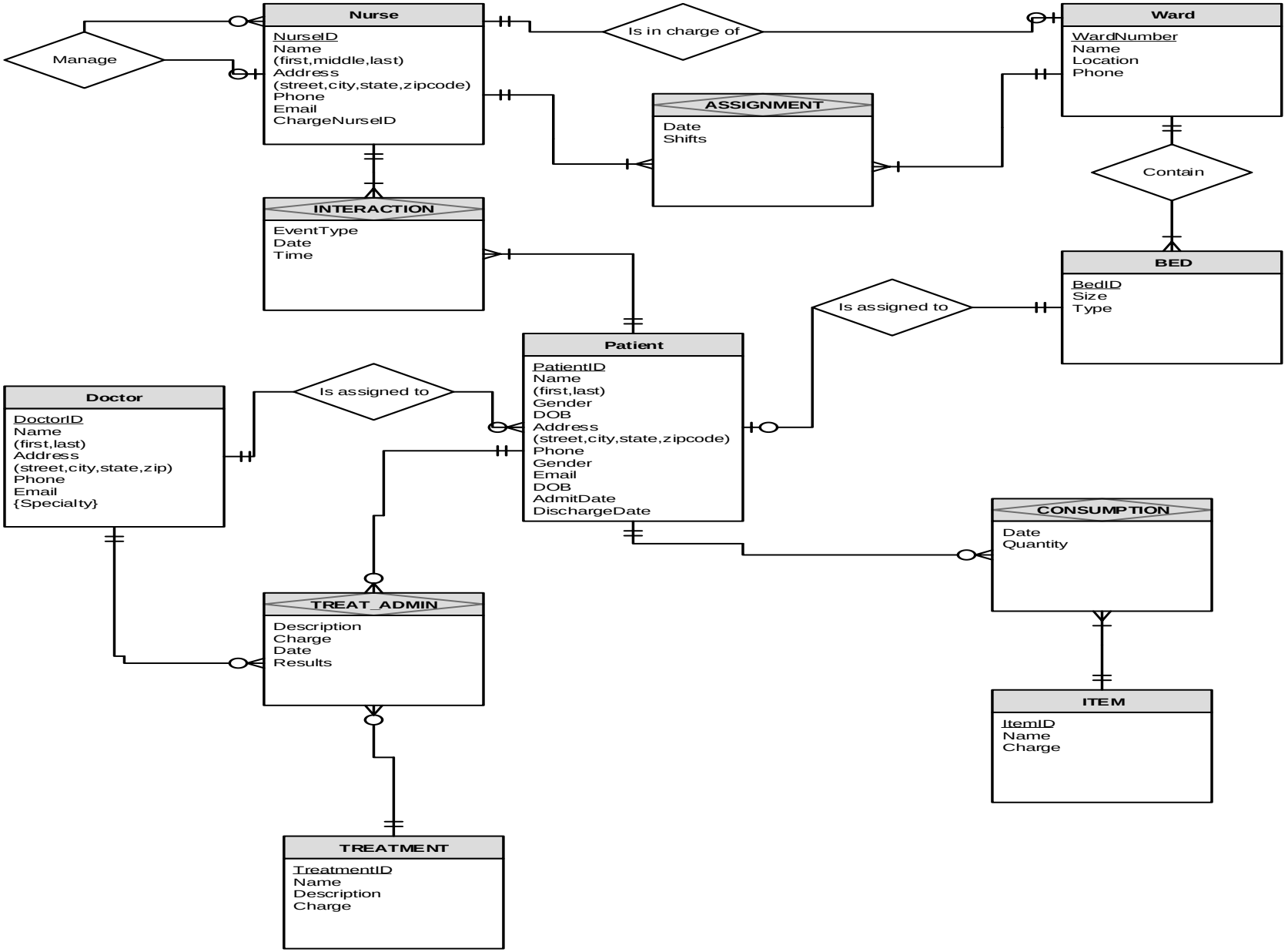
Hospital Database

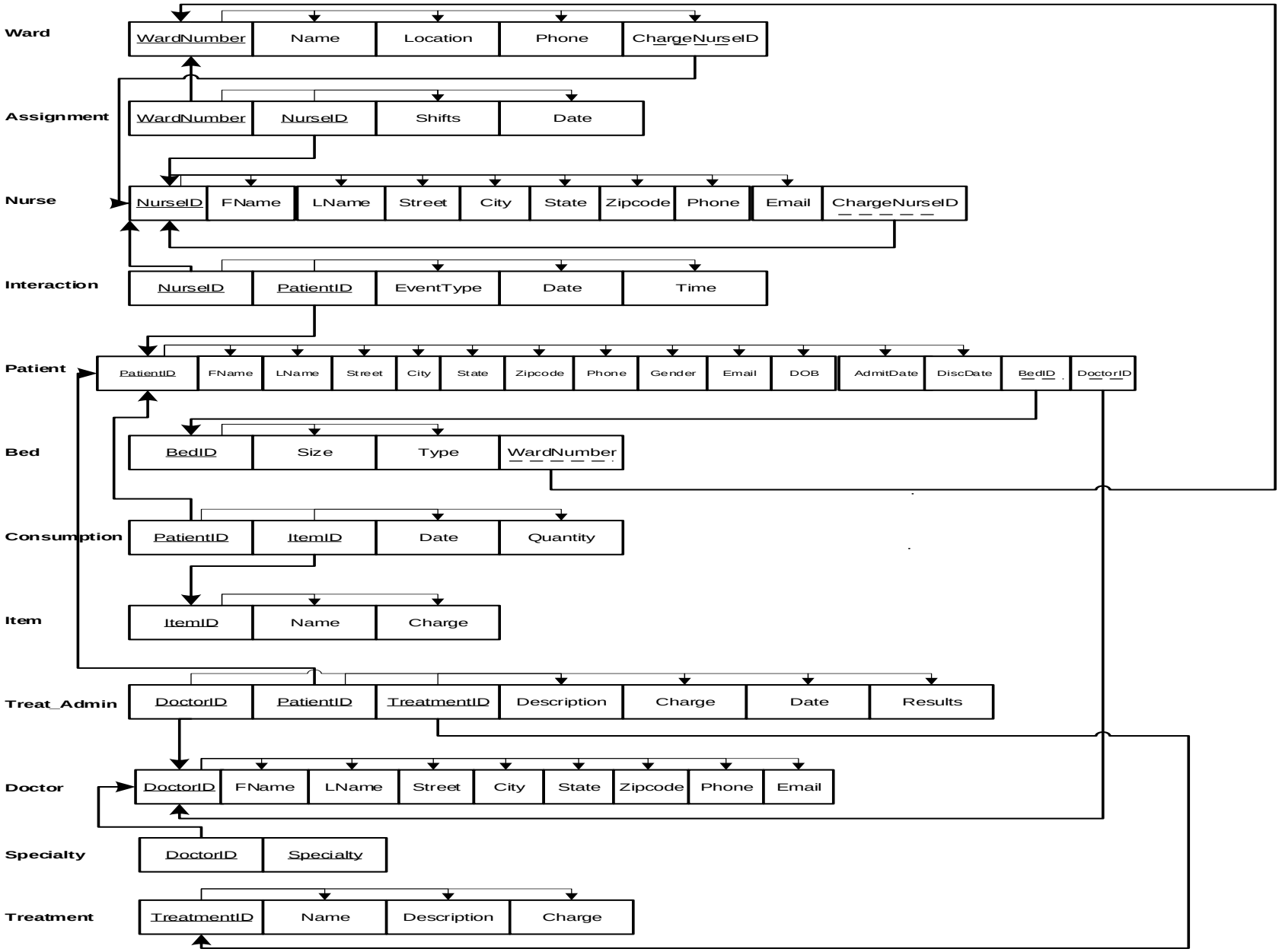
I. *Entity Relationship Diagram:*



II. *Enhanced Entity Relationship Diagram:*



III. *Relational Schema:*



IV. Data Dictionary:

Table: **Assignment**

Column Name	Description	Data Type	Size	Identity	Unique	Default	Rule	Check	Allow Nulls	Index
NurseID	**CPK**; Unique sequential nurse ID number **FK** to nurse table	int								Y
WardNumber	**CPK**; Unique sequential ward number **FK** to ward table	int								Y
Date	Date of the assignment of a nurse to a ward	date								
Shifts	Ward shifts assigned to a nurse	nvarchar	50							

Table: **Bed**

Column Name	Description	Data Type	Size	Identity	Unique	Default	Rule	Check	Allow Nulls	Index
BedID	**PK**; Unique sequential bed ID number	int		Y						Y
Size	Size of the bed(small, large, or extra-large)	char	2			'L'		[Size] = ('S') OR [Size] = ('L') OR [Size] = ('XL')		
Type	Type of bed(manual or electric)	char	1			'M'		[Type] = ('M') OR [Type] = ('E')		
WardNumber	**FK** to Ward table; unique sequential ward number	int								Y

Table: **Consumption**

Column Name	Description	Data Type	Size	Identity	Unique	Default	Rule	Check	Allow Nulls	Index
PatientID	**CPK**; Unique sequential patient ID number **FK** to patient table	int								Y
ItemID	**CPK**; Unique sequential item ID number **FK** to item table	int								Y
Date	Date at which patient consumed the item	date								
Quantity	Number of items given to the patient	int								

Table: **Doctor**

Column Name	Description	Data Type	Size	Identity	Unique	Default	Rule	Check	Allow Nulls	Index
DoctorID	**PK**; Unique sequential doctor ID number	int		Y						Y
FName	First name of the doctor	nvarchar	15							
LName	Last name of the doctor	nvarchar	20							
Street	Street of the doctor	nvarchar	155							
City	City of the doctor	nvarchar	15			‘Tampa’				
State	State of the doctor	char	2				LIKE ‘[A-Z][A-Z]’			
Zipcode	Zip code of the doctor	nvarchar	10							
Phone	Phone number of the doctor	nvarchar	20		Y					Y
Email	Doctor’s email address	nvarchar	155		Y					Y

Table: **Interaction**

Column Name	Description	Data Type	Size	Identity	Unique	Default	Rule	Check	Allow Nulls	Index
NurseID	**CPK**; Unique sequential nurse ID number **FK** to nurse table	int								Y
PatientID	**CPK**; Unique sequential patient ID number **FK** to patient table	int								Y
EventType	Type of interaction event	nvarchar	20							
Date	Date at which interaction occurred	date								
Time	Time at which interaction occurred	time	7							

Table: **Item**

Column Name	Description	Data Type	Size	Identity	Unique	Default	Rule	Check	Allow Nulls	Index
ItemID	**PK**; Unique sequential item ID number	int		Y						Y
Name	Name of the item	nvarchar	100							
Charge	Price charge of the item	money								

Table: **Nurse**

Column Name	Description	Data Type	Size	Identity	Unique	Default	Rule	Check	Allow Nulls	Index
NurseID	**PK**; Unique sequential nurse ID number	int		Y						Y
FName	First name of the nurse	nvarchar	15							
LName	Last name of the nurse	nvarchar	20							
Street	Street of the nurse	nvarchar	100							
City	City of the nurse	nvarchar	20			‘Tampa’				
State	State of the nurse	char	2				LIKE ‘[A-Z][A-Z]’	’		
Zipcode	Zip code of the nurse	nvarchar	20							
Phone	Phone number of nurse	nvarchar	20		Y					Y
Email	Email of nurse	nvarchar	100		Y					Y
ChargeNurseID	**Synonym** to NurseID; Nurse ID number of nurses in charge of each nurse	int								Y

Table: **Patient**

Column Name	Description	Data Type	Size	Identity	Unique	Default	Rule	Check	Allow Nulls	Index
PatientID	**PK**; Unique sequential patient ID number	int		Y						Y
FName	First name of the patient	nvarchar	15							
LName	Last name of the patient	nvarchar	50							
Street	Street of the patient	nvarchar	100							
City	City of the patient	nvarchar	20			'Tampa'				
State	State of the patient	char	2				LIKE '[A-Z][A-Z]'			
Zipcode	Zip code of the patient	nvarchar	20							
Phone	Phone number of the patient	nvarchar	20		Y					Y
Gender	Gender of patient	char	1							
Email	Email address of the patient	Nvarchar	100		Y					Y
DOB	Date of birth of patient	Date						<=Getdate()		
AdmitDate	Date patient was admitted to the hospital	Date								
DiscDate	Date patient was discharged from the hospital	Date								
BedID	**FK** to Bed table; Unique sequential bed ID number	Int								Y
DoctorID	**FK** to Doctor table; Unique sequential doctor ID number	int								Y

Table: **Specialty**

Column Name	Description	Data Type	Size	Identity	Unique	Default	Rule	Check	Allow Nulls	Index
DoctorID	**CPK**; Unique sequential doctor ID number **FK** to doctor table	int								Y

Specialty	**CPK**; Doctor's specialty field	nvarchar	15							Y

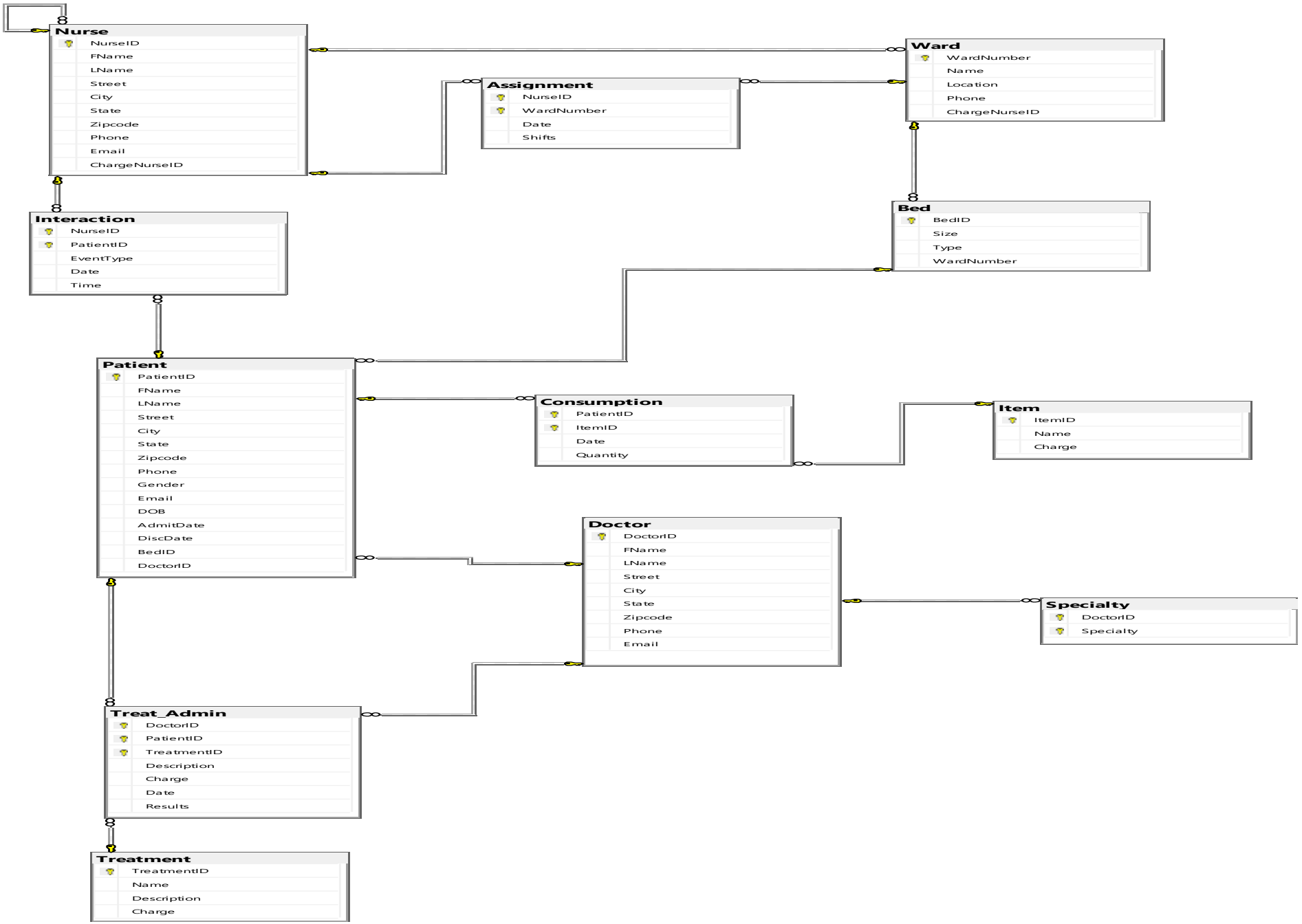
Table: **Treat_Admin**

Column Name	Description	Data Type	Size	Identity	Unique	Default	Rule	Check	Allow Nulls	Index
DoctorID	**CPK**; Unique sequential doctor ID number **FK** to doctor table	int								Y
PatientID	**CPK**; Unique sequential patient ID number **FK** to patient table	Int								Y
TreatmentID	**CPK**; Unique sequential treatment ID number **FK** to treatment table	Int								Y
Description	description of the treatment administration process	nvarchar	300						Y	
Charge	Charge of the treatment administration	money							Y	
Date	Date of the treatment administration	date								
Results	Results of the treatment administration	nvarchar	300							

Table: **Treatment**

Column Name	Description	Data Type	Size	Identity	Unique	Default	Rule	Check	Allow Nulls	Index
TreatmentID	**PK**; Unique sequential treatment ID number	Int		Y						Y
Name	Name of the treatment	nvarchar	50							
Description	Description of the treatment	nvarchar	300							
Charge	Monetary charge of the treatment	money								

Table: **Ward**

Column Name	Description	Data Type	Size	Identity	Unique	Default	Rule	Check	Allow Nulls	Index
WardNumber	**PK**; Unique sequential ward number	int		Y						Y
Name	Name of the ward	nvarchar	25							
Location	Physical location of the ward	nvarchar	20							
Phone	Phone number of the ward	nvarchar	15		Y					Y
ChargeNurseID	**FK** to Nurse table; Synonym to NurseID of the nurse in charge of the ward	int								Y

v. *Database Diagram:*