**Option 1 original question**

**DATA DICTIONARY**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ENTITY | \* KEY ATTRIBUTE | ATTRIBUTE | ATTRIBUTE | ATTRIBUTE | ATTRIBUTE | ATTRIBUTE | ATTRIBUTE | ATTRIBUTE | ATTRIBUTE |
| Physician | Physician ID number | Physician’s first name | Physician’s last name | Patient ID number | Specialty |  |  |  |  |
| Patient | Patient’s ID number | Patient’s first name | Patient’s last name | Date of birth | Patient’s phone number | Patient’s height | Patient’s weight | Drug allergies | Gender |
| Appointment Type | Physician ID number | Patient ID number | Spine/ Joint care | Lumbar epidural | Cervical epidural | Thoracic Epidural | Lumbar  Facet | Cervical facet | Hip/SIJ injection |
| Location | Main campus | Off Campus |  |  |  |  |  |  |  |
| Time slots | Physician ID number | Patient ID number | Start time | End time | Availability |  |  |  |  |

The \* key attribute is unique to the entity.

**Examples of what needs to be done using the table above and these 2 questions below**

**1) Based on the feedback received on your Module 2 assignment Database Schema, provide SQL statements to create the (revised) database and populate it with sample data (at least four rows per table).**

**2) Modify the database by adding an additional column ("Deleted\_Date") to those tables that represent entities that could contain data which can be deleted and justify your rationale in a short paragraph. In addition, explain what the tradeoffs are in using a marker-column for deletion, as opposed to actually deleting a row from a table?**

**My response: The deletions would be reduce the procedures to only 3 as they assume the largest portion of all the invasive service provided by this clinic. The 3 are lumbar, cervical and thoracic procedures. Eliminate spine joint care and lumbar and cervical facets.**

CREATE TABLE [dbo].[Patient] (

PatientID [int] IDENTITY (1, 1) NOT NULL,

FirstName [varchar] (50) NOT NULL,

MidName [varchar] (50) NULL,

LastName [varchar] (50) NOT NULL,

Address1 [varchar] (100) NOT NULL,

Address2 [varchar] (100) NULL,

City [varchar] (100) NOT NULL,

State [varchar] (2) NOT NULL,

Zip [varchar] (5) NOT NULL,

Constraint [PK\_Patient1] PRIMARY KEY CLUSTERED

([PatientID] ASC))

INSERT INTO PATIENT (PATIENTID, FIRSTNAME, MIDNAME, LASTNAME, ADDRESS1, ADDRESS2, CITY, STATE, ZIP) VALUES (1, ‘June’, ‘Cleaver’, ‘201 E. Oak’, ‘’, ‘Mayberry’, ‘VA’, 85201)

INSERT INTO PATIENT (PATIENTID, FIRSTNAME, MIDNAME, LASTNAME, ADDRESS1, ADDRESS2, CITY, STATE, ZIP) VALUES (2, ‘Ward’, ‘Cleaver’, ‘201 E. Oak’, ‘’, ‘Mayberry’, ‘VA’, 85201)

INSERT INTO PATIENT (PATIENTID, FIRSTNAME, MIDNAME, LASTNAME, ADDRESS1, ADDRESS2, CITY, STATE, ZIP) VALUES (3, ‘Beaver’, ‘Cleaver’, ‘201 E. Oak’, ‘’, ‘Mayberry’, ‘VA’, 85201)

INSERT INTO PATIENT (PATIENTID, FIRSTNAME, MIDNAME, LASTNAME, ADDRESS1, ADDRESS2, CITY, STATE, ZIP) VALUES (4, ‘Wally’, ‘Cleaver’, ‘201 E. Oak’, ‘’, ‘Mayberry’, ‘VA’, 85201)

**Diagnosis**

INSERT INTO DIAGNOSIS (DIAGNOSISID, PATIENTID, DIAGNOSISDATE, ICD10CODE, DIAGNOSIS, PHYSICIANID) VALUES (1, 1, ‘05/07/2012’, ‘E08.22’, ‘Diabetes mellitus due to an underlying condition with diabetic kidney disease’, 1)

INSERT INTO DIAGNOSIS (DIAGNOSISID, PATIENTID, DIAGNOSISDATE, ICD10CODE, DIAGNOSIS, PHYSICIANID) VALUES (2, 1, ‘05/17/2012’, ‘E09.52’, ‘Drug or chemical induced diabetes mellitus’, 3)

INSERT INTO DIAGNOSIS (DIAGNOSISID, PATIENTID, DIAGNOSISDATE, ICD10CODE, DIAGNOSIS, PHYSICIANID) VALUES (3, 2, ‘02/18/2012’, ‘E08.22’, ‘Diabetes mellitus due to an underlying condition with diabetic kidney disease’, 2)

INSERT INTO DIAGNOSIS (DIAGNOSISID, PATIENTID, DIAGNOSISDATE, ICD10CODE, DIAGNOSIS, PHYSICIANID) VALUES (4, 2, ‘09/01/2012’, ‘E11.41’, ‘Type 2 diabetes mellitus with diabetic mononeuropathy’, 4)

**Physician**

INSERT INTO PHYSICIAN (PHYSICIANID, PHYSICIANNUM, SPECIALTY, FIRSTNAME, MIDNAME, LASTNAME, ADDRESS1, ADDRESS2, CITY, STATE, ZIP) VALUES (1, ‘088012444242119’, ‘General Practitioner’, ‘Ben’, ‘Franklin’, ‘Smith’, ‘911 Elm’, ‘Suite 201’, ‘Mayberry’, ‘VA’, 85201)

INSERT INTO PHYSICIAN (PHYSICIANID, PHYSICIANNUM, SPECIALTY, FIRSTNAME, MIDNAME, LASTNAME, ADDRESS1, ADDRESS2, CITY, STATE, ZIP) VALUES (2, ‘076012444242133’, ‘Rheumatologist’, ‘Samuel’, ‘Albert’, ‘Jones’, ‘911 Elm’, ‘Suite 223’, ‘Mayberry’, ‘VA’, 85201)

INSERT INTO PHYSICIAN (PHYSICIANID, PHYSICIANNUM, SPECIALTY, FIRSTNAME, MIDNAME, LASTNAME, ADDRESS1, ADDRESS2, CITY, STATE, ZIP) VALUES (3, ‘088012444242119’, ‘Rheumatologist’, ‘David’, ‘John’, ‘Hughes’, ‘911 Maple’, ‘Suite 101’, ‘Mayberry’, ‘VA’, 85201)

INSERT INTO PHYSICIAN (PHYSICIANID, PHYSICIANNUM, SPECIALTY, FIRSTNAME, MIDNAME, LASTNAME, ADDRESS1, ADDRESS2, CITY, STATE, ZIP) VALUES (4, ‘088012444242119’, ‘General Practicioner’, ‘Joseph’, ‘James’, ‘Balzanelli’, ‘911 Maple’, ‘Suite 202’, ‘Mayberry’, ‘VA’, 85201)

**DrugTherapy**

INSERT INTO DRUGTHERAPY (MEDICATIONID, FILLDATE, PATIENTID, DRUGID, PHYSICIANID, PHARMACYID, RXOROTC) VALUES (1,’10/01/2012’, 2, 1, 3, 3, ‘Rx’)

INSERT INTO DRUGTHERAPY (MEDICATIONID, FILLDATE, PATIENTID, DRUGID, PHYSICIANID, PHARMACYID, RXOROTC) VALUES (2,’10/07/2012’,2, 2, 3, 3, ‘Rx’)

INSERT INTO DRUGTHERAPY (MEDICATIONID, FILLDATE, PATIENTID, DRUGID, PHYSICIANID, PHARMACYID, RXOROTC) VALUES (3,’10/01/2012’,1, 2, 4, 2, ‘Rx’)

INSERT INTO DRUGTHERAPY (MEDICATIONID, FILLDATE, PATIENTID, DRUGID, PHYSICIANID, PHARMACYID, RXOROTC) VALUES (4,’10/01/2012’,1, 3, 4, 1, ‘Rx’)

**Drug**

INSERT INTO DRUG (DRUGID, BRANDNAME, GENERICNAME, PACKAGENAME, NDC11, DOSAGE, STRENGTH, DELETEDATE) VALUES (1, ‘Apidra’, ‘insulin glulisine’, ‘Apidra 50ml’, ‘01174362213’, ‘liquid’, ‘50ml’, Null)

INSERT INTO DRUG (DRUGID, BRANDNAME, GENERICNAME, PACKAGENAME, NDC11, DOSAGE, STRENGTH, DELETEDATE) VALUES (2, ‘Humalog’, ‘insulin lispro’, ‘Humalog 50ml’, ‘01174362244’, ‘liquid’, ‘50ml’, Null)

INSERT INTO DRUG (DRUGID, BRANDNAME, GENERICNAME, PACKAGENAME, NDC11, DOSAGE, STRENGTH, DELETEDATE) VALUES (3, ‘Humalog’, ‘insulin lispro’, ‘Humalog 75ml’, ‘01174362245’, ‘liquid’, ‘75ml’, Null)

INSERT INTO DRUG (DRUGID, BRANDNAME, GENERICNAME, PACKAGENAME, NDC11, DOSAGE, STRENGTH, DELETEDATE) VALUES (4, ‘Novolog’, ‘insulin aspart’, ‘Novolog 50ml’, ‘01174362255’, ‘liquid’, ‘50ml’, Null)

**Pharmacy**

INSERT INTO PHARMACY (PHARMACYID, NABPNUM, CHAIN, NAME, ADDRESS1, ADDRESS2, CITY, STATE, ZIP) VALUES (1, ‘006637’, ‘CVS’, ‘CVS 1033’, ‘13224 Raintree Dr’, ‘Suite 113’, ‘Mayberry’, ‘VA’, ‘85201’)

INSERT INTO PHARMACY (PHARMACYID, NABPNUM, CHAIN, NAME, ADDRESS1, ADDRESS2, CITY, STATE, ZIP) VALUES (2, ‘006638’, ‘CVS’, ‘CVS 1034’, ‘10577 Shea Blvd’, ‘Suite 122, ‘Mayberry’, ‘VA’, ‘85201’)

INSERT INTO PHARMACY (PHARMACYID, NABPNUM, CHAIN, NAME, ADDRESS1, ADDRESS2, CITY, STATE, ZIP) VALUES (3, ‘055433’, ‘Walgreens’, ‘Walgreens 112’, ‘10883 100th Street’, ‘’, ‘Mayberry’, ‘VA’, ‘85202’)

INSERT INTO PHARMACY (PHARMACYID, NABPNUM, CHAIN, NAME, ADDRESS1, ADDRESS2, CITY, STATE, ZIP) VALUES (4, ‘009331’, ‘Walmart’, ‘Walmart 009’, ‘1442 Jenan Dr’, ‘Suite 004’, ‘Mayberry’, ‘VA’, ‘85203’)

DeletedDate has been added to my Drug table only. It would not make sense to delete a Patient, or their corresponding Diagnosis history, Drug Therapy history, or to delete the physician who wrote the script or pharmacy that filled the script. Drugs become obsolete and superseded by new brands, generics, and NDCs, and therefore a Drug DeletedDate makes sense. The drug record and DrugID should never be physically deleted from the table, however, as that would leave orphaned DrugID records in the DrugTherapy table.

The front end application on my new database will only allow “active” DrugID’s to be added to new record entries in DrugTherapy. Obsolete DrugIDs will be marked with a DeletedDate, but the record will remain for historical purposes. Patients, physicians, and pharmacies should all remain for historical purposes, as well as the corresponding Patient Diagnosis, and Patient Drug Therapy. So these records do not require a DeletedDate.