ENTITY DICTIONARY:

Entity: Appointment
Description: A scheduled time for a patient to have when attending a clinic **Attributes:**
- Attended: Boolean, a value to see if the person is going to the appointment
- AppointmentID: Varchar(16) a unique identification number, Weak Key
- Date: date, A year, month, day, and time
- Reason: Varchar(100), brief description for the appointment

Entity: Business
Description: An organization that will interact with the medication. **Attributes:**
- Address: Varchar(100), a street, Zip code, city, and state
- CompanyID: Varchar(16), a unique identification number, Primary Key
- Name: Varchar(50), a name of the Company
- Phone Number: varchar(10), a 10-digit long number

Entity: Clinic
Description: A medical facility that holds appointments
with patients **Attributes:**
  • No attributes

Entity: Company Drug
Description: A drug that is a variation of a generic drug
Attributes:
  • CompanyID: Varchar(16) a unique identification number,
  Weak Key
  • DrugID: Varchar(16), a unique identification number,
  Weak key
  • Name: Varchar(40), a name to identify the drug

Entity: Doctor
Description: A medical professional that has acquired
a MD Degree **Attributes:**
  • MD Degree: Varchar(40), specifies the type of degree obtained.

Entity: Generic Drug
Description: The base form of a drug
Attributes:
  • DrugID: Varchar(16), a unique identification number, Primary
  Key • Side Effect: Varchar(100), a brief description of the
  possible side effects
Entity: Hospital
Description: A Medical Facility that provides Surgery
Attributes:
  • No Attributes

Entity: Medical Facility
Description: A business that provides varying options of
medical assistance **Attributes:**
  • No Attributes

Entity: Medical Professional
Description: An individual that provides healthcare services.
Attribute:
  • EmployeeID: Varchar(16), a unique identification number, Primary Key

Entity: Medical Research Facility
Description: A facility in which scientific test are run to understand new Medicines and Diseases. **Attributes:**
- Research Specialty: Varchar(50), the research type
- Funding: int, the amount of money received for research

Entity: Nurse Practitioner
Description: A Nurse who can treat patients without direct supervision of a doctor **Attributes:**
- Certification: Varchar(40), specifies the type of certification

Entity: Patient
Description: An individual seeking medical assistance
Attributes:
- ID: Varchar(16), a unique identification number, Primary Key
- Phone Number: varchar(10), a 10-digit long number
- Name: Varchar(20), the name of the individual
- Sex: Varchar(6), The biological sex of the individual
- Birthday: Varchar(8), The date, month, and year they were born
- Age: int, the age of the individual

Entity: Pharmaceutical Company
Description: A company that creates drugs.
Attribute:
- Country: Varchar(2), a 2-letter abbreviation of the country of operation

Entity: Pharmacy
Description: A location that people can purchase the drugs from
Attributes:
- Pharmacy License: Varchar(16), A unique license number
- Hours: Varchar(30), opening and closing times displayed

Entity: Physician's Assistant
Description: A person who assists a physician with their clinical procedures. **Attributes:**
- MS Degree: Varchar(40), specifies the type of degree obtained.
- Certification: Varchar(40), specifies the type of certification

Entity: Prescription
Description: A document that has a duration for a company drug to a patient **Attributes:**
- Duration: Varchar(20), establishes a period of time for the use of the drug
- PrescriptionID: Varchar(16), a unique identification number, Primary Key

Entity: Researcher
Description: An individual tasked with the further understanding a specific area **Attributes:**
- Research Area: Varchar(20), the research topic

Entity: Surgery
Description: A intensive medical procedure that a patient will receive that **Attributes:**
- Cost: int, the dollar amount of the surgery
- Date: date, the day,month, yesr, and time of the surgery
- Name: Varchar(20), the name of the surgery

Entity: Urgent Care
Description: A medical facility that provide walk-in availability for medical examination. **Attributes:**
- No attributes

Entity: Walk-In
Description: A doctor appointment that does not require pre-existing scheduling **Attributes:**
- AppointmentID: Varchar(16) a unique identification number, Weak Key
- Date: Varchar(20), the day, month, year, and time of the walk in
- Reason: Varchar(100), brief description for the appointment

Relation Dictionary

Relationship: Creates
Description: A patient attends a walk-in visit. Walk-in appointments are attended by patients.
Entities: patient, Walk-in

Cardinality: 1:N

Relationship: Fulfills
Description: A pharmacy can fulfill many prescriptions. Many prescriptions are fulfilled by a pharmacy. **Entities:** Pharmacy, Prescription
Cardinality: 1:N

Relationship: Has
Description: A patient can have many prescriptions. There are many prescriptions that can be owned by a patient.
Entities: Prescription, Patient
Cardinality: 1:N

Relationship: Has
Description: A patient can have many appointments. There are many appointments that a single patient can have.
Entities: Patient, Appointment
Cardinality: 1:N

Relationship: Has the properties of
Description: Many company drugs have the property of a generic drug. A generic drug can have the properties of many company drugs.
Entities: Company Drug, Generic Drug
Cardinality: 1:N

Relationship: Holds
Description: A clinic facility holds many appointments. There are many appointments that are held by a clinic.
Entities: Clinic, Appointment
Cardinality: 1:N

Relationship: Interacts with
Description: A generic drug interacts with many generic drugs. Many generic drugs interact with a generic drug.
Entities: Generic Drug, Generic Drug
Cardinality: 1:N
Attributes:
    •Severity: int, a number 1 to 10 describing the severity

•Cause: Varchar(20), describes the cause

Relationship: Is for
Description: A company drug is for many different prescriptions. There are several prescriptions that are for a company drug.
Entities: Company Drug, Prescription
Cardinality: 1:N

Relationship: Possesses
Description: Many pharmacies can be in possession of many different drugs. Many company drugs can be possessed by many different companies.
Entities: Pharmacy, Company Drug
Cardinality: M:N

Relationship: Prescribe(s)
Description: A medical professional can prescribe many prescriptions. Many prescriptions are prescribed by a medical professional.
Entities: Prescription, Medical Professional
Cardinality: 1:N

Relationship: Provides
Description: A hospital can provide many surgeries. There are many surgeries that are provided by a hospital.
Entities: Hospital, Surgery
Cardinality: 1:N

Relationship: Provides
Description: An urgent care facility can provide many walk-ins. There are many walk-ins that are provided by an urgent care facility.
Entities: Urgent Care, Walk-in
Cardinality: 1:N

Relationship: Receive
Description: A patient can receive many surgeries. There are many surgeries that can be received by a single patient.
Entities: Patient, Surgery
Cardinality: 1:N
Attributes:
•Date: date, the day, month, year

Relationship: Receives
Description: A pharmaceutical company can receive many company drugs. Many

company drugs are sent to a pharmaceutical company.
Entities: Company Drug, Pharmaceutical Company
Cardinality: 1:N
Attribute:

      •Date: date, the day, month, year

Relationship: Treats
Description: There are many medical professionals that treat many different patients. Many patients can be treated by many medical professionals.
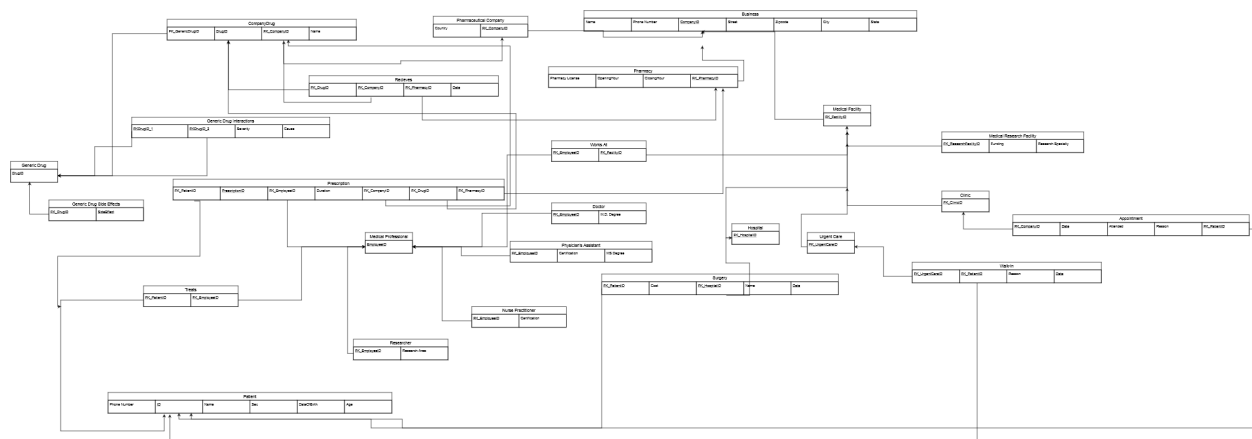**Entities:** Medical Professional, Patient
Cardinality: N:M

Relationship: Work(s) at
Description: There can be many medical professionals that work at different medical facilities. There are many medical facilities where many medical professionals work.
Entities: Medical Professional, Medical Facility
Cardinality: N:M

Schema Dictionary

Name: Appointment
Description: A scheduled time for a patient to have when attending a clinic
- **Date:** date, A year, month, day, and time, Primary Key
- **Foreign Key:** CompanyID, varchar(16), Primary Key
- **Foreign Key:** PatientID, varchar(16), Primary Key

- **Attended:** Boolean, a value to see if the person is going to the appointment
- **Reason:** Varchar(100), brief description for the appointment

Name: Business
Description: An organization that will interact with the medication.
- **CompanyID:** Varchar(16), a unique identification number, Primary Key
- **Name:** varchar(50), a name of the company
- **Phone Number:** Varchar(10), a 10-digit long number
- **Street:** varchar(50), the specific place of where the business is
- **Zipcode:** varchar(5), the area code of the business
- **City:** varchar(50), the town that the business resides in
- **State:** varchar(50), where the business is situated

Name: Clinic
Description: A medical facility that holds appointments with patients
- **Foreign Key:** ClinicID, varchar(16), Primary Key

Name: Company Drug
Description: A drug that is a variation of a generic drug
- **DrugID:** varchar(16), a unique identification number, Primary Key
- **Foreign Key:** CompanyID, varchar(16), Primary Key
- **Name:** varchar(40), a name to identify the drug
- **Foreign Key:** GenericDrugID, varchar(16)

Name: Doctor
Description: A medical professional that has acquired a MD Degree
- **Foreign Key:** EmployeeID, varchar(16), Primary Key
- **MD Degree:** varchar(40), specifies the type of degree obtained

Name: Generic Drug
Description: The base form of a drug
- **DrugID:** varchar(16), a unique identification number, Primary Key

Name: Generic Drug Interactions
Description: How the drug interacts with patients
- **Foreign Key:** DrugID_1, varchar(16), Primary Key
- **Foreign Key:** DrugID_2, varchar(16), Primary Key
- **Severity:** int, the level of danger for a drug, mild, moderate, severe, lethal
- **Cause:** varchar(100), the condition for the drug

Name: Generic Drug Side Effects
Description: The potential side effects that can occur with the generic drug
- **SideEffect:** varchar(100), a brief description of the possible side effects, Primary Key
- **Foreign Key:** DrugID, varchar(16), Primary Key

Name: Hospital
Description: A Medical Facility that provides Surgery
- **Foreign Key:** HospitalID, varchar(16), Primary Key

Name: Medical Facility
Description: A business that provides carrying options of medical assistance
- **Foreign Key:** FacilityID, varchar(16), PrimaryKey

Name: Medical Professional
Description: An individual that provides healthcare services
- **EmployeeID:** varchar(16), a unique identification number, Primary Key

Name: Medical Research Facility
Description: A facility in which scientific test are run to understand new Medicines and Diseases
- **Foreign Key:** ResearchFacilityID, varchar(16), Primary Key
- **Funding:** int, the amount of money received for research
- **Research Specialty:** varchar(50), the research type

Name: Nurse Practitioner
Description: A Nurse who can treat patients without direct supervision of a doctor
- **Foreign Key:** EmployeeID, varchar(16), Primary Key
- **Certification:** varchar(40), specifies the type of certification

Name: Patient
Description: An individual seeking medical assistance
- **ID:** varchar(16), a unique identification number, Primary Key
- **Phone Number:** varchar(10), a 10-digit long number
- **Name:** varchar(20), the name of the individual
- **Sex:** varchar(1), The biological sex of the individual
- **Birthday:** date, The date, month, and year they were born

- **Age:** int, the age of the individual

Name: Pharmaceutical Company
Description: A company that creates drugs
- **Foreign Key:** CompanyID, varchar(16), Primary Key
- **Country:** varchar(2), a 2-letter abbreviation of the country of operation

Name: Pharmacy
Description: A location that people can purchase the drugs from
- **Foreign Key:** PharmacyID, varchar(16), Primary Key
- **Pharmacy License:** varchar(16), a unique license number
- **OpeningHour:** varchar(30), the hour that the pharmacy is open
- **ClosingHour:** varchar(30), the hour that the pharmacy is closed

Name: Physician's Assistant
Description: A person who assists a physician with their clinical procedures.
- **Foreign Key:** EmployeeID, varchar(16), Primary Key
- **MS Degree:** Varchar(40), specifies the type of degree obtained.
- **Certification:** Varchar(40), specifies the type of certification

Name: Prescription
Description: A document that has a duration for a company drug to a patient
- **PrescriptionID:** Varchar(16), a unique identification number, Primary Key
- **Foreign Key:** PatientID, varchar(16), Primary Key
- **Foreign Key:** EmployeeID, varchar(16), Primary Key
- **Foreign Key:** CompanyID, varchar(16), Primary Key
- **Foreign Key:** DrugID, varchar(16), Primary Key
- **Foreign Key:** PharmacyID, varchar(16), Primary Key
- **Duration:** int, establishes a period of time for the use of the drug

Name: Receives
Description: A patient can receive many surgeries. There are many surgeries that can be received by a single patient.
- **Date:** date, the day, month, year, and time, Primary Key
- **Foreign Key:** DrugID, varchar(16), Primary Key
- **Foreign Key:** CompanyID, varchar(16), Primary Key
- **Foreign Key:** PharmacyID, varchar(16), Primary Key

Name: Researcher

Description: An individual tasked with the further understanding a specific area
- **Foreign Key:** EmployeeID, varchar(16), Primary Key
- **Research Aea:** Varchar(20), the research topic

Name: Surgery

Description: A intensive medical procedure that a patient will receive that
- **Date:** date, the day, month, year, and time of the Surgery, Primary Key
- **Foreign Key:** PatientID, varchar(16), Primary Key
- **Foreign Key:** HospitalID, varchar(16), Primary Key
- **Cost:** int, the dollar amount of the surgery
- **Name:** Varchar(20), the name of the surgery

Name: Treats

Description: There are many medical professionals that treat many different patients. Many patients can be treated by many medical professionals.
- **Foreign Key:** PatientID, varchar(16), Primary Key
- **Foreign Key:** EmployeeID, varchar(16), Primary Key

Name: Urgent Care

Description: A medical facility that provides walk-in availability for medical examination.
- **Foreign Key:** UrgentCareID, varchar(16), Primary Key

Name: Walk-in

Description: A doctor appointment that does not require pre-existing scheduling
- **Date:** date, the day, month, year, and time of the walk in, Primary Key
- **Foreign Key:** UrgentCareID, varchar(16), Primary Key
- **Foreign Key:** PatientID, varchar(16), Primary Key
- **Reason:** Varchar(100), brief description for the appointment

Name: Works At

Description: There can be many medical professionals that work at different medical facilities. There are many medical facilities where many medical professionals work.
- **Foreign Key:** EmployeeID, varchar(16), Primary Key
- **Foreign Key:** FacilityID, varchar(16), PrimaryKey

There were no changes made to any of the diagrams or dictionaries.