create table Patient(

number varchar(255) not null,

name varchar(255) not null,

birthday date not null,

address varchar(255),

primary key (number)

);

create table Doctor(

number varchar(255) not null,

doctor\_id varchar(255) not null,

primary key (doctor\_id),

foreign key (number) references Patient(number));

create table Device(

serialnum varchar(255),

manufacturer varchar(255),

model varchar(255),

primary key (serialnum, manufacturer)

);

create table Sensor(

snum varchar(255),

manuf varchar(255),

units varchar(50) not null,

primary key (snum, manuf),

foreign key (snum, manuf) references Device(serialnum, manufacturer));

create table Reading(

snum varchar(255) not null,

manuf varchar(255) not null,

datetime datetime not null,

value int,

primary key (snum, manuf, datetime),

foreign key (snum, manuf) references Device(serialnum, manufacturer));

create table Period(

start datetime not null,

endt datetime not null,

primary key (start, endt));

create table Wears(

start datetime not null,

endt datetime not null,

patient varchar(255) not null,

snum varchar(255) not null,

manuf varchar(255) not null,

primary key (start, endt, patient),

foreign key (start, endt) references Period(start, endt),

foreign key (patient) references Patient(number),

foreign key (snum, manuf) references Device(serialnum, manufacturer));

create table Request(

number int not null auto\_increment,

patient\_id varchar(255) not null,

doctor\_id varchar(255) not null,

date date not null,

primary key (number),

foreign key (patient\_id) references Patient(number),

foreign key (doctor\_id) references Doctor(doctor\_id));

create table Study(

request\_number int not null,

description varchar(255) not null,

date date,

doctor\_id varchar(255) not null,

serial\_number varchar(255) not null,

manufacturer varchar(255) not null,

primary key (request\_number, description),

foreign key (request\_number) references Request(number),

foreign key (doctor\_id) references Doctor(doctor\_id),

foreign key (serial\_number, manufacturer) references Device(serialnum, manufacturer));

create table Series(

series\_id varchar(255) not null,

name varchar(255),

base\_url varchar(255),

request\_number int not null,

description varchar(255) not null,

primary key (series\_id),

foreign key (request\_number, description) references Study(request\_number, description));

create table Element(

series\_id varchar(255) not null,

elem\_index int not null auto\_increment,

primary key (elem\_index , series\_id),

foreign key (series\_id) references Series(series\_id));

create table Region(

elem\_index int not null auto\_increment,

series\_id varchar(255) not null,

x1 int not null,

y1 int not null,

x2 int not null,

y2 int not null,

primary key (elem\_index, series\_id, x1, y1, x2, y2),

foreign key (elem\_index, series\_id) references Element(elem\_index, series\_id));