

**Alex
Johnson**

I pledge my honor that
I have abided by the
Stevens Honor Code.

Room #

Usage

Room

Assigned
to

Patient #

Patient

Name

Treats

Doctor Id

Doctor

Phone #

Name

Writes

Report #

Report

Date

2.1) Relations

room (roomNum:integer, usage:char(40))

patient (patientNum:integer, usage:name(40))

doctor (doctorID:integer, name:char(20), phoneNum:char(20))

report (reportNum:integer, date:char(20))

assignedTo(roomNum, patientNum)

FK: roomNum refers to Room(roomNum),

FK: patientNum refers to Patient(patientNum)

treats(patientNum, doctorId, phoneNum)

FK: patientNum refers to Patient(patientNum),

FK (phoneNum, doctorId) refers to Doctor(phoneNum,
doctorID)

writes(doctorId, phoneNum, reportNum)

FK: reportNum refers to Report(reportNum),

FK (phoneNum, doctorId) refers to Doctor(phoneNum,
doctorID)

2.2) Tables

```
CREATE TABLE room (  
    roomNum INT,  
    usage CHAR(40),  
    PRIMARY KEY (roomNum)  
);
```

```
CREATE TABLE patient (  
    patientNum INT,  
    usage CHAR(40),  
    PRIMARY KEY (patientNum)  
);
```

```
CREATE TABLE doctor (  
    doctorID INT,  
    name CHAR(20),  
    phoneNum CHAR(20) UNIQUE,  
    PRIMARY KEY (doctorID)  
);
```

```
CREATE TABLE report (  
    reportNum INT,  
    date CHAR(20),  
    PRIMARY KEY (reportNum)  
);
```

Tables Continued

```
CREATE TABLE assignedTo(  
    patientNum INT,  
    roomNum INT,  
    FOREIGN KEY (patientNum)  
    REFERENCES patient (patientNum),  
    FOREIGN KEY (roomNum)  
    REFERENCES room (roomNum)  
);  
  
CREATE TABLE treats(  
    patientNum INT,  
    doctorId INT,  
    phoneNum CHAR(20),  
    FOREIGN KEY (patientNum)  
    REFERENCES patient (patientNum),  
    FOREIGN KEY (doctorId, phoneNum)  
    REFERENCES doctor (doctorId, phoneNum)  
);  
  
CREATE TABLE writes(  
    doctorId INT,  
    phoneNum CHAR(20),  
    reportNum INT,  
    FOREIGN KEY (doctorId, phoneNum)  
    REFERENCES doctor (doctorId, phoneNum),  
    FOREIGN KEY (reportNum)  
    REFERENCES report (reportNum)  
);
```