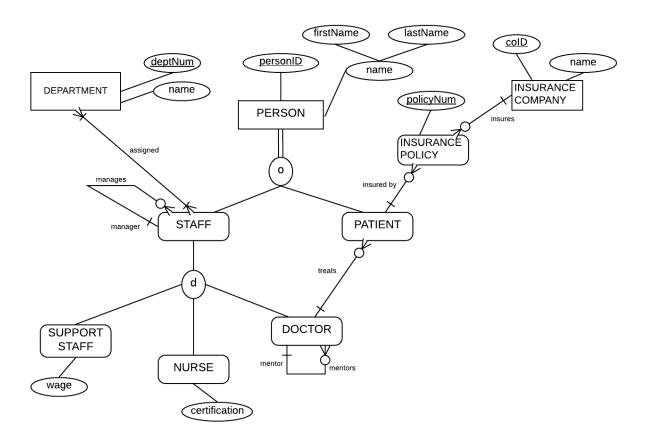# ISTE-230 Introduction to Database & Data Modeling

Practice Exercise # 11 – Implementing a Relational Schema using SQL

Name: _____

All assignments will be graded with regard to the standards that were discussed in class, which can be found in the Standards Content area.

Using the E-R diagram, transposed relations, and specification lists shown below, please compose a script named '*yourlastname*_PE11.sql'. Please include a comment with your name. That script will contain all of the commands necessary to create a database called '*yourlastname*_PE11' that includes all elements of the relational schema presented. The commands should be organized such that when the script is executed, no errors occur. You do not need to add data to any of the tables.

All primary key and foreign key constraints must be table level with names following the convention of *table_pk* for primary key constraints and *table_attr(s)_fk* for foreign key constraints. NOT NULL constraints should be used appropriately for native and foreign key attributes.

THE TRANSPOSED RELATIONS:

PERSON(personID, firstName, lastName)

- personID should be a whole number that is best suited to store up to 65,000. The value should start at 0 and be incremented by 1 for each new record added.
- firstName and lastName must hold between 1 and 25 characters.
- Add appropriate discriminator(s).

PATIENT(*patientID*, *doctorID)*

PATIENT(patientID) must exist in PERSON(personID)

PATIENT(doctorID) must exist in DOCTOR(doctorID)

STAFF(*staffID*, *managerID)*

STAFF(staffID) must exist in PERSON(personID)

STAFF(managerID) must exist in STAFF(staffID)

- Add appropriate discriminator(s).

DOCTOR(*doctorID*, *mentorID)*

DOCTOR(doctorID) must exist in STAFF(staffID)

DOCTOR(mentorID) must exist in DOCTOR(doctorID)

NURSE(*nurseID*, certification)

NURSE(nurseID) must exist in STAFF(staffID)

- certification should allow only the values of 'LPN', 'RN', and 'APRN'. A value is required.

SUPPORT_STAFF(*supportStaffID*, wage)

SUPPORT_STAFF(supportStaffID) must exist in STAFF(staffID)

- wage should be in the format of ##.##. A value is required.

DEPARTMENT(deptNum, name)

- deptNum should be a whole number that is best suited to store up to 200. The value should start at 0 and be incremented by 1 for each new record added.
- name must hold between 1 and 50 characters.

INSURANCE_COMPANY(coID, name)

- coID should be a whole number that is best suited to store up to 65,000. The value should start at 0 and be incremented by 1 for each new record added.
- name must hold between 1 and 80 characters.

INSURANCE_POLICY(policyNum, *patientID, insCoID*)

   INSURANCE_POLICY(patientID) must exist in PATIENT(patientID)

   INSURANCE_POLICY(insCoID) must exist in INSURANCE_COMPANY(coID)

   - policyNum should allow between 0 and 25 characters to be stored.

DEPARTMENT_STAFF(*deptNum, staffID*)

   DEPARTMENT_STAFF(deptNum) mei DEPARTMENT(deptNum)
   DEPARTMENT_STAFF(staffID) mei STAFF(staffID)