**LIS 5782 – DATABASE MANAGEMENT SYSTEMS**

**FALL 2020**

**PRACTICE TASK 6**

**To Do**

Normalize to 3NF the relations in the schema on pages 5-6 of GB 5. Remember to check the normal forms (NFs) of all new and revised relations. List the set of normalized relations in the format given below (notes are in blue) and in the Conventions document.

Format example

Listed 1st and underlined to indicate that it is this relation’s PK

Registration (recNo, year, term, courseID, sectionNo, studentID)

courseID and studentID are FKs (copies of other relations’ PKs) that are documented below Registration’s attribute list

Foreign key: courseID references Course.courseID

Foreign key: studentID references Student.studentID

FK relation containing dot PK of which the

PK of which the FK FK is a copy

is a copy

**Note on the PT**

Normalization is regarded by some as the most difficult part of database design. You’ll probably find it easier if you keep in mind that the whole point is to produce a set of relations that have as little redundancy as possible so that data updates can be made with minimal chance for errors and/or data loss. Do not worry if you cannot finish – give it a try and post questions to the PT6 forum or save them to discuss in the Collaborate session.

**Answer**

Address (adID, street, city, state, zip, adType)

Consult (conID, compName, exprt, deptID)

Foreign key: deptID references Dept.deptID

Dept (deptID, deptName)

EmpRec (empRNo, startDate, endDate, salary)

PersonRole (pRID, pID, pTypeID)

Foreign key: pID references Person.pID

Foreign key: pTypeID references PersonType.pTypeID

PersonType (pTypeID, pTypeDesc)

Phone (phoneID, number, phoneType, pID)

Foreign Key: pID references Person.pID

Position (posID, posTitle. posType)

Foreign key: posID references Person.posID

SalesTrans (salesTransID, sellDate, status, empID, cusID, itemID)

Foreign key: empID references Person.pID

Foreign key: cusID references Person.pD

Schedule (schdNo, Date, sTimeIn, sTimeOut, aTimeIn, aTimeOut, pID)

Foreign key: pID references Person.pID

SchdTask (stID, schdNo, taskID)

Foreign key: schdNo references Schedule.schdNo

Foreign key: taskID references Task.taskID

Stock (itemID, itemDesc, itemSize, itemColor, itemSex)

Supplier (sID, sName, adID)

Foreign key: adID references Address.adID

Task (taskID, taskDesc)