Logo, company name

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Lab 8: Improving Designs, Snow College Part 2

LIS464 – Applied Database Design

Information School, University of Wisconsin-Madison

**Deliverables:** This word document with questions answered uploaded to the Canvas assignment space.

**Description**: The lab has two components. The first part asks you to modify a bad design of a database, and the second part provides an opportunity for you to design a new database.

## Problem 1: Building Snow College

Given the following set of entities and relationship lines and symbols for Snow College, answer the following problem sets.

A diagram of a course

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**Problem 2: Creating Attributes and Keys**

For each entity, make a list of attributes using good naming conventions and table prefixes. Label PKs and include FKs where appropriate.

Semester:

SemesterID (PK)

SemesterName

SemesterYear

SemesterStartDate

SemesterEnddate

Student:

StudentID (PK)

StuFirstName

StuLastName

StuDOB

StuEmail

StuPhoneNum

StuUniversityID

Course:

CourseID (PK/FK)

RequisiteID (PK/FK)

CourseName

CourseCreditHrs

CourseLevel

CourseDescription

Class:

ClassID (PK)

CourseID (FK)

SemesterID (FK)

LecturerID (FK)

Lecturer:

LecturerID (PK)

LectFirstName

LectLastName

LectDOB

LectEmail

LectPhoneNum

LectUniversityID

Requisite:

RequisiteID (PK/FK)

CourseID (PK/FK)

StudentClasses:

StuClassID (PK)

StudentID (FK)

ClassID (FK)

Problem 3 Building four tables

3.1 In your DB2 space, create the following four interlinked tables, including both PKs and FKs, and the relationships between them using either command line or the GUI. (Note, you can build more if you want, but only these 4 are required)

Students, StudentClasses, Classes, Lecturers

3.2 Create the relationships between the tables. The tables must be directly linked using PK/FK pairs: . You should not enter any data.

3.3 Insert screen shots from Akira showing that you have successfully created each table in DB2 and imported the data. To do so, run a DESC command for each of the four tables and post the results. You do not need to enter any data. This command should show PKs marked as PRI and FKs marked as MUL.

Example good output from the DESC command that shows the PK (PRI) and FK (MUL):

A screenshot of a computer

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DESC Students

A screenshot of a computer

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DESC StudentClasses

A screenshot of a computer

Description automatically generated

DESC Classes

A screenshot of a computer

Description automatically generated

DESC Lecturers

A screenshot of a computer

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