Chapter 2 Review Questions Due: Sunday October 4, 2020 @ 11.59pm

- 1. What is the difference between a database schema and a database state?
- 2. Choose a database application with which you are familiar. Design a schema and show a sample database for that application, using the notation of Figures 1.2 and 2.1. What types of additional information and constraints would you like to represent in the schema? Think of several users of your database and design a view for each.

STUDENT

Name	Student_number	Class	Major
Smith	17	1	CS
Brown	8	2	CS

COURSE

Course_name	Course_number	Credit_hours	Department
Intro to Computer Science	CS1310	4	CS
Data Structures	CS3320	4	CS
Discrete Mathematics	MATH2410	3	MATH
Database	CS3380	3	CS

SECTION

Section_identifier	Course_number	Semester	Year	Instructor
85	MATH2410	Fall	07	King
92	CS1310	Fall	07	Anderson
102	CS3320	Spring	08	Knuth
112	MATH2410	Fall	08	Chang
119	CS1310	Fall	08	Anderson
135	CS3380	Fall	08	Stone

GRADE_REPORT

Student_number	Section_identifier	Grade
17	112	В
17	119	С
8	85	Α
8	92	Α
8	102	В
8	135	Α

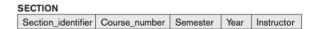
PREREQUISITE

Course_number Prerequisite_number CS3380 CS3320 CS3380 MATH2410 CS3320 CS1310

Figure 1.2 A database that stores student and course information.

Figure 2.1 Schema diagram for the database in Figure 1.2.

STUDENT Name | Student_number | Class | Major COURSE Course_name | Course_number | Credit_hours | Department PREREQUISITE Course_number | Prerequisite_number |



GRADE_REPORT Student_number | Section_identifier | Grade