The assignment will be graded out of 100 points.

Due date: Thursday, September 6, 2018, 11:59:59 PM

Submission Guidelines:

- The assignment should be submitted via Blackboard.
- The answers must be typed as a document.
- Make sure your name and your student ID are listed in your document.
- Name files as assignment1_<net-id>.<format>
- Accepted document formats are (.pdf, .doc or .docx). If you are using OpenOffice or LibreOffice, make sure to save as .pdf or .doc
- Please do not submit .txt files.
- If there are multiple files in your submission, zip them together as assignment1_<net-id>.zip and submit the .zip file.
- The maximum points one can get in this assignment is 100.
- You may resubmit the assignment at any time. Late submissions will be accepted at a penalty of 10 points per day. Maximum latency is 5 days beyond which a grade of zero will be assigned. This penalty will apply regardless of whether you have other excuses.

Assignment Specification:

1. Why would you choose a database system instead of simply storing data in operating system files? When would it make sense not to use a database system? (**15 pts.**)

2. Define the term DBA and what are the responsibilities of a DBA? (**15 pts.)**

3. Define the following terms (**15 pts.)**

    1. DBMS
    2. Database
    3. Meta-data
    4. Persistent object
    5. Transaction

4. What are the different types of database end users? Discuss the main activities of each (**15 pts.)**

5. Discuss the differences between database systems and information retrieval systems (**10 pts.)**

6. Specify all the relationships among the records of the database shown in the following figure. (**30 pts.**)

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	B
17	119	C
8	85	A
8	92	A
8	102	B
8	135	A

PREREQUISITE

Course_number	Prerequisite_number
CS3380	CS3320
CS3380	MATH2410
CS3320	CS1310

Figure 1.2
A database that stores student and course information.