Andrew Peklar

Prof. Sun

CSC 134-01

20 November, 2016

<div align="center">Homework No 2: 5_output.pdf</div>

QUERY 1

Retrieve information (SSN, first name and last name) about students who take the course 'Database

Management Systems'

```
SELECTSSN, FirstName, LastName
FROM        STUDENT
WHERE       SSN IN(
                SELECTSSN
                FROM        ENROLLS
                WHERE       CourseNo IN(
                                SELECTCourseNo
                                FROM        COURSE
                                WHERE       CourseName = "Database
                                            Management Systems"));
```

```
 QUERY 1
+-----------+-----------+----------+
| SSN       | FirstName | LastName |
+-----------+-----------+----------+
| 010578934 | Andrew    | Peklar   |
| 020563849 | Megan     | Fox      |
| 030674531 | Eric      | Peck     |
| 040585736 | Mike      | Tyson    |
+-----------+-----------+----------+
4 rows in set (0.00 sec)
```

QUERY 2

Courses with more than 2 sections (CourseName, Num)

```
SELECTCourseName, COUNT(*)
FROM        COURSE, SECTION
WHERE       COURSE.CourseNo = SECTION.CourseNo
GROUP BY    SECTION.CourseNo
HAVING      COUNT(*);
```

```
 QUERY 2
+------------------------------------+----------+
| CourseName                         | COUNT(*) |
+------------------------------------+----------+
| Data Structures and Algorithms     |        3 |
| Object-Oriented Computer Graphics  |        3 |
| Database Management Systems        |        3 |
| Computer Organization              |        4 |
+------------------------------------+----------+
4 rows in set (0.00 sec)
```

QUERY 3

List each course number, name, and section number which have 3 or more students in the section

```
SELECTCourseNo, CourseName, SectionNo, COUNT(*)
FROM        ((SECTION NATURAL JOIN ENROLLS) NATURAL JOIN COURSE)
GROUP BY    CourseNo, CourseName, SectionNo
HAVINGCOUNT(SSN) >=3;
```

```
  QUERY 3
+---------+-----------------------------+-----------+
| CourseNo | CourseName                 | SectionNo |
+---------+-----------------------------+-----------+
| CSC130   | Data Structures and Algorithms | 01     |
+---------+-----------------------------+-----------+
1 row in set (0.00 sec)
```

QUERY 4

SSN, FirstName, LastName of students with at least 3 A grades from Exams.

```
SELECTSSN, FirstName, LastName, COUNT(SSN)
FROM        (STUDENT NATURAL JOIN TAKES)
WHERE Result = 'A'
GROUP BY    SSN, FirstName, LastName
HAVINGCOUNT(SSN) >=3;
```

```
  QUERY 4
+-----------+-----------+-----------+
| SSN       | FirstName | LastName  |
+-----------+-----------+-----------+
| 010578934 | Andrew    | Peklar    |
+-----------+-----------+-----------+
1 row in set (0.00 sec)
```

QUERY 5

Exam Number, Exam Date, Course Number, Section Number for Exams in building RVR + Capacity

```
SELECTExamNo, E_Date, CourseNo, SectionNo, Capacity
FROM        ((EXAM NATURAL JOIN CONDUCTEDIN) NATURAL JOIN CLASSROOM)
WHERE       Building = 'RVR'
GROUP BY    ExamNo, E_Dtea, CourseNo, SectionNo;
```

```
  QUERY 5
+---------+------------+----------+-----------+
| ExamNo  | E_Date     | CourseNo | SectionNo |
+---------+------------+----------+-----------+
| Exam_01 | 2016/11/01 | CSC130   | 01        |
| Exam_01 | 2016/11/02 | CSC130   | 02        |
| Exam_01 | 2016/11/03 | CSC130   | 03        |
| Exam_02 | 2016/10/04 | CSC133   | 01        |
| Exam_02 | 2016/10/05 | CSC133   | 02        |
| Exam_02 | 2016/10/06 | CSC133   | 03        |
| Exam_03 | 2016/09/07 | CSC134   | 01        |
| Exam_03 | 2016/09/08 | CSC134   | 02        |
| Exam_03 | 2016/09/09 | CSC134   | 03        |
| Exam_04 | 2016/08/10 | CSC137   | 01        |
| Exam_04 | 2016/08/11 | CSC137   | 02        |
| Exam_04 | 2016/08/12 | CSC137   | 03        |
+---------+------------+----------+-----------+
12 rows in set (0.00 sec)
```

QUERY 6

SSN, FirstName, LastName of Students enrolled in both CSC133 and CSC137

```
SELECTSSN, FirstName, LastName
FROM        (Student NATURAL JOIN (Section NATURAL JOIN Enrolls))
WHERE       CourseNo = 'CSC137' AND SSN IN (
                        SELECTSSN
                        FROM        (Student NATURAL JOIN (Section NATURAL
                                    JOIN Enrolls))
                        WHERE   CourseNo = 'CSC133');
```

```
   QUERY 6
+----------+-----------+----------+
| SSN      | FirstName | LastName |
+----------+-----------+----------+
| 050545975 | Hellen   | Keller   |
+----------+-----------+----------+
1 row in set (0.00 sec)
```

QUERY 7

SSN, FirstName, LastName, SectionNo, Instructor for Data Structure and Analysis

```
SELECTSSN, FirstName, LastName, SectionNo, Instructor
FROM        (COURSE NATURAL JOIN (SECTION NATURAL JOIN (STUDENT NATURAL JOIN
            ENROLLS)))
WHERE       CourseName = 'Data Structures and Algorithms'
GROUP BY    SSN, FirstName, LastName, SectionNo, Instructor;
```

```
   QUERY 7
+----------+-----------+----------+-----------+----------------+
| SSN      | FirstName | LastName | SectionNo | Instructor     |
+----------+-----------+----------+-----------+----------------+
| 010578934 | Andrew   | Peklar   | 01        | Dale Fletter   |
| 020563849 | Megan    | Fox      | 01        | Dale Fletter   |
| 030674531 | Eric     | Peck     | 02        | Roger Williams |
| 040585736 | Mike     | Tyson    | 03        | Dale Fletter   |
| 050545975 | Hellen   | Keller   | 01        | Dale Fletter   |
+----------+-----------+----------+-----------+----------------+
5 rows in set (0.00 sec)
```