

DASC 5333 Database Systems for Data Science
CSCI 4333 Design of Database Systems
Spring 2023
Homework #5

More SQL

Use the relation schema for the Clear Lake Youth Swimming Team Management System (SWIM) project as the basis of this homework. Create SWIM DB in MySQL by using the script: createSwimDB.sql.txt.

Provide the SQL statements for the following queries. Please pay attention to the column names and formats. The orders of the results are not important unless explicitly stated otherwise.

(1) List the id, fname, lname of every caretaker who has not committed to the task 'Officiating' (as shown in the commitment table).

```
+-----+-----+-----+
| CT_Id | LName | FName |
+-----+-----+-----+
| 2     | Khan  | Joseph |
| 3     | Khan  | Jim     |
| 6     | Smith | Benjamin |
+-----+-----+-----+
3 rows in set (0.002 sec)
```

(2) List the id, fname, lname of every caretaker who has committed to at least one task.

```
+-----+-----+-----+
| CT_Id | LName | FName |
+-----+-----+-----+
| 1     | Khan  | Azalea |
| 2     | Khan  | Joseph |
| 3     | Khan  | Jim     |
| 4     | Johnson | Katie  |
| 5     | Johnson | Elizabeth |
+-----+-----+-----+
5 rows in set (0.000 sec)
```

(3) List the names of all caretakers who committed to two or more tasks in the following manners. List also the ids of all the committed tasks.

```
+-----+-----+-----+
| CT_Id | caretaker | task ids |
+-----+-----+-----+
| 1     | Azalea Khan | 1; 3; 4; 5 |
| 2     | Joseph Khan | 2; 5 |
| 4     | Katie Johnson | 1; 4; 5 |
| 5     | Elizabeth Johnson | 2; 4; 6 |
+-----+-----+-----+
4 rows in set (0.000 sec)
```

(4) List the id, fname, lname of every 'enthusiastic' caretaker in the following manner: a person who

- [1] is a primary caretaker,
- [2] is a secondary caretaker, and
- [3] has committed to two or more tasks.

```

+-----+-----+-----+
| CT_Id | enthusiastic caretaker | task ids |
+-----+-----+-----+
| 1 | Azalea Khan | 1; 3; 4; 5 |
| 2 | Joseph Khan | 2; 5 |
| 5 | Elizabeth Johnson | 2; 4; 6 |
+-----+-----+-----+
3 rows in set (0.001 sec)

```

(5) List all caretaker names, with their committed task names and the event names of the commitments in the following manner. Note that caretakers without any committed task should also be shown. E.g. Benjamin Smith.

```

+-----+-----+-----+-----+
| LName | FName | Task Name | Meet Title |
+-----+-----+-----+-----+
| Khan | Azalea | Officiating | UHCL Open |
| Khan | Azalea | Diecting traffic | UHCL Open |
| Khan | Azalea | Officiating | Shell Trial |
| Khan | Azalea | Recording | Shell Trial |
| Khan | Joseph | Recording | UHCL Open |
| Khan | Joseph | Recording | Shell Trial |
| Khan | Jim | Recording | UHCL Open |
| Johnson | Katie | Officiating | UHCL Open |
| Johnson | Katie | Officiating | Shell Trial |
| Johnson | Katie | Recording | Shell Trial |
| Johnson | Elizabeth | Recording | UHCL Open |
| Johnson | Elizabeth | Officiating | Shell Trial |
| Johnson | Elizabeth | Diecting traffic | Shell Trial |
| Smith | Benjamin | | |
+-----+-----+-----+-----+
14 rows in set (0.000 sec)

```

(6) List the ids, names of caretakers, and their numbers of commitments. in the meet 'UHCL Open' in the following manner and order (by the descending order of the number of committed tasks in UHCL Open.)

```

+-----+-----+-----+
| CT_Id | caretaker | Number of committed tasks in UHCL Open |
+-----+-----+-----+
| 1 | Azalea Khan | 2 |
| 2 | Joseph Khan | 1 |
| 3 | Jim Khan | 1 |
| 4 | Katie Johnson | 1 |
| 5 | Elizabeth Johnson | 1 |
| 6 | Benjamin Smith | 0 |
+-----+-----+-----+
6 rows in set (0.001 sec)

```

(7) (Bonus: 20%) For every swimmer, list the id, name, number of events participated in, the number of levels achieved (in the level history), and the number of secondary caretakers (as in the othercaretaker table) in the following manner.

```
+-----+-----+-----+-----+-----+
| SwimmerId | swimmer          | # historical levels | # events participated | # secondary caretakers |
+-----+-----+-----+-----+-----+
|          1 | Bobby Khan      |          3         |          6           |          2           |
|          2 | Billy Khan      |          2         |          4           |          1           |
|          3 | Nina Khan       |          2         |          5           |          2           |
|          4 | Clara Johnson   |          3         |          4           |          1           |
|          5 | Philip Johnson  |          2         |          4           |          0           |
|          6 | Joe Fen         |          2         |          1           |          0           |
+-----+-----+-----+-----+-----+
6 rows in set (0.001 sec)
```

Turn in DASC5333_<<Section #>>_H5_<<Your name>>_<<Your Student ID>>.sql.txt (or CSCI4333 as the prefix) and submit your homework through Blackboard. It must be done in a text format executable by the TA using the source command, or using copying and pasting into a SQL client.