

DASC 5333 Database Systems for Data Science
CSCI 4333 Design of Database Systems
Fall 2024
Homework #4 More SQL

Use the relation schema for the Clear Lake Youth Swimming Team Management System (SWIM) project as the basis of this homework. Please see swim: <https://dcm.uhcl.edu/yue/courses/joinDB/Fall2024/>.

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 names, current level ids and levels of all swimmers with the last name 'Khan' ans have participated in an event in the meet 'UHCL Open' in the following manner.

```
+-----+-----+-----+-----+
| LName | FName | currentLevelId | level |
+-----+-----+-----+-----+
| Khan  | Billy |                2 | Blue  |
| Khan  | Nina  |                2 | Blue  |
| Khan  | Bobby |                3 | Yellow|
+-----+-----+-----+-----+
3 rows in set
```

(2) List the swimmerId of all swimmers and the ids of their caretakers. Include the results for both primary and other caretakers.

```
+-----+-----+
| swimmerId | ct_id |
+-----+-----+
|          1 |      1 |
|          2 |      1 |
|          3 |      2 |
|          4 |      4 |
|          6 |      4 |
|          5 |      5 |
|          1 |      2 |
|          1 |      3 |
|          2 |      3 |
|          3 |      1 |
|          3 |      3 |
|          4 |      5 |
+-----+-----+
12 rows in set
```

(3) List the ids and names of the caretakers who care for both swimmers with id 2 and 3 respectively. You may use the code for Q2 (the result of question (d) in your query.

```
+-----+-----+
| ct_id | caretaker |
+-----+-----+
```

```

|      1 | Azalea Khan |
|      3 | Jim Khan    |
+-----+-----+
2 rows in set

```

(4) List the ids and names of the caretakers and the number of swimmers they care for (including both as the primary caretaker or alternative caretaker).

```

+-----+-----+-----+
| ct_id | caretaker      | number of swimmers |
+-----+-----+-----+
|      1 | Azalea Khan    |          3          |
|      2 | Joseph Khan    |          2          |
|      3 | Jim Khan       |          3          |
|      4 | Katie Johnson  |          2          |
|      5 | Elizabeth Johnson |          2          |
+-----+-----+-----+
5 rows in set

```

(5) For each meet, list the meet id, meet title, and the number of 100m events (i.e. event with titles containing the word '100m') in the following manner. Only list those meets with 2 or less 100m events.

```

+-----+-----+-----+
| meetId | title           | Number of 100m events |
+-----+-----+-----+
|      1 | UHCL Open      |          2            |
|      3 | Clear Lake Contest |          0            |
+-----+-----+-----+
2 rows in set

```

(6) For each meet and event, list the meet id and title, the event id and title, and the ids and names of swimmers in the following manner.

```

+-----+-----+-----+-----+-----+
| meetId | title           | eventId | title           | swimmers (id:name) |
+-----+-----+-----+-----+-----+
|      1 | UHCL Open      |      1 | 50M Butterfly  | 3: Nina Khan; 5: Philip Johnson; 2: Billy Khan |
|      1 | UHCL Open      |      2 | 100M Freestyle | 2: Billy Khan; 5: Philip Johnson; 3: Nina Khan |
|      1 | UHCL Open      |      3 | 100M Butterfly | 4: Clara Johnson; 1: Bobby Khan |
|      1 | UHCL Open      |      4 | 200M Freestyle | 1: Bobby Khan |
|      2 | Shell Trial     |      5 | 50M Butterfly  | 4: Clara Johnson; 5: Philip Johnson; 2: Billy Khan; 3: Nina Khan |
|      2 | Shell Trial     |      6 | 100M Freestyle | 5: Philip Johnson; 2: Billy Khan; 3: Nina Khan |
|      2 | Shell Trial     |      7 | 100M Butterfly | 1: Bobby Khan; 4: Clara Johnson |
|      2 | Shell Trial     |      8 | 200M Freestyle | 1: Bobby Khan; 4: Clara Johnson |
|      2 | Shell Trial     |      9 | 100M Breaststroke | 3: Nina Khan; 1: Bobby Khan |
|      3 | Clear Lake Contest |     10 | 200M Backstroke | 6: Joe Fen |
|      3 | Clear Lake Contest |     11 | 50M Breaststroke | 1: Bobby Khan |
+-----+-----+-----+-----+-----+
11 rows in set

```

(7) List the ids and names of the swimmers who have participated in the meet 'UHCL Open' but not the meet 'Clear Lake Contest', in the following manner.

```

+-----+-----+
| swimmerId | swimmer      |
+-----+-----+
|          2 | Billy Khan   |
|          3 | Nina Khan    |
|          5 | Philip Johnson |
|          4 | Clara Johnson |
+-----+-----+

```

4 rows in set

Turn in DASC5333_<<Section #>>_H4_<<Your name>>_<<Your Student ID>>.sql.txt (or CSCI4333 as the prefix) and submit your homework through Canvas. It must be done in a text format. The file should be executable by the TA using the source command or using copying and pasting into a SQL client.