

**DASC 5333 Database Systems for Data Science**  
**CSCI 4333 Design of Database Systems**  
**Spring 2025**  
**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/Spring2025/>.

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 all swimmer names and their primary caretaker names in the following format.

```
+-----+-----+
| swimmer      | Primary Caretaker |
+-----+-----+
| Bobby Khan   | Azalea Khan       |
| Billy Khan   | Azalea Khan       |
| Nina Khan    | Joseph Khan       |
| Clara Johnson| Katie Johnson     |
| Philip Johnson| Elizabeth Johnson |
| Joe Fen      | Katie Johnson     |
+-----+-----+
6 rows in set
```

(2) List the names of the swimmers with current level (i.e. currentLevelId) is Yellow or above. Note that the level of Yellow has a LevelId of 3. However, you should not use 3 in your query. You should use "Yellow".

```
+-----+-----+-----+
| LName  | FName | currentLevelId |
+-----+-----+-----+
| Khan   | Bobby | 3              |
| Johnson| Clara | 3              |
| Fen    | Joe   | 5              |
+-----+-----+-----+
3 rows in set
```

(3) List the swimmer names (in a single column) that have participated in an event of a meet in a venue with a phone with an area code of 713 in the following format.

```
+-----+-----+-----+-----+
| Swimmer      | Meet              | Venue | phone      |
+-----+-----+-----+-----+
| Clara Johnson| Shell Trial       | CLHS  | 713-126-4544 |
| Billy Khan   | Shell Trial       | CLHS  | 713-126-4544 |
| Nina Khan    | Shell Trial       | CLHS  | 713-126-4544 |
| Philip Johnson| Shell Trial       | CLHS  | 713-126-4544 |
| Bobby Khan   | Shell Trial       | CLHS  | 713-126-4544 |
| Joe Fen      | Clear Lake Contest| CLHS  | 713-126-4544 |
| Bobby Khan   | Clear Lake Contest| CLHS  | 713-126-4544 |
```

(4) List all swimmers (their names, levels AND event titles) who have participated in events in the meet 'UHCL Open' in the following manners.

```

+-----+-----+-----+
| Swimmer in UHCL Open | level | event          |
+-----+-----+-----+
| Billy Khan           | Blue  | 50M Butterfly |
| Nina Khan            | Blue  | 50M Butterfly |
| Philip Johnson       | Blue  | 50M Butterfly |
| Nina Khan            | Blue  | 100M Freestyle|
| Billy Khan           | Blue  | 100M Freestyle|
| Philip Johnson       | Blue  | 100M Freestyle|
| Bobby Khan           | Yellow| 100M Butterfly|
| Clara Johnson        | Yellow| 100M Butterfly|
| Bobby Khan           | Yellow| 200M Freestyle|
+-----+-----+-----+
9 rows in set

```

(5) List all swimmers with their primary caretakers and their other caretakers in the following manner. Order the result by last names and then first names of the swimmers.

```

+-----+-----+-----+
| Swimmer           | Primary Caretaker | Other Caretakers |
+-----+-----+-----+
| Joe Fen           | Katie Johnson     |                   |
| Clara Johnson     | Katie Johnson     | Elizabeth Johnson|
| Philip Johnson    | Elizabeth Johnson |                   |
| Billy Khan        | Azalea Khan       | Jim Khan          |
| Bobby Khan        | Azalea Khan       | Jim Khan; Joseph Khan|
| Nina Khan         | Joseph Khan       | Jim Khan; Azalea Khan|
+-----+-----+-----+
6 rows in set

```

(6) List the swimmers (names and their number of participated events) who have participated in two or more events in 'UHCL Open' in the following format.

```

+-----+-----+
| Swimmer           | Number of Events in UHCL Open |
+-----+-----+
| Billy Khan        | 2 |
| Bobby Khan        | 2 |
| Nina Khan         | 2 |
| Philip Johnson    | 2 |
+-----+-----+
4 rows in set

```

(7) List the name of the swimmers who have participated in event 3 but not event 4.

```

+-----+
| swimmer |
+-----+
| Clara Johnson |
+-----+

```

1 row in set

(8) List the titles of the events with the least number of participants in the following format.

```
+-----+-----+
| Least popular event          | number of swimmers |
+-----+-----+
| UHCL Open: 200M Freestyle   |          1 |
| Clear Lake Contest: 200M Backstroke |          1 |
| Clear Lake Contest: 50M Breaststroke |          1 |
+-----+-----+
```

3 rows in set

Submit h4.sql.txt 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.