University of Central Florida

CGS 2545 Database Concepts

Assignment 9
Cruise Database Project
Due, Friday, April 7, 2022 for maximum 100%
Saturday, April 8, 2022 for maximum 90%
Sunday, April 9, 2022 for maximum 80%
Monday, April 10, 2022 for maximum 70%

Deliverables
To complete this assignment, submit the following **three** files to Webcourses:
1. An SQL file (i.e. save the file with file extension **.sql**) containing the SQL written to perform the tasks. Example: Assignment2Code.sql
2. An exported SQL file using MySQL Workbench Data Export option. The file name should be the following format: **FirstnameLastnameAssignment#.sql**. Example: KarinMarkleAssignment2.sql
3. An ER Diagram generated by MySQL Workbench. The file name should be the following format: **FirstnameLastnameAssignment#ERDiagram.mwb**. Example: KarinMarkleAssignment2ERDiagram.mwb

Assignment Scope
1. Use database **cruise**.
2. Create tables in the database.
3. Insert data into tables.
4. Write join queries.
5. Create views.
6. Generate an ER diagram.

References
1. 10_SQL Select Database.pptx
2. 11_SQL Create Table.pptx
3. 13_SQL Insert Query.pptx
4. 26_AdvancedSQL Using Joins.pptx
5. 33_AdvancedSQL Using Views.pptx

To access the DBMS
1. Launch the MySQL Command Line Client executable or MySQL Workbench
2. Login in using the password set during installation "cgs2545" or your chosen password.

Tasks

Query Description
1. Change to use the database **cruise**

a. Create a table named **timesheet** with the following attributes, data types, and constraints:
    a. **ID**, integer, not null, auto increment
    b. **crewId**, integer, not null
    c. **sun**, integer, not null, default value 0
    d. **mon**, integer, not null, default value 0
    e. **tues**, integer, not null, default value 0
    f. **wed**, integer, not null, default value 0
    g. **thurs**, integer, not null, default value 0
    h. **fri**, integer, not null, default value 0
    i. **sat**, integer, not null, default value 0
    j. primary key is the **ID** field
    k. foreign key on field **crewId**, references table **crew**, column **id**

2. Insert data in file **timesheet.sql** into table **timesheet**

3. Create view **timesheetView** with a join query to join tables **crew** and **timesheet** to do the following:
    a. Concatenate columns **firstName** and **lastName** from table **crew** as **Crew Member**
    b. Sum columns **sun**, **mon**, **tues**, **wed**, **thurs**, **fri**, and **sat** from table **timesheet** as **Hours**
    c. Order by column **lastName** from table **crew**

4. Generate an ER Diagram using MySQL Workbench, save as a .mwb file
5. Export database Cruise using MySQL Workbench, save as a .sql file
6. Provide written source code in a .sql file

Test Cases	
Test Case 1	select * from **timesheet** should look similar to Figure 1
Test Case 2	select * from **timesheetView** should look similar to Figure 2
Test Case 3	ER Diagram should look like Figure 3

ID	crewId	sun	mon	tues	wed	thurs	fri	sat
1	287	0	8	8	8	8	8	0
2	285	6	6	6	6	6	5	0
3	281	0	12	6	10	6	8	0
4	263	10	8	0	0	8	10	10
5	259	8	8	0	0	8	10	6
6	255	0	12	6	10	6	8	0
7	237	8	8	0	0	8	10	6
8	235	0	8	8	8	8	8	0
9	233	10	8	0	0	8	10	10
10	231	12	0	12	0	4	12	0
11	229	0	12	6	10	6	8	0
12	227	12	0	12	0	4	12	0
13	225	6	6	6	6	6	5	0
14	223	8	8	0	0	8	10	6
15	221	0	8	8	8	8	8	0
16	219	10	8	0	0	8	10	10
17	215	12	0	12	0	4	12	0
18	213	0	12	6	10	6	8	0
19	211	7	4	9	0	0	10	3
20	205	6	6	6	6	6	5	0
21	201	12	0	12	0	4	12	0
22	189	0	8	8	8	8	8	0
23	169	7	4	9	0	0	10	3
24	167	10	8	0	0	8	10	10
25	127	7	4	9	0	0	10	3
26	121	0	12	6	10	6	8	0
27	119	12	0	12	0	4	12	0
28	117	6	6	6	6	6	5	0
29	113	7	4	9	0	0	10	3
30	109	0	8	8	8	8	8	0
31	105	10	8	0	0	8	10	10
32	91	12	0	12	0	4	12	0
33	85	6	6	6	6	6	5	0
34	83	8	8	0	0	8	10	6
35	81	0	8	8	8	8	8	0
36	79	10	8	0	0	8	10	10
37	65	0	12	6	10	6	8	0
38	33	6	6	6	6	6	5	0
39	31	8	8	0	0	8	10	6
40	29	0	8	8	8	8	8	0

Figure 1 Table timesheet

```
+--------------------+-------+
| Crew Member        | Hours |
+--------------------+-------+
| Ethan Ali          |    40 |
| Oliwier Barnett    |    33 |
| Sara Barron        |    42 |
| Ty Bell            |    40 |
| Leo Bird           |    40 |
| Awais Carrillo     |    40 |
| Laila Christensen  |    42 |
| Avaya Clarke       |    46 |
| Aamina Dillon      |    40 |
| Fern Garner        |    40 |
| Louis Giles        |    40 |
| Raja Glass         |    40 |
| Brodie Gordon      |    40 |
| Douglas Guthrie    |    40 |
| Umaiza Heath       |    35 |
| Ernest Higgins     |    40 |
| Kaya Hodge         |    46 |
| Mathew Horton      |    33 |
| Floyd Johns        |    35 |
| Haniya Kaiser      |    35 |
| Kamil Lozano       |    46 |
| Dawson Marquez     |    33 |
| Jemima Miller      |    46 |
| Raheem Montgomery  |    46 |
| Rebekah Morgan     |    33 |
| Lauren Morton      |    40 |
| Lyra Murphy        |    40 |
| Victor Newman      |    40 |
| Alissa Ortiz       |    46 |
| Nicholas Pena      |    40 |
| Alexa Preston      |    35 |
| Igor Prince        |    42 |
| Dante Rennie       |    40 |
| Brian Roberts      |    40 |
| Paris Solis        |    42 |
| Malik Vincent      |    42 |
| Krystal Walters    |    35 |
| Honey Warren       |    42 |
| Thomas Waters      |    35 |
| Harvey West        |    40 |
+--------------------+-------+
```

Figure 2 View timesheetView

Figure 3 ER Diagram