

# University of Central Florida

DEPARTMENT OF ELECTRICAL ENGINEERING & COMPUTER SCIENCE

## COMPUTER SCIENCE DIVISION

### CGS 2545 Database Concepts

#### Assignment 8

#### Cruise Database Project

**Due, Friday, March 31, 2023 for maximum 100%**

**Saturday, April 1, 2023 for maximum 90%**

**Sunday, April 2, 2023 for maximum 80%**

**Monday, April 3, 2023 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.
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.
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. 33\_AdvancedSQL Using Views.pptx
5. 48\_AdvancedSQL String Functions.pptx

#### To access the DBMS

1. Launch the MySQL Command Line Employee 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 <b>cruise</b>
Create new table
2. Create table named <b>crewExcursion</b> with the following attributes, data types, and constraints: <ol style="list-style-type: none"> <li><b>crewId</b>, integer, not null</li> <li><b>excursionId</b>, integer, not null</li> <li>primary key is fields <b>crewId</b> and <b>excursionId</b></li> <li>foreign key on field <b>crewId</b>, references table <b>crew</b>, column <b>id</b></li> <li>foreign key on field <b>excursionId</b>, references table <b>excursion</b>, column <b>id</b></li> </ol>
Populate tables
3. Insert into table <b>crewExcursion</b> data in file <b>crewExcursion.sql</b>
Create views
4. Create view <b>crewPositionView</b> with a join query to join tables <b>crew</b> , <b>position</b> , and <b>crewPosition</b> to do the following: <ol style="list-style-type: none"> <li>Concatenate columns <b>firstName</b> and <b>lastName</b> from table <b>crew</b> as <b>Crew Member</b></li> <li>Column <b>phone</b> from table <b>crew</b> as <b>Crew Phone</b></li> <li>Column <b>description</b> from table <b>position</b> as <b>Crew Position</b></li> <li>Order by column <b>description</b> from table <b>position</b> and column <b>lastName</b> from table <b>crew</b></li> </ol>
5. Create view <b>excursionView</b> with a join query to join tables <b>excursion</b> , <b>foodBeverage</b> , <b>type</b> , <b>size</b> , and <b>activityLevel</b> to do the following: <ol style="list-style-type: none"> <li>Column <b>name</b> from table <b>excursion</b> as <b>Excursion</b></li> <li>Column <b>exSize</b> from table <b>size</b> as <b>Size</b></li> <li>Column <b>exType</b> from table <b>type</b> as <b>Type</b></li> <li>Column <b>offering</b> from table <b>foodBeverage</b> as <b>Food/Beverage</b></li> <li>Column <b>exLevel</b> from table <b>activityLevel</b> as <b>Activity Level</b></li> <li>Column <b>durationMinutes</b> from table <b>excursion</b> as <b>Duration in Minutes</b></li> <li>Column <b>price</b> from table <b>excursion</b> as <b>Price</b></li> <li>Order by column <b>exLevel</b> from table <b>activityLevel</b></li> </ol>
6. Create view <b>bookedExcursionView</b> with a join query to join tables <b>crew</b> , <b>passenger</b> , <b>excursion</b> , <b>passengerExcursion</b> , <b>foodBeverage</b> , and <b>crewExcursion</b> to do the following: <ol style="list-style-type: none"> <li>Concatenate columns <b>firstName</b> and <b>lastName</b> from table <b>crew</b> as <b>Crew Member</b></li> <li>Concatenate columns <b>firstName</b> and <b>lastName</b> from table <b>passenger</b> as <b>Passenger</b></li> <li>Column <b>name</b> from table <b>excursion</b> as <b>Excursion</b></li> <li>Column <b>offering</b> from table <b>foodBeverage</b> as <b>Food/Beverage</b></li> <li>Column <b>durationMinutes</b> from table <b>excursion</b> as <b>Duration in Minutes</b></li> <li>Order by column <b>name</b> from table <b>excursion</b></li> </ol>
File requirements
7. Generate an ER Diagram using MySQL Workbench, save as a .mwb file

8. Export database <b>cruise</b> using MySQL Workbench, save as a .sql file
9. Provide written source code in a .sql file

Test Cases	
Test Case 1	<b>select * from crewExcursion</b> should look similar to Figure 1
Test Case 2	<b>select * from crewPositionView</b> should look like to Figure 2
Test Case 3	<b>select * from excursionView</b> should look like to Figure 3
Test Case 4	<b>select * from bookedExcursionView</b> should look like to Figure 4
Test Case 5	<b>ER Diagram</b> should look like Figure 5

```
mysql> select * from crewexcursion;
+-----+-----+
| crewId | excursionId |
+-----+-----+
|      233 |           71 |
|      231 |           73 |
|      255 |          135 |
|      233 |          139 |
|      255 |          189 |
|      231 |          190 |
|       91 |          191 |
|       91 |          192 |
|      231 |          193 |
|      255 |          193 |
|       91 |          194 |
|      233 |          195 |
+-----+-----+
12 rows in set (0.00 sec)
```

Figure 1 crewExcursion table

```
mysql> select * from crewpositionview;
```

Crew Member	Crew Phone	Crew Position
Haniya Kaiser	2025550121	Accounting & Finance
Paris Solis	2025550132	Activities & Fitness
Avaya Clarke	2025550119	Administration
Raheem Montgomery	4134849795	Advertising & Marketing
Aamina Dillon	2035745299	Casino
Brian Roberts	2025550125	Casino
Thomas Waters	2025550115	Culinary Chef
Mathew Horton	7195789907	Deck & Engine
Malik Vincent	9149573014	Deck & Engine
Honey Warren	5858531050	Deck & Engine
Oliwier Barnett	2764343958	Engineering
Dawson Marquez	7634882879	Engineering
Sara Barron	8707743244	Entertainment
Douglas Guthrie	2025550124	Food & Beverage
Lauren Morton	4476721422	Food & Beverage
Nicholas Pena	7815242242	Food & Beverage
Harvey West	7326232762	Front Desk & Concierge
Alissa Ortiz	2397268929	Guest Services
Dante Rennie	2025550112	Guest Services
Kaya Hodge	2125271561	Housekeeping
Floyd Johns	4065842872	Housekeeping
Krystal Walters	3232591832	Housekeeping
Kamil Lozano	7638554744	HR
Ty Bell	2393336881	IT & Internet
Rebekah Morgan	6073928343	IT & Internet
Umaiza Heath	2025550135	Legal
Ethan Ali	2245499884	Mechanic & Maintenance
Fern Garner	2256254378	Mechanic & Maintenance
Lyra Murphy	3527673126	Procurement & Purchasing
Leo Bird	7747829407	Retail & Merchandising
Brodie Gordon	9016899813	Retail & Merchandising
Louis Giles	2708583758	Sales & Reservations
Victor Newman	2025550122	Sales & Reservations
Alexa Preston	4098496634	Salon & Spa
Ernest Higgins	7637651247	Security & Surveillance
Awais Carrillo	6369577670	Shore Excursion
Laila Christensen	9017396978	Shore Excursion
Raja Glass	2319969540	Shore Excursion
Jemima Miller	6206673264	Shore Excursion
Igor Prince	2025550109	Travel & Tourism

```
40 rows in set (0.06 sec)
```

Figure 2 crewPositionView



```
mysql> select * from excursionview;
```

Excursion	Size	Type	Food/Beverage	Activity Level	Duration	Price
Mendenhall Glacier Trek	Small	Active	Snack	Difficult	480	257.00
Scenic Waterfall Adventure	Standard	Cultural	Not Included	Easy	180	75.00
Helicopter Glacier Discovery	Standard	Cultural	Not Included	Easy	180	435.00
Exclusive Juneau City and Mendenhall Glacier Tour	Standard	Scenic	None	Easy	180	75.00
Best of Juneau	Standard	Cuisine	Salmon Bake	Easy	375	223.00
White Pass Summit Rail and Bus Excursion	Small	Scenic	Not Included	Easy	225	186.00
White Pass Summit Rail and Yukon Suspension Bridge	Small	Scenic	Not Included	Easy	285	229.00
Helicopter Dog Sledding Extended Tour	Small	Active	Not Included	Easy	220	832.00
Skagway City and White Pass Summit	Standard	Scenic	Not Included	Moderate	150	65.00
Whales and Mendenhall Glacier	Standard	Scenic	Snack	Moderate	280	225.00
Mendenhall Lake Kayak and Salmon Bake	Small	Active	Lunch is Included	Moderate	300	293.00

11 rows in set (0.06 sec)

Figure 3 excursionView

```
mysql> select * from bookedexcursionview;
```

Crew Member	Passenger	Excursion	Food/Beverage	Duration in Minutes
Raja Glass	Atticus Atkinson	Best of Juneau	Salmon Bake	375
Raja Glass	Jordana Beck	Best of Juneau	Salmon Bake	375
Awais Carrillo	Kavita Heath	Exclusive Juneau City and Mendenhall Glacier Tour	None	180
Awais Carrillo	Robin Solis	Exclusive Juneau City and Mendenhall Glacier Tour	None	180
Jemima Miller	Bradlee Esparza	Helicopter Dog Sledding Extended Tour	Not Included	220
Jemima Miller	Efe House	Helicopter Dog Sledding Extended Tour	Not Included	220
Laila Christensen	Angus Neville	Helicopter Glacier Discovery	Not Included	180
Laila Christensen	Leilani Leonard	Helicopter Glacier Discovery	Not Included	180
Jemima Miller	Dante Mackenzie	Scenic Waterfall Adventure	Not Included	180
Jemima Miller	Yvonne Goodman	Scenic Waterfall Adventure	Not Included	180
Laila Christensen	Javan Rennie	Skagway City and White Pass Summit	Not Included	150
Laila Christensen	Haniya Kelly	Skagway City and White Pass Summit	Not Included	150
Laila Christensen	Daniel Rollins	Skagway City and White Pass Summit	Not Included	150
Raja Glass	Uzair Sparrow	Whales and Mendenhall Glacier	Snack	280
Raja Glass	Dane Kaiser	Whales and Mendenhall Glacier	Snack	280
Awais Carrillo	Beverley Mckee	White Pass Summit Rail and Bus Excursion	Not Included	225
Awais Carrillo	Nico Prince	White Pass Summit Rail and Bus Excursion	Not Included	225
Jemima Miller	Hammad Newman	White Pass Summit Rail and Yukon Suspension Bridge	Not Included	285
Jemima Miller	Imaani Wallace	White Pass Summit Rail and Yukon Suspension Bridge	Not Included	285

19 rows in set (0.00 sec)

Figure 4 bookedExcursionView

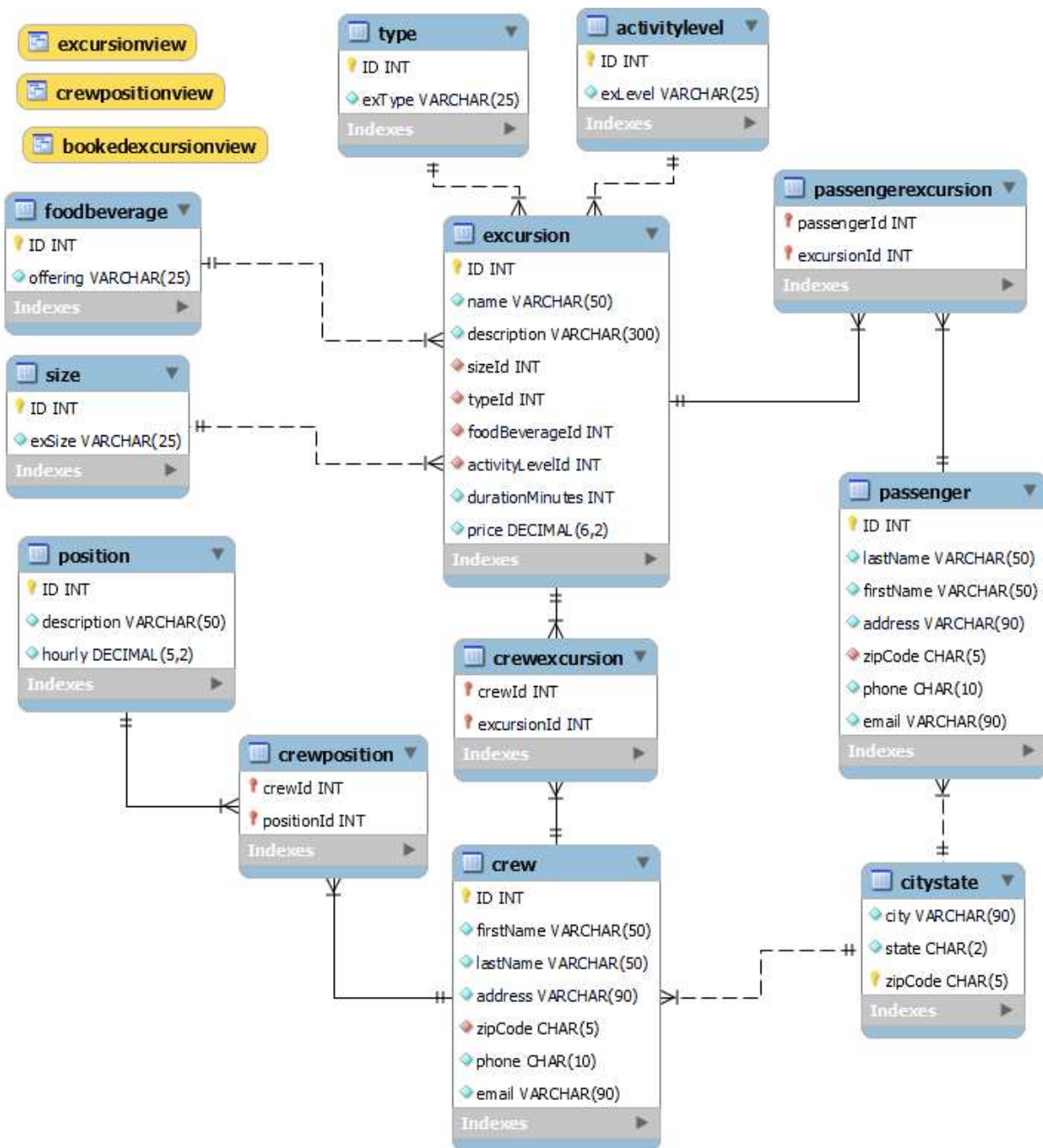


Figure 5 ER Diagram