

University of Central Florida

CGS 2545 Database Concepts

Assignment 10

Cruise Database Project

Due, Friday, April 21, 2023 for maximum 100%

Saturday, April 22, 2023 for maximum 90%

Sunday, April 23, 2023 for maximum 80%

Monday, April 24, 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. 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 user.
3. Grant user permissions.
4. Change user.
5. Verify user permissions.
6. Generate an ER diagram.

References

1. 10_SQL Select Database.pptx
2. 61_AdvancedSQL Manage Users.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 |
| 2. Verify current user |
| 3. Create new user <ul style="list-style-type: none"> a. Username: karin b. IP Address: localhost c. Password: cgs2545\$% |
| 4. Verify the new user by selecting columns host, user, select_priv, insert_priv, update_priv, delete_priv, create_priv, drop_priv from table mysql.user |
| 5. Grant user karin the following permissions on all tables in database cruise <ul style="list-style-type: none"> a. SELECT b. INSERT c. UPDATE |
| 6. Verify user karin permissions |
| 7. Change user from root to karin |
| 8. Change to use the database cruise |
| 9. Attempt a DELETE query from any table, user should be denied |
| 10. Generate an ER Diagram using MySQL Workbench, save as a .mwb file |
| 11. Export database Cruise using MySQL Workbench, save as a .sql file |
| 12. Provide written source code in a .sql file |

| Test Cases | |
|--------------------|--|
| Test Case 1 | Verify root user logged in, should look similar to Figure 1 |
| Test Case 2 | Verify karin user created, should look similar to Figure 2 |
| Test Case 3 | Verify karin user permissions, should look similar to Figure 3 |
| Test Case 4 | Verify karin user logged in, should look similar to Figure 4 |
| Test Case 5 | Verify user karin denied DELETE permissions, should look similar to Figure 5 |
| Test Case 6 | ER Diagram should look like Figure 6 |

```
mysql> SELECT user();
+-----+
| user() |
+-----+
| root@localhost |
+-----+
1 row in set (0.00 sec)
```

Figure 1 Verify user *root* logged in

```
mysql> SELECT host, user, select_priv, insert_priv, update_priv, delete_priv, create_priv, drop_priv FROM mysql.user;
+-----+-----+-----+-----+-----+-----+-----+-----+
| host      | user           | select_priv | insert_priv | update_priv | delete_priv | create_priv | drop_priv |
+-----+-----+-----+-----+-----+-----+-----+-----+
| localhost | karin          | N           | N           | N           | N           | N           | N         |
| localhost | mysql.infoschema | Y           | N           | N           | N           | N           | N         |
| localhost | mysql.session   | N           | N           | N           | N           | N           | N         |
| localhost | mysql.sys       | N           | N           | N           | N           | N           | N         |
| localhost | root           | Y           | Y           | Y           | Y           | Y           | Y         |
+-----+-----+-----+-----+-----+-----+-----+-----+
5 rows in set (0.01 sec)
```

Figure 2 Verify user *karin* created

```
mysql> SHOW GRANTS FOR karin@localhost;
+-----+-----+-----+-----+
| Grants for karin@localhost |
+-----+-----+-----+-----+
| GRANT USAGE ON *.* TO `karin`@`localhost` |
| GRANT SELECT, INSERT, UPDATE ON `cruise`.* TO `karin`@`localhost` |
+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```

Figure 3 Verify user *karin* permissions

```
mysql> SELECT user();
+-----+
| user() |
+-----+
| karin@localhost |
+-----+
1 row in set (0.00 sec)
```

Figure 4 Verify user *karin* logged in

```
mysql> DELETE FROM timesheet;
ERROR 1142 (42000): DELETE command denied to user 'karin'@'localhost' for table 'timesheet'
```

Figure 5 Verify user *karin* denied DELETE permissions

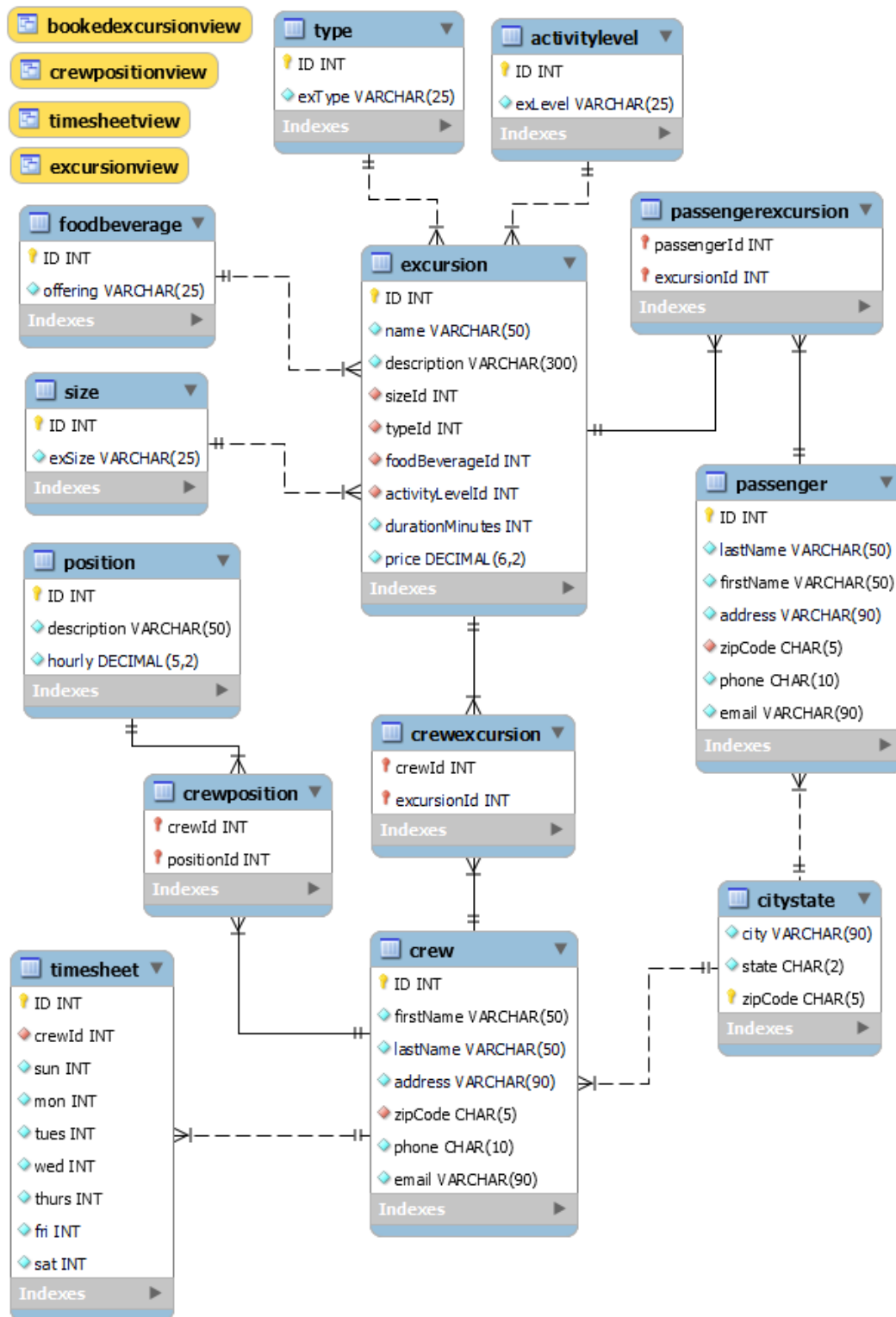


Figure 6 ER Diagram