

Data Centric Web Applications

Lab 1 MySQL Review

Setup

- Start MySQL by running the command `mysql -u root -p` in the command prompt of the folder you installed MySQL in e.g.

`C:\Program Files\MySQL\MySQL Server 8.0\bin`

```
Ca. Command Prompt - mysql -u root -p

C:\Program Files\MySQL\MySQL Server 8.0\bin>mysql -u root -p
Enter password: ****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 14
Server version: 8.0.21 MySQL Community Server - GPL

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql>
```

- How to import a database into MySQL:
 - Start MySQL by running the command:
`mysql -u root -p < "Full Path to SQL file"`
Where **"Full Path to SQL file"** is the location of the `.sql` database to be imported.
 - For example, if you have a database called `employeesDB100.sql` in the folder `C:\Users\GHarrisson\Downloads\` the command to import the database contained in `employeesDB100.sql` would be as follows:

```
Ca. Command Prompt

C:\Program Files\MySQL\MySQL Server 8.0\bin>mysql -u root -p < C:\Users\GHarrisson\Downloads\employeesDB100.sql
Enter password: ****
C:\Program Files\MySQL\MySQL Server 8.0\bin>
```

Part 1

- Get `employeesDB100.sql` from Learnonline and import into MySQL.

Question 1.1

List all tables in the `employeesDB100` database.

Question 1.2

What is the primary key of the *employees* table?

Question 1.3

What is the primary key of the *titles* table?

Question 1.4

Show all details of employees whose initials are *G.D.*

Question 1.5

Show the department number and first 4 letters of each department.

Question 1.6

Show the department number and first 4 letters of each department but the columns should be entitled *Number* and *Abbreviation* respectively.

Question 1.7

What will be the result of running the following command?

```
INSERT INTO employees VALUES (10100, "1993-02-13", "Jim", "Taylor",  
"M", "2020-01-31");
```

Question 1.8

What will be the result of running the following command?

```
INSERT INTO employees (emp_no, first_name, last_name) VALUES (10102,  
"Jim", "Taylor");
```

Question 1.9

List **only the name** of the Department d005.

Question 1.10

List all salaries greater than or equal to 101,000, but use an alias called **money** to display the results.

Question 1.11

List all employees who were hired in 1987.

Question 1.12

List all employees who were hired in 1987 but were born in the 1960s or later.

Question 1.13

List the employee numbers of all employees who joined department *d005* after June 1st 1986.

Question 1.14

Show the *emp_no*, *salary*, *from_date* and *to_date* of all employees who earned more than 65,000 at any time during the 1980s.

Question 1.15

Update the surname of all male employees born in November to have "Mr." and a space before their surnames.

Part 2

- Get `salespersondb.sql` from Learnonline and import into MySQL.

Question 2.1

Show the number of commissions as “Number of Commissions” (A NULL value is not a commission).

Question 2.2

Show the dob of the oldest salesperson.

Question 2.3

Show the total commission for the city of Boston.

Question 2.4

Show each city and the maximum commission for that city.

Question 2.5

Show each sid and the number of cities that salesperson works in.

Question 2.6

Show the name of the month salespeople were born in and the number of salespeople born in that month.

Question 2.7

Show cities and their average commission only if their average commission is > 3.5 .

Question 2.8

Show cities and their average commission but only include a commission in the average calculation if it is > 3.6 .

Question 2.9

Show cities and their average commission only if their average commission is > 4.7 .
Only commission > 3.6 should be included in the average calculation.