

# Relational Databases with MySQL Week 8 Coding Assignment

Points possible: 70

Category	Criteria	% of Grade
Functionality	Does the code work?	25
Organization	Is the code clean and organized? Proper use of white space, syntax, and consistency are utilized. Names and comments are concise and clear.	25
Creativity	Student solved the problems presented in the assignment using creativity and out of the box thinking.	25
Completeness	All requirements of the assignment are complete.	25

**Instructions:** Using a text editor of your choice, write the queries that accomplishes the objectives listed below. Take screenshots of the queries and results and paste them in this document where instructed below. Create a new repository on GitHub for this week's assignments and push this document to the repository. Additionally, push an .sql file with all your queries to the same repository. Add the URL for this week's repository to this document where instructed and submit this document to your instructor when complete.

## Coding Steps:

Write queries to address the following business needs.

1. I want to know how many employees with each title were born after 1965-01-01.
2. I want to know the average salary per title.
3. How much money was spent on salary for the marketing department between the years 1990 and 1992?

## Screenshots of Queries:

1

MySQL Workbench

unconnected x Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

employees

- Tables
- Views
- Stored Procedures
- Functions

sys

Query 1 x

```
1 • SELECT count(t.title) AS "Number of Employees", t.title from titles t
2 LEFT JOIN employees e on t.emp_no = e.emp_no
3 where birth_date > "1965-01-01" GROUP BY title;
```

Limit to 1000 rows

Result Grid

Filter Rows:

Export: Wrap Cell Content:

	Number of Employees	title
▶	612	Senior Staff
	703	Staff
	95	Technique Leader
	589	Senior Engineer
	657	Engineer
	97	Assistant Engineer

Administration Schemas

Information

Schema: employees

2

The screenshot shows the MySQL Workbench interface. At the top, there's a menu bar with 'Database', 'Server', 'Tools', 'Scripting', and 'Help'. Below the menu bar is a toolbar with various icons. The main window is titled 'Query 1' and contains the following SQL query:

```
1 • SELECT avg(s.salary) AS "Average pay by position", t.title from titles t
2 LEFT JOIN salaries s on t.emp_no = s.emp_no
3 GROUP BY title;
```

Below the query editor, there's a 'Result Grid' tab. It shows the results of the query in a table with two columns: 'Average pay by position' and 'title'. The results are as follows:

Average pay by position	title
60543.2191	Senior Engineer
69308.7124	Staff
59508.0751	Engineer
70470.5013	Senior Staff
59304.9863	Assistant Engineer
59294.3742	Technique Leader
66924.2706	Manager

Below the result grid, there's an 'Output' tab. It shows the execution log with the following entries:

#	Time	Action	Message	Duration / Fetch
7	14:18:41	SELECT count(t.title) AS "Number of Employees", t.title ...	Error Code: 1064. You have an error in your SQL syntax;...	0.000 sec
8	14:20:56	SELECT count(t.title) AS "Number of Employees", t.title ...	6 row(s) returned	0.125 sec / 0.000 sec
9	14:26:51	SELECT avg(s.salary) AS "Average pay by position", t.ti...	7 row(s) returned	3.500 sec / 0.000 sec

3

MySQL 8.0 instance MySQL80 x

Database Server Tools Scripting Help

Query 1 x

Limit to 1000 rows

```

1 • SELECT sum(s.salary) from salaries s
2 INNER JOIN dept_emp de on de.emp_no = s.emp_no
3 WHERE de.dept_no = 'd001' AND s.to_date between "1990-01-01" and "1992-01-01";

```

Result Grid

sum(s.salary)
912555368

Result 5 x

Read Only

Output

Action Output

#	Time	Action	Message	Duration / Fetch
10	14:42:46	SELECT sum(s.salaries) from salaries s INNER JOIN dept_emp...	Error Code: 1054. Unknown column 's.salaries' in f...	0.000 sec
11	14:43:43	SELECT sum(s.salary) from salaries s INNER JOIN dept_emp ...	Error Code: 1054. Unknown column 'd001' in 'whe...	0.000 sec
12	14:43:55	SELECT sum(s.salary) from salaries s INNER JOIN dept_emp ...	1 row(s) returned	0.250 sec / 0.000 sec

**Screenshots of Query Results (only include the last 20 rows):**

Result Grid			Filter Rows:	Export
	Number of Employees	title		
▶	612	Senior Staff		
	703	Staff		
	95	Technique Leader		
	589	Senior Engineer		
	657	Engineer		
	97	Assistant Engineer		

2

Result Grid			Filter Rows:	Export:	Wrap C
	Average pay by position	title			
▶	60543.2191	Senior Engineer			
	69308.7124	Staff			
	59508.0751	Engineer			
	70470.5013	Senior Staff			
	59304.9863	Assistant Engineer			
	59294.3742	Technique Leader			
	66924.2706	Manager			

3

Result Grid			Filter Rows:	Export:	Wrap Cell Content:
	sum(s.salary)				
▶	912555368				

URL to GitHub Repository: <https://github.com/XDomJ/W8MYSQL>