

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.

```
SELECT count(*) AS number_hired, t.title FROM employees e JOIN titles t USING (emp_no) WHERE e.hire_date > 1965-01-01 GROUP BY t.title;
```

2. I want to know the average salary per title.

```
SELECT avg(salary) AS "Average Salary", title FROM salaries JOIN titles USING (emp_no) GROUP BY title LIMIT 20;
```

3. How much money was spent on salary for the marketing department between the years 1990 and 1992?

```
SELECT d.dept_name AS "Department", SUM(s.salary) AS "Sum Salary" FROM departments d INNER JOIN dept_emp de ON
de.dept_no = d.dept_no AND d.dept_name = 'Marketing' AND de.from_date < '1993-01-01' INNER JOIN salaries s ON de.emp_no =
s.emp_no AND (s.from_date BETWEEN '1990-01-01' AND '1992-12-31') AND (s.from_date BETWEEN de.from_date AND
de.to_date);
```

Screenshots of Queries:

```
[mysql> SELECT count(*) AS number_hired, t.title FROM employees e JOIN titles t U
SING (emp_no) WHERE e.hire_date > 1965-01-01 GROUP BY t.title;
```

```
[mysql> SELECT avg(salary) AS "Average Salary", title FROM salaries JOIN titles U
SING (emp_no) GROUP BY title LIMIT 20;
```

```
[mysql> SELECT d.dept_name AS "Department", SUM(s.salary) AS "Sum Salary" FROM de
partments d INNER JOIN dept_emp de ON de.dept_no = d.dept_no AND d.dept_name = '
Marketing' AND de.from_date < '1993-01-01' INNER JOIN salaries s ON de.emp_no =
s.emp_no AND (s.from_date BETWEEN '1990-01-01' AND '1992-12-31') AND (s.from_dat
e BETWEEN de.from_date AND de.to_date);
```

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

number_hired	title
15128	Assistant Engineer
115000	Engineer
97746	Senior Engineer
107385	Staff
92848	Senior Staff
15159	Technique Leader
24	Manager

7 rows in set, 1 warning (0.58 sec)

Average Salary	title
60543.2191	Senior Engineer
69309.1023	Staff
59508.0397	Engineer
70470.8353	Senior Staff
59304.9863	Assistant Engineer
59294.3742	Technique Leader
66924.2706	Manager

7 rows in set (2.19 sec)

```
+-----+-----+
| Department | Sum Salary |
+-----+-----+
| Marketing  | 1489466233 |
+-----+-----+
1 row in set (0.22 sec)
```

URL to GitHub Repository: