# 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(birth_date) ,titles.title
FROM employees
INNER JOIN titles on employees.emp_no=titles.emp_no
WHERE birth_date > '1965-01-01'
GROUP BY title
```

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

```
SELECT avg(salary) AS "average salary", titles.title

FROM salaries

INNER JOIN titles ON salaries.emp_no=titles.emp_no
```

GROUP BY title;

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

SELECT sum(salaries.salary) AS 'Sum of salary' ,

departments.dept_name  AS 'Department'

FROM salaries

INNER JOIN dept_emp ON dept_emp.emp_no=salaries.emp_no

INNER JOIN departments ON dept_emp.dept_no=dept_emp.dept_no

WHERE departments.dept_name = 'Marketing'

AND salaries.from_date >= '1990-01-01'

AND salaries.to_date <= '1992-01-01'

ORDER BY sum(salaries.salary);

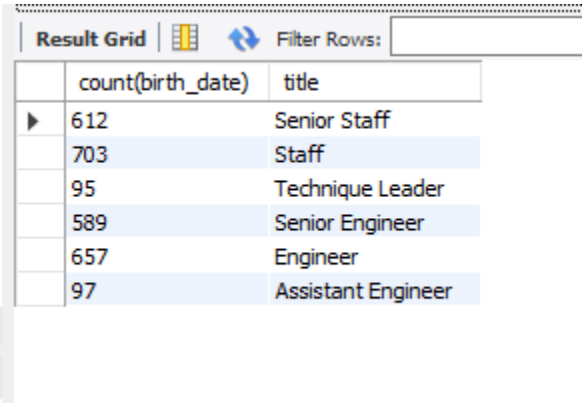
**Screenshots of Queries:**

```
1     SELECT count(birth_date) ,titles.title
2     FROM employees
3     INNER JOIN titles on employees.emp_no=titles.emp_no
4     WHERE birth_date > '1965-01-01'
5     GROUP BY title;
```

```
1 •   SELECT avg(salary) AS "average salary", titles.title
2     FROM salaries
3     INNER JOIN titles ON salaries.emp_no=titles.emp_no
4     GROUP BY title;
```

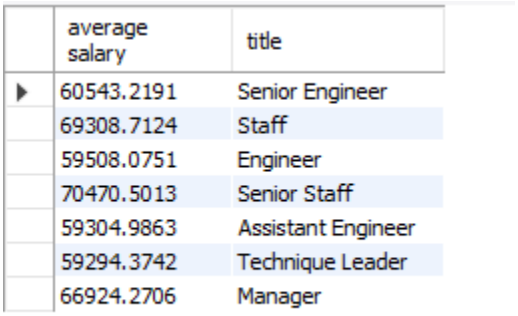
```
1 •   SELECT sum(salaries.salary) AS 'Sum of salary' ,
2     departments.dept_name  AS 'Department'
3     FROM salaries
4     INNER JOIN dept_emp ON dept_emp.emp_no=salaries.emp_no
5     INNER JOIN departments ON dept_emp.dept_no=dept_emp.dept_no
6     WHERE departments.dept_name = 'Marketing'
7     AND salaries.from_date >= '1990-01-01'
8     AND salaries.to_date <= '1992-01-01'
9     ORDER BY sum(salaries.salary);
```

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

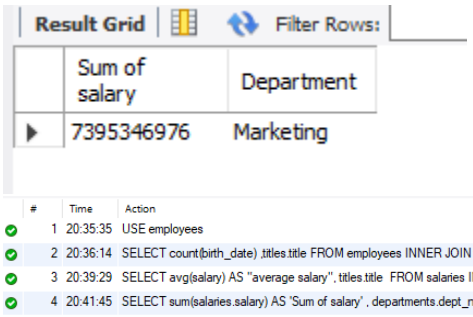


Result Grid | Filter Rows:

| count(birth_date) | title |
|---|---|
| 612 | Senior Staff |
| 703 | Staff |
| 95 | Technique Leader |
| 589 | Senior Engineer |
| 657 | Engineer |
| 97 | Assistant Engineer |

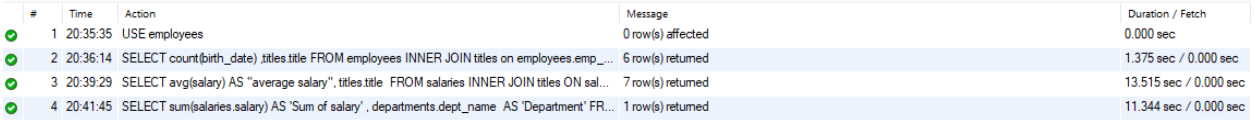


| average salary | title |
|---|---|
| 60543.2191 | Senior Engineer |
| 69308.7124 | Staff |
| 59508.0751 | Engineer |
| 70470.5013 | Senior Staff |
| 59304.9863 | Assistant Engineer |
| 59294.3742 | Technique Leader |
| 66924.2706 | Manager |



Result Grid | Filter Rows:

| Sum of salary | Department |
|---|---|
| 7395346976 | Marketing |



| # | Time | Action | Message | Duration / Fetch |
|---|---|---|---|---|
| 1 | 20:35:35 | USE employees | 0 row(s) affected | 0.000 sec |
| 2 | 20:36:14 | SELECT count(birth_date) ,titles.title FROM employees INNER JOIN titles on employees.emp_... | 6 row(s) returned | 1.375 sec / 0.000 sec |
| 3 | 20:39:29 | SELECT avg(salary) AS "average salary", titles.title FROM salaries INNER JOIN titles ON sal... | 7 row(s) returned | 13.515 sec / 0.000 sec |
| 4 | 20:41:45 | SELECT sum(salaries.salary) AS 'Sum of salary' , departments.dept_name AS 'Department' FR... | 1 row(s) returned | 11.344 sec / 0.000 sec |

## URL to GitHub Repository: