

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.

Notes : (Each relevant table used in this assignment described)

```
mysql> describe employees;
```

Field	Type	Null	Key	Default	Extra
emp_no	int	NO	PRI	NULL	
birth_date	date	NO		NULL	
first_name	varchar(14)	NO		NULL	
last_name	varchar(16)	NO		NULL	
gender	enum('M','F')	NO		NULL	
hire_date	date	NO		NULL	

```
mysql> describe titles;
```

Field	Type	Null	Key	Default	Extra
emp_no	int	NO	PRI	NULL	
title	varchar(50)	NO	PRI	NULL	
from_date	date	NO	PRI	NULL	
to_date	date	YES		NULL	

4 rows in set (0.00 sec)

```
mysql> describe salaries;
```

Field	Type	Null	Key	Default	Extra
emp_no	int	NO	PRI	NULL	
salary	int	NO		NULL	
from_date	date	NO	PRI	NULL	
to_date	date	NO		NULL	

4 rows in set (0.00 sec)

```
mysql> describe departments;
```

Field	Type	Null	Key	Default	Extra
dept_no	char(4)	NO	PRI	NULL	
dept_name	varchar(40)	NO	UNI	NULL	

```
mysql> describe dept_emp  
-> ;
```

Field	Type	Null	Key	Default	Extra
emp_no	int	NO	PRI	NULL	
dept_no	char(4)	NO	PRI	NULL	
from_date	date	NO		NULL	
to_date	date	NO		NULL	

1. I want to know how many employees with each title were born after 1965-01-01.

- Personal Notes for Logic Purposes -

FUNCTION Sum of employees

SELECT Only 3 columns. 1 for number of employees, 1 for the title name, 1 for birth date

FROM tables employees joining with titles

WHERE born after 1965-01-01

GROUP BY TITLES

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

FUNCTION Average Salary

SELECT Only 2 columns. 1 for average salary. 1 for title.

FROM tables salaries joining with titles

GROUP BY TITLES

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

FUNCTION Total Salary from Salary table

SELECT Only 2 columns. 1 for money spent 1 for marketing

FROM salaries table joining with dept_emp joining with employees

WHERE from_date => 1990 AND to_date <= 1992

HAVING Dept_Name = Marketing

Screenshots of Queries:

1.

```
mysql> SELECT count(title) AS "Number of Employees" , t.title AS "Title Name", e.birth_date AS "Birth Date"
-> FROM titles t
-> INNER JOIN employees e ON e.emp_no = t.emp_no
-> WHERE e.birth_date > "1965-01-01"
-> GROUP BY t.title;
```
2.

```
mysql> Select t.title AS "Title Name" , avg(salary) AS "Average Salary"
-> FROM titles t
-> INNER JOIN salaries s ON t.emp_no = s.emp_no
-> GROUP BY t.title;
```
3.

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

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

1.

Number of Employees	Title Name	Birth Date
612	Senior Staff	1965-01-03
703	Staff	1965-01-03
95	Technique Leader	1965-01-19
589	Senior Engineer	1965-01-24
657	Engineer	1965-02-01
97	Assistant Engineer	1965-01-03

Title Name	Average Salary
Senior Engineer	60543.2191
Staff	69308.7124
Engineer	59508.0751
Senior Staff	70470.5013
Assistant Engineer	59304.9863
Technique Leader	59294.3742
Manager	66924.2706

2.

Department	Salary Sum
Marketing	54989098

3.

URL to GitHub Repository:

<https://github.com/AkemiTCGyt/PromineoTechWeek8CodingAssignment>