1. Write queries to address the following business needs.

I want to know how many employees with each title were born after 1965

mysql> select t.title, count(t.title) from employees e

-> inner join titles t

-> ON t.emp\_no = e.emp\_no

-> where e.birth\_date > '1965-01-01'

-> group by t.title;

title | count(t.title) |

+--------------------+----------------+

| Senior Staff | 612 |

| Staff | 703 |

| Technique Leader | 95 |

| Senior Engineer | 589 |

| Engineer | 657 |

| Assistant Engineer | 97

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

Select t.title, avg(s.salary) from employees e

-> Inner JOIN titles t ON t.emp\_no = e.emp\_no

­-> Inner JOIN salaries s ON s.emp\_no = t.emp\_no

-> group by t.title;

+--------------------+---------------+

| title | avg(s.salary) |

+--------------------+---------------+

| Senior Engineer | 60543.2191 |

| Staff | 69309.1023 |

| Engineer | 59508.0397 |

| Senior Staff | 70470.8353 |

| Assistant Engineer | 59304.9863 |

| Technique Leader | 59294.3742 |

| Manager | 66924.2706 |

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

SELECT departments.dept\_name, sum(salaries.salary) FROM departments

-> JOIN dept\_emp ON dept\_emp.dept\_no = departments.dept\_no

-> INNER JOIN salaries ON salaries.emp\_no = dept\_emp.emp\_no

-> WHERE departments.dept\_name = "Marketing"

-> AND salaries.from\_date >= "1990-01-01"

-> AND salaries.to\_date < "1993-01-01";

+---------------+-----------------------------+

| dept\_name | sum(salaries.salary) |

+---------------+-----------------------------+

| Marketing | 1096824732 |

+---------------+-----------------------------+

* Look up 10 different SQL functions supported by MySQL that were not discussed in the video curriculum.
* Explain what they do and how they are used.
* Write a query using each of the 10 functions. (10 queries, one for each function).

1. CHAR\_LENGTH: This function with return the length of the string specified.

EX. SELECT CHAR\_LENGTH (EmployeesName) AS LengthOfName  
FROM employees;

1. CONCAT: This function concatenates 2 ore more expressions together.

EX. SELECT CONCAT(Address, " ", PostalCode, " ", City) AS Address  
FROM employees;

1. INSTR: This function will return the position of the first occurrence of a string in

another string.

EX. SELECT INSTR(EmployeeName, "K")  
FROM Employees;

1. ABS: This function will return the absolute value of a number.

EX. SELECT ABS(2756.99);

1. COUNT: This function returns the number of records in a select query.

EX. SELECT COUNT(EMP\_NO) AS NumberOfEmployees FROM Employees;

1. ADDDATE: This function returns a date after a certain date/time interval has been added.

EX. SELECT ADDDATE("2018-05-02 06:23:56", INTERVAL 20 MINUTE);

1. DATE: This function extracts the date value from a date or datetime expression.

EX. SELECT DATE("The date is 2018-05-02 ");

1. CAST: This Function converts a value from a datatype to another datatype.

EX. SELECT CAST(65 AS CHAR);

1. DATABASE: This function returns the name of the default database.

EX. SELECT DATABASE();

1. USER: This function returns the user name and host name for the current MYSQL user.

EX. SELECT USER();