**Data Analysis through Queries - Employees Database**

Instructions:

* in depth review of this database and come up with 5 important queries you can run
* queries cannot be just simple selects that does not give us any insight into the data
* should provide valuable information about employees, the organization's salary structures and so on (important in making different decisions about the organization)

Queries:

1. Get all employees in the sales department:

select employees.first\_name as "First Name", dept\_emp.dept\_no as "Dep. No.", departments.dept\_name as "Department"

from employees join dept\_emp

on employees.emp\_no=dept\_emp.emp\_no

join departments

on departments.dept\_no=dept\_emp.dept\_no

where departments.dept\_name = 'Sales';

1. To ensure that we are following laws regarding child labor, we must check the hours for all minor/underage employees. Get all employees who are under 18 years of age so we can contact them:

select \* from employees

where employees.birth\_date < 10-19-2004;

1. Department manager w/ employee number 111784 has just quit on the spot - we must notify all employees under this manager. Find all employees who are under this manager to organize a meeting:

select employees.emp\_no as ‘Employee No.’, dept\_emp.dept\_no as ‘Department’

from employees

join dept\_emp

on employees.emp\_no=dept\_emp.emp\_no

join dept\_manager

on dept\_manager.dept\_no=dept\_emp.dept\_no

where dept\_manager.emp\_no=111784;

1. Our company wants to celebrate the anniversary of employees who have worked for 10 years (since 2012) by offering them a raise and a card that says “Thank you [First Name] [Last Name] for your work with us since [hire date]!”. Find all employees who celebrate their 10 year anniversary this year.

select employees.first\_name as ‘First Name’, employees.last\_name as ‘Last Name’, employees.hire\_date as ‘Hire Date’, salaries.salary as ‘Salary’

from employees

join salaries

on employees.emp\_no=salaries.emp\_no

where employees.hire\_date < 2012-10-18;

-- there aren't employees who match this criteria

-- so I tried switching the < sign; this returns employees, but some have changed

-- salaries throughout the years so it returns every entry for the salary change,

-- creating duplicates.

1. Company success has allowed us to offer raises in order to raise the minimum salary in response to inflation. Check all departments and get employees whose salary lies below $50,000:

select employees.emp\_no as ‘Employee Num’, departments.dept\_name as ‘Department’, salaries.salary as ‘Salary’

from employees

join dept\_emp

on employees.emp\_no=dept\_emp.emp\_no

join department

on dept\_emp.dept\_no=departments.dept\_no

join salaries

on employees.emp\_no=salaries.emp\_no;

-- this has the same problem as the issue above -> duplicate entries due to salary

-- changes over time