MYSQL ASSIGNMENT 3

CREATE DATABASE ASSIGNMENT_3;

USE ASSIGNMENT_3;

CREATE TABLE ASS_3(

   emp_id int not null,

   first_name varchar(50),

   last_name varchar(50),

   department varchar(20),

   salary int not null,

   hire_date date);

SELECT * FROM ASS_3;

INSERT INTO
ASS_3(emp_id,first_name,last_name,department,salary,hire_date)

VALUES (1,"John","Doe","IT",60000,"2019-01-10"),

     (2,"Jane","Smith","HR",55000,"2018-03-05"),

     (3,"Emily","Jones","IT",62000,"2020-07-23"),

     (4,"Michael","Brown","FINANCE",70000,"2016-05-14"),

     (5,"Sarah","Davis","FINANCE",69000,"2017-11-18"),

     (6,"David","Johnson","HR",48000,"2021-09-10");

/*Q1. Find the average salary of employees in each department.*/

SELECT department, avg(salary) as "Average Salary of employee"
from ASS_3
group by department;

department	Average Salary of employee
IT	61000.0000
HR	51500.0000
FINANCE	69500.0000

/*Q2. Find the total number of employees hired after 2019.*/

SELECT count(hire_date) as "employees hired after 2019" from ASS_3 where hire_date > "2019-01-10";

employees hired after 2019
2

/*Q3. List the departments and the total salary of all employees in each department, ordered by the total salary.*/

SELECT department, sum(salary) as "total salary of all employees in the department" from ASS_3
group by department
order by sum(salary);

department	total salary of all employees in the department
HR	103000
IT	122000
FINANCE	139000

/*Q4. Find the highest salary in the Finance department.*/

SELECT department, max(salary) as "highest salary" from ASS_3
where department = "FINANCE";

department	highest salary
▶ FINANCE	70000

/*Q5. Get the top 3 highest-paid employees.*/

SELECT first_name,last_name, max(salary) as "top 3 highest-paid employees" from ASS_3
group by first_name,last_name
order by max(salary) desc limit 3;

first_name	last_name	top 3 highest-paid
▶ Michael	Brown	70000
Sarah	Davis	69000
Emily	Jones	62000

/*Q6. Find the department with the minimum average salary.*/

SELECT department, avg(salary) as "Average Salary of employee" from ASS_3
group by department
order by avg(salary) asc limit 1;

department	Average Salary of employee
▶ HR	51500.0000

/*Q7. Display the total number of employees in each department, ordered by the number of employees.*/

SELECT department, count(emp_id) as "total number of employees" from ASS_3
group by department
order by count(emp_id);

	department	total number of employees
▶	IT	2
	HR	2
	FINANCE	2

/*Q8. Find the average salary of employees who were hired before 2020.*/

SELECT hire_date, avg(salary) as "average salary" from ASS_3
group by hire_date
having hire_date < "2020-07-23";

	hire_date	average salary
▶	2019-01-10	60000.0000
	2018-03-05	55000.0000
	2016-05-14	70000.0000
	2017-11-18	69000.0000

/*Q9. List the names of employees in the IT department ordered by hire date, with the most recently hired employees first.*/

SELECT first_name,last_name, max(hire_date) as "employees in the IT department" from ASS_3 where department = "IT"
group by first_name,last_name
order by max(hire_date) desc;

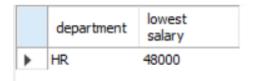|	first_name	last_name	employees in the IT department
▶	Emily	Jones	2020-07-23
	John	Doe	2019-01-10

/*Q10. Find the sum of salaries for all employees hired after January 1, 2019, ordered by salary.*/

Select sum(salary) as "Sum_Of_Salary" from ASS_3 where hire_date > "2019-01-10" order by salary;

Sum_Of_Salary
110000

/*Q11. Get the employee with the lowest salary in the HR department.*/

SELECT department, min(salary) as "lowest salary" from ASS_3 where department = "HR";

department	lowest salary
HR	48000

/*Q12. Find the total salary paid to employees in each department, but limit the result to the top 2 highest-paying departments.*/

SELECT department, sum(salary) as "total salary of all employees in the department" from ASS_3
group by department
order by sum(salary) desc limit 2;

department	total salary of all employees in the department
FINANCE	139000
IT	122000

/*Q13. List all employees hired after 2018, ordered by salary, and show only the first 4 employees.*/

SELECT first_name,last_name from ASS_3 where hire_date > "2018-03-05" order by salary limit 4;

	first_name	last_name
▶	David	Johnson
	John	Doe
	Emily	Jones

/*Q14. Find the highest salary in the IT department, but limit the results to the top 1 result.*/

SELECT department, max(salary) as "highest salary" from ASS_3 where department = "IT";

	department	highest salary
▶	IT	62000

/*Q15. Get the average salary of employees in each department and list only departments with an average salary greater than $60,000.*/

SELECT department, avg(salary) as "Average Salary of employee" from ASS_3
group by department
having avg(salary) > 60000;

	department	Average Salary of employee
▶	IT	61000.0000
	FINANCE	69500.0000