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/* lab 8a */

/* 1.   Write a query to display the system date. Label the column as Date.*/
select sysdate from dual;
select sysdate as "Date" from dual;

/* 2.   Display the total number of employees in the organisation (hint: use
COUNT).*/
select * from employees;
select count(employee_id) from employees;
select count(*) from employees;

/* 3.   Display the lowest salary in the organisation. */

select min(salary) from employees;

/* 4.   Display the highest salary in the organisation. */

select max(salary) from employees;

/* 5.   Display the total monthly salary per department id. */

select sum(salary) from employees;
select distinct(department_id) from employees;
select avg(salary) from employees;

select department_id, sum(salary)
 from employees
 group by department_id;

/* 6.   Display the department name and average monthly salary based on department
name.*/

select * from departments;

select d.department_name, avg(e.salary)
 from departments d, employees e
 where d.department_id = e.department_id
 group by department_name;

/* 7.   Display the job title, max salary, min salary and the difference between the
salaries (calculated as max salary – min salary). */

select * from jobs;

select job_title, max_salary, min_salary, max_salary-min_salary from jobs;
select job_title, max_salary, min_salary, (max_salary-min_salary) as "difference"
from jobs;

/* 8.   Display the employees first name, last name, job title and the max salary
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multiplied by the min salary (calculated as max salary * min salary) */

select first_name, last_name, job_title, max_salary * min_salary
 from employees e, jobs j
 where e.job_id=j.job_id;

/* 9.   The HR system needs a report to display the employee number,last name,
salary, salary increased by 15.5%(expressed as whole number) labeled as New Salary,
salary showing the difference between New Salary and old salary for each employee
and label this column as Increase Salary.*/

select employee_id, last_name, salary, round((salary *1.15),0) as "New Salary",
  (round((salary *1.15),0) - salary) as "Increase Salary"
  from employees;

/* 10.  Write a query that displays the last name (with the first letter in
uppercase and all the other letters in lowercase) and the length of the last name
for all employees whose last name starts with the letters “J”, “A” or “M”. Give each
column appropriate labels. Sort the results by the employees’ last names. */

select initcap(last_name), length(last_name) as "LENGTH"
 from employees
 where last_name like 'j%'
 or last_name like 'A%'
 or last_name like 'M%'
 order by last_name asc;

/* 11.  The HR department wants to find the duration of employment for each
employee. For each employee, display the last name and calculate the number of
months between today and the date on which the employee was hired.Label the column
MONTHS_WORKED. */

select * from employees;
select last_name, round(months_between(sysdate, hire_date)) as "Months_Worked"
 from employees;

/* 12.  Display each employee’s last name, hire date and salary review date, which
is the first Monday after six months of service.Label the column as REVIEW. Format
the dates to appear in the format similar to  “Monday, the Thirty-First of July,
2000.” */

select last_name, hire_date, salary as "REVIEW"
 from employees;

select last_name, hire_date, add_months(hire_date, 6) as "REVIEW"
 from employees;

select last_name, hire_date, to_char(next_day(add_months(hire_date, 6),'Monday'))
 as "REVIEW"
 from employees;
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select last_name, hire_date, to_char(next_day(add_months(hire_date, 6),'Monday'))
 as "REVIEW"
 from employees;

select last_name, hire_date,
to_char(next_day(add_months(hire_date, 6),'Monday'),'fmDay "the" Ddspth  "of" Month,
YYYY')
  from employees;


/* 13.  Display the lastname, hire date and day of the week on which the employee
started. Label the column DAY. */

select last_name, hire_date, to_char(hire_date, 'Day') as "DAY" from employees;

/* 14.  Display the minimum, maximum, sum and average salary for each job type.*/

select * from employees;
select * from jobs;

select e.job_id, min(salary), max(salary), avg(salary)
 from employees e, jobs j
 where e.job_id = j.job_id
 group by e.job_id;

/* 15.  Write a query to display the number of people with the same job. */

select job_id, count(job_id)
 from employees
 group by job_id;

/* 16.  Display the number of managers without listing them.Label the column NUMBER
OF MANAGERS. */

select * from employees;
select count(distinct(manager_id)) from employees;

/*  17. Display the manager number and the salary of the lowest-paid employee for
that manager. Exclude anyone whose manager is not known and whose minimum salary is
$6000 or less.Sort the output in descending order of salary.*/

select manager_id, min(salary)
 from employees
 group by manager_id;

select manager_id, min(salary)
 from employees
 group by manager_id
 order by min(salary) desc;
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select manager_id, min(salary)
 from employees
 where salary > 6000
 and manager_id is not null
 group by manager_id
 order by min(salary) desc;

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