**Laborator 11**

1. Afisati numarul de angajati care lucreaza in fiecare departament si suma salariilor din fiecare departament.

select count(employee\_id) as Numar\_angajati, sum(salary) as Suma\_salarii

from employees

group by department\_id;

1. Afisati si numele departamentului.

NU INCLUDE DEPARTAMENTUL NULL !!!

select d.department\_id, department\_name, count(\*), sum(salary)

from employees e, departments d

where e.department\_id = d.department\_id

group by d.department\_id, department\_name;

ACUM IL AVEM:

select d.department\_id, department\_name, count(\*), sum(salary)

from employees e, departments d

where e.department\_id = d.department\_id(+)

group by d.department\_id, department\_name;

1. Afisati doar departamentele care au mai mult de 5 angajati.

select d.department\_id, department\_name, count(\*) cnt, sum(salary)

from employees e, departments d

where e.department\_id = d.department\_id(+)

group by d.department\_id, department\_name

having count(\*) > 5;

NU SE PUNE IN WHERE CONDITIA, CI IN HAVING. NU SE FACE HAVING CNT deoarece da eroare (select se face dupa having, deci having nu stie cine e cnt). Pentru filtrarea gruparilor folosim HAVING.

1. Afisati maximul de salarii din departamente.

select max(sum(salary)) suma

from employees e, departments d

where e.department\_id = d.department\_id

group by d.department\_id, department\_name;

1. Afisati si numele departamentului.

Asta este singura varianta prin care putem afisa pe langa functia de agregare si altceva.

select d.department\_id, department\_name, sum(salary)

from employees e, departments d

where e.department\_id = d.department\_id

group by d.department\_id, department\_name

having sum(salary) = (select max(sum(salary))

from employees e, departments d

where e.department\_id = d.department\_id

group by d.department\_id, d.department\_name);

1. Afisati maximul salariului mediu pe departamente.

select max(avg(salary)) suma

from employees e, departments d

where e.department\_id = d.department\_id

group by d.department\_id, department\_name;

1. Afisati si numele departamentului.

select d.department\_id, department\_name, avg(salary)

from employees e, departments d

where e.department\_id = d.department\_id

group by d.department\_id, department\_name

having avg(salary) = (select max(avg(salary))

from employees e, departments d

where e.department\_id = d.department\_id

group by d.department\_id, d.department\_name);

1. Afisati codul, numele departamentului si numarul de angajati care lucreaza ina cel departament pentru departamentele in care lucreaza mai putin de patru angajati.

select d.department\_id, department\_name, count(\*)

from employees e, departments d

where e.department\_id = d.department\_id(+)

group by d.department\_id, department\_name

having count(\*) < 4;

1. Afisati codul, numele departamentului si numarul de angajati care lucreaza ina cel departament pentru departamentul care are numarul maxim de angajati.

select d.department\_id, department\_name, count(\*)

from employees e, departments d

where e.department\_id = d.department\_id

group by d.department\_id, department\_name

having count(\*) = (select max(count(\*))

from employees e, departments d

where e.department\_id = d.department\_id

group by d.department\_id, d.department\_name);

1. Afisati salariatii care lucreaza in departamentul de la punctul 9.

select \*

from employees e, departments d

where e.department\_id = d.department\_id and

d.department\_id in (select d.department\_id

from employees e, departments d

where e.department\_id = d.department\_id

group by d.department\_id, department\_name

having count(\*) = (select max(count(\*))

from employees e, departments d

where e.department\_id = d.department\_id

group by d.department\_id, d.department\_name));

1. Exercitiul 9 si 10, dar cu minim. Se observa necesitatea operatorului IN (sunt mai multe departamente cu numar minim).

select \*

from employees e, departments d

where e.department\_id = d.department\_id

and d.department\_id in (select d.department\_id

from employees e, departments d

where e.department\_id = d.department\_id

group by d.department\_id, department\_name

having count(\*) = (select min(count(\*))

from employees e, departments d

where e.department\_id = d.department\_id

group by d.department\_id, d.department\_name));

1. Cati salariati au fost angajati in fiecare zi a lunii?

select to\_char(hire\_date, 'DD'), count(\*)

from employees

group by to\_char(hire\_date, 'DD')

order by 1;

1. Care e numarul maxim de salariati angajati in fiecare zi?

select max(count(\*))

from employees

group by to\_char(hire\_date, 'DD')

order by 1;

1. Afisati in plus si ziua.

select to\_char(hire\_date, 'DD') as ziua, count(\*) as nr

from employees

group by to\_char(hire\_date, 'DD')

having count(\*) = (select max(count(\*))

from employees

group by to\_char(hire\_date, 'DD'))

1. Afisati angajatii corespunzatori.

select \* from employees

where to\_char(hire\_date, 'DD') in (select to\_char(hire\_date, 'DD') as ziua

from employees

group by to\_char(hire\_date, 'DD')

having count(\*) = (select max(count(\*))

from employees

group by to\_char(hire\_date, 'DD')))

1. Care e media de salariu pe fiecare job?

select job\_id, avg(salary)

from employees

group by job\_id;

1. Vrem informatii despre toate joburile.

select job\_title, (min\_salary+max\_salary)/2, max\_salary-min\_salary, nvl(to\_char(aux.media\_reala), 'nu lucreaza nimeni')

from jobs j, (select job\_id, avg(salary) media\_reala from employees group by job\_id) aux

where j.job\_id = aux.job\_id (+);

1. Determinati si numarul de angajati corespunzator fiecarui job.

select j.job\_id, job\_title, (min\_salary+max\_salary)/2, max\_salary-min\_salary,

nvl(to\_char(aux.media\_reala), 'nu lucreaza nimeni'), nvl(aux.nr\_ang, 0)

from jobs j, (select job\_id, avg(salary) media\_reala, count(\*) nr\_ang from employees group by job\_id) aux

where j.job\_id = aux.job\_id (+);

1. Pentru fiecare departament: denumire, nume, prenume, salariu celor mai putin platiti angajati din cadrul sau.

select e.department\_id, d.department\_name, last\_name, first\_name, e.salary

from employees e, departments d, (select department\_id, min(salary) as m from employees group by department\_id) aux

where e.salary = aux.m and e.department\_id = aux.department\_id and d.department\_id = e.department\_id

order by department\_id;

1. Sa includem si departamentele in care nu lucreaza nimeni.

select e.department\_id, d.department\_name, last\_name, first\_name, e.salary

from employees e, departments d, (select department\_id, min(salary) as m from employees group by department\_id) aux

where e.salary(+) = aux.m and e.department\_id(+) = aux.department\_id and d.department\_id = aux.department\_id(+)

order by department\_id;

1. Ceva cu departamente si decode.

select job\_id,

nvl(sum(decode(department\_id, 30, salary)), 0) DEP30,

nvl(sum(decode(department\_id, 50, salary)), 0) DEP50,

nvl(sum(decode(department\_id, 80, salary)), 0) DEP80,

sum(salary)as Total

from employees

group by job\_id;