**3 курс, 13 группа, Мойсейчик Е. С.**

**Лабораторная работа №3\_5. Составление отчетов. Транспонирование результирующих множеств.**

**Задания**

1. Развернуть группу строк, информирующую о количестве сотрудников на каждой должности в настоящий момент времени, превращая их значения в столбцы.

SELECT

SUM(CASE WHEN JOBNAME = 'PRESIDENT' THEN 1 ELSE 0 END) AS PRESIDENTS,

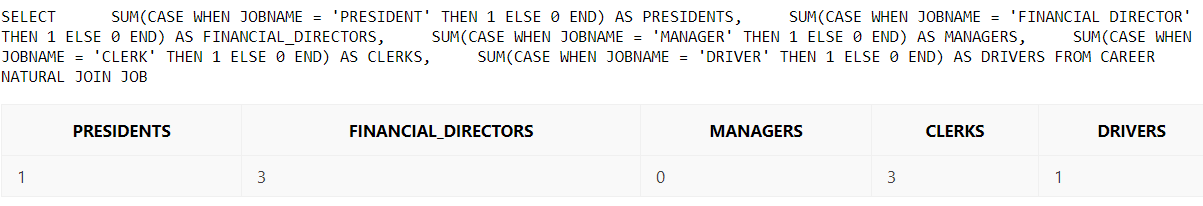
SUM(CASE WHEN JOBNAME = 'FINANCIAL DIRECTOR' THEN 1 ELSE 0 END) AS FINANCIAL\_DIRECTORS,

SUM(CASE WHEN JOBNAME = 'MANAGER' THEN 1 ELSE 0 END) AS MANAGERS,

SUM(CASE WHEN JOBNAME = 'CLERK' THEN 1 ELSE 0 END) AS CLERKS,

SUM(CASE WHEN JOBNAME = 'DRIVER' THEN 1 ELSE 0 END) AS DRIVERS

FROM CAREER NATURAL JOIN JOB;



1. Требуется преобразовать строки в столбцы, создавая для каждого значения заданного столбца отдельный столбец.

SELECT

MAX(CASE WHEN DEPTNAME = 'ACCOUNTING' THEN EMPNAME ELSE NULL END) AS ACCOUNTING,

MAX(CASE WHEN DEPTNAME = 'OPERATIONS' THEN EMPNAME ELSE NULL END) AS OPERATIONS,

MAX(CASE WHEN DEPTNAME = 'RESEARCH' THEN EMPNAME ELSE NULL END) AS RESEARCH,

MAX(CASE WHEN DEPTNAME = 'SALES' THEN EMPNAME ELSE NULL END) AS SALES

FROM

(SELECT

d.DEPTNAME,

e.EMPNAME,

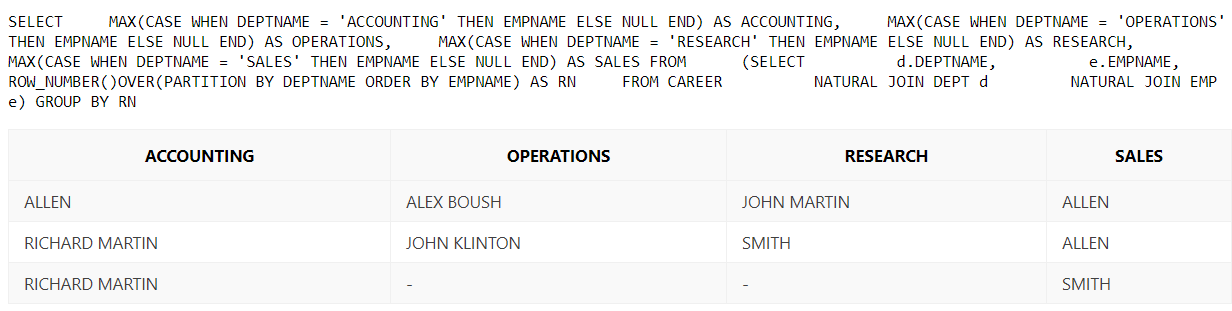
ROW\_NUMBER()OVER(PARTITION BY DEPTNAME ORDER BY EMPNAME) AS RN

FROM CAREER

NATURAL JOIN DEPT d

NATURAL JOIN EMP e)

GROUP BY RN;



1. Выполните обратное разворачивание для результирующего множества, полученного в задании 1.

CREATE OR REPLACE VIEW jobs\_info AS

(SELECT J.JOBNO, J.JOBNAME,

CASE J.JOBNAME

WHEN 'PRESIDENT' THEN EMP\_CNTS.PRESIDENTS

WHEN 'FINANCIAL DIRECTOR' THEN EMP\_CNTS.FINANCIAL\_DIRECTORS

WHEN 'MANAGER' THEN EMP\_CNTS.MANAGERS

WHEN 'CLERK' THEN EMP\_CNTS.CLERKS

WHEN 'DRIVER' THEN EMP\_CNTS.DRIVERS

WHEN 'EXECUTIVE DIRECTOR' THEN EMP\_CNTS.EXECUTIVE\_DIRECTORS

WHEN 'SALESMAN' THEN EMP\_CNTS.SALESMANS

END COUNT\_BY\_JOB

FROM

(SELECT

SUM(CASE WHEN JOBNAME = 'PRESIDENT' THEN 1 ELSE 0 END) AS PRESIDENTS,

SUM(CASE WHEN JOBNAME = 'FINANCIAL DIRECTOR' THEN 1 ELSE 0 END) AS FINANCIAL\_DIRECTORS,

SUM(CASE WHEN JOBNAME = 'MANAGER' THEN 1 ELSE 0 END) AS MANAGERS,

SUM(CASE WHEN JOBNAME = 'CLERK' THEN 1 ELSE 0 END) AS CLERKS,

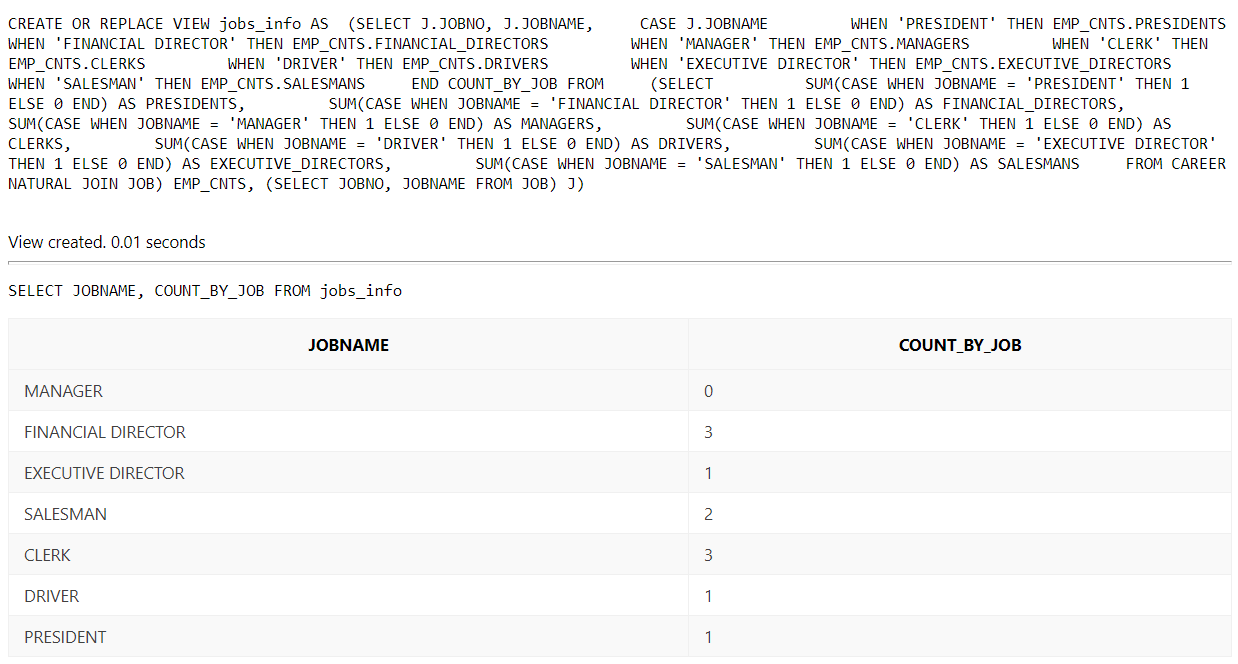
SUM(CASE WHEN JOBNAME = 'DRIVER' THEN 1 ELSE 0 END) AS DRIVERS,

SUM(CASE WHEN JOBNAME = 'EXECUTIVE DIRECTOR' THEN 1 ELSE 0 END) AS EXECUTIVE\_DIRECTORS,

SUM(CASE WHEN JOBNAME = 'SALESMAN' THEN 1 ELSE 0 END) AS SALESMANS

FROM CAREER NATURAL JOIN JOB) EMP\_CNTS, (SELECT JOBNO, JOBNAME FROM JOB) J);

SELECT JOBNAME, COUNT\_BY\_JOB FROM jobs\_info;



1. Составьте запрос, который будет выполнять обратное разворачивание результирующего множества в один столбец.

SELECT

CASE RN

WHEN 1 THEN JOBNAME

WHEN 2 THEN CAST(COUNT\_BY\_JOB AS CHAR(2))

END JOBS

FROM

(SELECT \* FROM

(SELECT

j.JOBNAME,

j.COUNT\_BY\_JOB,

ROW\_NUMBER() OVER(PARTITION BY j.JOBNO ORDER BY j.JOBNO) AS RN

FROM

jobs\_info j,

(SELECT \* FROM jobs\_info))

WHERE RN < 4);



1. Составьте запрос, который будет исключать повторяющиеся значения из результирующего множества.

SELECT

TO\_NUMBER(DECODE(LAG(COUNT\_BY\_JOB) OVER(ORDER BY COUNT\_BY\_JOB), COUNT\_BY\_JOB, NULL, COUNT\_BY\_JOB)) AS EMPS\_COUNT\_BY\_JOB,

JOBNAME

FROM jobs\_info;

