

DCC011 - Exercício 06

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1. Retorne o SSN dos empregados:

1. que trabalham no departamento 4

SELECT SSN FROM EMPLOYEE WHERE DNO = 4

SSN
987654321
987987987
999887777

2. que trabalham no departamento 4 ou 5

SELECT * FROM EMPLOYEE WHERE DNO = 4 or dno = 5

FNAME	MINIT	LNAME	SSN	BDATE	ADDRESS	SEX	SALARY	SUPERSSN	DNO
FRANKLIN	T	WONG	333445555	1955-12-08	638 VOSS, HOUSTON, TX	M	40000	888665555	5
JENNIFER	S	WALLACE	987654321	1941-06-20	291 BERRY, BELLAIRE, TX	F	43000	888665555	4
AHMAD	V	JABBAR	987987987	1969-03-29	980 DALLAS, HOUSTON, TX	M	25000	987654321	4
JOYCE	A	ENGLISH	453453453	1972-07-31	5631 RICE, HOUSTON, TX	F	25000	333445555	5
RAMESH	K	NARAYAN	666884444	1962-06-15	975 FIRE OAK, HUMBLE, TX	M	38000	333445555	5
JOHN	B	SMITH	123456789	1965-01-09	731 FONDREN, HOUSTON, TX	M	30000	333445555	5
ALICIA	J	ZELAYA	999887777	1968-01-19	3321 CASTLE, SPRING, TX	F	25000	987654321	4

3. que trabalham no departamento gerenciado pelo empregado 987654321

select ssn from EMPLOYEE inner join DEPARTMENT where MGRSSN = 987654321

SSN
888665555
333445555
987654321
987987987
453453453
666884444
123456789
999887777

4. que trabalham mais de 9 horas no projeto 10

select SSN from EMPLOYEE inner join WORKS_ON on SSN = ESSN where Hours > 9 and PNO = 10

SSN
333445555
987987987
999887777

2. Retorne o total de horas que o empregado 333445555 trabalha em projetos

select HOURS from EMPLOYEE inner join WORKS_ON on SSN = ESSN where SSN = 333445555

HOURS
9.9
9.9
9.9
9.9

3. Retorne o máximo, mínimo e média de horas que os empregados trabalham no projeto 30

select max(HOURS) as MAX, min(HOURS) as MIN, avg(HOURS) as MEDIA from EMPLOYEE inner join WORKS_ON on SSN = ESSN where PNO=30

MAX	MIN	MEDIA
9.9	5.0	8.26667

4. Retorne todos os projetos (incluindo os sem empregados) seguidos do ssn dos seus empregados

select distinct PNAME, PNUMBER, PLOCATION, DNUM, ESSN from PROJECT inner join WORKS_ON on PNUMBER = PNO

PNAME	PNUMBER	PLOCATION	DNUM	ESSN
ProductX	1	Bellaire	5	123456789
ProductX	1	Bellaire	5	453453453
ProductY	2	Sugarland	5	123456789
ProductY	2	Sugarland	5	333445555
ProductY	2	Sugarland	5	453453453
ProductZ	3	Houston	5	333445555
ProductZ	3	Houston	5	666884444
Computerization	10	Stafford	4	333445555
Computerization	10	Stafford	4	987987987
Computerization	10	Stafford	4	999887777
Reorganization	20	Houston	1	333445555
Reorganization	20	Houston	1	888665555
Reorganization	20	Houston	1	987654321
Newbenefits	30	Stafford	4	987654321
Newbenefits	30	Stafford	4	987987987
Newbenefits	30	Stafford	4	999887777

5. Retorne a quantidade e a média de salário dos empregados que ganham mais de 40 mil

select SALARY from EMPLOYEE where SALARY > 40000

SALARY
55000
43000

select avg(SALARY) from EMPLOYEE where SALARY > 40000

avg(SALARY)
49000.0000

6. Retorne os departamentos que possuem mais de um projeto sem usar GROUP BY

select distinct DNAME, DNUMBER from DEPARTMENT as X inner join PROJECT on DNUM = DNUMBER where (select count(*) from PROJECT where X.DNUMBER = DNUM) > 1

DNAME	DNUMBER
Research	5
Administration	4

7. Retorne os departamentos que possuem mais de um projeto usando GROUP BY

select * from (select *, count(DNUM) as NPROJ from DEPARTMENT inner join PROJECT on DNUM = DNUMBER group by DNUMBER) AS X where NPROJ > 1

DNAME	DNUMBER	MGRSSN	MGRSTARTDATE	PNAME	PNUMBER	PLOCATION	DNUM
Administration	4	987654321	1995-01-01	Computerization	10	Stafford	4
Research	5	333445555	1998-05-02	ProductX	1	Bellaire	5

8. Retorne as mulheres que não possuem dependentes usando o operador IN

select * from EMPLOYEE as X where X.SEX="F" and SSN not in (select ESSN from DEPENDENT)

FNAME	MINIT	LNAME	SSN	BDATE	ADDRESS	SEX	SALARY	SUPERSSN	DNO
JOYCE	A	ENGLISH	453453453	1972-07-31	5631 RICE, HOUSTON, TX	F	25000	333445555	5
ALICIA	J	ZELAYA	999887777	1968-01-19	3321 CASTLE, SPRING, TX	F	25000	987654321	4

9. Retorne as mulheres que não possuem dependentes usando o operador EXISTS

select * from EMPLOYEE as X where X.SEX="F" and not exists (select ESSN from DEPENDENT where X.SSN = ESSN)

FNAME	MINIT	LNAME	SSN	BDATE	ADDRESS	SEX	SALARY	SUPERSSN	DNO
JOYCE	A	ENGLISH	453453453	1972-07-31	5631 RICE, HOUSTON, TX	F	25000	333445555	5
ALICIA	J	ZELAYA	999887777	1968-01-19	3321 CASTLE, SPRING, TX	F	25000	987654321	4

10. Retorne código, nome e média de salário para cada departamento

select DNUMBER, DNAME, AVG(SALARY) from DEPARTMENT as X inner join EMPLOYEE on DNO = DNUMBER group by DNUMBER

DNUMBER	DNAME	AVG(SALARY)
1	Headquarters	55000.0000
4	Administration	31000.0000
5	Research	33250.0000

11. Retorne código, nome e média de salário para departamentos com mais de 3 empregados

select DNAME, DNUMBER, AVG(SALARY) from DEPARTMENT as X inner join EMPLOYEE on DNO = DNUMBER where (select count(*) from EMPLOYEE where X.DNUMBER = DNO) > 3

DNAME	DNUMBER	AVG(SALARY)
Research	5	33250.0000