UNIVERSITY OF CHITTAGONG

Department of Computer Science and Engineering

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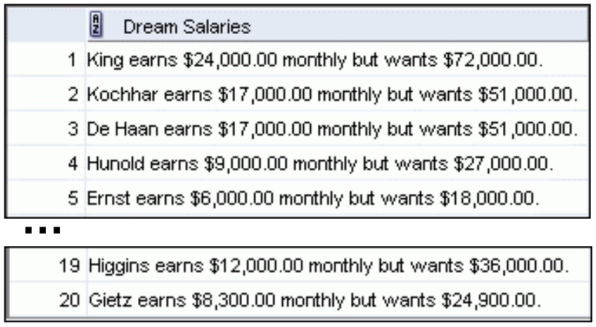
Chapter 3

Practice 3

1. Create a report that produces the following for each employee:
<employee last name> earns <salary> monthly but wants <3 times salary.>. Label the column Dream Salaries.

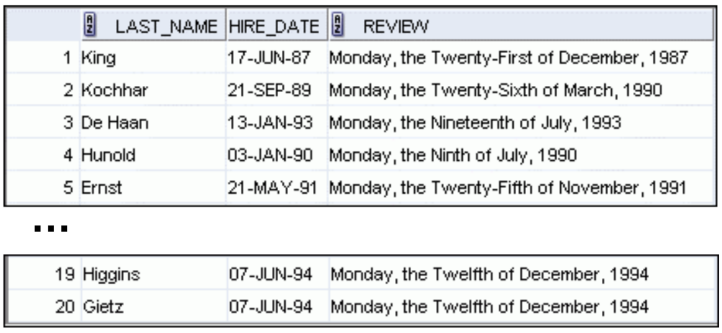


	Dream Salaries
1	King earns $24,000.00 monthly but wants $72,000.00.
2	Kochhar earns $17,000.00 monthly but wants $51,000.00.
3	De Haan earns $17,000.00 monthly but wants $51,000.00.
4	Hunold earns $9,000.00 monthly but wants $27,000.00.
5	Ernst earns $6,000.00 monthly but wants $18,000.00.
...	
19	Higgins earns $12,000.00 monthly but wants $36,000.00.
20	Gietz earns $8,300.00 monthly but wants $24,900.00.

Solution:

```
SELECT Last_Name || '␣earns␣' || Salary ||
    '␣monthly␣but␣wants␣' || (Salary * 3) || '.'
    AS "Dream␣Salaries"
FROM hr.Employees;
```

2. 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 REVIEW. Format the dates to appear in the format similar to "Monday, the Thirty-First of July, 2000."



	LAST_NAME	HIRE_DATE	REVIEW
1	King	17-JUN-87	Monday, the Twenty-First of December, 1987
2	Kochhar	21-SEP-89	Monday, the Twenty-Sixth of March, 1990
3	De Haan	13-JAN-93	Monday, the Nineteenth of July, 1993
4	Hunold	03-JAN-90	Monday, the Ninth of July, 1990
5	Ernst	21-MAY-91	Monday, the Twenty-Fifth of November, 1991
...			
19	Higgins	07-JUN-94	Monday, the Twelfth of December, 1994
20	Gietz	07-JUN-94	Monday, the Twelfth of December, 1994

Solution:

```
SELECT
    last_name,
    hire_date,
    TO_CHAR(
        NEXT_DAY(ADD_MONTHS(hire_date, 6) - 1, 'MONDAY'),
        'FMDay,"the"␣fmDdsp␣"of"␣FMMonth,YYYY'
    ) AS review
FROM
    hr.employees;
```

3. Display the last name, hire date, and day of the week on which the employee started. Label the column DAY. Order the results by the day of the week, starting with Monday.

	LAST_NAME	HIRE_DATE	DAY
1	Grant	24-MAY-99	MONDAY
2	Gietz	07-JUN-94	TUESDAY
3	Taylor	24-MAR-98	TUESDAY
4	Higgins	07-JUN-94	TUESDAY
5	Rajs	17-OCT-95	TUESDAY

...

19	Lorentz	07-FEB-99	SUNDAY
20	Fay	17-AUG-97	SUNDAY

Solution:

```
SELECT Last_Name || '␣earns␣' || Salary ||
    '␣monthly␣but␣wants␣' || (Salary * 3) || '.'
    AS "Dream␣Salaries"
FROM hr.Employees;
```

4. Create a query that displays the employees' last names and commission amounts. If an employee does not earn commission, show "No Commission." Label the column COMM.

	LAST_NAME	COMM
1	King	No Commission
2	Kochhar	No Commission
3	De Haan	No Commission
4	Hunold	No Commission
5	Ernst	No Commission
6	Lorentz	No Commission

...

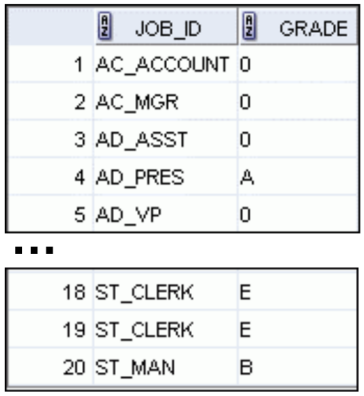
12	Zlotkey	.2
13	Abel	.3
14	Taylor	.2
15	Grant	.15
16	Whalen	No Commission
17	Hartstein	No Commission
18	Fay	No Commission
19	Higgins	No Commission
20	Gietz	No Commission

Solution:

```
SELECT last_name,
    CASE
        WHEN commission_pct IS NULL OR commission_pct = 0
        THEN 'No Commission'
        ELSE TO_CHAR(commission_pct,'fm.99')
    END AS comm
FROM
    hr.employees;
```

5. Using the DECODE function, write a query that displays the grade of all employees based on the value of the column JOB_ID, using the following data:

Job	Grade
AD_PRES	A
ST_MAN	B
IT_PROG	C
SA_REP	D
ST_CLERK	E
None of the above	0



	JOB_ID	GRADE
1	AC_ACCOUNT	0
2	AC_MGR	0
3	AD_ASST	0
4	AD_PRES	A
5	AD_VP	0
...		
18	ST_CLERK	E
19	ST_CLERK	E
20	ST_MAN	B

Solution:

```
SELECT last_name,job_id,
    DECODE(job_id,
            'AD_PRES', 'A',
            'ST_MAN', 'B',
            'IT_PROG', 'C',
            'SA_REP', 'D',
            'ST_CLERK', 'E',
            '0'
    ) AS grade
FROM hr.employees;
```

6. Rewrite the statement in the preceding exercise using the CASE syntax.

Solution:

	JOB_ID	GRADE
1	AC_ACCOUNT	0
2	AC_MGR	0
3	AD_ASST	0
4	AD_PRES	A
5	AD_VP	0

...

18	ST_CLERK	E
19	ST_CLERK	E
20	ST_MAN	B

```sql
SELECT last_name,job_id,
    CASE job_id
        WHEN 'AD_PRES' THEN 'A'
        WHEN 'ST_MAN' THEN 'B'
        WHEN 'IT_PROG' THEN 'C'
        WHEN 'SA_REP' THEN 'D'
        WHEN 'ST_CLERK' THEN 'E'
        ELSE '0'  -- Default case for other values
    END AS grade
FROM employees;
```