Q Calculate annual salary:

```
SQL> SELECT ENAME,SAL,SAL*12 "AN SAL" FROM EMP;

ENAME           SAL     AN SAL
---------- ---------- ----------
SMITH            800       9600
ALLEN           1600      19200
WARD            1250      15000
JONES           2975      35700
MARTIN          1250      15000
BLAKE           2850      34200
CLARK           2450      29400
SCOTT           3000      36000
KING            5000      60000
TURNER          1500      18000
ADAMS           1100      13200
JAMES            950      11400
FORD            3000      36000
MILLER          1300      15600
```

Q Calculate TA, HRA, TAX and GROSS SALARY of all emps.

10% on sal as TA

20% on sal as HRA

5% on sal as TAX

GROSS = sal+ta+hra-tax

```
SQL> select ename,sal,sal*0.1 TA,sal*0.2 HRA,sal*0.05 TAX, sal+sal*0.1+sal*0.2-sal*0.05
GROSS from emp;

ENAME           SAL         TA         HRA        TAX      GROSS
---------- ---------- ---------- ---------- ---------- ----------
SMITH            800         80        160         40       1000
ALLEN           1600        160        320         80       2000
```

WARD	1250	125	250	62.5	1562.5
JONES	2975	297.5	595	148.75	3718.75
MARTIN	1250	125	250	62.5	1562.5
BLAKE	2850	285	570	142.5	3562.5
CLARK	2450	245	490	122.5	3062.5
SCOTT	3000	300	600	150	3750
KING	5000	500	1000	250	6250
TURNER	1500	150	300	75	1875
ADAMS	1100	110	220	55	1375
JAMES	950	95	190	47.5	1187.5
FORD	3000	300	600	150	3750
MILLER	1300	130	260	65	1625

Assignment:

STUDENT

SID SNAME M1 M2 M3

1001 A 70 50 80

1002 B 90 30 60

calculate total marks and average marks of all students

```
SQL> create table CL_STUDENT(
  2       SID NUMBER(10),
  3       SNAME VARCHAR2(20),
  4      MARKS_M1 NUMBER(4,2),
  5      MARKS_M2 NUMBER(4,2),
  6      MARKS_M3 NUMBER(4,2));

Table created.


SQL> INSERT INTO CL_STUDENT VALUES(11,'JAIN_ARNAK',87.80,89.43,79.56);

1 row created.
```

```
SQL> INSERT INTO CL_STUDENT VALUES(11,'JAIN_SAFAL',67.80,79.43,89.56);

1 row created.

SQL> INSERT INTO CL_STUDENT VALUES(11,'JAIN_AMAN',57.80,69.43,99.56);

1 row created.

SQL> SELECT * FROM CL_STUDENT;

       SID SNAME                MARKS_M1   MARKS_M2   MARKS_M3
---------- -------------------- ---------- ---------- ----------
        11 JAIN_ARNAK                87.8      89.43      79.56
        11 JAIN_SAFAL                67.8      79.43      89.56
        11 JAIN_AMAN                 57.8      69.43      99.56

SQL> SELECT SNAME,MARKS_M1+MARKS_M2+MARKS_M3
TOTAL,MARKS_M1+MARKS_M2+MARKS_M3/3 AVG FROM CL_STUDENT;

SNAME                TOTAL       AVG
-------------------- ---------- ----------
JAIN_ARNAK             256.79     203.75
JAIN_SAFAL             236.79 177.083333
JAIN_AMAN              226.79 160.416667
```

Relational Operators / Comparison Operators:

<column> <relational_operator> <value>
Syntax:

sal=3000
Example:

ORACLE SQL provides following Relational Operators:
> greater than sal>3000
>= greater than or equals to sal>=3000
< less than sal<3000
<= less than or equals to sal<=3000
= equals to sal=3000
!= / <> / ^= not equals to sal!=3000

Examples on Relational Operators:

EMP TABLE-:

SQL> SELECT * FROM EMP;

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7369	SMITH	CLERK	7902	17-DEC-80	800		20
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30
7521	WARD	SALESMAN	7698	22-FEB-81	1250	500	30
7566	JONES	MANAGER	7839	02-APR-81	2975		20
7654	MARTIN	SALESMAN	7698	28-SEP-81	1250	1400	30
7698	BLAKE	MANAGER	7839	01-MAY-81	2850		30
7782	CLARK	MANAGER	7839	09-JUN-81	2450		10
7788	SCOTT	ANALYST	7566	09-DEC-82	3000		20
7839	KING	PRESIDENT		17-NOV-81	5000		10
7844	TURNER	SALESMAN	7698	08-SEP-81	1500		30
7876	ADAMS	CLERK	7788	12-JAN-83	1100		20
7900	JAMES	CLERK	7698	03-DEC-81	950		30
7902	FORD	ANALYST	7566	03-DEC-81	3000		20
7934	MILLER	CLERK	7782	23-JAN-82	1300		10

Q Display all MANAGERS records

:

```
SQL> SELECT ENAME,JOB,SAL FROM EMP WHERE JOB='MANAGER';

ENAME      JOB              SAL
---------- --------- ----------
JONES      MANAGER         2975
BLAKE      MANAGER         2850
CLARK      MANAGER         2450
```

Q Display the emp records who are working in deptno 10:

```
SQL> SELECT ENAME,SAL,DEPTNO FROM EMP
  2  ORDER BY DEPTNO;

ENAME            SAL     DEPTNO
---------- ---------- ----------
CLARK          2450         10
KING           5000         10
MILLER         1300         10
JONES          2975         20
FORD           3000         20
ADAMS          1100         20
SMITH           800         20
SCOTT          3000         20
WARD           1250         30
TURNER         1500         30
ALLEN          1600         30
JAMES           950         30
BLAKE          2850         30
MARTIN         1250         30
```

```
SQL> SELECT ENAME,DEPTNO,SAL FROM EMP WHERE DEPTNO<>30;

ENAME          DEPTNO       SAL
---------- ---------- ----------
SMITH              20        800
JONES              20       2975
CLARK              10       2450
SCOTT              20       3000
KING               10       5000
ADAMS              20       1100
FORD               20       3000
MILLER             10       1300
```

Q Display 7698 emp record:

```
SQL> SELECT ENAME,EMPNO,SAL FROM EMP WHERE EMPNO=7839;

ENAME          EMPNO       SAL
---------- ---------- ----------
KING            7839       5000
```

Q Display the emp record whose name is WARD:

```
SQL> SELECT ENAME,SAL FROM EMP WHERE ENAME='WARD';

ENAME            SAL
---------- ----------
WARD             1250
```

Q Display all emp records except managers:

```
SQL> SELECT ENAME,JOB,SAL FROM EMP
  2  ORDER BY SAL;

ENAME      JOB              SAL
---------- --------- ----------
SMITH      CLERK            800
JAMES      CLERK            950
ADAMS      CLERK           1100
WARD       SALESMAN         1250
MARTIN     SALESMAN         1250
MILLER     CLERK           1300
TURNER     SALESMAN         1500
ALLEN      SALESMAN         1600
CLARK      MANAGER          2450
BLAKE      MANAGER          2850
JONES      MANAGER          2975
SCOTT      ANALYST          3000
FORD       ANALYST          3000
KING       PRESIDENT        5000
```

Q Display all emp records except 30th dept emps:

```
SQL> SELECT ENAME,DEPTNO,SAL FROM EMP WHERE DEPTNO<>30;

ENAME          DEPTNO       SAL
---------- ---------- ----------
SMITH              20        800
JONES              20       2975
CLARK              10       2450
SCOTT              20       3000
KING               10       5000
ADAMS              20       1100
FORD               20       3000
MILLER             10       1300
```

Q Display the emp records whose salary is 3000 or more:

```
    SELECT ENAME,SAL FROM EMP WHERE SAL>=3000;

ENAME           SAL
---------- ----------
SCOTT           3000
KING            5000
FORD            3000
```

Q Display the emp records whose salary is 1250 or less:

```
SQL> SELECT ENAME,SAL FROM EMP WHERE SAL<=1230;
```

```
ENAME            SAL
---------- ----------
SMITH            800
ADAMS           1100
JAMES            950
```

Q Display the emp records who joined after 1981:

```
SQL> SELECT ENAME,HIREDATE FROM EMP WHERE HIREDATE>'31-DEC-1981';

ENAME      HIREDATE
---------- ---------
SCOTT      09-DEC-82
ADAMS      12-JAN-83
MILLER     23-JAN-82
```

Q Display the emp records who joined before 1981:

```
SQL> SELECT ENAME,HIREDATE FROM EMP WHERE HIREDATE<='1-JAN-1981';

ENAME      HIREDATE
---------- ---------
SMITH      17-DEC-80
```

Q Display the emp records whose annual salary is more than 30000:

```
SQL> SELECT ENAME,SAL,SAL*12 "AN SAL" FROM EMP;

ENAME           SAL     AN SAL
---------- ---------- ----------
SMITH            800       9600
ALLEN           1600      19200
WARD            1250      15000
JONES           2975      35700
MARTIN          1250      15000
BLAKE           2850      34200
CLARK           2450      29400
SCOTT           3000      36000
KING            5000      60000
TURNER          1500      18000
ADAMS           1100      13200
JAMES            950      11400
FORD            3000      36000
MILLER          1300      15600

14 rows selected.

SQL> SELECT ENAME,SAL,SAL*12 "AN SAL" FROM EMP WHERE SAL*12>=30000;

ENAME           SAL     AN SAL
---------- ---------- ----------
JONES           2975      35700
BLAKE           2850      34200
SCOTT           3000      36000
KING            5000      60000
FORD            3000      36000
```