**Miscellaneous Single Row Functions**

**COALESCE**

 Coalesce function returns the first not null value in the expression list.

 Example.

The following query returns salary+commision, if commission is null then returns salary, if salary is also null then returns 1000.

select empno,ename,salary,comm,coalesce(salary+comm,salary,1000) “Net Sal” from emp;  
  
ENAME     SALARY    COMM NET SAL  
-----     ------    ---- -------  
SMITH     1000      100  1100  
SAMI      3000           3000   
SCOTT                    1000  
RAVI               200   1000

**DECODE**

    DECODE(expr, searchvalue1, result1,searchvalue2,result2,..., defaultvalue)

Decode functions compares an expr with search value one by one. If the expr does not match any of the search value then returns the default value. If the default value is omitted then returns null.

Example

The following query returns the department names according the deptno. If the deptno does not match any of the search value then returns “Unknown Department”

select decode(deptno,10,'Sales',20,'Accounts,30,'Production,  
          40,'R&D','Unknown Dept') As DeptName from emp;  
  
DEPTNAME  
----------  
Sales  
Accounts  
Unknown Dept.  
Accounts  
Production  
Sales  
R&D  
Unknown Dept.

**GREATEST**

    GREATEST(expr1, expr2, expr3,expr4...)

Returns the greatest expr from a expr list.

Example

select greatest(10,20,50,20,30) from dual;  
  
GREATEST  
--------  
50

select greatest('SAMI','SCOTT','RAVI','SMITH','TANYA') from dual;  
  
GREATEST  
--------  
TANYA

**LEAST**

     LEAST(expr1, expr2, expr3,expr4...)

It is simillar to greatest. It returns the least expr from the expression list.

select least(10,20,50,20,30) from dual;  
  
LEAST  
--------  
10  
  
select least('SAMI','SCOTT','RAVI','SMITH','TANYA') from dual;  
  
LEAST  
--------  
RAVI

**NVL**

          NVL2(expr1,expr2)

This function is oftenly used to check null values. It  returns  expr2 if the  expr1 is null, otherwise returns expr1.

Example

The following query returns commission if commission is null then returns 'Not Applicable'.

Select ename,nvl(comm,'Not Applicable') “Comm” from dual;  
  
ENAME     COMM  
------    ----  
Scott     300  
Tiger     450  
Sami      Not Applicable  
Ravi      300  
Tanya     Not Applicable

**NVL2**

       NVL2(expr1,expr2,expr3)

NVL2 returns  expr2 if expr1 is not null, otherwise return expr3.

Example

The following query returns salary+comm if comm is not null, otherwise just returns salary.

select salary,comm,nvl2(comm,salary+comm,salary) “Income” from emp;

SALARY    COMM      INCOME  
------    ----      ------  
1000      100       1100  
2000                2000  
2300      200       2500  
3400                3400

**NULLIF**

         NULLIF(expr1, expr2)

Nullif compares expr1 with expr2. If they are equal then returns null, otherwise return expr1.

Example.

The following query shows old jobs of those employees  who have changed their jobs in the company by comparing the current job with old job in oldemp table.

Select ename,nullif(e.job,o.job) “Old Job” from emp e, oldemp o where e.empno=o.empno;  
  
ENAME         OLD JOB  
-----         -------  
SMITH         CLERK  
SAMI                      
SCOTT         MANAGER

**UID**

Returns the current session ID of user logged on.

Example

select uid from dual;  
  
UID  
----  
20

**USER**

Returns the username of the current user logged on.

select user from dual;  
  
USER  
---------  
SCOTT

**SYS\_CONTEXT**

SYS\_CONTEXT returns the value of parameter associated with the context namespace. You can use this function in both SQL and PL/SQL statements.

EXAMPLE

The following query returns the username of the current user.

Select sys\_context('USERENV','SESSION\_USER') “Username” from dual;  
  
USERNAME  
---------  
SCOTT

Similar to SESSION\_USER parameter for namespace USERENV the other important parameters are

ISDBA            :To check whether the current user is having DBA privileges or not.

HOST              :Returns the name of  host machine from which the client is connected.

INSTANCE    :The instance identification number of the current instance

IP\_ADDRESS: IP address of the machine from which the client is connected.

DB\_NAME    :Name of the database as specified in the DB\_NAME initialization parameter

**VSIZE**

         VSIZE(expr)

Returns the internal representation of expr in bytes.

Example

The following query return the representation of  ename in bytes.

select ename,vsize(ename) as Bytes from emp;  
  
ENAME     BYTES  
------    ------  
SCOTT     5  
SAMI      4  
RAVI      4  
KIRAN     5