FUNCTIONS

Functions are named PL/SQL block which means they can be stored into the database as a database object and can be reused.

Syntax

CREATE OR REPLACE FUNCTION function\_name(parameter\_1,parameter\_2,…) RETURN datatype

IS

DECLARE variables etc.

BEGIN

Executable statements;

Return(return value);

END;

Example

CREATE OR REPLACE FUNCTION fn\_emp\_Det

RETURN VARCHAR2

L\_Result VARCHAR2(3000);

BEGIN

SELECT ‘Name : ‘ ||ename ||’ JOB : ‘||job || ‘ Hiredate : ‘||’Salary : ‘||sal

INTO l\_result

FROM emp

WHERE empno=7839;

RETURN l\_Result;

END;

Different ways to execute the function.

Select fn\_emp\_Det FROM dual;

Set serveroutput on;

BEGIN

DBMS\_OUTPUT.PUT\_LINE(fn\_emp\_Det());

END;

Set serveroutput on;

DECLARE

L\_res VARCHAR2(400);

BEGIN

L\_res:=fn\_emp\_Det();

DBMS\_OUTPUT.PUT\_LINE(L\_res);

END;

Function with out parameter

CREATE OR REPLACE FUNCTION fn\_emp\_Det(ip\_empno NUMBER,op\_sal OUT NUMBER)

RETURN VARCHAR2

L\_Result VARCHAR2(3000);

BEGIN

SELECT ‘Name : ‘ ||ename ||’ JOB : ‘||job || ‘ Hiredate : ‘||’Salary : ‘||sal

INTO l\_result

FROM emp

WHERE empno= ip\_empno;

RETURN l\_Result;

op\_sal:=10000;

END;

execution

Set serveroutput on;

DECLARE

L\_res VARCHAR2(400);

Sal NUMBER;

BEGIN

L\_res:=fn\_emp\_Det(7839,sal);

DBMS\_OUTPUT.PUT\_LINE(L\_res);

END;

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We cannot call function from select if it has OUT parameter

Select fn\_emp\_Det(7839,:sal) FROM dual;

ERROR : - function fn\_emp\_Det has out parameters.

Function with nested table as return type

Create or replace type t\_Record IS OBJECT(empid number,job varchar2(30));

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Create or replace type t\_Table is TABLE of t\_record;

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CREATE OR REPLACE FUNCTION fn\_emp\_Det()

RETURN t\_Table

L\_Result VARCHAR2(3000);

L\_table t\_Table:= t\_Table();

BEGIN

SELECT t\_Record(empno,job)

Bulk collect INTO l\_Table

FROM emp;

RETURN t\_Table;

END;

Execution

Select \* from table(fn\_emp\_Det());

Function with cursor as return type.

CREATE OR REPLACE FUNCTION fn\_emp\_Det()

RETURN sys\_refcursor

L\_Result sys\_recursor;

BEGIN

Open L\_Result for select \* from emp;

RETURN L\_Result ;

END;

Select fn\_emp\_Det()

from dual;

DML Inside function

CREATE OR REPLACE FUNCTION fn\_emp\_Det(ip\_empno NUMBER)

RETURN number

IS

L\_new\_Sal number;

Begin

Update emp set sal=1000 where empno= ip\_empno retruning sal in l\_new\_Sal;

Return l\_new\_sal;

END;

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We cannot call function with DML inside select clause

Select fn\_Emp\_Det(7900) from dual;

ERROR:- cannot perform DML operation inside a query