Stored Procedures (proc)

A stored procedure is a named PL/SQL block which performs one or more specific task.

This is similar to a procedure in other programming languages.

A procedure has a header and a body.

* The header consists of
  + the name of the procedure and
  + the parameters or variables passed to the procedure.
* The body consists of (similar to a general PL/SQL Block)
  + declaration section,
  + execution section and
  + exception section

We can pass parameters to procedures in three ways.

* IN-parameters
* OUT-parameters
* IN OUT-parameters

A procedure may or may not return any value.

A procedure is similar to an anonymous PL/SQL Block but it is named for repeated usage.

General Syntax to create a procedure is:

CREATE [OR REPLACE] PROCEDURE proc\_name [list of parameters]

IS

Declaration section

BEGIN

Execution section

EXCEPTION

Exception section

END;

The syntax within the brackets [ ] indicate they are optional.

IS - marks the beginning of the body of the procedure and is similar to DECLARE in anonymous PL/SQL Blocks.

Procedures: Example

The below example creates a procedure ‘employer\_details’ which gives the details of the employee.

1> CREATE OR REPLACE PROCEDURE employer\_details

2> IS

3> CURSOR emp\_cur IS

4> SELECT first\_name, last\_name, salary FROM emp\_tbl;

5> emp\_rec emp\_cur%rowtype;

6> BEGIN

7> FOR emp\_rec in sales\_cur

8> LOOP

9> dbms\_output.put\_line(emp\_cur.first\_name || ' ' ||emp\_cur.last\_name

10> || ' ' ||emp\_cur.salary);

11> END LOOP;

12>END;

13> /

Backward slash ‘/’ at the end of the program indicates the oracle engine that the PL/SQL program has ended and it can begin processing the statements.

To execute a Stored Procedure?

There are two ways to execute a procedure.

* From the SQL prompt.
  + EXECUTE [or EXEC] procedure\_name;
* Within another procedure – simply use the procedure name.
  + procedure\_name;