# LO9.2 Create anonymous and stored procedures

## PL/SQL blocks

PL/SQL blocks can be anonymous or named.

Anonymous blocks –

Named blocks –

There are 3 types of named blocks:

1. Stored Procedures
2. Functions
3. Triggers

## Stored Procedures

We can pass parameters to procedures in three ways called types:  
1) IN-parameters –

2) OUT-parameters –

3) IN OUT-parameters –

\*note: If a parameter is not explicitly given a type, by default it is an IN type.

### Syntax for a stored procedure

*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.

The syntax above means:

CREATE – creates the procedure if no other procedure with the same name exists

CREATE OR REPLACE – create new (as above) or replace an existing procedure with the current code

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

So if we have a procedure that we are passing in variables, it might look like:

*CREATE PROCEDURE myProcedure*

*(name\_in IN varchar2, name\_out OUT varchar2, name\_in\_out IN OUT varchar3)*

*IS*

### Executing a Stored Procedure

There are two ways to execute a procedure.

1)

*EXECUTE [or EXEC] procedure\_name;*

2)

*procedure\_name;*