What is a Procedure in PL/SQL?

A procedure is a named PL/SQL block that performs a specific task. It can take parameters, execute SQL statements, and return output values.

A procedure is a named PL/SQL block that performs a specific task. It can:
Accept parameters (IN, OUT, IN OUT).
Execute SQL statements (SELECT, INSERT, UPDATE, DELETE).
Handle transactions using COMMIT, ROLLBACK, and SAVEPOINT.
Be called inside other PL/SQL blocks.

Types of Parameters

Type	Description
IN	Default type. Passes a value into the procedure.
OUT	Returns a value from the procedure. Must be assigned a value inside the procedure.
IN OUT	Acts as both an input and output parameter.

Example: Using IN, OUT, IN OUT Parameters

```
CREATE OR REPLACE PROCEDURE EMP_SAL_UPDATE (

    P_EMPNO IN EMP.EMPNO%TYPE,

    P_NEW_SAL IN OUT EMP.SAL%TYPE

)

IS

BEGIN

    UPDATE EMP SET SAL = P_NEW_SAL WHERE EMPNO = P_EMPNO;

    COMMIT;

    DBMS_OUTPUT.PUT_LINE('Salary Updated to ' || P_NEW_SAL);

END;
```

Calling a Procedure

a) Without Parameters

```
BEGIN

    PROCEDURE_NAME;
```

END;

b) With Parameters

DECLARE

   V_SAL NUMBER;

BEGIN

   EMP_SAL_UPDATE(101, V_SAL);

   DBMS_OUTPUT.PUT_LINE('Updated Salary: ' || V_SAL);

END;

Transactions in Procedures

- **COMMIT**: Saves changes permanently.

- **ROLLBACK**: Reverts changes in case of failure.

- **SAVEPOINT**: Creates a temporary savepoint in a transaction.

Procedures vs. Functions

Feature	Procedures	Functions
Returns a value?	No (uses OUT parameter)	Yes (uses RETURN)
Use in SQL Queries?	No	Yes
Used for	Business logic	Computations