What is the difference between stored procedure and stored functions?

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| --- | --- | --- |
| Features | Stored  Procedures | Stored  Functions |
| Purpose | Perform tasks/operations | Perform calculations |
| Return Value | None or via output parameters | A single value |
| Use/call | CALL procedure\_name | As part of an expression eg, select  function\_name |
| Parameters | IN, OUT, INOUT | |  | | --- | |  |  |  | | --- | | Only IN | |
| SQL Query Integration | Not usable directly | Usable in SQL statements |

What is the difference between IN and OUT Parameters in stored Procedure.

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| --- | --- | --- | --- | --- | --- | --- |
| Feature | |  | | --- | |  |  |  | | --- | | **IN Parameter** | | |  | | --- | |  |  |  | | --- | | **OUT Parameter** | |
| Data Flow | Input only | Output only |
| Initial Value | Required | Not required |
| Modifiability | Read-only inside the procedure | |  | | --- | |  |  |  | | --- | | Write-only inside the procedure | |
| Purpose | Provide input to the procedure | Return output from the procedure |
| Example Declaration | IN param\_name data\_type | OUT param\_name data\_type |

How a stored procedure and Stored function is being called or invoked?

**Stored Procedure:**

* Invoked using the CALL statement.
* Syntax:

CALL procedure\_name(parameter1, parameter2, ...);

**Example:**

CALL add\_employee('John Doe', 50000);

**Stored Function:**

* Invoked as part of an expression (e.g., in SELECT, WHERE, etc.).
* Syntax:

SELECT function\_name(parameter1, parameter2, ...);

**Example:**

SELECT calculate\_tax(50000);