Exercise 10 Functions

Write a function to determine if an employee salary is out of range.

Objective: The objective of this exercise is to enable you to implement Functions in PL/SQL.

Procedures and Descriptions:
A function is a named PL/SQL Block which is similar to a procedure. The major difference between a procedure and a function is, a function must always return a value, but a procedure may or may not return a value. PL/SQL functions returns a scalar value and PL/SQL procedures return nothing. Both can take zero or more number of parameters as input or output. Both can be stored in the database or declared within a block (a local function). The special feature about PL/SQL is that a procedure/function argument can be of input (indicating the argument is read-only), output (indicating the argument is write only) or both (both readable and writable).

The General Syntax to create a function is:

```
CREATE [OR REPLACE] FUNCTION function_name [parameters]
RETURN return_datatype;
IS
Declaration_section
BEGIN
Execution_section
Return return_variable;
EXCEPTION
exception section
Return return_variable;
END;
```

Sample PL/SQL function code:

```
FUNCTION sal_ok (salary REAL, title REAL) RETURN BOOLEAN IS
  min_sal REAL;
  max_sal REAL;
```

```
BEGIN
  SELECT losal, hisal INTO min_sal, max_sal
    FROM sals
    WHERE job = title;
  RETURN (salary >= min_sal) AND (salary <= max_sal);
END sal_ok;
```

Algorithm: The steps for this exercise are given below:

Step – 1: Create the appropriate table of employee with salary.

Step – 2: Write the PL/SQL code - functions for the conditions.

Step – 3: Execute.

Expected Output:
A function that determines the salary out of range.