Title: Cursors (All types: Implicit, Explicit, Cursor for loop, parametrized Cursor)

Problem Statement:

Write PL/SQL block of code using parametrized Cursor, that will merge data available in the newly created table

Objectives:

a) Understand the types of cursors

b) Understand how to use cursors with PL/SQL block.

Theory: Related Concept:

CURSOR:

1) For the processing of any SQL statement, database needs to allocate memory. This memory is called context data area.

The context area is a part of PGA (Process Global Area) & is allocated on the oracle server.

2) There are two types of cursors

> Implicit Cursors - defined by ORACLE implicitly

1) Explicit Cursors - user defined cursors which are defined in declaration section of PL/SQL block.

3) General syntax for CURSOR:

```
DECLARE
    cursor cursor_name IS select stat. @ query;
BEGIN
    Open cursor_name:
    Fetch cursor_name into list_of_vars;
    close cursor_name:
END;
```

4> Explit Cursor Attributes

    i> %FOUND : returns true/false on the basis
    of previous record

    ii> %NOT FOUND : Inverse of FOUND.

    iii> %ISOPEN: this attribute is used to determine
    wheather/not the associated cursor is
    open.

    iv> %ROWCOUNT: returns number of rows fetched
    by the cursor

5> CURSOR fetch Loops:

    i> Simple loop:

        LOOP
            Fetch cursorname into lut.of.vars.
        EXIT WHEN cursorname %NOTFOUND
        seq_of_statements
        END LOOP;

    ii> while loop:

        FETCH cursorname INTO lut.of.vars;
        WHILE cursorname %FOUNDLOOP
            seq_of_statements
            FETCH cursorname INTO lut.of.vars.
        END LOOP.

    iii> Cursor FOR LOOP:

        FOR var.name IN cursor.name loop
            --implicit fetch is done here.
            --cursorname% NOTFOUND is also
            implicitly checked
            --procen the fetched records
            seq_of_statements
        END LOOP:

Testcases & outputs:
- Two tables are used.
  New.Emp & O.Emp
- ~~Data~~ cursor is used to update O.Emp table
  with new.employess.
- Output screenshots are separately attached.

Conclusion:
In this assignment I have learned about PL/SQL
cursor & their usecases. Also learned behind
them. I implemented cursors in   theory
mysql programming language.