Name : Khushboo P Attarde
PRN NO : 22210887
Roll no : 01
Batch : A1

ASSIGNMENT NO : 6

- **Implementation Questions:**

1. **Write a PL/SQL function to multiply 2 numbers**

```
-- 1. Write a PL/SQL function to multiply 2 numbers

create or replace function multiply(a in number,b in number)
return number is
    c number;
begin
    c:=a*b;
    return c;
end;
/
```

2. **Write a PL/SQL function to find maximum of 2 numbers.**

```
-- 2. Write a PL/SQL function to find maximum of 2 numbers.

create or replace function max_2(a in number,b in number)
return number is
    result_max number;
begin
    if a > b then
        result_max:=a;
    else
        result_max:=b;
    end if;
    return result_max;
end;
/
```

3. **Write a PL/SQL function to define total number of books in SIU Library.**

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```
create table vulibrary(
    lib_name varchar(100),
    book_id number primary key,
    book_name varchar(100),
    book_price number
);
as
BEGIN
    insert into vulibrary(lib_name, book_id, book_name, book_price)
    values('xyz', 1, 'Indian girl', 200);

    insert into vulibrary(lib_name, book_id, book_name, book_price)
    values('abc', 2, 'atomic habits', 300);

    insert into vulibrary(lib_name, book_id, book_name, book_price)
    values('pqr', 3, 'syamchi aai', 400);

    insert into vulibrary(lib_name, book_id, book_name, book_price)
    values('stu', 4, 'c++ book', 250);

    COMMIT;
END;
/
```

```
Statement processed.
Total number of books in VU Library: 4
```

4. Write a PL/SQL function to find average of 4 numbers.

```
-- 4. Write a PL/SQL function to find average of 4 numbers.

create or replace function avg_4(a in number,b in number,c in number,d in number)
return number is
    num_sum number;
    num_avg number;
begin
    num_sum :=a+b+c+d;
    num_avg :=num_sum/4;
    return num_avg;
end;
/
```

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5. **Write a PL/SQL function to find factorial.**

```
-- 5. Write a PL/SQL function to find factorial.

CREATE OR REPLACE FUNCTION fact(n IN NUMBER) RETURN NUMBER
IS
    fact_result NUMBER := 1;
BEGIN
    IF n < 0 THEN
        RETURN NULL;
    ELSIF n = 0 THEN
        RETURN 1;
    ELSE
        FOR i IN 1..n LOOP
          fact_result := fact_result * i;
        END LOOP;
    END IF;

    RETURN fact_result;
END;
/
```

6. **Write a PL/SQL function to find the name of the library which has the cheapest books.**

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```
-- 6. Write a PL/SQL function to find the name of the library which has the cheapest books.

CREATE OR REPLACE FUNCTION find_cheapest_library
RETURN VARCHAR2
IS
   cheapest_library_name VARCHAR2(100);
BEGIN
   SELECT lib_name
   INTO cheapest_library_name
   FROM vulibrary
   WHERE book_price = (SELECT MIN(book_price) FROM vulibrary);

   RETURN cheapest_library_name;
END find_cheapest_library;
/
DECLARE
   cheapest_library VARCHAR2(100);
BEGIN
   cheapest_library := find_cheapest_library;
   DBMS_OUTPUT.PUT_LINE('The library with the cheapest books is: ' || cheapest_library);
END;
/
```

```
Statement processed.
The library with the cheapest books is: xyz
```