

1. Write a PL/SQL Code that will accept a number and make it reverse (without using modulo division operator).

Solution:

```
DECLARE
    NUM VARCHAR2(20);
    X NUMBER(3) := 1;
    C VARCHAR2(2);
    REV VARCHAR2(20) := '';
BEGIN
    NUM := &NUM;
    WHILE (X <= LENGTH(NUM))
    LOOP
        C := SUBSTR(NUM, X, 1);
        REV := C || REV;
        X := X + 1;
    END LOOP;
    DBMS_OUTPUT.PUT_LINE('REVERSE OF ' || NUM || ' IS ' || REV);
END;
```

OUTPUT:

```
Enter value for num: 123456
old 7: NUM:=&NUM;
new 7: NUM:=123456;
REVERSE OF 123456 IS 654321
```

2. Write a PL/SQL Code to find factorial of a given number

solution:

```
DECLARE
    N NUMBER(3);
    A NUMBER(3);
    FACT NUMBER(7) := 1;
BEGIN
    N := &N;
    WHILE (N > 1)
    LOOP
        FACT := FACT * N;
        N := N - 1;
    END LOOP;
    DBMS_OUTPUT.PUT_LINE('FACTORIAL OF IS ' || FACT);
END;
```

OUTPUT:

```
Enter value for n: 5
old 6:      N:=&N;
new 6:      N:=5;
FACTORIAL OF IS 120
```

3. Write a PL/SQL Code to calculate the gcd of two given integers

Solution:

```
DECLARE
    A NUMBER(3);
    B NUMBER(3);
    R NUMBER(7);
BEGIN
    A:=&A;
    B:=&B;
    WHILE (MOD(A,B) > 0)
    LOOP
        R:=MOD(A,B);
        A:=B;
        B:=R;
    END LOOP;
    DBMS_OUTPUT.PUT_LINE('GCD = '||B);
END;
```

OUTPUT:

```
Enter value for a: 20
old 6:      A:=&A;
new 6:      A:=20;
Enter value for b: 30
old 7:      B:=&B;
new 7:      B:=30;
GCD = 10
```

4. Write a PL/SQL Code to generate Fibonacci series upto a given numbers.

Solution:

```
DECLARE
    N NUMBER(5);
    A NUMBER(5) := 0;
    B NUMBER(5) := 1;
    I NUMBER(5) := 1;
    TOTAL NUMBER(5) := 0;
BEGIN
    N := &N;
    FOR I IN 0..N
    LOOP
        DBMS_OUTPUT.PUT_LINE(A);
        TOTAL := A+B;
        A := B;
        B := TOTAL;
    END LOOP;
END;
```

OUTPUT:

```
Enter value for n: 7
old 8:      N:=&N;
new 8:      N:=7;
0
1
1
2
3
5
8
```

5. Write a PL/SQL Code to find a given employee number exists in employee table.

Solution:

```
DECLARE
    EMP_NO NUMBER(7);
    EMP_NAME VARCHAR2(20);
BEGIN
    EMP_NO:=&EMP_NO;
    SELECT ENAME INTO EMP_NAME
    FROM EMP
    WHERE EMP_ID = EMP_NO;
    IF LENGTH(EMP_NAME) <= 0 THEN
        DBMS_OUTPUT.PUT_LINE('EMPLOYEE NUMBER ' || EMP_NO || ' DONT EXIST. ');
    ELSE
        DBMS_OUTPUT.PUT_LINE('EMPLOYEE NAME IS ' || EMP_NAME);
    END IF;
END;
```

OUTPUT:

```
Enter value for emp_no: 1
old 5:      EMP_NO:=&EMP_NO;
new 5:      EMP_NO:=1;
EMPLOYEE NAME IS Rahul
```

Sir there is an issue, if the record is not found it should print

```
EMPLOYEE NUMBER 102 DONT EXIST
```

But the output is like:

```
Enter value for emp_no: 102
old 5:      EMP_NO:=&EMP_NO;
new 5:      EMP_NO:=102;
DECLARE
*
ERROR at line 1:
ORA-01403: no data found
ORA-06512: at line 6
```