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DATABASE SYSTEMS LAB
L51 + L52

EXERCISE 7 AND 8

PL/SQL Programming and Sequential Constructs

LIVESQL LINKS:

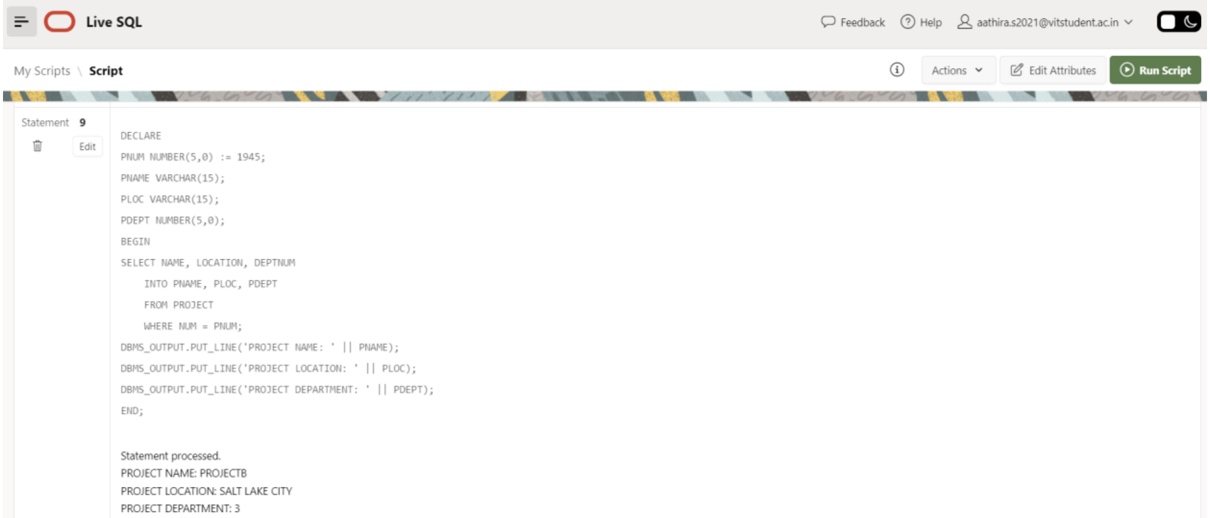
Exercise 7: https://livesql.oracle.com/apex/livesql/s/pfufuo62nrfcuyqqobbraxj3u

Exercise 8: https://livesql.oracle.com/apex/livesql/s/pfuf7sean8kekl12trre05nwi

Exercise 7

Aim: To understand the concept of PL/SQL Programming

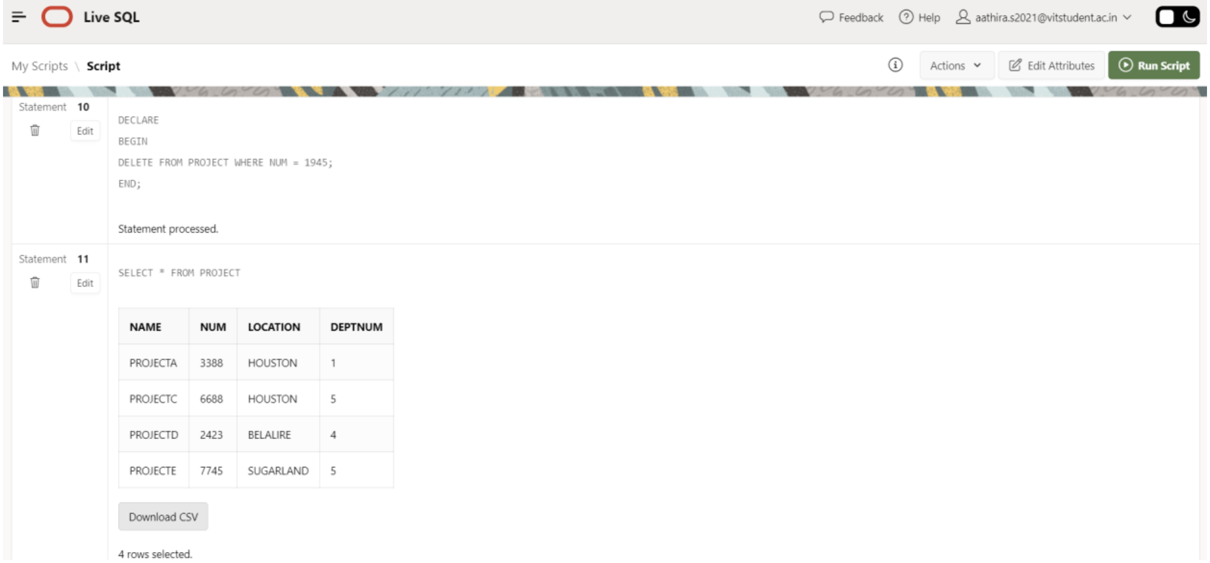
1. Write a PL/SQL block to accept a value from primary key and display any corresponding value.



```
DECLARE
PNUM NUMBER(5,0) := 1945;
PNAME VARCHAR(15);
PLOC VARCHAR(15);
PDEPT NUMBER(5,0);
BEGIN
SELECT NAME, LOCATION, DEPTNUM
    INTO PNAME, PLOC, PDEPT
    FROM PROJECT
    WHERE NUM = PNUM;
DBMS_OUTPUT.PUT_LINE('PROJECT NAME: ' || PNAME);
DBMS_OUTPUT.PUT_LINE('PROJECT LOCATION: ' || PLOC);
DBMS_OUTPUT.PUT_LINE('PROJECT DEPARTMENT: ' || PDEPT);
END;
```

```
Statement processed.
PROJECT NAME: PROJECTB
PROJECT LOCATION: SALT LAKE CITY
PROJECT DEPARTMENT: 3
```

2. Write a PL/SQL program to delete one record from the table



```
DECLARE
BEGIN
DELETE FROM PROJECT WHERE NUM = 1945;
END;
```

```
Statement processed.
```

```
SELECT * FROM PROJECT
```

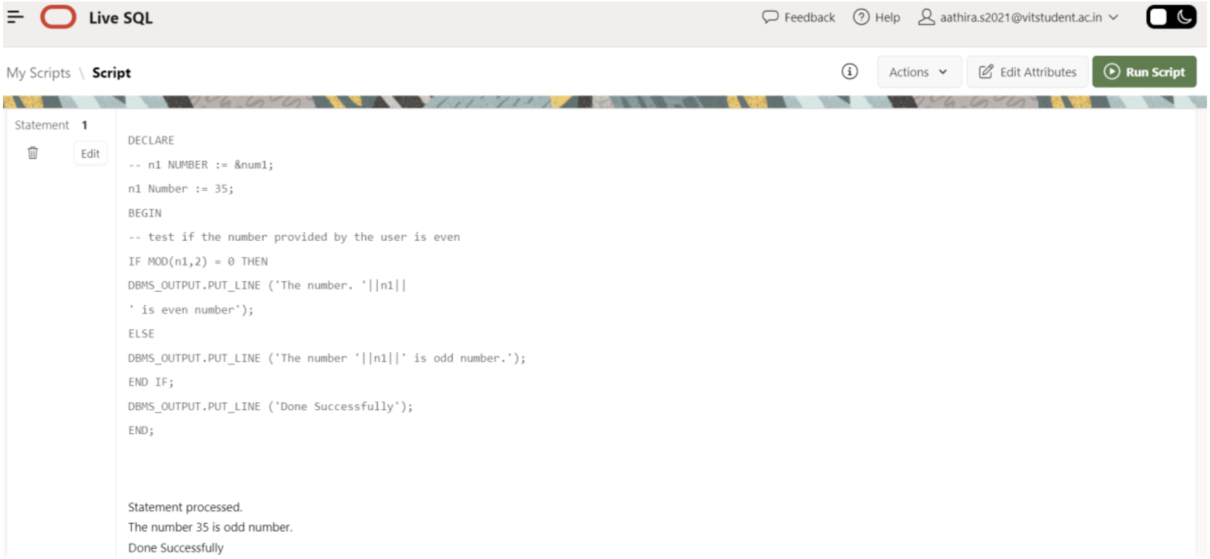
NAME	NUM	LOCATION	DEPTNUM
PROJECTA	3388	HOUSTON	1
PROJECTC	6688	HOUSTON	5
PROJECTD	2423	BELALIRE	4
PROJECTE	7745	SUGARLAND	5

```
4 rows selected.
```

Exercise 8

Aim: To know the usage of different sequential control structures in PL/SQL effective programming

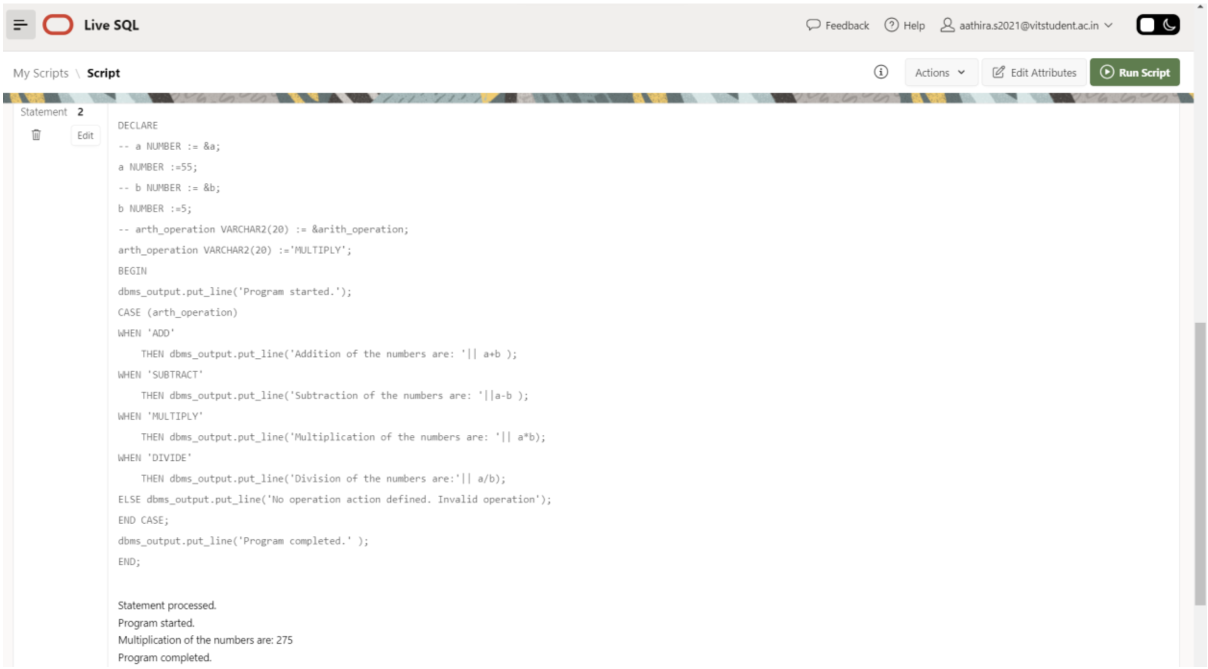
1. Write a PL/SQL block to find whether a given number is odd or even.



```
DECLARE
-- n1 NUMBER := &num1;
n1 Number := 35;
BEGIN
-- test if the number provided by the user is even
IF MOD(n1,2) = 0 THEN
DBMS_OUTPUT.PUT_LINE ('The number. '||n1||
' is even number');
ELSE
DBMS_OUTPUT.PUT_LINE ('The number '||n1||' is odd number.');
END IF;
DBMS_OUTPUT.PUT_LINE ('Done Successfully');
END;
```

```
Statement processed.
The number 35 is odd number.
Done Successfully
```

2. Write a PL/SQL code as menu driven to perform arithmetic operations. (hint: use case selector….)



```
DECLARE
-- a NUMBER := &a;
a NUMBER :=55;
-- b NUMBER := &b;
b NUMBER :=5;
-- arth_operation VARCHAR2(20) := &arith_operation;
arth_operation VARCHAR2(20) :='MULTIPLY';
BEGIN
dbms_output.put_line('Program started.');
CASE (arth_operation)
WHEN 'ADD'
    THEN dbms_output.put_line('Addition of the numbers are: '|| a+b );
WHEN 'SUBTRACT'
    THEN dbms_output.put_line('Subtraction of the numbers are: '||a-b );
WHEN 'MULTIPLY'
    THEN dbms_output.put_line('Multiplication of the numbers are: '|| a*b);
WHEN 'DIVIDE'
    THEN dbms_output.put_line('Division of the numbers are:'|| a/b);
ELSE dbms_output.put_line('No operation action defined. Invalid operation');
END CASE;
dbms_output.put_line('Program completed.' );
END;
```

```
Statement processed.
Program started.
Multiplication of the numbers are: 275
Program completed.
```