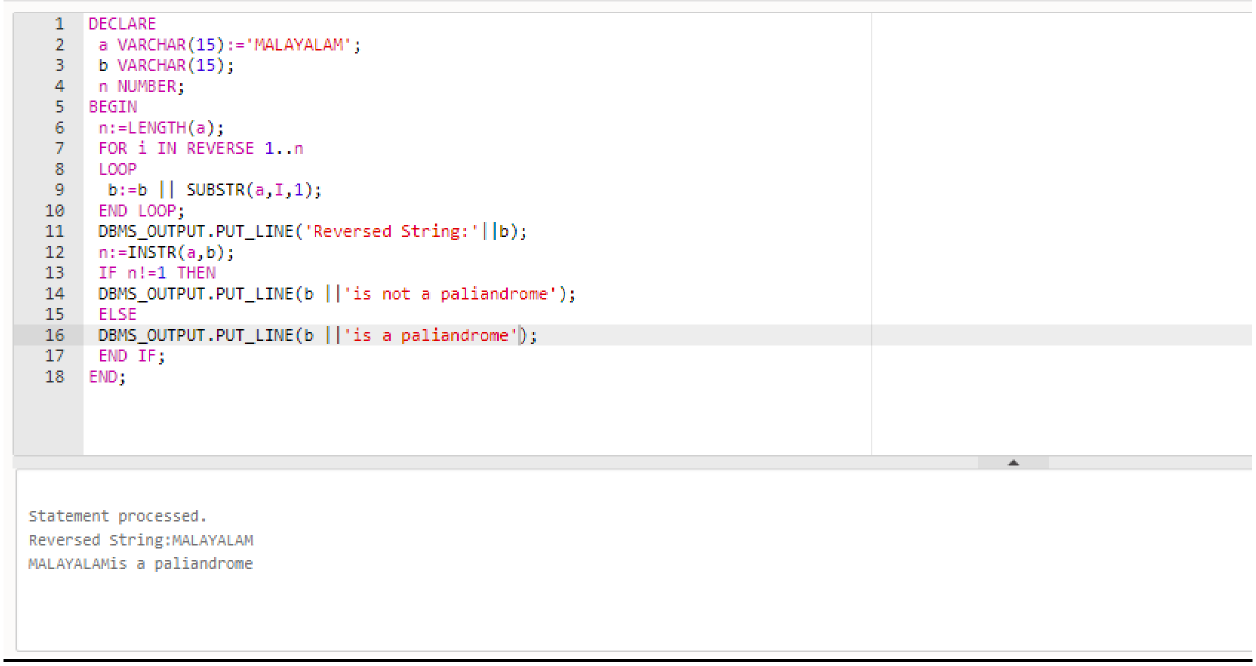
1) Write a PL/SQL code to accept the text and reverse the given text. Check the text is palindrome or not.

PL/SQL CODE:

```
DECLARE
 a VARCHAR(15):='MALAYALAM';
 b VARCHAR(15);
 n NUMBER;
BEGIN
 n:=LENGTH(a);
 FOR i IN REVERSE 1..n
 LOOP
  b:=b || SUBSTR(a,I,1);
 END LOOP;
 DBMS_OUTPUT.PUT_LINE('Reversed String:'||b);
 n:=INSTR(a,b);
 IF n!=1 THEN
 DBMS_OUTPUT.PUT_LINE(b ||'is not a paliandrome);
 ELSE
 DBMS_OUTPUT.PUT_LINE(b ||'is a paliandrome);
 END IF;
END;
```

OUTPUT:



```
DECLARE
 a VARCHAR(15):='MALAYALAM';
 b VARCHAR(15);
 n NUMBER;
BEGIN
 n:=LENGTH(a);
 FOR i IN REVERSE 1..n
 LOOP
  b:=b || SUBSTR(a,I,1);
 END LOOP;
 DBMS_OUTPUT.PUT_LINE('Reversed String:'||b);
 n:=INSTR(a,b);
 IF n!=1 THEN
 DBMS_OUTPUT.PUT_LINE(b ||'is not a paliandrome');
 ELSE
 DBMS_OUTPUT.PUT_LINE(b ||'is a paliandrome');
 END IF;
END;
```

```
Statement processed.
Reversed String:MALAYALAM
MALAYALAMis a paliandrome
```

2) Write a program to read two numbers; If the first no > 2nd no, then swap the numbers; if the first number is an odd number, then find its cube; if first no < 2nd no then raise it to its power; if both the numbers are equal, then find its sqrt.

PL/SQL CODE:

DECLARE

a INTEGER:=12;

b INTEGER:=9;

temp INTEGER:=0;

c INTEGER;

cube INTEGER;

BEGIN

IF a > b THEN

temp:=a;

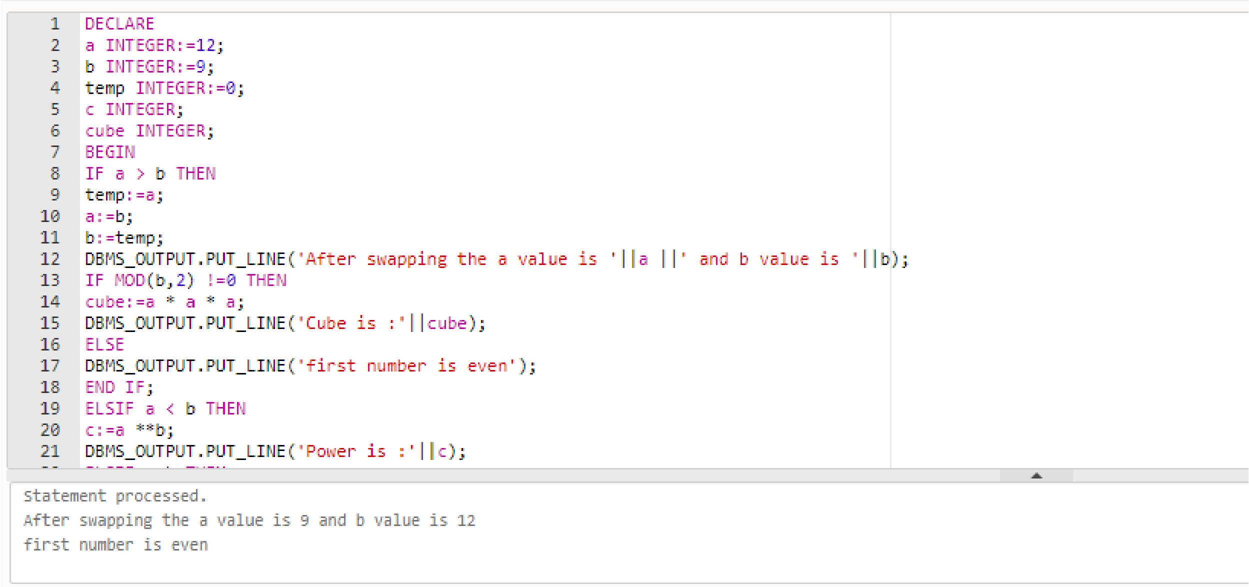
a:=b;

b:=temp;

DBMS_OUTPUT.PUT_LINE('After swapping the a value is '||a ||' and b value is '||b);

```
IF MOD(b,2) !=0 THEN

cube:=a * a * a;

DBMS_OUTPUT.PUT_LINE('Cube is :'||cube);

ELSE

DBMS_OUTPUT.PUT_LINE('first number is even');

END IF;

ELSIF a < b THEN

c:=a **b;

DBMS_OUTPUT.PUT_LINE('Power is :'||c);

ELSIF a=b THEN

DBMS_OUTPUT.PUT_LINE('Square root of a is :'||(SQRT(a)));

DBMS_OUTPUT.PUT_LINE('Square root of b is :'||(SQRT(b)));

END IF;

END;
```

OUTPUT:



```
DECLARE
a INTEGER:=12;
b INTEGER:=9;
temp INTEGER:=0;
c INTEGER;
cube INTEGER;
BEGIN
IF a > b THEN
temp:=a;
a:=b;
b:=temp;
DBMS_OUTPUT.PUT_LINE('After swapping the a value is '||a ||' and b value is '||b);
IF MOD(b,2) !=0 THEN
cube:=a * a * a;
DBMS_OUTPUT.PUT_LINE('Cube is :'||cube);
ELSE
DBMS_OUTPUT.PUT_LINE('first number is even');
END IF;
ELSIF a < b THEN
c:=a **b;
DBMS_OUTPUT.PUT_LINE('Power is :'||c);
```

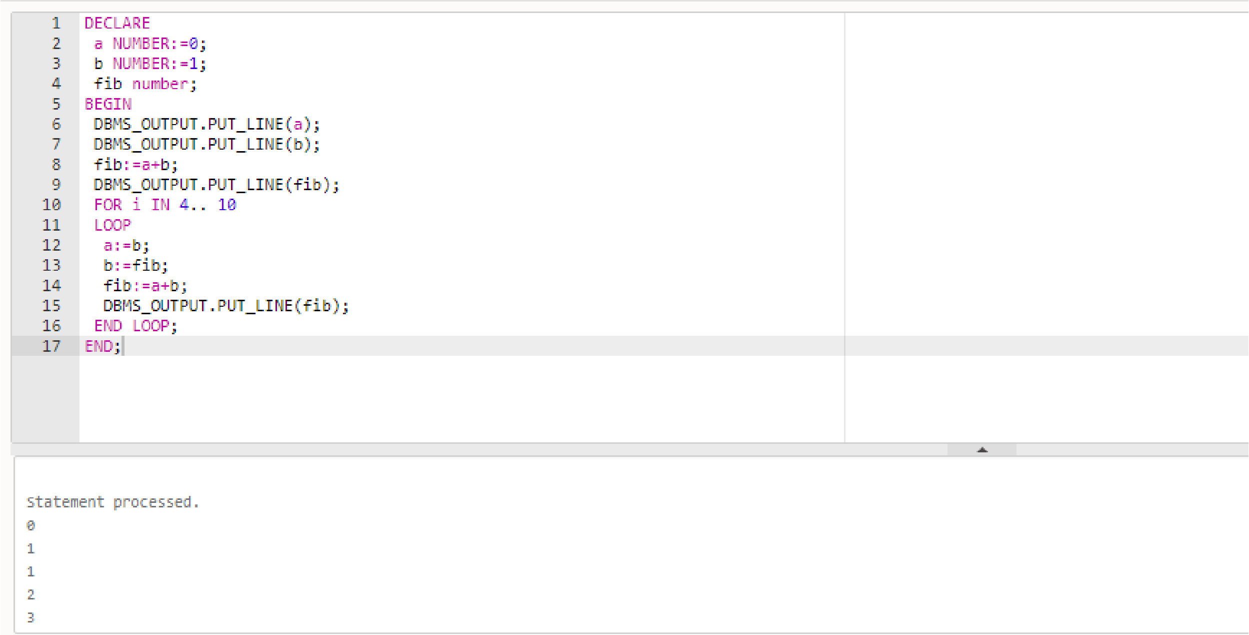
```
Statement processed.
After swapping the a value is 9 and b value is 12
first number is even
```

3) Write a program to generate first 10 terms of the Fibonacci series

PL/SQL CODE:

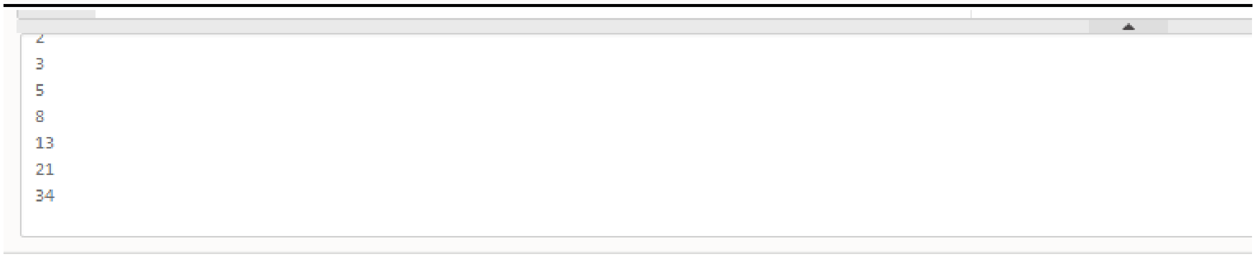
```
DECLARE

 a NUMBER:=0;

 b NUMBER:=1;
 fib number;
BEGIN
 DBMS_OUTPUT.PUT_LINE(a);
 DBMS_OUTPUT.PUT_LINE(b);
 fib:=a+b;
 DBMS_OUTPUT.PUT_LINE(fib);
 FOR i IN 4.. 10
 LOOP
  a:=b;
  b:=fib;
  fib:=a+b;
  DBMS_OUTPUT.PUT_LINE(fib);
 END LOOP;
END;
```

OUTPUT:



```
DECLARE
 a NUMBER:=0;
 b NUMBER:=1;
 fib number;
BEGIN
 DBMS_OUTPUT.PUT_LINE(a);
 DBMS_OUTPUT.PUT_LINE(b);
 fib:=a+b;
 DBMS_OUTPUT.PUT_LINE(fib);
 FOR i IN 4.. 10
 LOOP
  a:=b;
  b:=fib;
  fib:=a+b;
  DBMS_OUTPUT.PUT_LINE(fib);
 END LOOP;
END;
```

```
Statement processed.
0
1
1
2
3
```



```
2
3
5
8
13
21
34
```

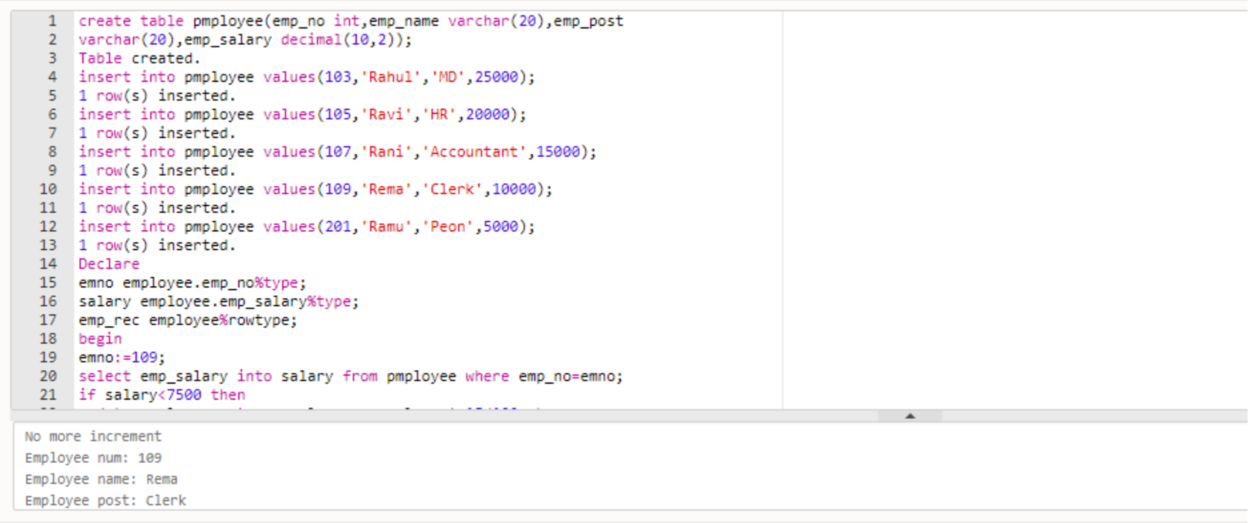
4) Write a PL/SQL program to find the salary of an employee in the EMP table (Get the empno from the user). Find the employee drawing minimum salary. If the minimum salary is less than 7500, then give an increment of 15%. Also create an emp %rowtype record. Accept the empno from the user, and display all the information about the employee.

PL/SQL CODE:

```
create table employee(emp_no int,emp_name varchar(20),emp_post
varchar(20),emp_salary decimal(10,2));
Table created.

insert into employee values(103,'Rahul','MD',25000);
1 row(s) inserted.

insert into employee values(105,'Ravi','HR',20000);
1 row(s) inserted.

insert into employee values(107,'Rani','Accountant',15000);
1 row(s) inserted.

insert into employee values(109,'Rema','Clerk',10000);
1 row(s) inserted.
```

```
insert into employee values(201,'Ramu','Peon',5000);
1 row(s) inserted.

Declare
emno employee.emp_no%type;
salary employee.emp_salary%type;
emp_rec employee%rowtype;
begin
emno:=109;
select emp_salary into salary from employee where emp_no=emno;
if salary<7500 then
update employee set emp_salary=emp_salary * 15/100 where
emp_no=emno;
else
dbms_output.put_line('No more increment');
end if;
select * into emp_rec from employee where emp_no=emno;
dbms_output.put_line('Employee num: '||emp_rec.emp_no);
dbms_output.put_line('Employee name: '||emp_rec.emp_name);
dbms_output.put_line('Employee post: '||emp_rec.emp_post);
dbms_output.put_line('Employee salary: '||emp_rec.emp_salary);
end;
```

OUTPUT:



```
create table pmployee(emp_no int,emp_name varchar(20),emp_post
varchar(20),emp_salary decimal(10,2));
Table created.
insert into pmployee values(103,'Rahul','MD',25000);
1 row(s) inserted.
insert into pmployee values(105,'Ravi','HR',20000);
1 row(s) inserted.
insert into pmployee values(107,'Rani','Accountant',15000);
1 row(s) inserted.
insert into pmployee values(109,'Rema','Clerk',10000);
1 row(s) inserted.
insert into pmployee values(201,'Ramu','Peon',5000);
1 row(s) inserted.
Declare
emno employee.emp_no%type;
salary employee.emp_salary%type;
emp_rec employee%rowtype;
begin
emno:=109;
select emp_salary into salary from pmployee where emp_no=emno;
if salary<7500 then
```

```
No more increment
Employee num: 109
Employee name: Rema
Employee post: Clerk
```

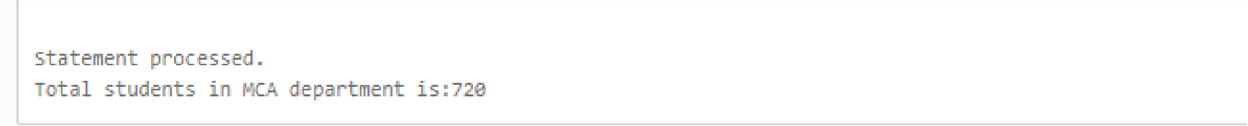
5) Write a PL/SQL function to find the total strength of students present in different classes of the MCA department using the table Class(ClassId, ClassName, Strength);

PL/SQL CODE:

```
create table class(cls_id int,cls_name varchar(20),cls_std int);
Table created.

insert into class values(101,'mca',60);
1 row(s) inserted.
```

```
insert into class values(102,'mca',60);
1 row(s) inserted.

insert into class values(103,'bca',57);
1 row(s) inserted.

insert into class values(104,'bca',59);
1 row(s) inserted.

insert into class values(105,'msc',62);
1 row(s) inserted.

CREATE OR REPLACE FUNCTION total_std
RETURN NUMBER IS
total NUMBER(5):=0;
BEGIN
SELECT sum(cls_std) INTO total FROM class WHERE cls_name='mca';
RETURN total;
END;
Function created.

DECLARE
c NUMBER(5);
BEGIN
c:=total_std();
DBMS_OUTPUT.PUT_LINE('Total students in MCA department is:'||c);
END;
```

OUTPUT:



```
Statement processed.
Total students in MCA department is:720
```