

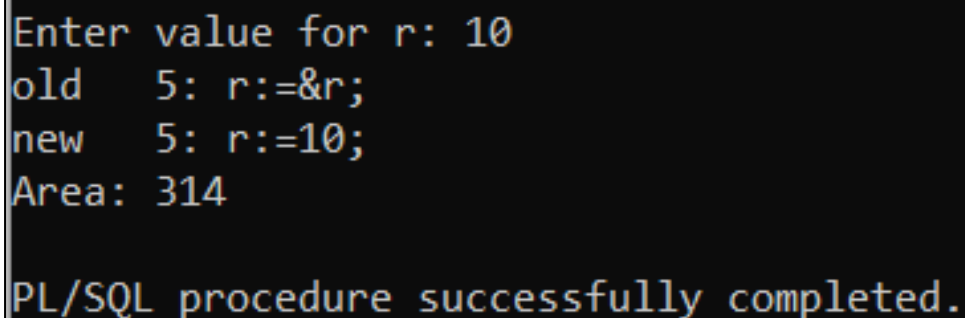
Sardar Vallabhbhai National Institute of Technology, Surat

Subject: DATABASE MANAGEMENT SYSTEM

- DBMS Assignment-10.
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Q1. Write a pl/sql program to get the area of the circle provided the radius is given.

```
declare
r int;
a float;
begin
r:=&r;
a:=3.14*r*r;
dbms_output.put_line('Area: '||a);
end;
/
```



```
Enter value for r: 10
old   5: r:=&r;
new   5: r:=10;
Area: 314

PL/SQL procedure successfully completed.
```

EMPLOYEE TABLE:

```
create table employee(
emp_id varchar(5),
emp_name varchar(25),
emp_salary number);
```

```
INSERT INTO EMPLOYEE VALUES('E01', 'ABHINAV',7500);
INSERT INTO EMPLOYEE VALUES('E02', 'ABHAY',8000);
INSERT INTO EMPLOYEE VALUES('E03', 'DIKSHA',6500);
INSERT INTO EMPLOYEE VALUES('E04', 'BINAY',9500);
INSERT INTO EMPLOYEE VALUES('E05', 'JAYESH',4500);
```

Q2. Write a pl/sql program to get the name and salary of specified employee.

```
declare
name varchar2(25);
salary number;
begin
select emp_name, emp_salary into name, salary from employee where emp_id='E01';
dbms_output.put_line('Name: ' || name);
dbms_output.put_line('Salary: ' || salary);
end;
/
```

```
SQL> declare
  2  name varchar2(25);
  3  salary number;
  4  begin
  5  select emp_name, emp_salary into name, salary from employee where emp_id='E01';
  6  dbms_output.put_line('Name: ' || name);
  7  dbms_output.put_line('Salary: ' || salary);
  8  end;
  9  /
Name: ABHINAV
Salary: 7500
```

Q3. Write a pl/sql program to get the name and salary of specified employee using %type attribute.

```
declare
name employee.emp_name%type;
salary employee.emp_salary%type;
begin
select emp_name, emp_salary into name, salary from employee where emp_id='E01';
dbms_output.put_line('Name: ' || name);
dbms_output.put_line('Salary: ' || salary);
end;
/
```

```
SQL> declare
  2  name employee.emp_name%type;
  3  salary employee.emp_salary%type;
  4  begin
  5  select emp_name, emp_salary into name, salary from employee where emp_id='E01';
  6  dbms_output.put_line('Name: ' || name);
  7  dbms_output.put_line('Salary: ' || salary);
  8  end;
  9  /
Name: ABHINAV
Salary: 7500
```

Q4. Write a PL/SQL program to arrange the number of two variable in such a way that the small number will store in num_small variable and large number will store in num_large variable.

```
declare
a int;
b int;
num_small int;
num_large int;
begin
a:=&a;
b:=&b;
if(a>=b)
then
num_small:=b;
num_large:=a;
else
num_small:=a;
num_large:=b;
end if;
dbms_output.put_line('Num_small: ' || num_small);
dbms_output.put_line('Num_large: ' || num_large);
end;
/
```

Enter value for a: 20 old 7: a:=&a; new 7: a:=20; Enter value for b: 30 old 8: b:=&b; new 8: b:=30; Num_small: 20 Num_large: 30	Enter value for a: 40 old 7: a:=&a; new 7: a:=40; Enter value for b: 30 old 8: b:=&b; new 8: b:=30; Num_small: 30 Num_large: 40
--	--

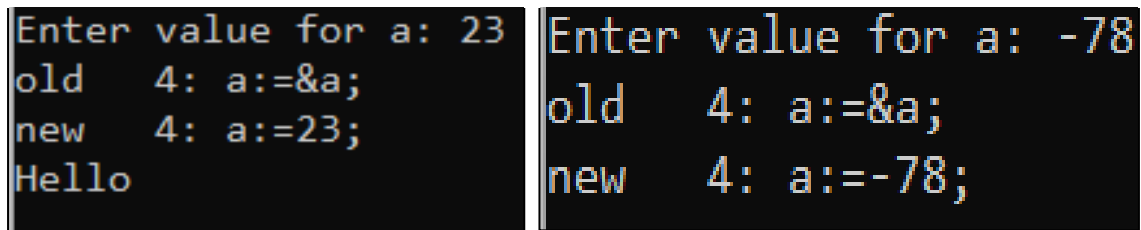
Q5. Write a pl/sql program Accept Number from a User and display Hello message if the entered number is Positive.

```
declare
a int;
begin
a:=&a;
if(a>0)
```

```

then
dbms_output.put_line('Hello');
end if;
end;
/

```



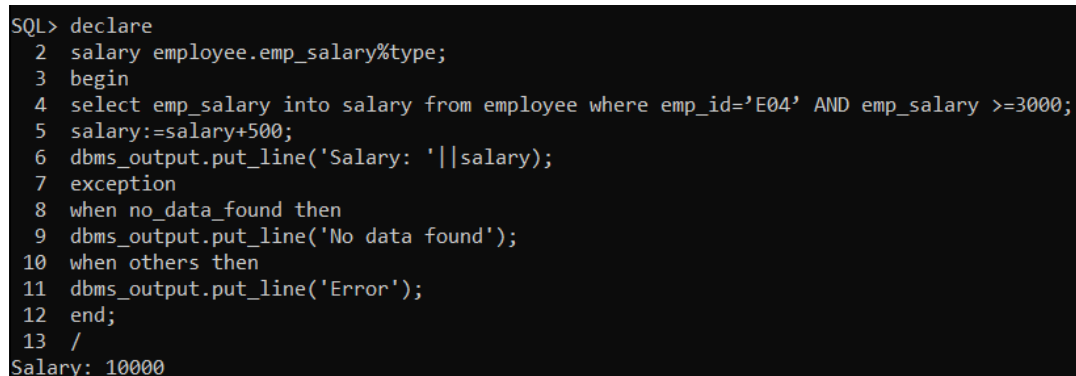
Input	Output
23	Hello
-78	Hello

Q6. Write a pl/sql program to Display Salary of a specified employee increasing by 500 if its salary is more than 3000.

```

declare
salary employee.emp_salary%type;
begin
select emp_salary into salary from employee where emp_id='E04' AND emp_salary >=3000;
salary:=salary+500;
dbms_output.put_line('Salary: '||salary);
exception
when no_data_found then
dbms_output.put_line('No data found');
when others then
dbms_output.put_line('Error');
end;
/

```



```

SQL> declare
2  salary employee.emp_salary%type;
3  begin
4  select emp_salary into salary from employee where emp_id='E04' AND emp_salary >=3000;
5  salary:=salary+500;
6  dbms_output.put_line('Salary: '||salary);
7  exception
8  when no_data_found then
9  dbms_output.put_line('No data found');
10 when others then
11 dbms_output.put_line('Error');
12 end;
13 /
Salary: 10000

```

Q7. Write a pl/sql program to Accept number from a user and find out whether it is Odd or Even.

```

declare
a int;
r int;
begin

```

```

a:=&a;
r:=MOD(a,2);
if(r=0)
then
dbms_output.put_line('Number is even');
else
dbms_output.put_line('Number is odd');
end if;
end;
/

```

```

Enter value for a: 8
old 5: a:=&a;
new 5: a:=8;
Number is even

```

```

Enter value for a: 3
old 5: a:=&a;
new 5: a:=3;
Number is odd

```

Q8. Write a pl/sql program to accept employee number from a user and increase its salary depends on the current salary as follows.

Salary Increment

>= 5000 12.5%; <5000 11%

```

declare
id employee.emp_id%type;
salary employee.emp_salary%type;
begin
id:= '&id';
select emp_salary into salary from employee where emp_id=id;
if(salary>=5000) then
salary:=salary+(0.125*salary);
else
salary:=salary+(0.11*salary);
end if;
dbms_output.put_line('Salary: ' || salary);
exception
when no_data_found then
dbms_output.put_line('No data found');
when others then
dbms_output.put_line('Error');
end;
/

```

```
Enter value for id: E02  
old 5: id:= '&id';  
new 5: id:= 'E02';  
Salary: 9000
```

```
Enter value for id: E05  
old 5: id:= '&id';  
new 5: id:= 'E05';  
Salary: 4995  
  
PL/SQL procedure successfully completed.
```

Q9. Write a PL/SQL Block to insert add one row in employee table with employee number and name. Display appropriate message using exception handling on duplication entry of employee number.

```
declare  
begin  
INSERT INTO EMPLOYEE VALUES('E05','Bhairav',5000);  
dbms_output.put_line('Row inserted.');
```

exception

```
when dup_val_on_index then  
    dbms_output.put_line('Duplicate id detected.');
```

```
end;  
/
```

```
SQL> declare  
2  begin  
3  INSERT INTO EMPLOYEE VALUES('E05','Bhairav',5000);  
4  dbms_output.put_line('Row inserted.');
```

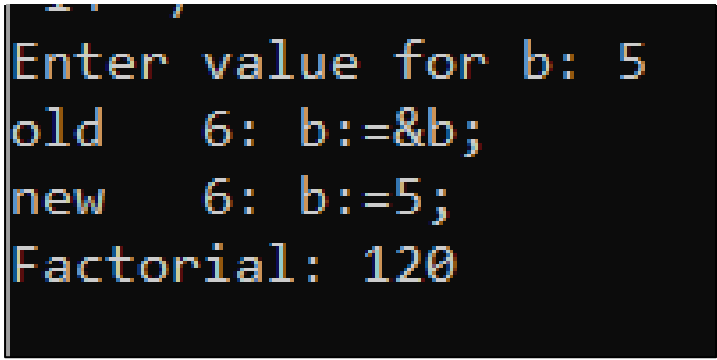
5 exception

```
6  when dup_val_on_index then  
7      dbms_output.put_line('Duplicate id detected.');
```

```
8  end;  
9  /  
Duplicate id detected.
```

Q10. Write a pl / sql program by using Iterative Control / Loops to Accept number from a user and find out its factorial.

```
declare
a int;
b int;
begin
a:=1;
b:=&b;
while(b>0)
loop
a:=a*b;
b:=b-1;
end loop;
dbms_output.put_line('Factorial: '||a);
end;
/
```



```
Enter value for b: 5
old 6: b:=&b;
new 6: b:=5;
Factorial: 120
```

```
INSERT INTO EMPLOYEE VALUES('E01', 'ABHINAV',7500);
INSERT INTO EMPLOYEE VALUES('E02', 'ABHAY',8000);
INSERT INTO EMPLOYEE VALUES('E03', 'DIKSHA',6500);
INSERT INTO EMPLOYEE VALUES('E04', 'BINAY',9500);
INSERT INTO EMPLOYEE VALUES('E05', 'JAYESH',4500);
```

```
DECLARE
Name employee.emp_name%type;
BEGIN
Select emp_name into Name from employee where emp_id='E01';
Dbms_output.put_line(Name);
END;
```

/