**PL/SQL**

Q1: Write a PL/SQL program to find the factorial of a given number

set serveroutput on;

declare

2 fact number:=1;

3 n number:=&n;

4 begin

5 for i in 1..n

6 loop

7 fact:=fact\*i;

8 end loop;

9 dbms\_output.put\_line('factorial is '||fact);

10 end;

11 /

Enter value for n: 4

old 3: n number:=&n;

new 3: n number:=4;

factorial is 24

Q2: Write a PL/SQL program to check whether the given no is prime or not

SQL> set serveroutput on;

SQL> declare

2 i number:=2;

3 n number:=&n;

4 f number:=1;

5 begin

6 for i in 2..n/2

7 loop

8 if mod(n,i)=0

9 then

10 f:=0;

11 exit;

12 end if;

13 end loop;

14 if f=1

15 then

16 dbms\_output.put\_line('prime');

17 else

18 dbms\_output.put\_line('not prime');

19 end if;

20 end;

21 /

Enter value for n: 6

old 3: n number:=&n;

new 3: n number:=6;

not prime

**Functions**

1. Write a PL/SQL program to Check whether a number is Armstrong or not using functions

create or replace function arm(n in number)

return number as

q number;

s number;

r number;

l number;

begin

s:=0;

q:=n;

l:=length(n);

while q>0

loop

r:=mod(q,10);

s:=s+power(r,l);

q:=trunc(q/10);

end loop;

return s;

end;

/

set serveroutput on;

declare

n number:=&n;

p number;

begin

p:=arm(n);

if p=n

then

dbms\_output.put\_line('armstrong number');

else

dbms\_output.put\_line('not armstrong number');

end if;

end;

/

Enter value for n: 153

old 2: n number:=&n;

new 2: n number:=153;

armstrong number

1. Create table that contains itemid,item\_name & price of several items sold in a grocery shop, Using functions retrieve the item name & price from table when itemid is given as input.

create table items(itemid int primary key,itemname varchar(10),price integer);

insert into items values(101,'colgate',40);

insert into items values(102,'soap',60);

insert into items values(103,'wash soap',100);

insert into items values(104,'cream',45);

insert into items values(105,'box',20);

select \* from items;

ITEMID ITEMNAME PRICE

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101 colgate 40

102 soap 60

103 wash soap 100

104 cream 45

105 box 20

create or replace function it(id number)

return number as

m number;

l number;

n items.itemname%type;

p items.price%type;

begin

m:=id;

l:=0;

select itemname,price into n,p from items where itemid=m;

dbms\_output.put\_line('Item Name--'||n);

dbms\_output.put\_line('Price--'||p);

return 0;

end;

/

declare

n number:=&n;

p number;

begin

p:=it(n);

end;

/

Enter value for n: 103

old 2: n number:=&n;

new 2: n number:=103;

Item Name--wash soap

Price--100

1. Write a PL/SQL function called POW that takes two numbers as argument and return the value of the first number raised to the power of the second .

create or replace function pow(x number,y number)

return number as

s number;

begin

select power(x,y) into s from dual;

return s;

end;

/

declare

x number:=&x;

y number:=&y;

begin

dbms\_output.put\_line('Power is '||pow(x,y));

end;

/

Enter value for x: 4

old 2: x number:=&x;

new 2: x number:=4;

Enter value for y: 6

old 3: y number:=&y;

new 3: y number:=6;

Power is 4096