

**DIGITAL ASSIGNMENT 3**

**NAME: AYUSH SHARMA**

**REGISTER NUMBER: 21BDS0058**

**COURSE CODE: BCSE302P**

**COURSE NAME: DATABASE SYSTEM LAB**

# Exercise 1:

**Question 1:** Write a PL/SQL block to accept an emp\_no and display the salary of the person.

# SQL Command:

declare

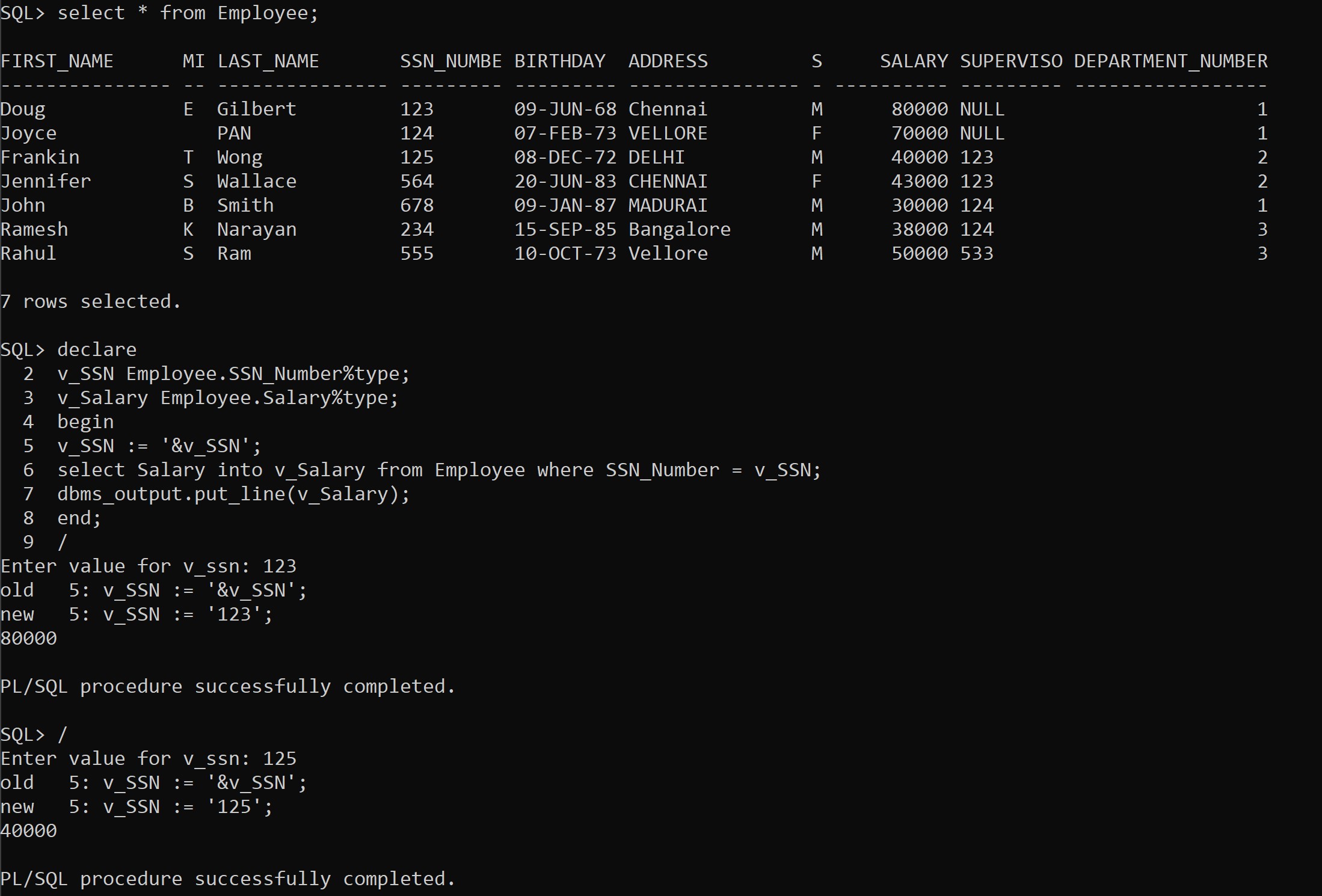
v\_SSN Employee.SSN\_Number%type; v\_Salary Employee.Salary%type; begin

v\_SSN := '&v\_SSN';

select Salary into v\_Salary from Employee where SSN\_Number = v\_SSN;

dbms\_output.put\_line(v\_Salary); end;

# Output:



**Question 2:** Write a PL/SQL program to delete one record in employee table

# SQL Command:

declare

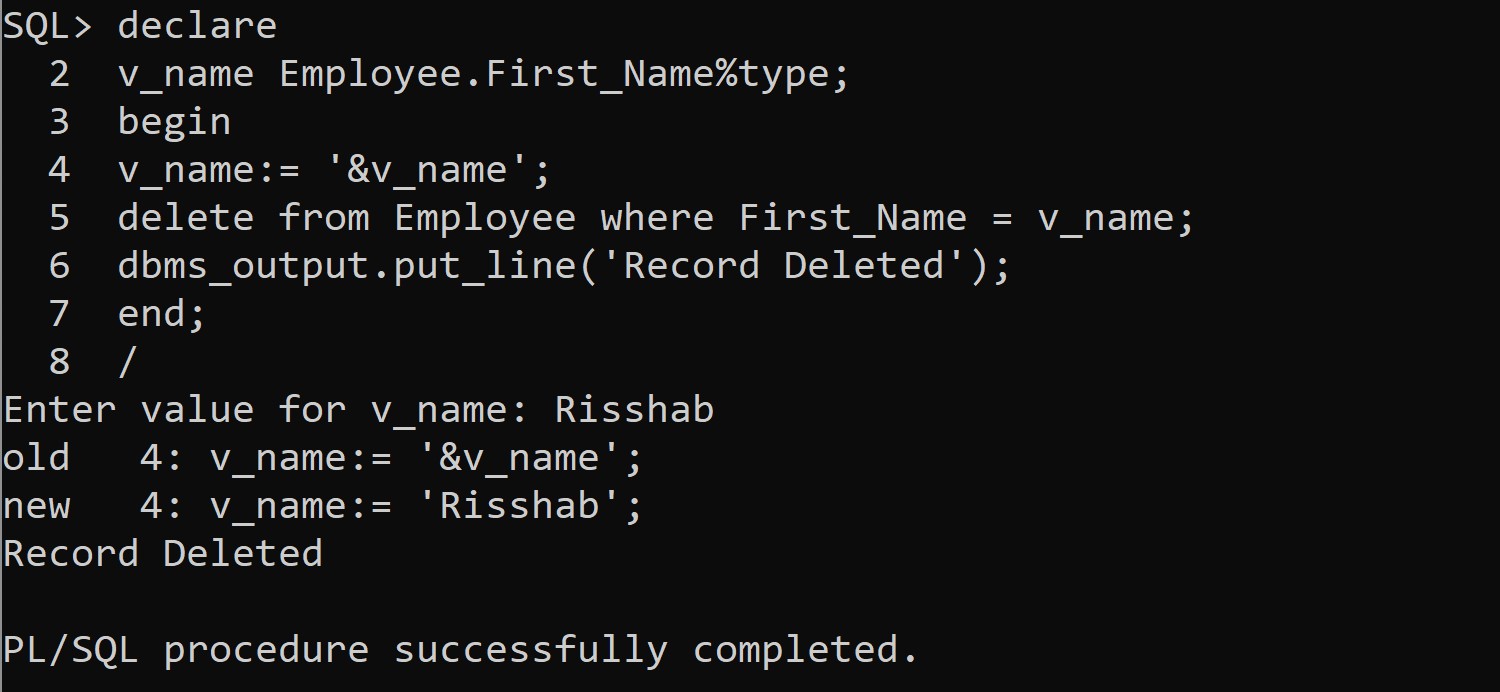
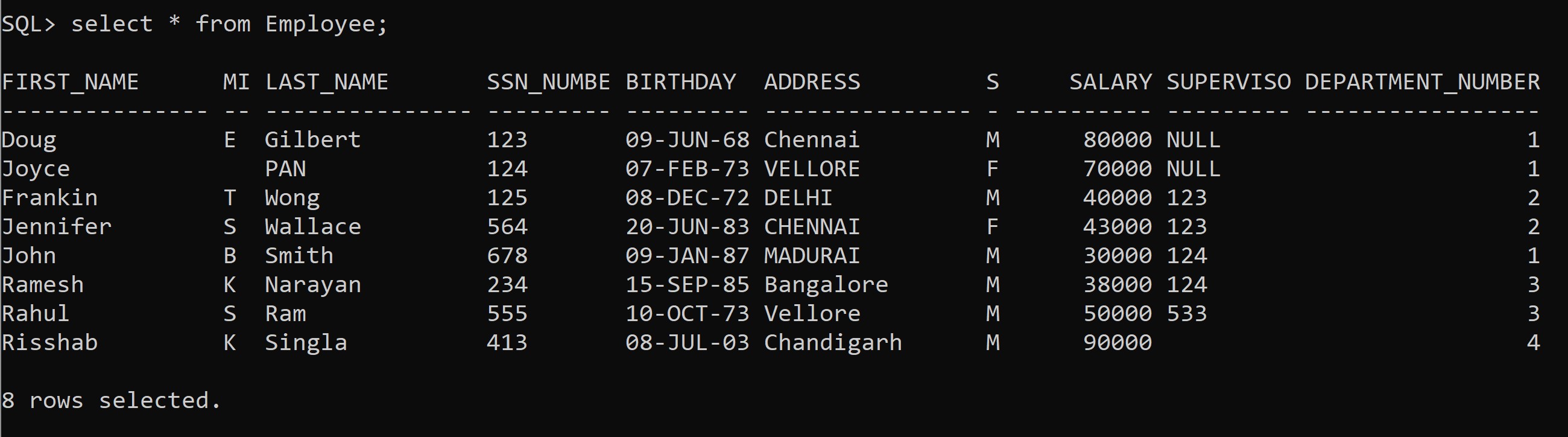
v\_name Employee.First\_Name%type; begin

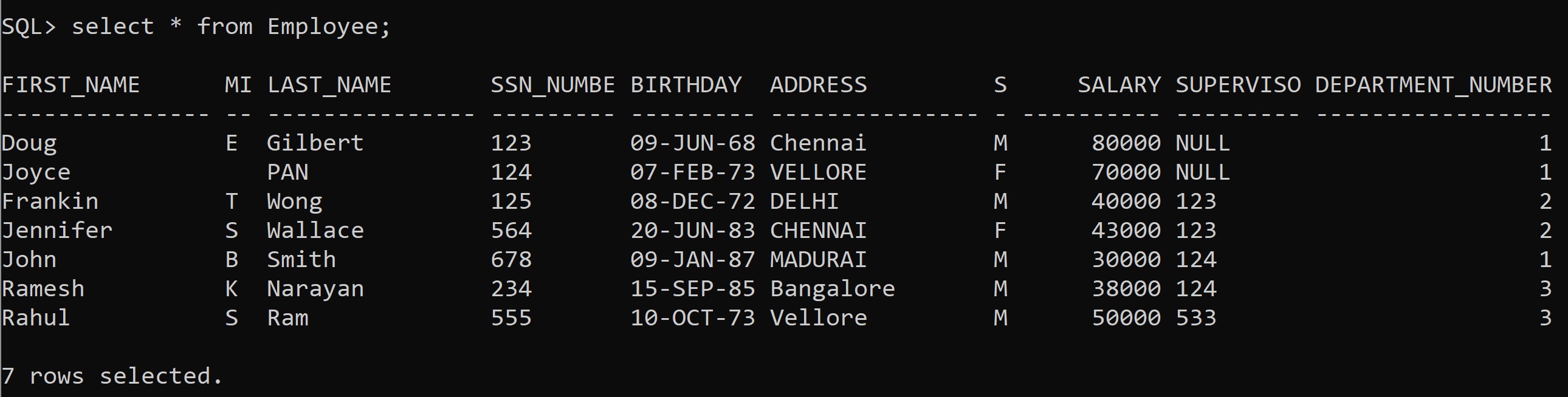
v\_name:= '&v\_name';

delete from Employee where First\_Name = v\_name; dbms\_output.put\_line('Record Deleted');

end;

# Output:





**Question 3**: Write a PL/SQL program to display the avg salary of all employees

# SQL Command:

declare

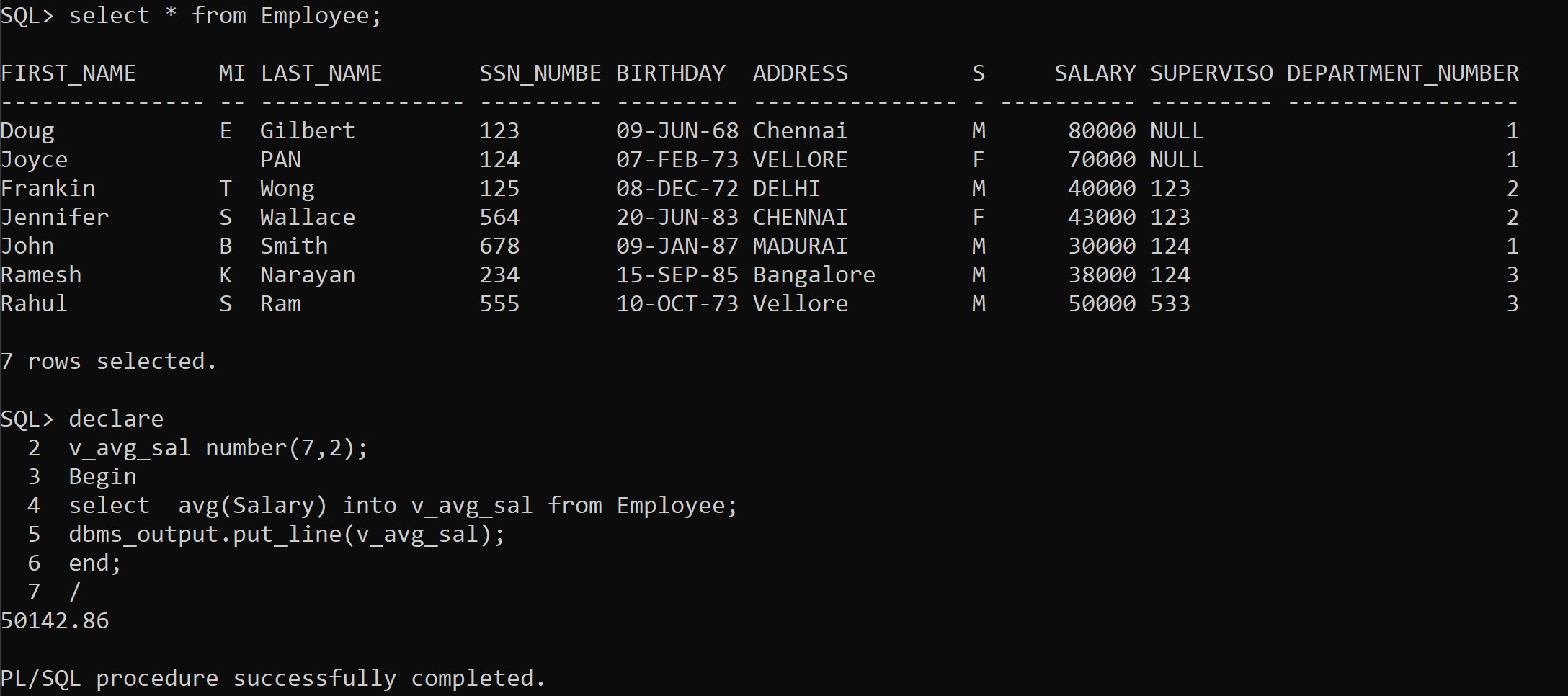
v\_avg\_sal number(7,2);

Begin

select avg(Salary) into v\_avg\_sal from Employee; dbms\_output.put\_line(v\_avg\_sal);

end;

# Output:



**Question 4**: Write a PL/SQL program to insert a new employee in the employee table.

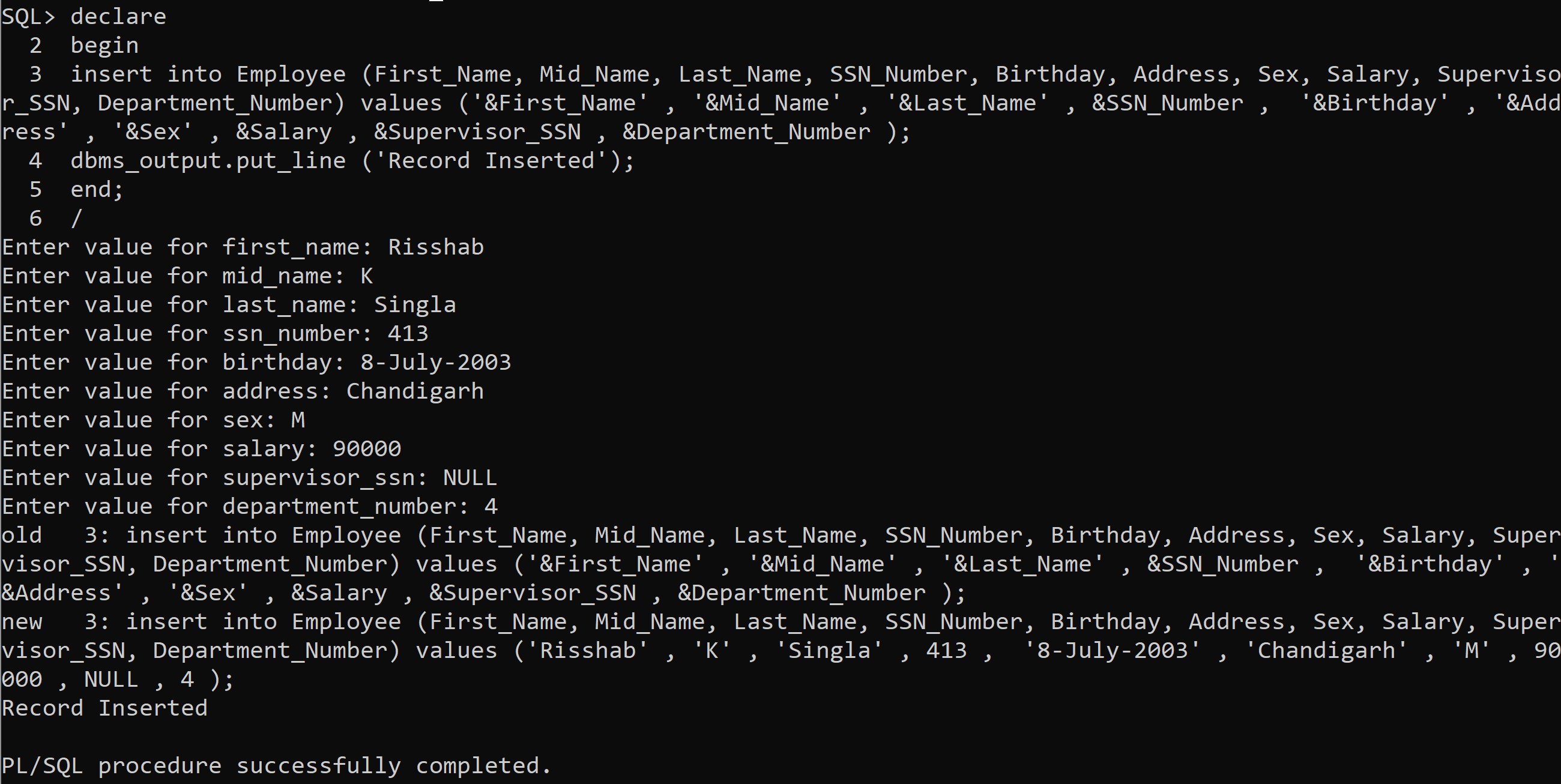
# SQL Command:

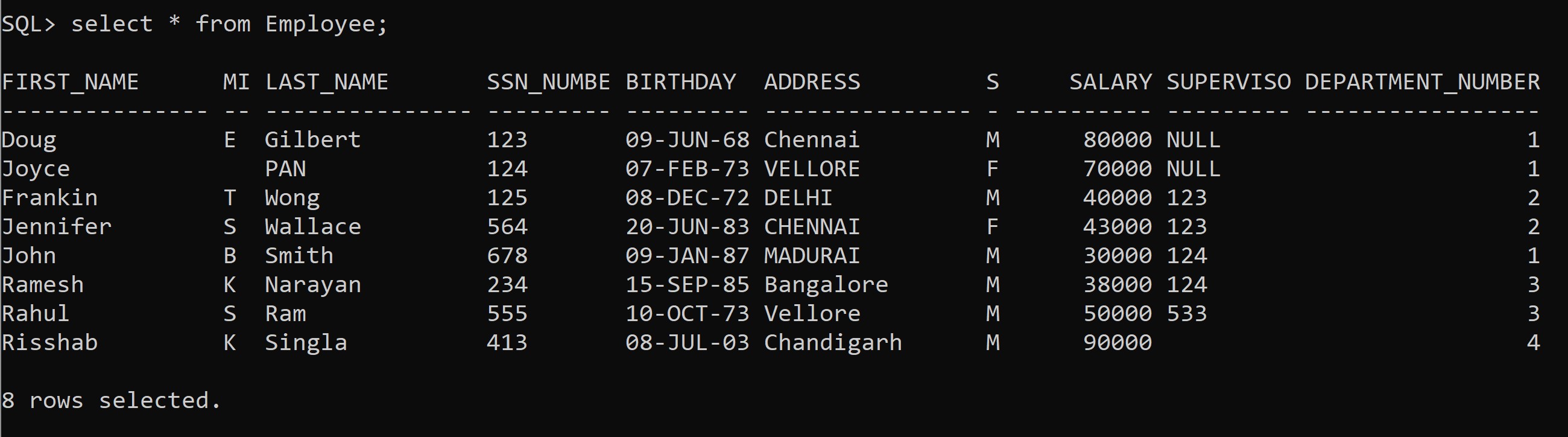
declare begin

insert into Employee (First\_Name, Mid\_Name, Last\_Name, SSN\_Number, Birthday, Address, Sex, Salary, Supervisor\_SSN, Department\_Number) values ('&First\_Name' , '&Mid\_Name' , '&Last\_Name' , &SSN\_Number , '&Birthday' , '&Address' , '&Sex' , &Salary , &Supervisor\_SSN , &Department\_Number ); dbms\_output.put\_line ('Record Inserted');

end;

# Output:





**Question 5**: Write a PL/SQL program to increment of salary belongs to department 1 as 10%.

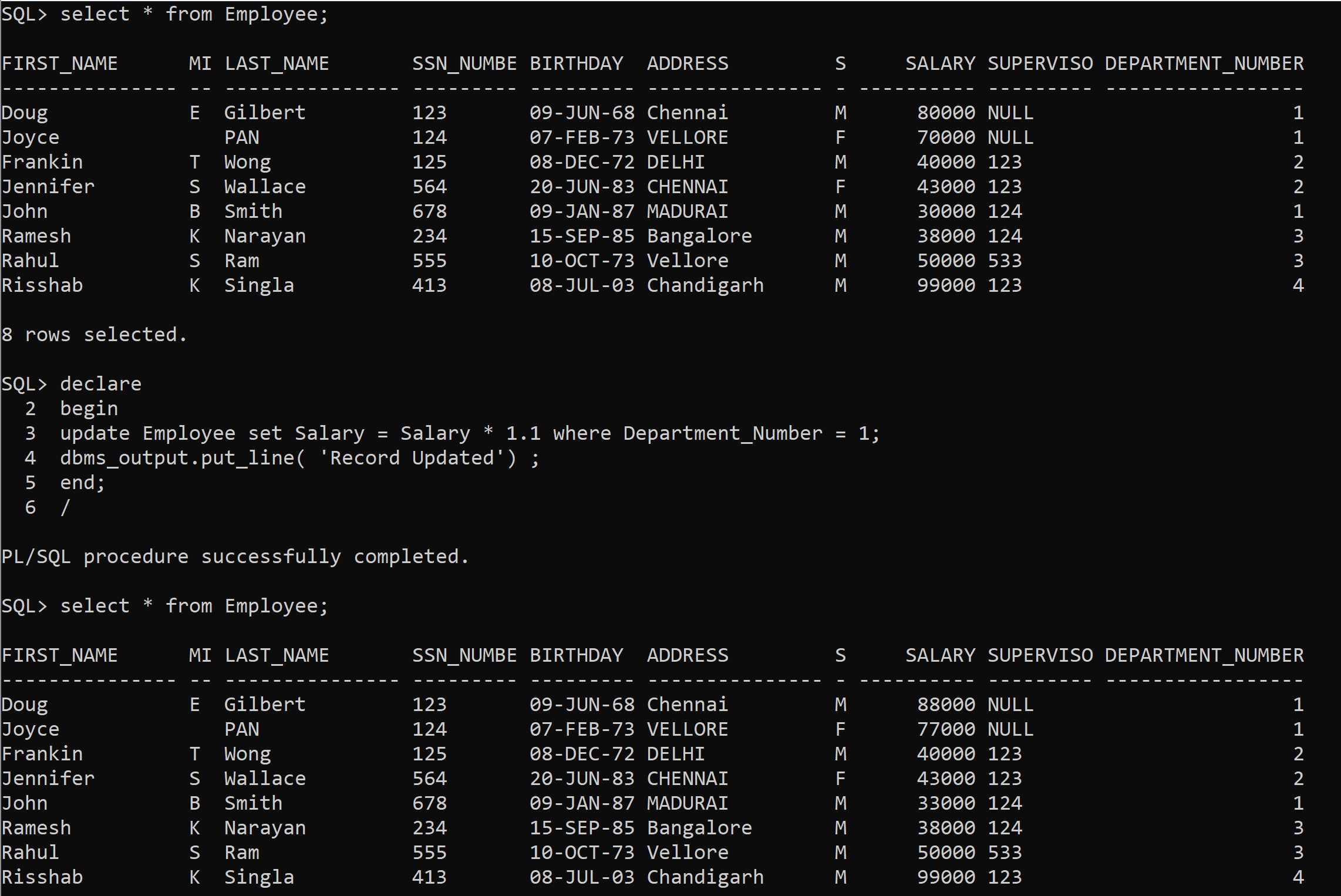
# SQL Command:

declare begin

update Employee set Salary = Salary \* 1.1 where Department\_Number = 1; dbms\_output.put\_line( 'Record Updated') ;

end;

# Output:



**Exercise 2:**

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

# SQL Command:

declare

num number; remainder number; begin

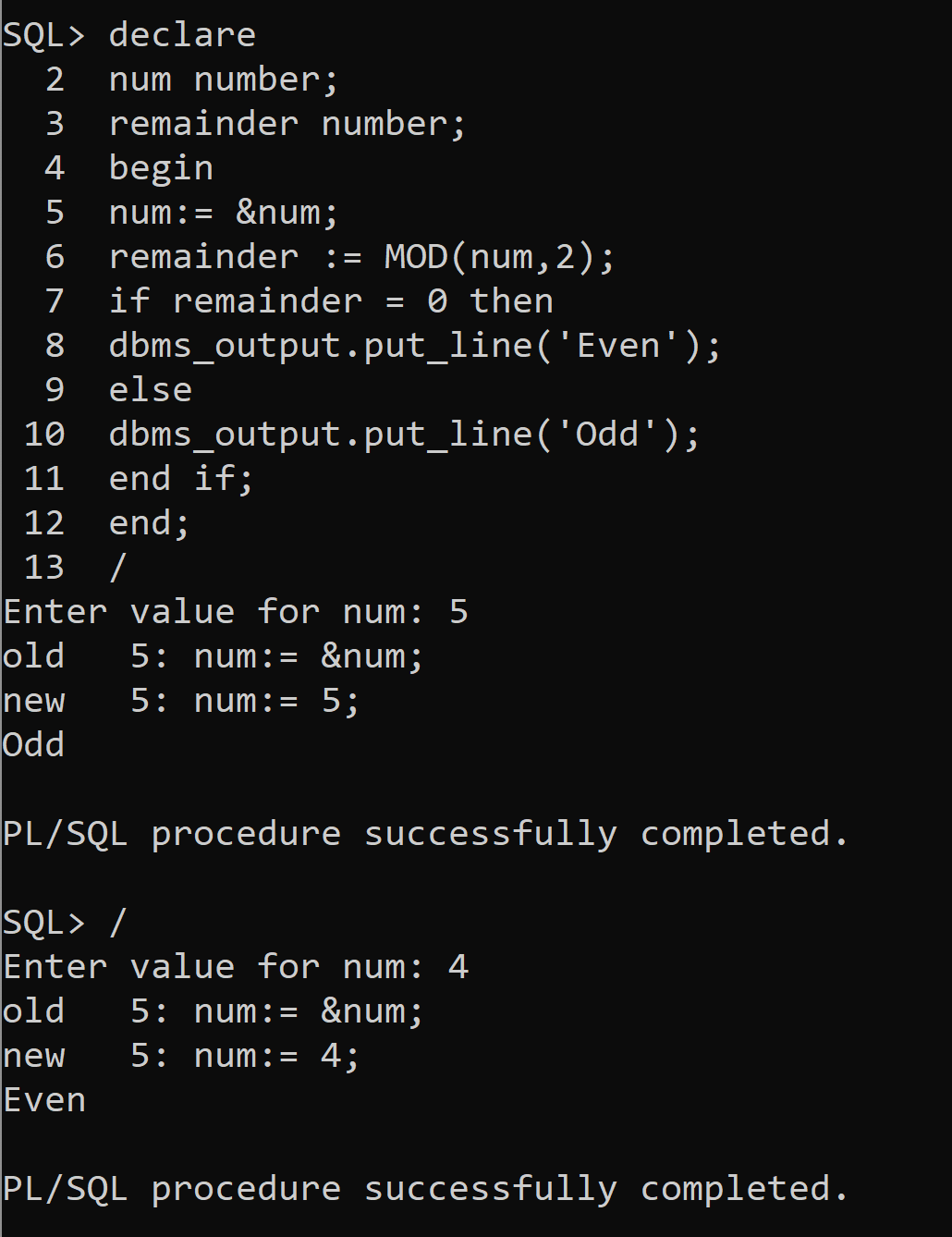
num:= &num;

remainder := MOD(num,2); if remainder = 0 then

dbms\_output.put\_line('Even'); else dbms\_output.put\_line('Odd'); end if;

end;

# Output:



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

# SQL Command:

declare

choice number; num1 number; num2 number; num3 number; begin

dbms\_output.put\_line('Enter the first number'); num1 := &num1;

dbms\_output.put\_line('Enter the second number'); num2 := &num2;

dbms\_output.put\_line('Enter 1 for addition, 2 for subtraction, 3 for multiplication, 4 for division, 5 for remainder');

choice := & choice; case choice

when 1 then

num3 := num1 + num2;

dbms\_output.put\_line('The answer of addition is ' || num3); when 2 then

num3 := num1 - num2;

dbms\_output.put\_line('The answer of subtraction is ' || num3); when 3 then

num3 := num1 \* num2;

dbms\_output.put\_line('The answer of multiplication is ' || num3); when 4 then

num3 := num1 / num2;

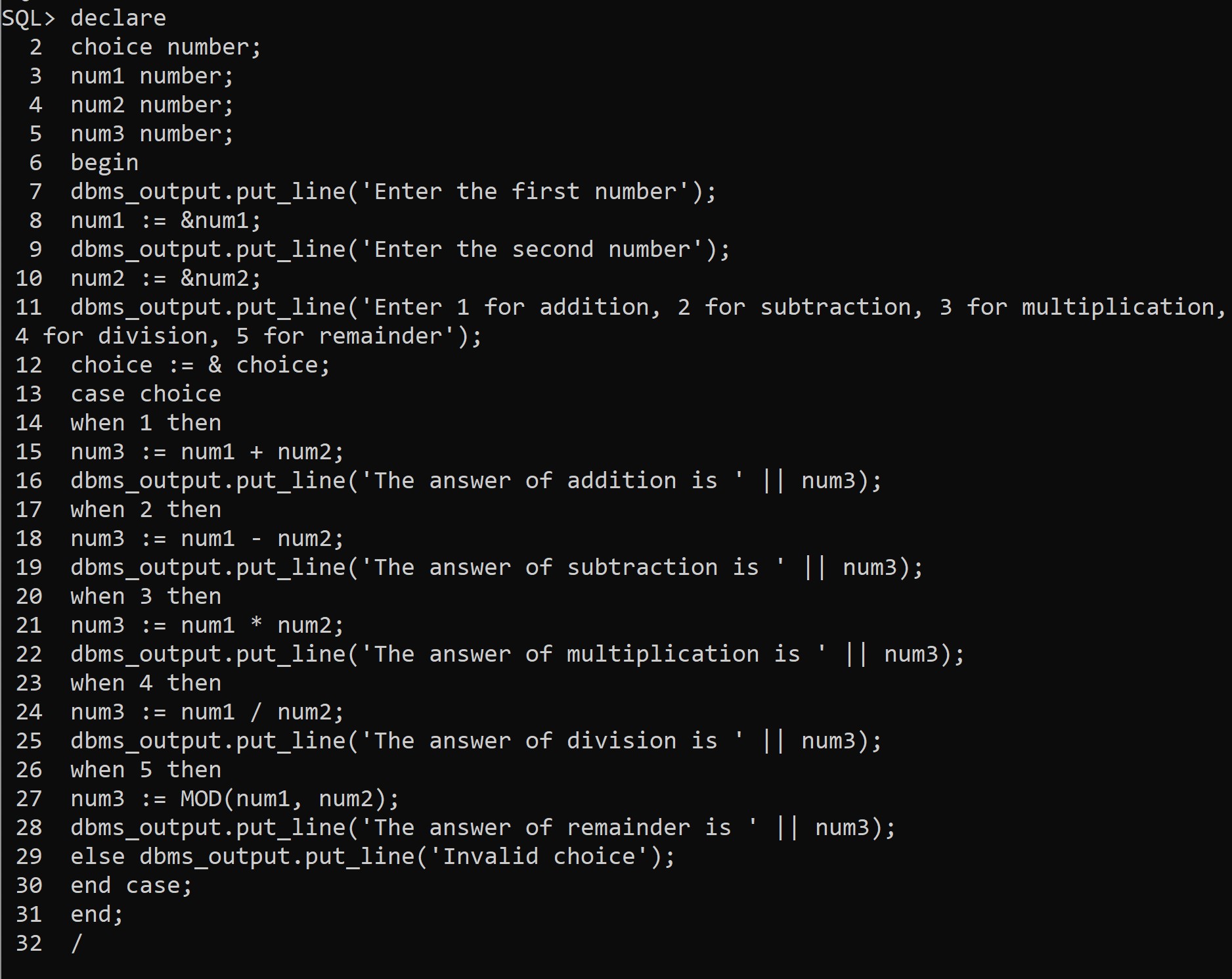
dbms\_output.put\_line('The answer of division is ' || num3); when 5 then

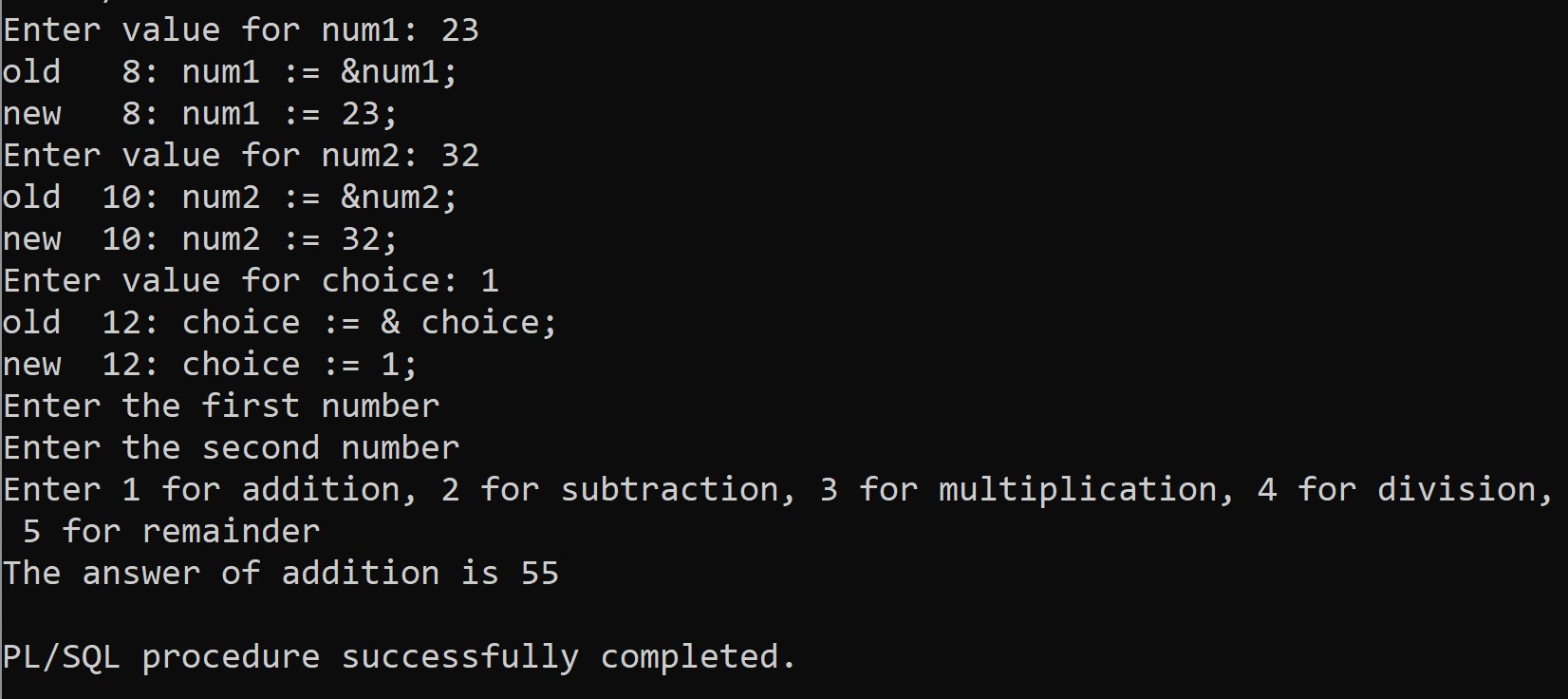
num3 := MOD(num1, num2);

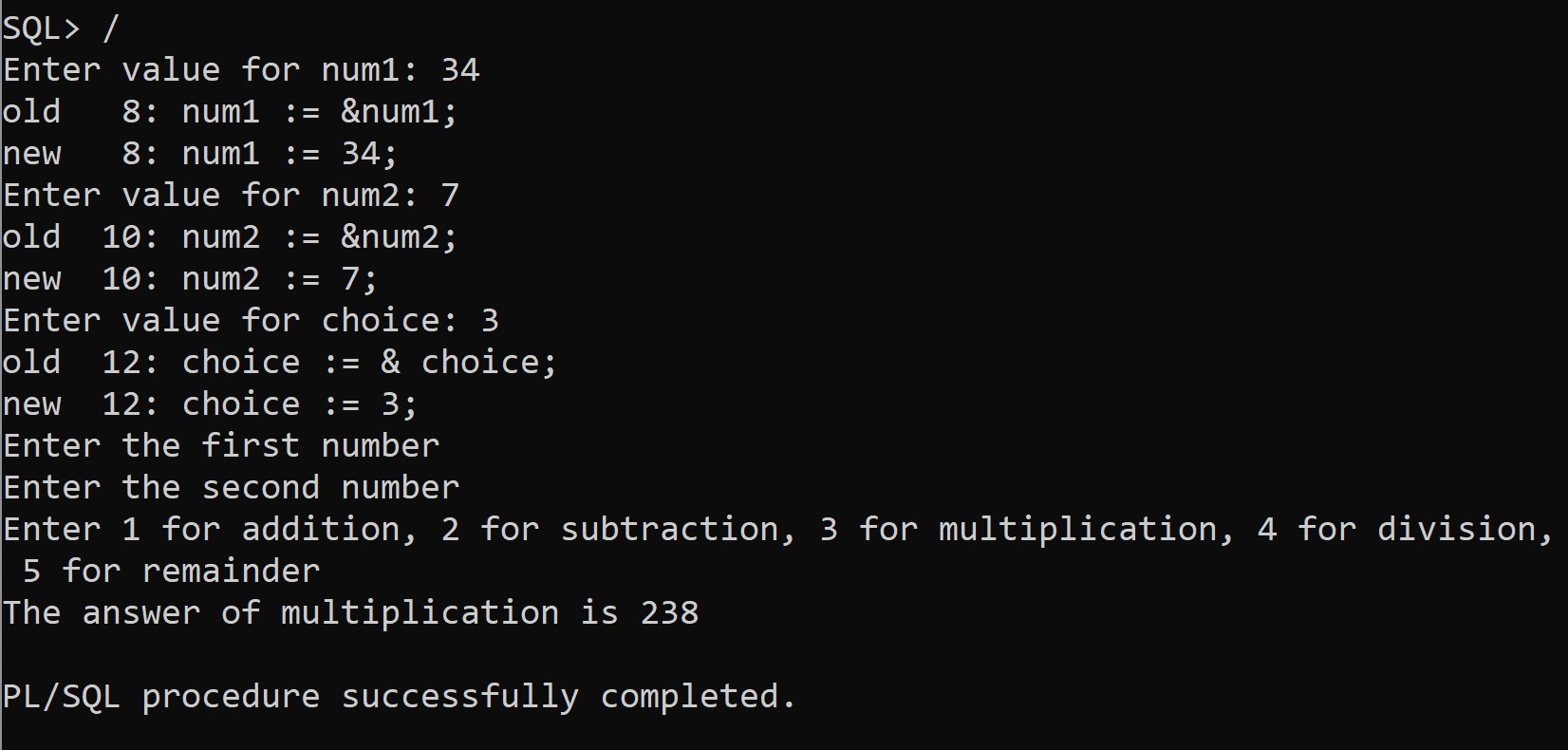
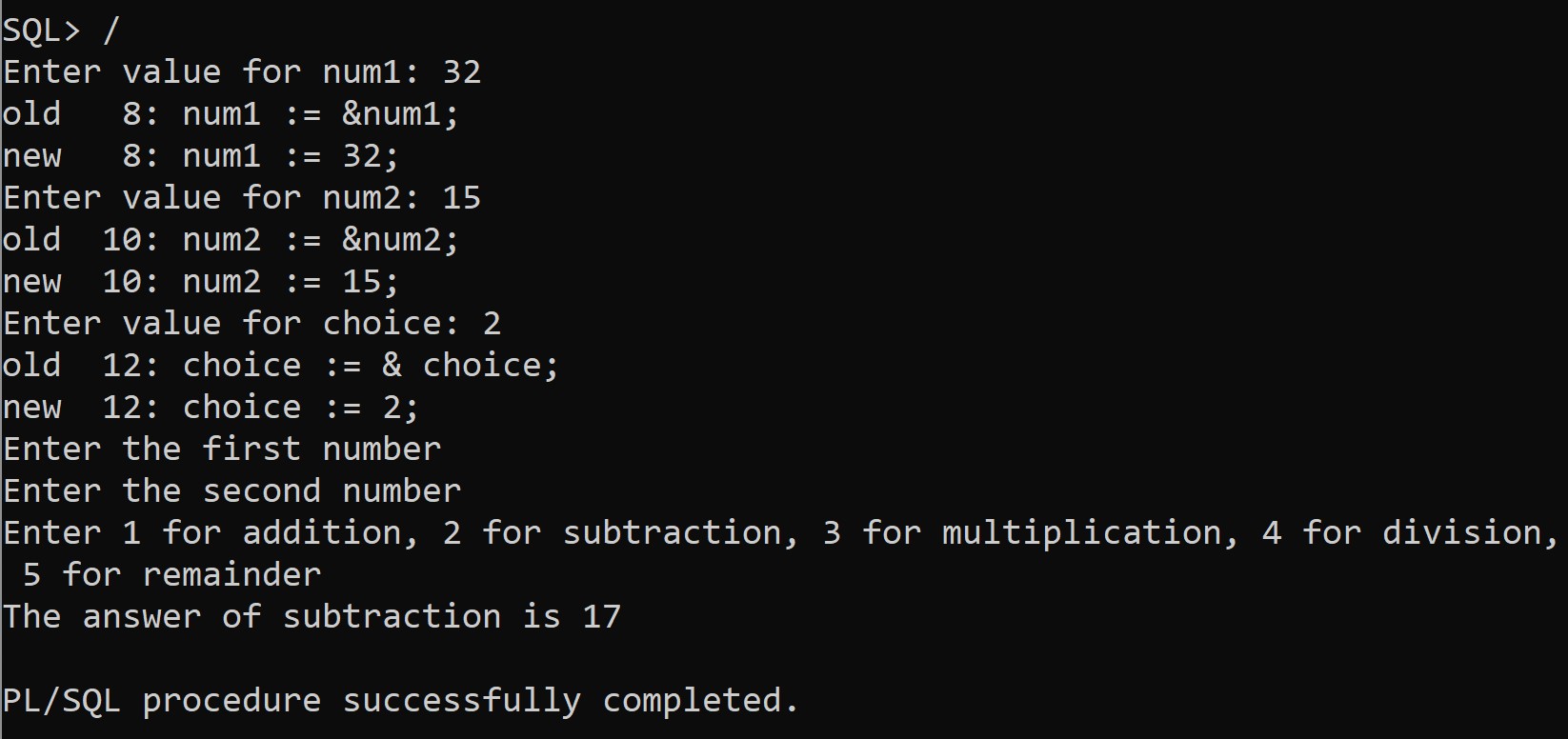
dbms\_output.put\_line('The answer of remainder is ' || num3); else dbms\_output.put\_line('Invalid choice');

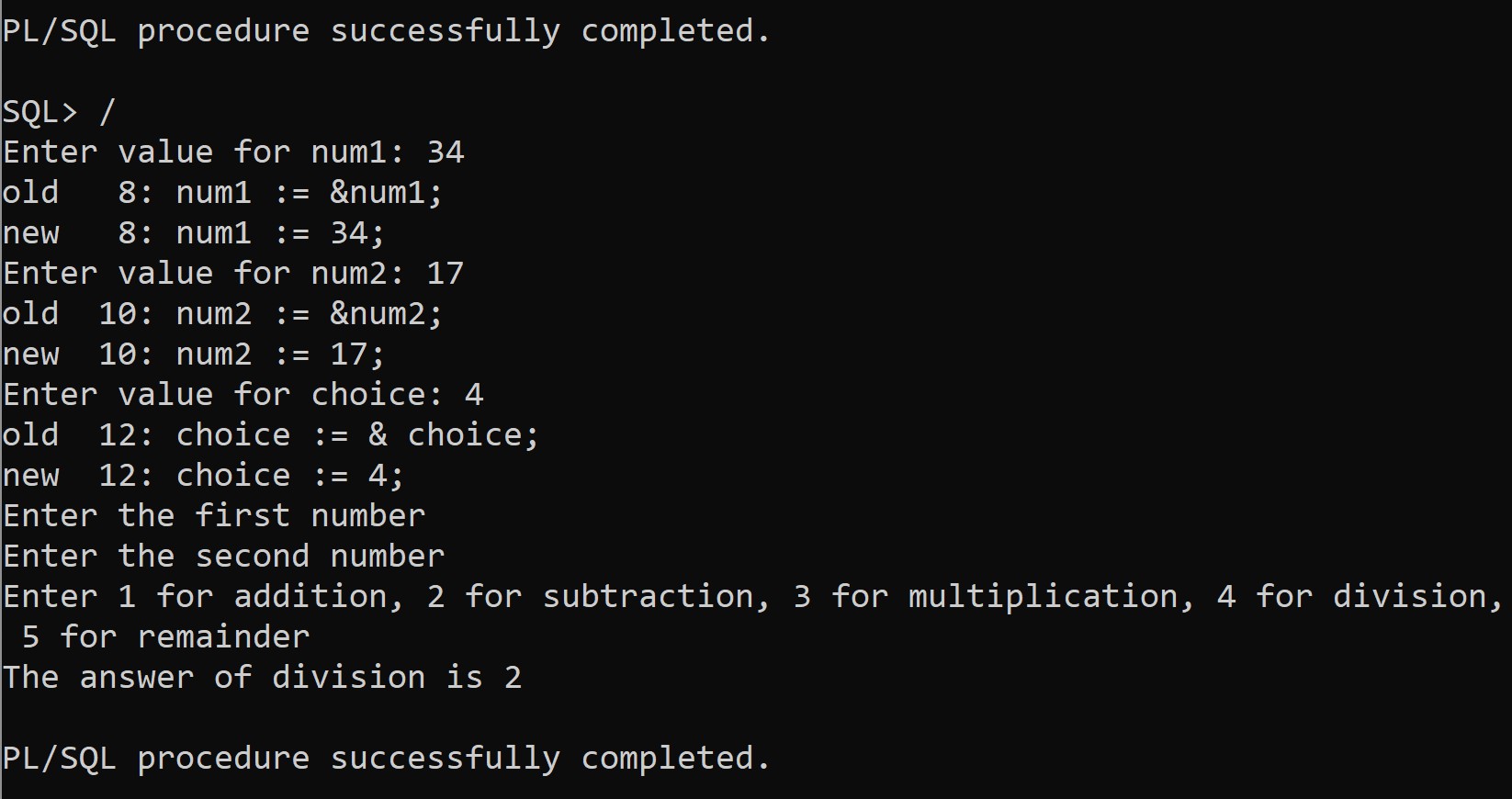
end case; end;

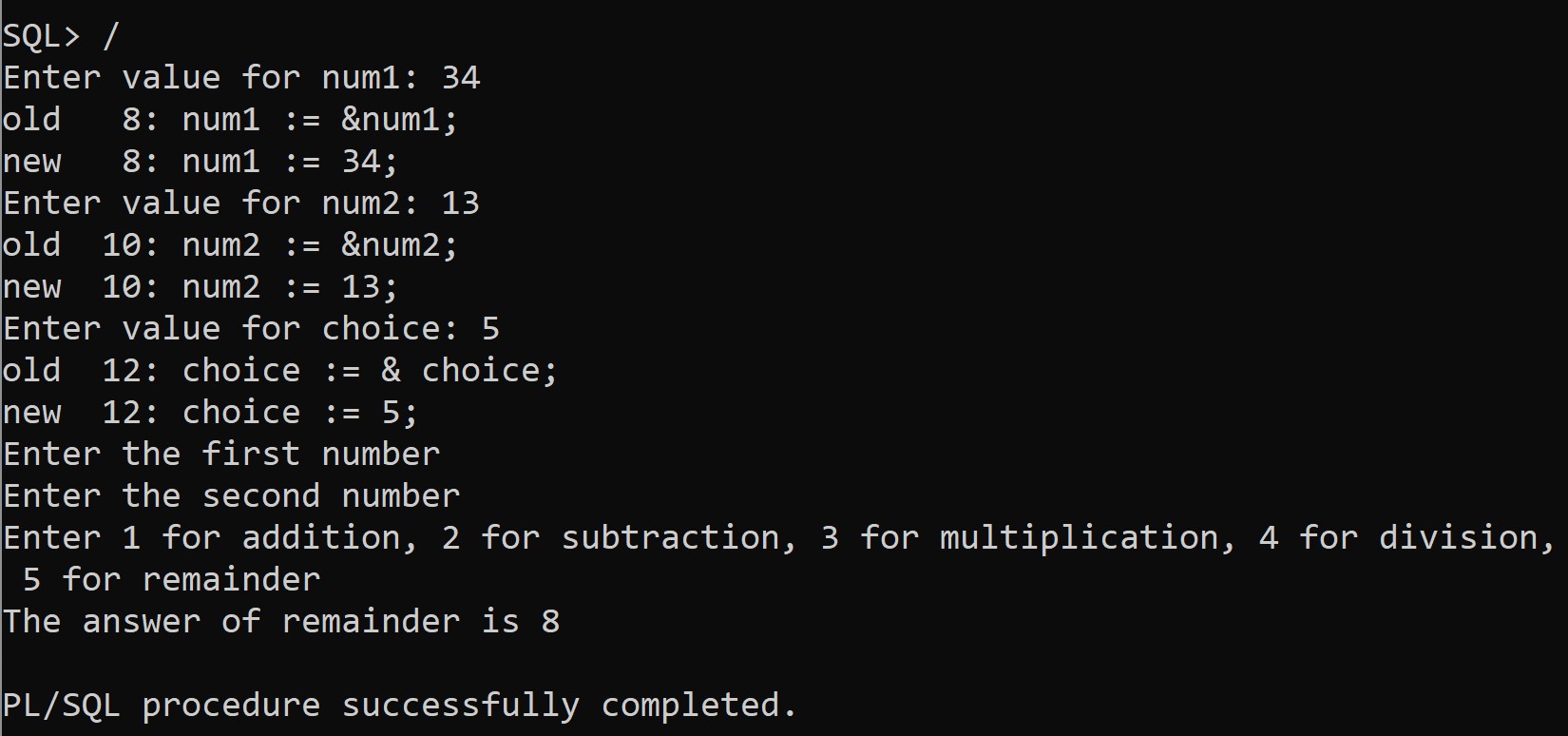
# Output:











**Question 3:** Write a PL/SQL to find the factorial of the given number using function.

# SQL Command:

declare

num1 number;

itr number := 1; ans number:= 1; begin

num1 := &num1;

dbms\_output.put\_line('Finding the factorial of ' || num1); while itr <=num1

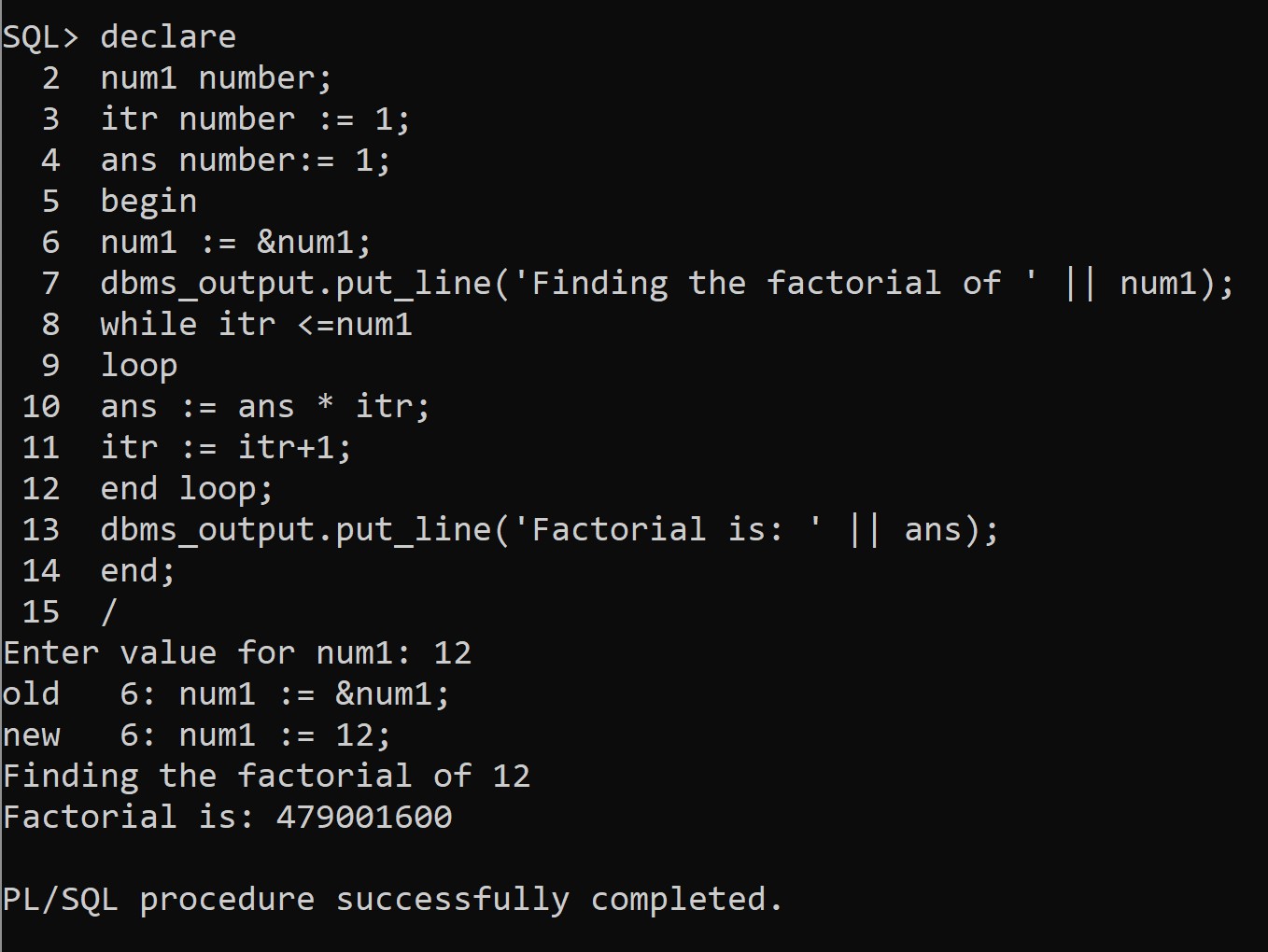
loop

ans := ans \* itr; itr := itr+1;

end loop;

dbms\_output.put\_line('Factorial is: ' || ans); end;

# Output:



**Question 4:** Write a PL/SQL to display Fibonacci Series for the given number

# SQL Command:

declare

nums number; num1 number := 1; num2 number := 1; num3 number; begin

dbms\_output.put\_line('Enter the number of fibonacci numbers to print');

nums := & nums; if nums > 1 then

dbms\_output.put\_line(num1); nums := nums -1;

end if;

if nums > 2 then dbms\_output.put\_line(num2); nums := nums -1;

end if;

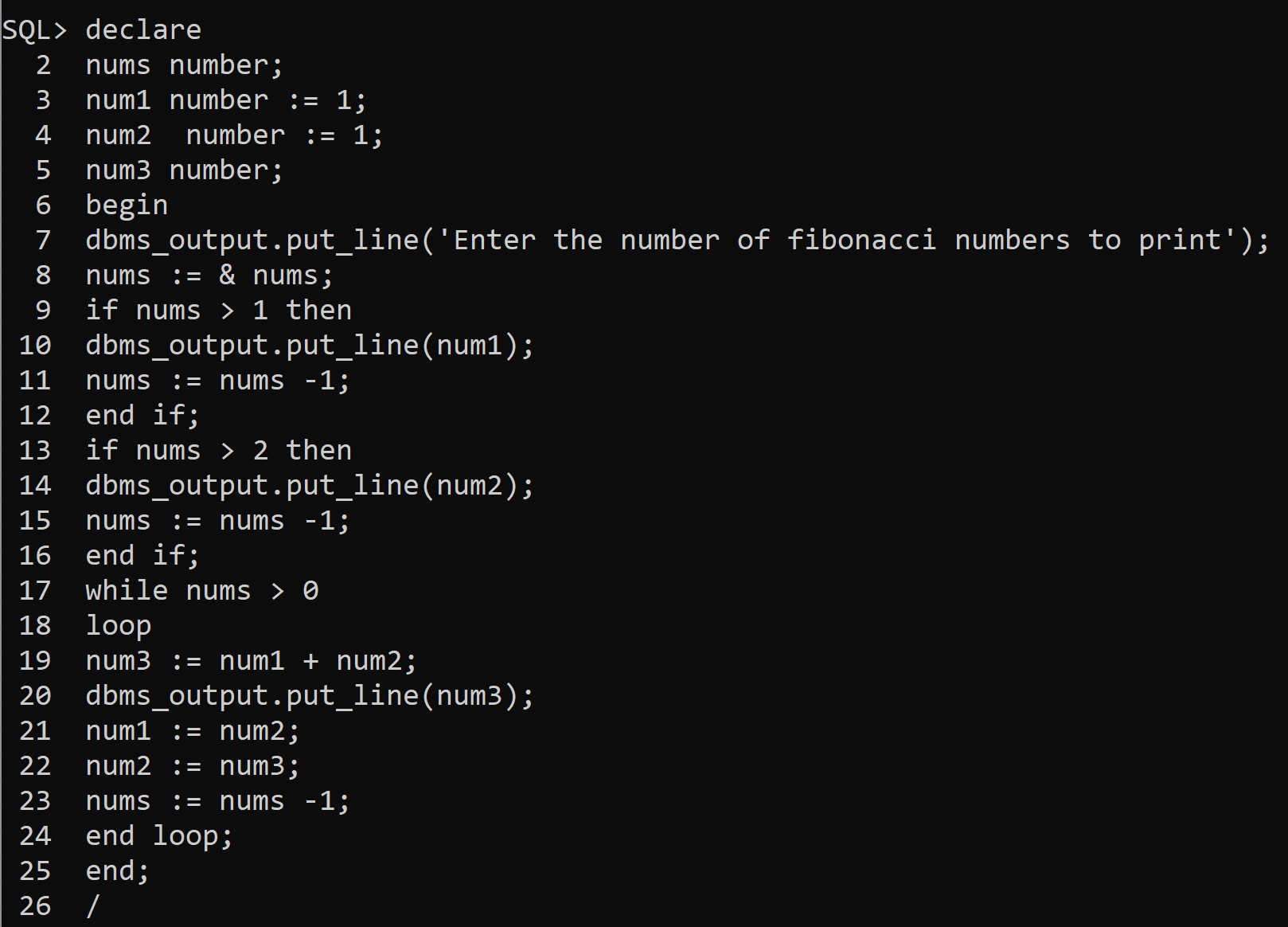
while nums > 0 loop

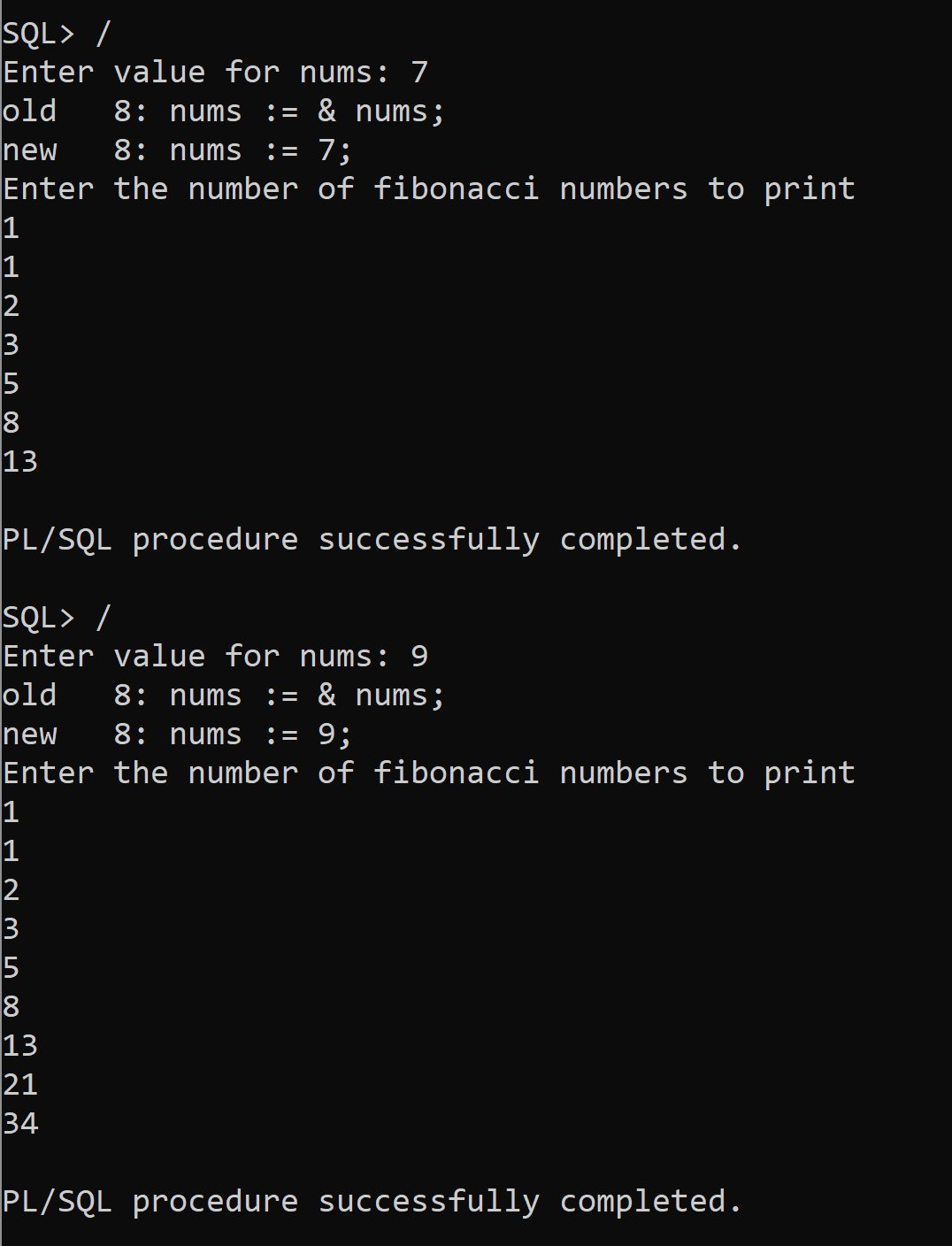
num3 := num1 + num2; dbms\_output.put\_line(num3); num1 := num2;

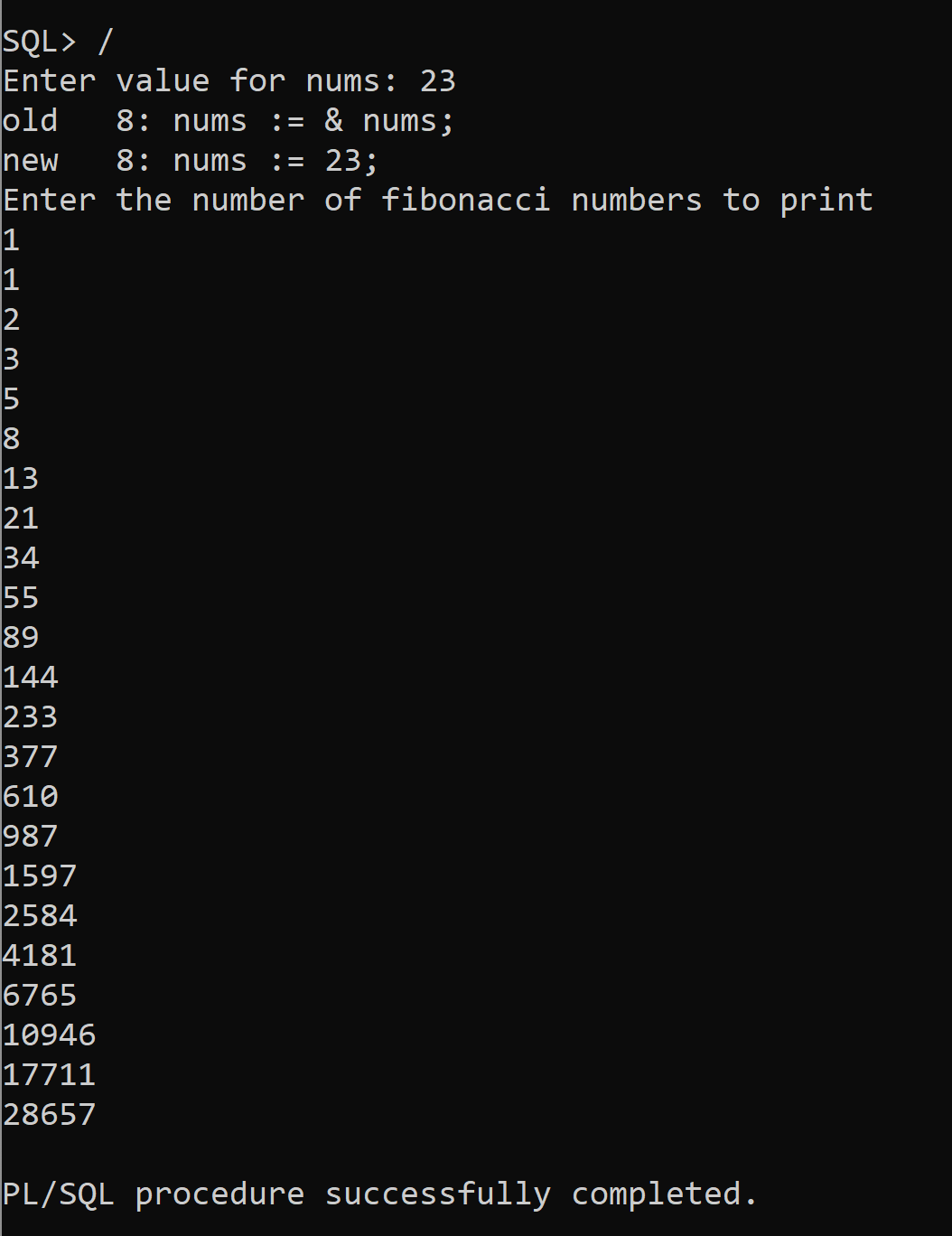
num2 := num3; nums := nums -1; end loop;

end;

# Output:







**Question 5:** Write a PL/SQL to display the reverse of number between 1 and 100.

# SQL Command:

declare

num number := 1; rev number := 0; temp number:= 1; begin

while num<=100 loop

temp := num; rev:= 0;

while temp > 0 loop

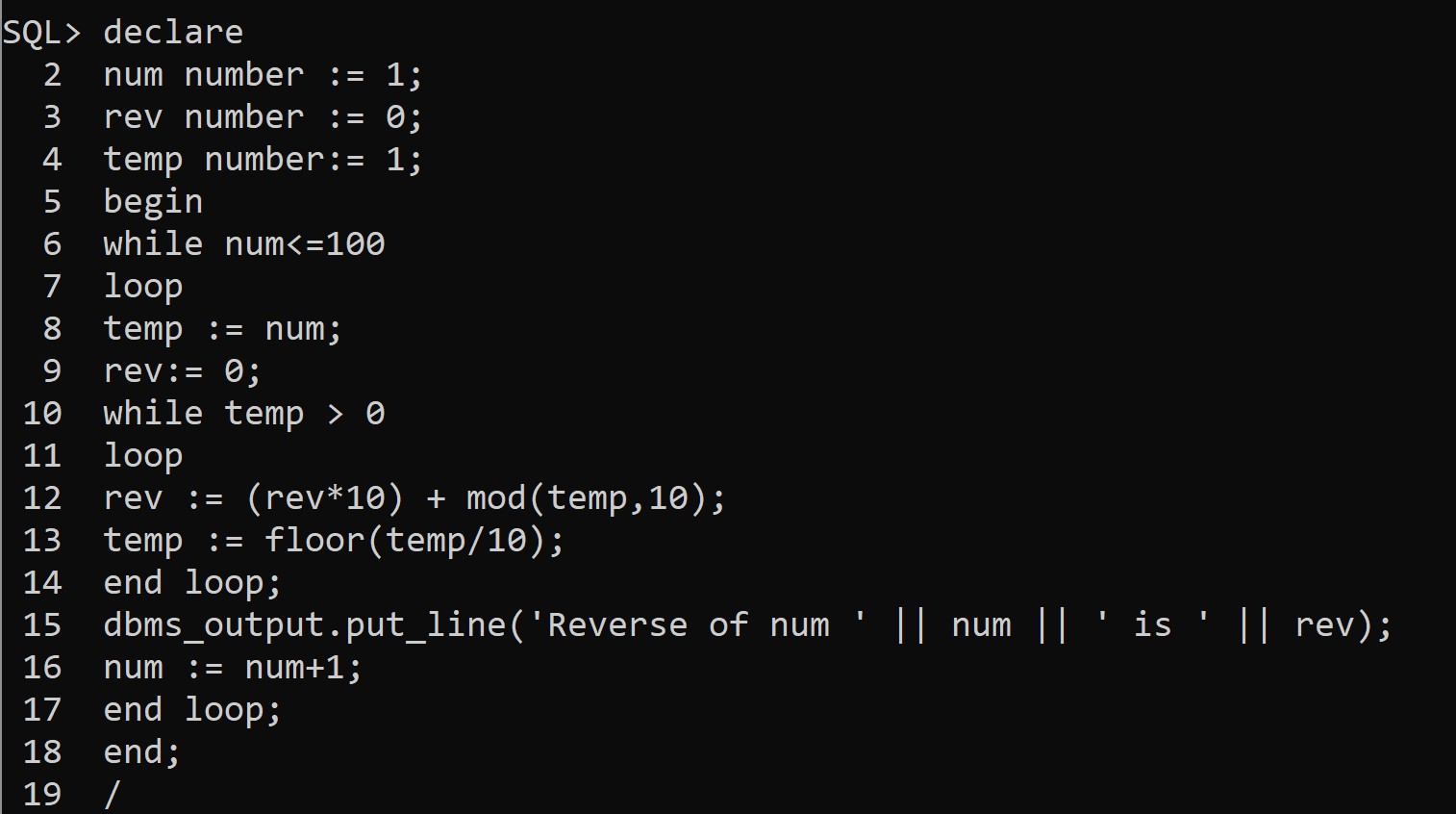
rev := (rev\*10) + mod(temp,10); temp := floor(temp/10);

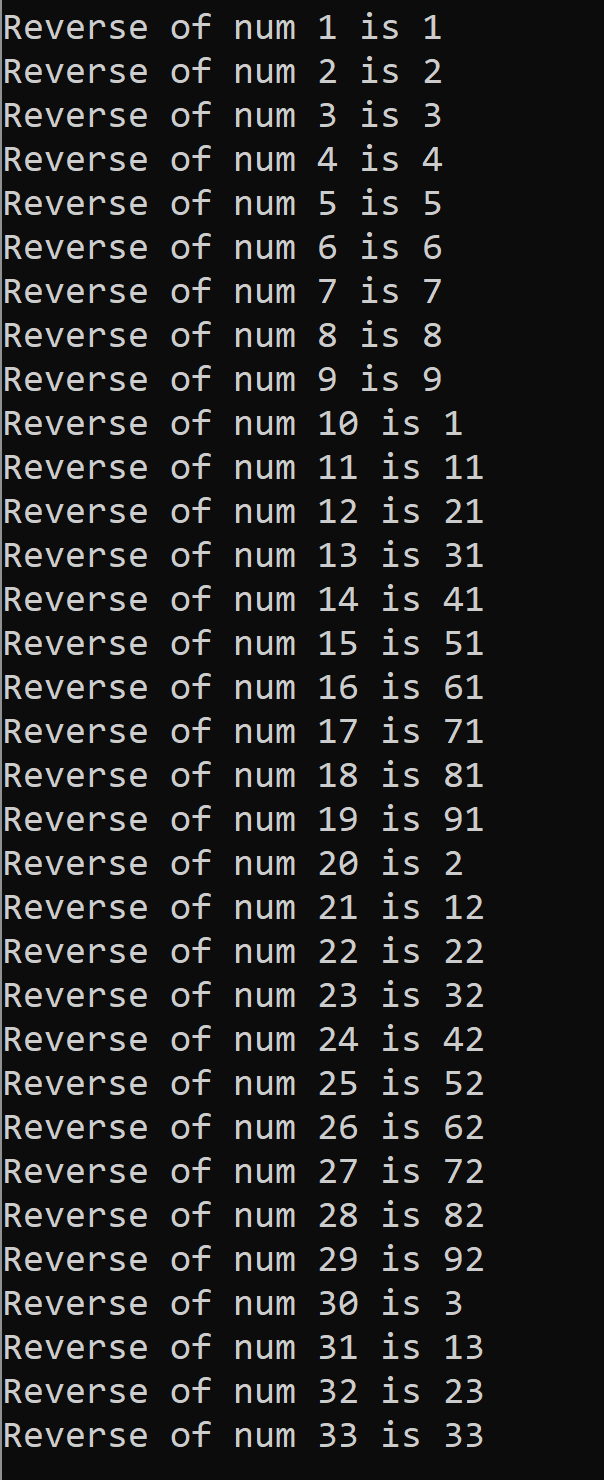
end loop;

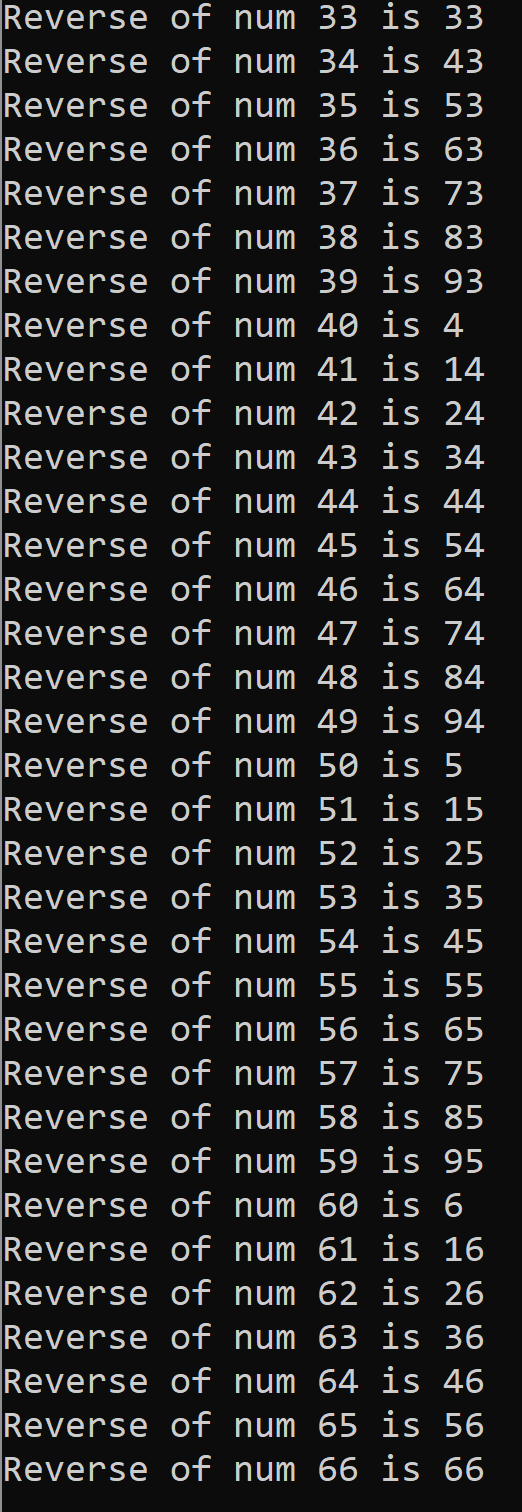
dbms\_output.put\_line('Reverse of num ' || num || ' is ' || rev); num := num+1;

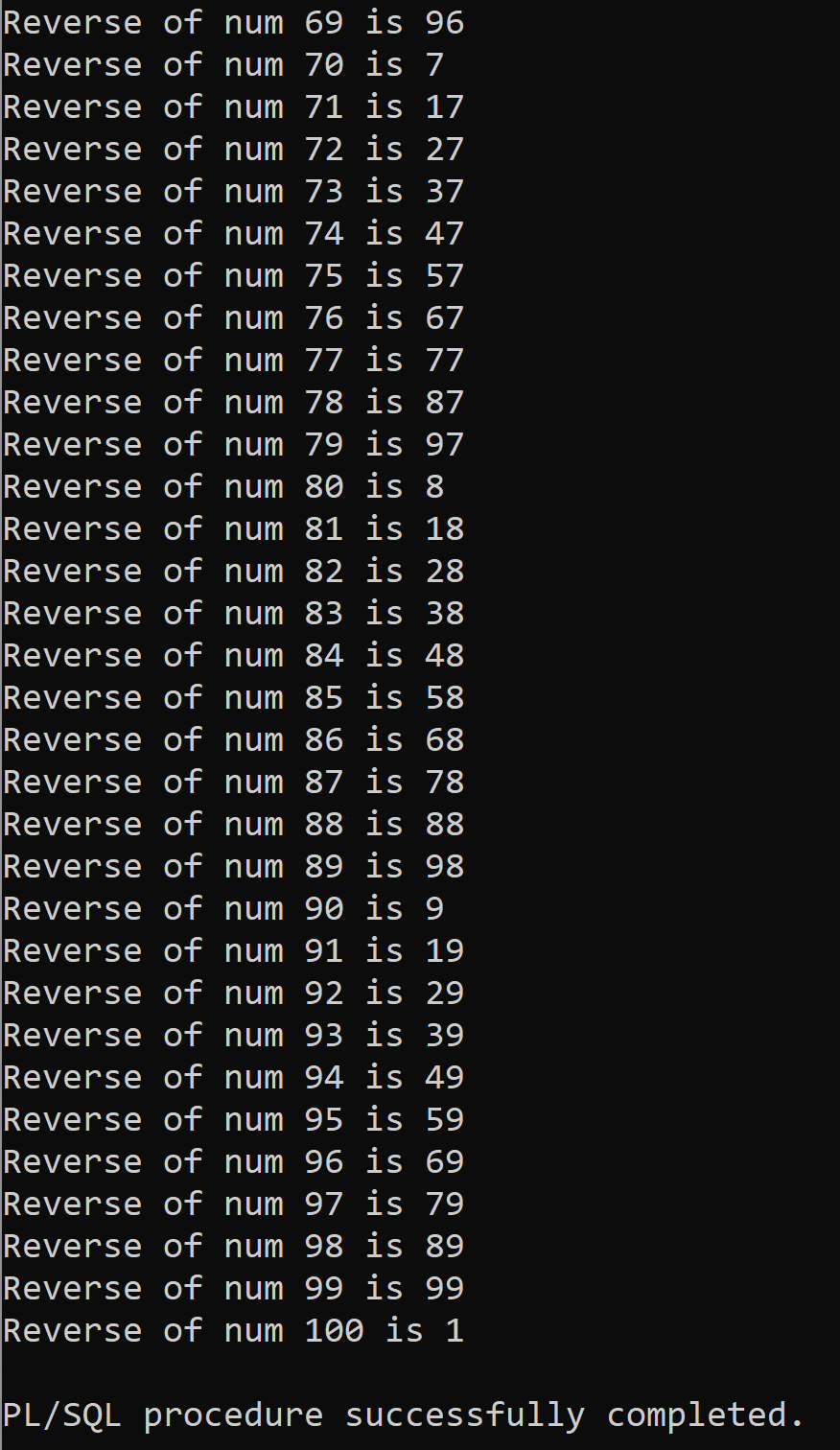
end loop; end;

# Output:









**Question 6:** Write a PL/SQL to reverse the given integer number.

# SQL Command:

declare

num number := 1; rev number := 0; temp number:= 1; begin

num := &num; temp := num; rev:= 0;

while temp > 0 loop

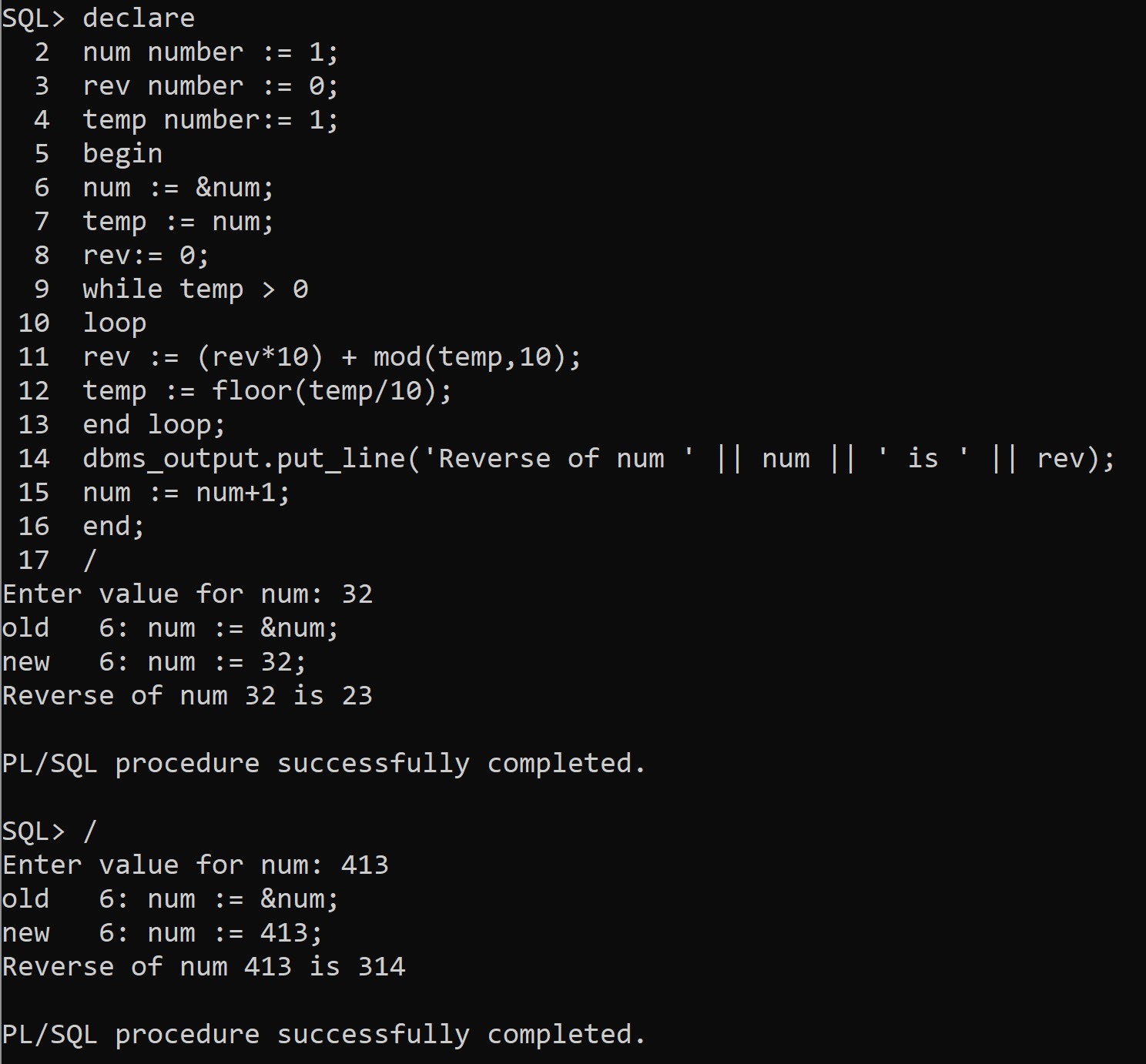
rev := (rev\*10) + mod(temp,10); temp := floor(temp/10);

end loop;

dbms\_output.put\_line('Reverse of num ' || num || ' is ' || rev); num := num+1;

end;

# Output:



**Question 7:** Write a PL/SQL to display the number of employees for a given Department name.

# SQL Command:

declare

num\_emp number := 0; department number; begin

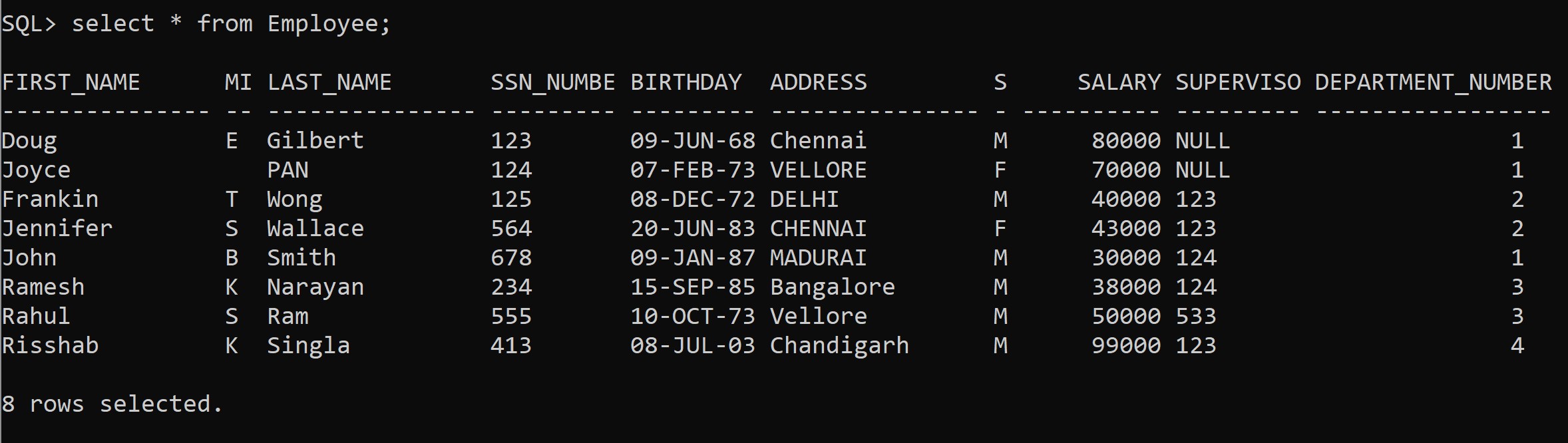
department := &department;

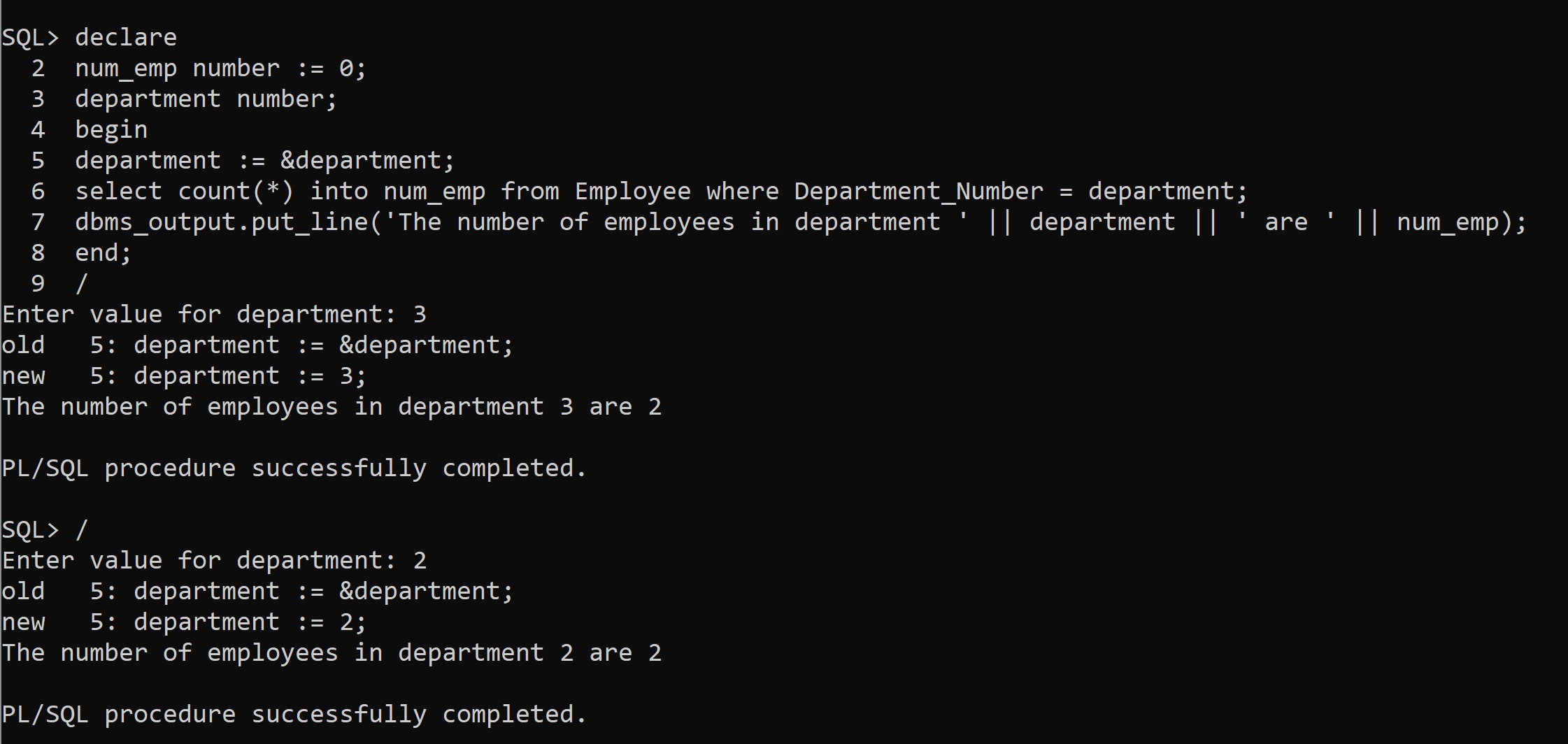
select count(\*) into num\_emp from Employee where Department\_Number = department;

dbms\_output.put\_line('The number of employees in department '

|| department || ' are ' || num\_emp); end;

# Output:





**Question 8:** Write a PL/SQL to accept an employee name and display his department names

# SQL Command:

declare

F\_Name Employee.First\_Name%type;

Dep\_name Department.Department\_Name%type; Dep\_number Department.Department\_Number%type; begin

F\_Name := '&F\_Name';

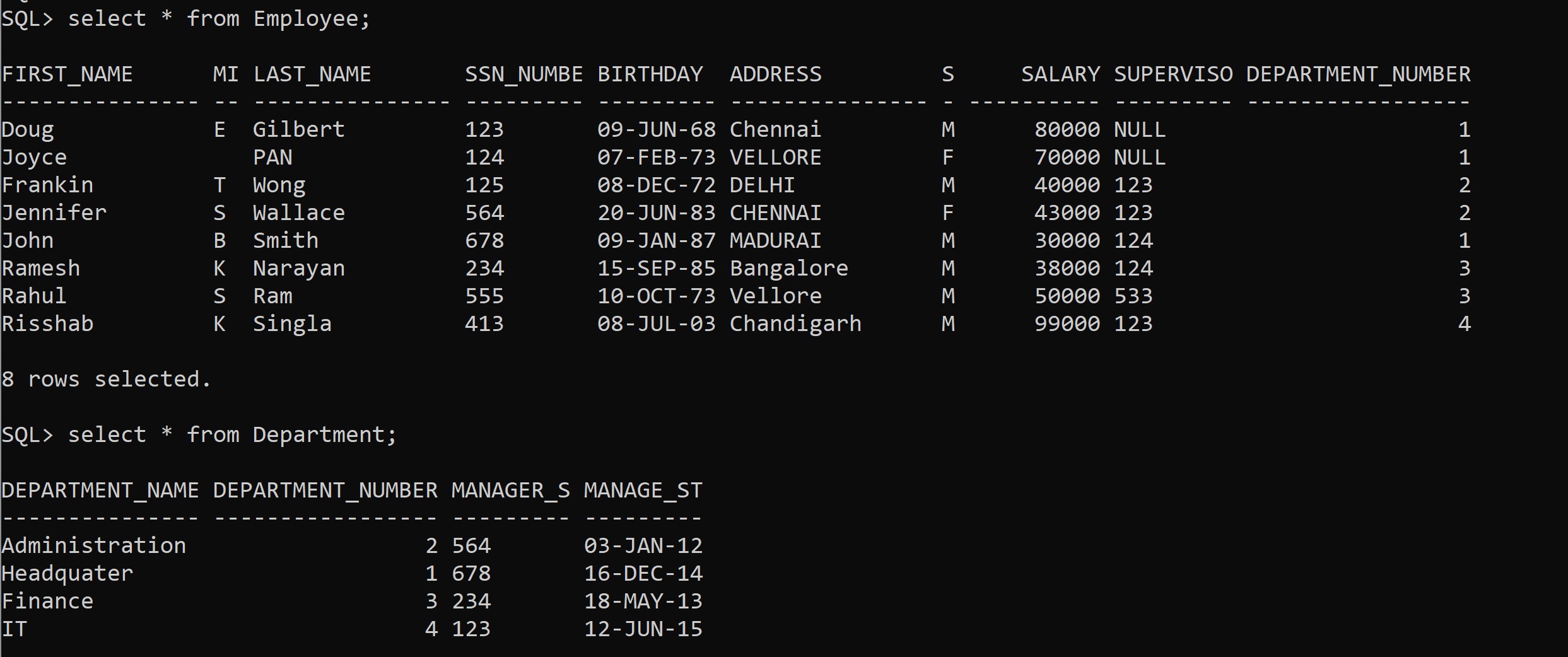
select Department\_Number into Dep\_number from Employee where First\_Name = F\_Name;

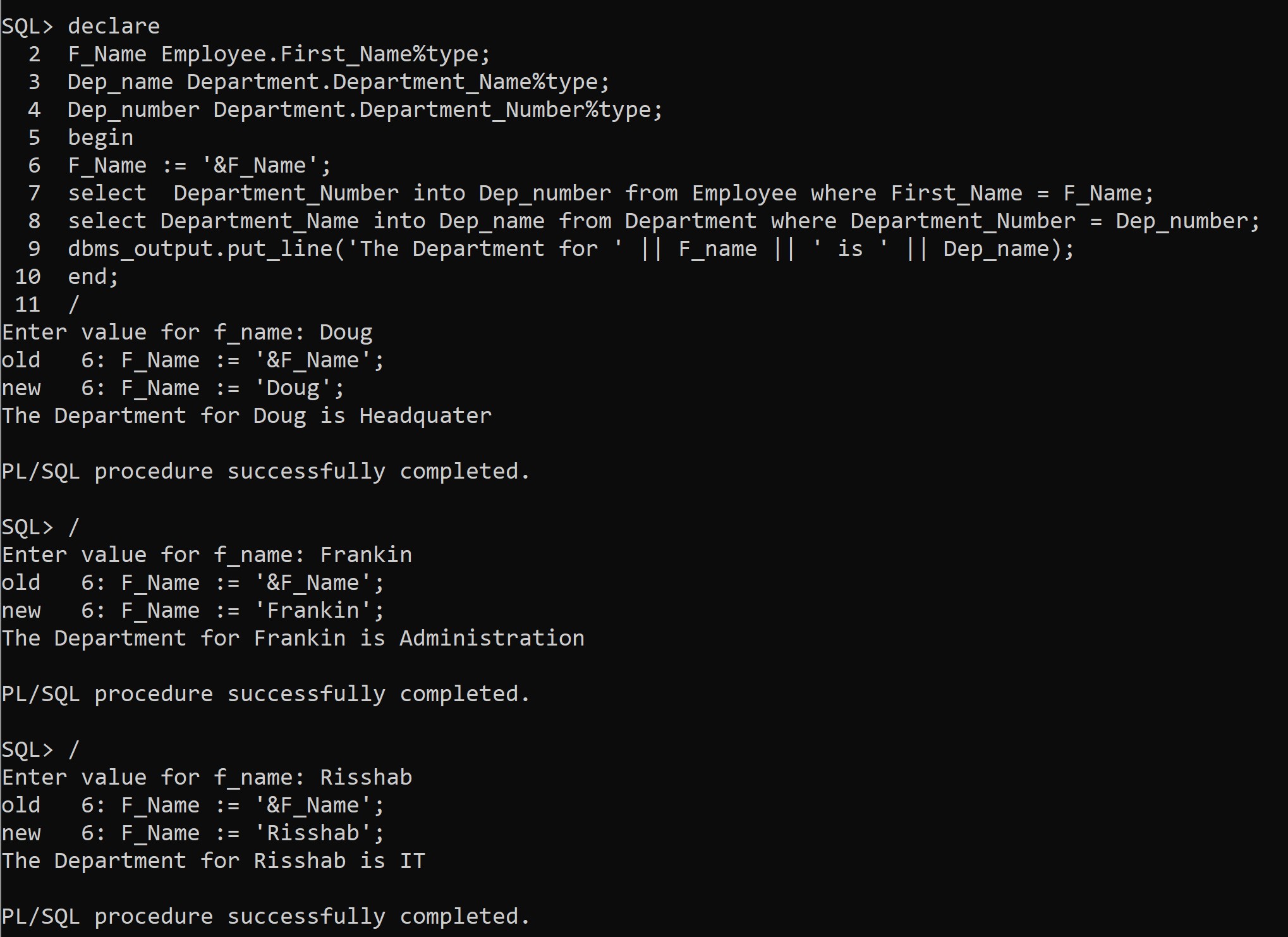
select Department\_Name into Dep\_name from Department where Department\_Number = Dep\_number;

dbms\_output.put\_line('The Department for ' || F\_name || ' is ' || Dep\_name);

end;

# Output:





**Question 9:** Write a PL/SQL to print the employee’s name with salary of those employee names starting with letter ‘S’.

# SQL Command:

declare

v\_sal Employee.Salary%type := 0; begin

select Salary into v\_sal from Employee where First\_Name like 'S%'; Exception

When No\_Data\_Found then v\_sal := NULL;

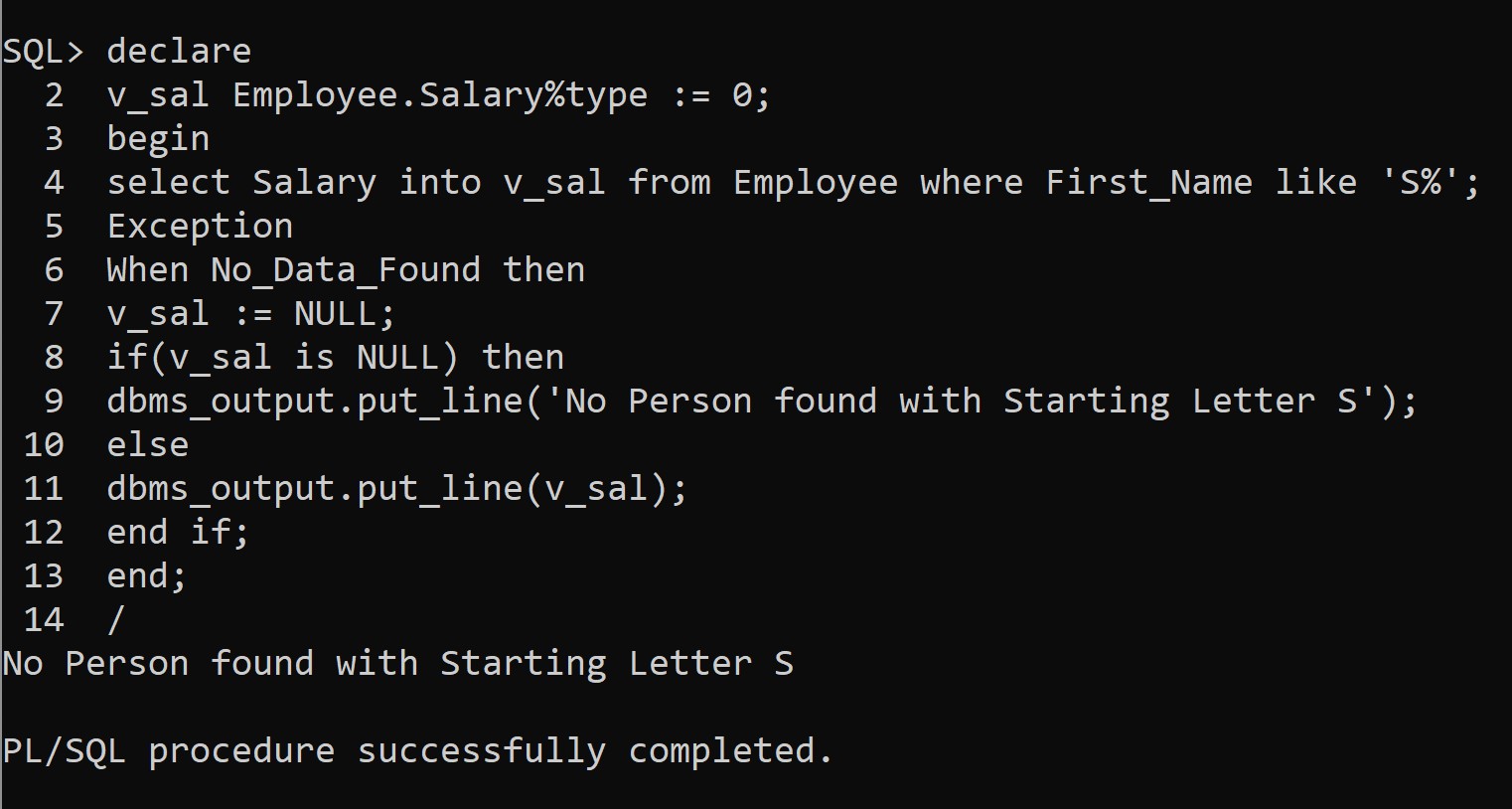
if(v\_sal is NULL) then

dbms\_output.put\_line('No Person found with Starting Letter S'); else

dbms\_output.put\_line(v\_sal); end if;

end;

# Output:



**Question 10:** Write a PL/SQL to find the number of employees who is getting salary greater than 10000.

# SQL Command:

declare

num number; begin

select count(\*) into num from Employee where Salary > 10000; dbms\_output.put\_line('The number of employees with salary

>10000 are: ' || num); end;

# Output:

