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Class : AIA-3 Subject: DBMS LAB

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ASSIGNMENT NO: 06

Aim: PL/SQL: Procedures and Functions.

A. Write a function to square the number taken from user.

B. Write a procedure to display the records from Manufacturing industry / Hospital/Company table

Software required: MySQL

Theory:

The PL/SQL Function is very similar to PL/SQL Procedure. The main difference between procedure and a function is, a function must always return a value, and on the other hand a procedure may or may not return a value. Except this, all the other things of PL/SQL procedure are true for PL/SQL function too.

Syntax to create a function:

```
CREATE [OR REPLACE] FUNCTION function_name [parameters]
[(parameter_name [IN | OUT | IN OUT] type [, ...])]
RETURN return_datatype
{IS | AS}
BEGIN
  &lt; function_body &gt;
END [function_name];
```

Here:

o Function_name: specifies the name of the function.

o [OR REPLACE] option allows modifying an existing function.

o The optional parameter list contains name, mode and types of the parameters.

o IN represents that value will be passed from outside and OUT represents that this

parameter will be used to return a value outside of the procedure.

The function must contain a return statement.

o RETURN clause specifies that data type you are going to return from the function.

o Function_body contains the executable part.

o The AS keyword is used instead of the IS keyword for creating a standalone function.

PL/SQL Function Example

```
1. create or replace function adder(n1 in number, n2 in number)
2. return number
3. is
4. n3 number(8);
5. begin
6. n3 :=n1+n2;
7. return n3;
8. end;
9. /
```

Now write another program to call the function.

```
1. DECLARE
2.    n3 number(2);
3. BEGIN
4.    n3 := adder(11,22);
5.    dbms_output.put_line(&#39;Addition is: &#39; || n3);
6. END;
7. /
```

Screenshots:

A]

```
delimiter //
create function square(x int)
returns int deterministic

begin
return x*x;
end;

//

select square(12);
```

Result Grid | Filter Rows: | Export

	square(12)
▶	144

B]

```
use assign2;

delimiter //
create procedure display()
begin
    select * from hospital;
end;
//
call display();
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

	pid	pname	disease	phno	docid
▶	1	Will	Diarrhea	809798	21
	2	James	Flu	809798	22
	3	Samuel	Cold	809798	23