ISLAMIC UNIVERSITY OF TECHNOLOGY

Organization of Islamic Cooperation

Board Bazar, Gazipur

Lab 06

CSE 4508

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# 5.0.1 Block

## Empty Block

BEGIN  
 NULL;  
END;  
/

SQL

Output:

PL/SQL procedure successfully completed.

TEXT

## Hello World

SET SERVEROUTPUT ON SIZE 1000000  
BEGIN  
 dbms\_output.put\_line('Hello World.');  
END;  
/

SQL

Output:

Hello World.  
  
PL/SQL procedure successfully completed.

TEXT

## scanf

DECLARE  
 my\_var VARCHAR2(30);  
BEGIN  
 my\_var := '&i';  
 dbms\_output.put\_line('Hello ' || my\_var);  
END;  
/

SQL

Output:

Enter value for i: a  
old 4: my\_var := '&i';  
new 4: my\_var := 'a';  
Hello a  
  
PL/SQL procedure successfully completed.

TEXT

## Difference between char and varchar2

DECLARE  
 c CHAR(32767) := 'hello';  
 v VARCHAR2(32767) := 'hello';  
BEGIN  
 dbms\_output.put\_line('c is [' || LENGTH(c) || ']') ;  
 dbms\_output.put\_line('v is [' || LENGTH(v) || ']') ;  
 v := v || ' ';  
 dbms\_output.put\_line ('v is [' || LENGTH(v) || ']');  
END;  
/

SQL

Output:

c is [32767]  
v is [5]  
v is [6]  
  
PL/SQL procedure successfully completed.

TEXT

## Records

DECLARE  
 TYPE demo\_record\_type IS RECORD  
 (id NUMBER DEFAULT 1, value VARCHAR2(10) := 'One');  
 demo DEMO\_RECORD\_TYPE;  
BEGIN  
 dbms\_output.put\_line('[' || demo.id || '] [' || demo.value || ']');  
END;  
/

SQL

Output:

[1] [One]  
  
PL/SQL procedure successfully completed.

TEXT

## IF Statements

DECLARE  
 X NUMBER;  
BEGIN  
 X := 10;  
 IF (X = 0) THEN  
 dbms\_output.put\_line('The value of x is 0');  
 ELSIF(X between 1 and 10) THEN  
 dbms\_output.put\_line('The value of x is between 1 and 10');  
 ELSE  
 dbms\_output.put\_line('The value of x is greater than 10');  
 END IF;  
END;  
/

SQL

Output:

The value of x is between 1 and 10  
  
PL/SQL procedure successfully completed.

TEXT

## Simple CASE Statement

DECLARE  
 selector NUMBER := 1;  
BEGIN  
 CASE selector  
 WHEN 0 THEN  
 dbms\_output.put\_line('Case 0!');  
 WHEN 1 THEN  
 dbms\_output.put\_line('Case 1!');  
 ELSE  
 dbms\_output.put\_line('No match!');  
 END CASE;  
END;  
/

SQL

Output:

Case 1!  
  
PL/SQL procedure successfully completed.

TEXT

## LOOP and EXIT Statements

DECLARE  
 x number := 10;  
BEGIN  
 LOOP  
 dbms\_output.put\_line(x);  
 x := x + 10;  
 IF x > 50 THEN  
 exit;  
 END IF;  
 END LOOP;  
-- after exit, control resumes here  
 dbms\_output.put\_line('After Exit x is: ' || x);  
END;  
/

SQL

Output:

10  
20  
30  
40  
50  
After Exit x is: 60  
  
PL/SQL procedure successfully completed.

TEXT

## LOOP and EXIT WHEN Statements

DECLARE  
 x number := 10;  
BEGIN  
 LOOP  
 dbms\_output.put\_line(x);  
 x := x + 10;  
 exit WHEN x > 50;  
 END LOOP;  
-- after exit, control resumes here  
 dbms\_output.put\_line('After Exit x is: ' || x);  
END;  
/

SQL

Output:

10  
20  
30  
40  
50  
After Exit x is: 60  
PL/SQL procedure successfully completed.

TEXT

## FOR Loops

DECLARE  
 a number(2);  
BEGIN  
 FOR a in 10 .. 20 LOOP  
 dbms\_output.put\_line('value of a: ' || a);  
 END LOOP;  
END;  
/

SQL

Output:

value of a: 10  
value of a: 11  
value of a: 12  
value of a: 13  
value of a: 14  
value of a: 15  
value of a: 16  
value of a: 17  
value of a: 18  
value of a: 19  
value of a: 20  
  
PL/SQL procedure successfully completed.

TEXT

## Reverse FOR Loops

DECLARE  
 a number(2);  
BEGIN  
 FOR a IN REVERSE 10 .. 20 LOOP  
 dbms\_output.put\_line('value of a: ' || a);  
 END LOOP;  
END;  
/

SQL

Output:

value of a: 20  
value of a: 19  
value of a: 18  
value of a: 17  
value of a: 16  
value of a: 15  
value of a: 14  
value of a: 13  
value of a: 12  
value of a: 11  
value of a: 10  
  
PL/SQL procedure successfully completed.

TEXT

## WHILE Loop

DECLARE  
 a number(2) := 10;  
BEGIN  
 WHILE a < 20 LOOP  
 dbms\_output.put\_line('value of a: ' || a);  
 a := a + 1;  
 END LOOP;  
END;  
/

SQL

Output:

value of a: 10  
value of a: 11  
value of a: 12  
value of a: 13  
value of a: 14  
value of a: 15  
value of a: 16  
value of a: 17  
value of a: 18  
value of a: 19  
  
PL/SQL procedure successfully completed.

TEXT