**Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology**
**(Deemed to be University Estd. u/s 3 of UGC Act, 1956)**
**School of Computing**
**B.Tech. – Computer Science and Engineering**

**VTR UGE2021- (CBCS)**

Academic Year: 2025–2026

SUMMER SEMESTER - SS2526

Course Code : 10211CS207

Course Name : Database Management Systems

Slot No : S4-L5

# DBMS TASK - 7 REPORT

Submitted by:

| VTUNO | REGISTER NUMBER | STUDENT NAME |
|---|---|---|
| VTU30200 | 24UECS1453 | GANESWARA REDDY UPPALAPALLI |

# CONTROL STRUCTURES

## Using IF-THEN statement

**SQL>**set serveroutput on;

**SQL>**declare
b number;
c number;
begin
c:=&temp;
select mark into b from student where s_id=c;
if b>50 then
dbms_output.put_line('PASS');
elsif
dbms_output.put_line('FAIL');
end if;
end;
/

**Output:**

Enter value for temp:10
Old 5:c:=&temp;
New 5:c:=10;
PASS

**PL/SQL procedure successfully completed.**

## Using IF-THEN statement

**SQL>**set server output on;

```
SQL> DECLARE
  a NUMBER;
  b NUMBER;
  c NUMBER;
BEGIN
  a := &a; -- Accepts value for 'a'
  b := &b; -- Accepts value for 'b'
  c := &c; -- Accepts value for 'c'
  IF (a > b) AND (a > c) THEN
    dbms_output.put_line('a is greater');
  ELSIF (b > c) THEN
    dbms_output.put_line('b is greater');
  ELSE
    dbms_output.put_line('c is greater');
  END IF;
END;
/
```

**Output:**

```
Enter value for a:2
Old  6:a:=&a;
New 6:a:=2;

Enter value for b:3
Old  7:b:=&b;
New  7:b:=3;

Enter value for c:4
Old  8:c:=&c;
New  8:c:=4;
C is greater.
```

**PL/SQL procedure successfully completed.**

## Using REVERSE FOR loop

```
SQL>declare
a varchar(20);
b varchar(20);
 i number;
 begin
 a:='&a';
 for i in reverse 1..length(a)
 loop
 b:=b||substr(a,i,1);
 end loop;
 dbms_output.put_line(b);
 if a=b then
 dbms_output.put_line('THE GIVEN STRING IS PALINDROME');
 else
 dbms_output.put_line('THE GIVEN STRING IS NOT A PALINDROME');
 end if;
 end;
 /
```

**Output:**

```
 Enter value for a:madam
Old 6:a:='&a';
New 6:a:='madam';
Madam

THE GIVEN STRING IS PALINDROME.

PL/SQL procedure successfully completed.
```

## Using FOR loop

```
SQL>declare
2  a number;
3  b number;
4  c number;
5  i number;
6  r number;
```

```
7  begin
8  a:=-1;
9  b:=1;
10  r:=&range;
11  for i in 1..r
12  loop
13  c:=a+b;
14  dbms_output.put_line(c);
15  a:=b;
16  b:=c;
17  end loop;
18  end;
19  /
```

**Output:**

```
Enter value for range:5
Old 10:r:=&range;
New 10:r:=5;
0
1
1
2
3
```

**PL/SQL procedure successfully completed.**

## Using FOR loop

```
SQL>declare
2  n number;
3  i number;
4  s number;
5  begin
6  s:=0;
7  n:=&n;
8  for i in 1..n
9  loop
10  s:=s+i;
```

```
11  end loop;
12  dbms_output.put_line('SUM OF FIRST'||n||'NATURAL NUMBERS='||s);
13  end;
14  /
```

**Output:**

```
Enter value for n:5
Old 7:n:=&n;
New 7:n:=5;

SUM OF FIRST 5 NATURAL NUMBERS = 15
```

**PL/SQL procedure successfully completed.**

## Extended IF-THEN statement

```
SQL>declare
2  grade char(1);
3  begin
4  grade:='B';
5  if grade='A' then
6  dbms_output.put_line('EXCELLENT');
7  elsif grade='B' then
8  dbms_output.put_line('VERY GOOD');
9  elsif grade='C' then
10  dbms_output.put_line('GOOD');
11 elsif grade='D' then
12  dbms_output.put_line('FAIR');
13  elsif grade='F' then
14  dbms_output.put_line('POOR');
15  else
16  dbms_output.put_line('NO SUCH GRADE');
17  end if;
18  end;
19  /
```

**Output:**

```
VERY GOOD
```

**PL/SQL procedure successfully completed.**

## Using the CASE-WHEN statement

```
SQL>declare
2  grade char(1);
3  begin
4  grade:='A';
5  case grade
6  when 'A' then dbms_output.put_line('EXCELLENT');
7  when 'B' then dbms_output.put_line('VERY GOOD');
8  when 'C' then dbms_output.put_line('GOOD');
9  when 'D' then dbms_output.put_line('FAIR');
10  when 'F' then dbms_output.put_line('POOR');
11  else dbms_output.put_line('NO SUCH GRADE');
12  end case;
13  end;
14  /
```

**Output:**

EXCELLENT

**PL/SQL procedure successfully completed.**

## Using the GOTO statement

```
SQL>declare
2  p varchar(30);
3  n pls_integer:=37;
4  begin
5  for j in 2..round(sqrt(n)) loop
6  if n mod j=0 then
7  p:='IS NOT A PRIME NUMBER';
8  goto print_now;
9  end if;
10  end loop;
11 p:='IS A PRIME NUMBER';
<<print_now>>
12  dbms_output.put_line('to_char(n)||p);
13  end;
```

```
14 /
```

**Output:**

37 IS A PRIME NUMBER.

**PL/SQL procedure is successfully completed.**

## Using a NULL statement to allow a GOTO to a label

```
SQL>declare
2  done Boolean;
3  begin
4  for i  in 1..5 loop
5  if done then
6  dbms_output.put_line('DONE');
7  goto end_loop;
8  end if;
<<end loop>>
9  null;
10  end loop;
11  end;
12  /
```

**Output:**

```
DONE
DONE
DONE
DONE
DONE
```

**PL/SQL procedure successfully completed.**