PLSQL

Condition Statement:

IF , CASE

- If then end if;
- If then else end if;
- If then elsif then else end if;

Example: Find the largest of 3 number.

```
Declare
   a number;
   b number;
   c number;
Begin
   a:=&a;
   b:=&b;
   c:=&C;
   if (a>b) and (a>c)  then
      dbms_output.put_line('A is
greatest '||A);
   elsif (b>a) and (b>c)  then
      dbms_output.put_line('B is
greatest ' ||B);
   else
      dbms_output.put_line('C is
greatest ' ||C);
   end if;
End;
```

PYTHON

Condition Statement:

IF

- If :
- If:
  Else:
- If :
  Elif:
  Else:

Example: Find the largest of 3 number.

```
a = int(input('Enter first number  : '))
b = int(input('Enter second number : '))
c = int(input('Enter third number  : '))

largest = 0

if a > b and a > c :
   largest = a
elif b > c :
   largest = b
else :
   largest = c

print(largest, "is the largest of three
numbers.")
```

CASE:

```
Declare
   grade char(1) := 'A';
Begin
case grade when 'A' then
dbms_output.put_line('Excellent');
when 'B' then
dbms_output.put_line('Very good');
when 'C' then
dbms_output.put_line('Well done');
when 'D' then
dbms_output.put_line('You passed');
when 'F' then
dbms_output.put_line('Better try
again');
else dbms_output.put_line('No such
grade');
End Case;
END;
```

LOOP

- Basic loop
- For loop
- While loop
- Exit
- Exit when
- Continue
- Continue when

For loop:

1. 1
   11
   111
   1111
   11111

```
declare
   n number:=5;
begin
  for i in 1..n  loop
      for j in 1..i  loop
         dbms_output.put('1');
      end loop;
      dbms_output.new_line;
  end loop;
end;
```

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;
```

LOOP

- For loop
- While loop
- Break
- Continue
- Pass

For loop:

```
1
11
111
1111
11111

n=5
for i in range(1,n+1):
    for j in range(0,i):
        print(1,end=" ")
    print( )
```

While loop:

```
a=10
while a<20:
        print(a)
        a=a+1
```

FUNCTION

- String function
- Number function
- Date function

String function:

Length: select length('aroha')from dual;
Upper: select upper('aroha') from dual;
Lower: select lower('AROHA') from dual;
Initcap: select initcap('aroha') from dual;
ASCII: Select ASCII('A') FROM DUAL;
Char: Select CHR(99) FROM DUAL;
Trim: SELECT TRIM('#' FROM ' STRINNG ') FROM DUAL;
Ltrim: select ltrim('qqqqaroha','q') from dual;
Rtrim: select ltrim('aroha$$$$','$') from dual;
Lpad: select lpad('aroha',10,'$') from dual;
Rpad: select rpad('aroha',10,'$') from dual;
Substr: select substr('aroha tech',7,4) from dual;
Instr: select instr('aroha','a',1,2) from dual;
Replace: select replace('aroha','a','g') from dual;
Reverse: select reverse('aroha') from dual;
Translate: select translate('aroha','ao','xy') from dual;
Concat: select concat(first_name,last_name) from dual;

FUNCTION

- String function
- Number function

String function:

capitalize(): Converts the first character to upper case
count(): Returns the number of times a specified value occurs in a string
endswith(): Returns true if the string ends with the specified value
find():Searches the string for a specified value and returns the position of where it was found
isalnum(): Returns True if all characters in the string are alphanumeric
isalpha(): Returns True if all characters in the string are in the alphabet
isdigit():Returns True if all characters in the string are digits
lower(): Converts a string into lower case
replace(): Returns a string where a specified value is replaced with a specified value
split() Splits the string at the specified separator, and returns a list
startswith() Returns true if the string starts with the specified value
strip()Returns a trimmed version of the string
title() Converts the first character of each word to upper case
upper() Converts a string into upper case

Number function:

1.**Round**: select round(6.5) from dual;

2.**Trunc**: select trunc(7.6) from dual;

3.**Mod**: select mod(4,2) from dual;

4.**Ceil**: select ceil(9.1) from dual;

5.**Floor**: select floor(9.1) from dual;

6.**Abs**: select abs(-7) from dual;

7.**Power**: select power(2,2) from dual;

8.**Sqrt**: select sqrt(4) from dual;

9.**Sign**: select sign(-9) from dual; -1
select sign(9) from dual; 1

10.**Greatest**: select greatest(1,4,9,8) from dual;

11.**Least**: select least(1,4,9,8) from dual;

Number function:

Abs(x): print(abs(-45)) =45

Ceil(x): print (math.ceil(-45.17))= -45.0

Exp(x): print(math.exp(-45.17))= 2.41500621326e-20

Floor(x): print (math.floor(-45.17))= -46.0

Max(x1,x2,..): print (max(80, 100, 1000))= 1000

Min(x1,x2,..): print (min(80, 100, 1000))=80

Pow(x,y): print(math.pow(100, 2)) = 10000

Round(x[,n]): print (round(80.23456, 2))=80.23

Sqrt(x): print (math.sqrt(100))= 10

DATE FUNCTION:

Round:
select round(sysdate,'yy') from dual;----
Returns date

Trunc:
select trunc(sysdate,'yy') from dual-----
Returns date

Months_between:
select months_between('22-jan-17','18-apr-18') from dual;----
Returns number of months

Last_day:
select last_day('22-jul-18') from dual----
Returns date

Next_day:
select next_day('14-feb-18','monday') from dual;----
Returns date

Add_months:
select add_months('13-mar-18',5) from dual;-----
Returns date

To_char:
numeric-char, date-char
date char number
to_date to_number