

Looping Statement In QBASIC

loop is a sequence of instructions that is repeated until a certain condition is reached.

loops are used to execute a set of statements repeatedly until a particular condition is satisfied,

QBasic programming language provides the following types of loops to handle looping requirements.

- **For Next loop**
- **while loop**
- **Do loop**

Loops allows a specified group of statements to be executed a certain number of times while certain condition is true.

For Next Loop is used to execute the set of statements repeatedly for a given number of times.

For Loop's syntax

```
FOR counter = start TO end [STEP]  
  [Statement Block]  
NEXT counter
```

Example

```
FOR i = 1 TO 4 step 2  
PRINT "Hello world!"  
NEXT i
```

Write a program to print the natural numbers from 1 to 10.

```
Cls  
FOR x=1 to 10  
Print x  
Next x  
End
```

Write a program to print even numbers from 1 to 20

```
CLS  
FOR I = 2 to 20 step 2  
PRINT I  
NEXT I  
END
```

WHILE ... WEND loop

In a WHILE ... WEND loop, if the condition is True, all statements are executed until WEND keyword is encountered. If the condition is false, the loop is exited and the control jumps to very next statement after WEND keyword.

While Loop's syntax

```
WHILE <condition>  
    {Code}  
WEND
```

Example

```
i=10  
While i>5  
    Print "hello"  
    i=i-1  
Wend
```

DO ... LOOP

It is another type of looping statement in QBASIC. Sometime it is also called **DO WHILE LOOP**. In this loop, the instructions within the loop are performed if the comparison is true. We can use this loop by 4 different methods. Syntax are

Do loop's Syntax

Syntex 1

```
DO ... WHILE  
{STATEMENTS}  
LOOP
```

Syntex 2

```
DO  
{STATEMENTS}  
LOOP WHILE [CONDITION]
```

Syntex 3

```
DO UNTIL  
{STATEMENTS}  
LOOP
```

Syntex 4

```
DO  
{STATEMENTS}  
LOOP UNTIL
```

Example

WAP to print the natural numbers from 1 to 10

```
CLS
n = 1
DO
PRINT n;
n = n + 1
Loop While n<=10
End
```

WAP to print the numbers from 20 to 1 in descending order

```
CLS
n=20
DO
PRINT n;
n= n- 1
LOOP UNTIL n<1
END
```

END