



More about Loop

Write Down “Do” and “Loop”

Do

.....

.....

.....

.....

Loop



Different Type of Do Loop

Decide where to put the Criteria ?

Do While XXX

.....

Loop

Do Until XXX

.....

Loop

Do

.....

Loop While XXX

Do

.....

Loop Until XXX



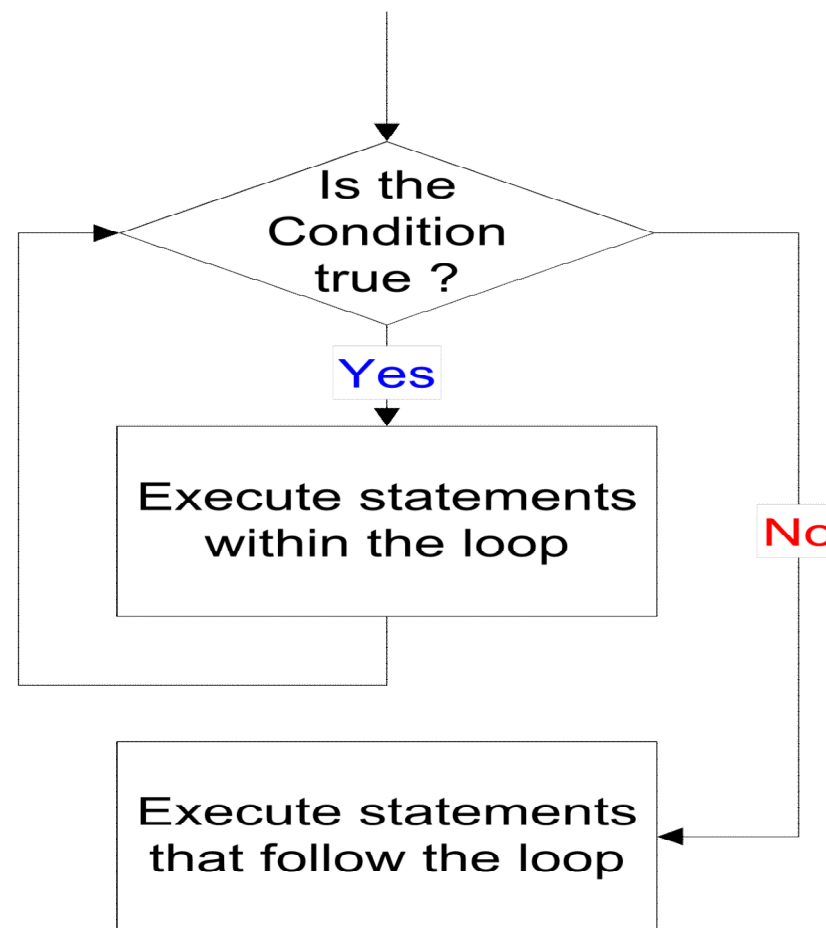
Do While Loop

Do While XXX

.....

Loop

Program will continue to loop if the condition is **true**.





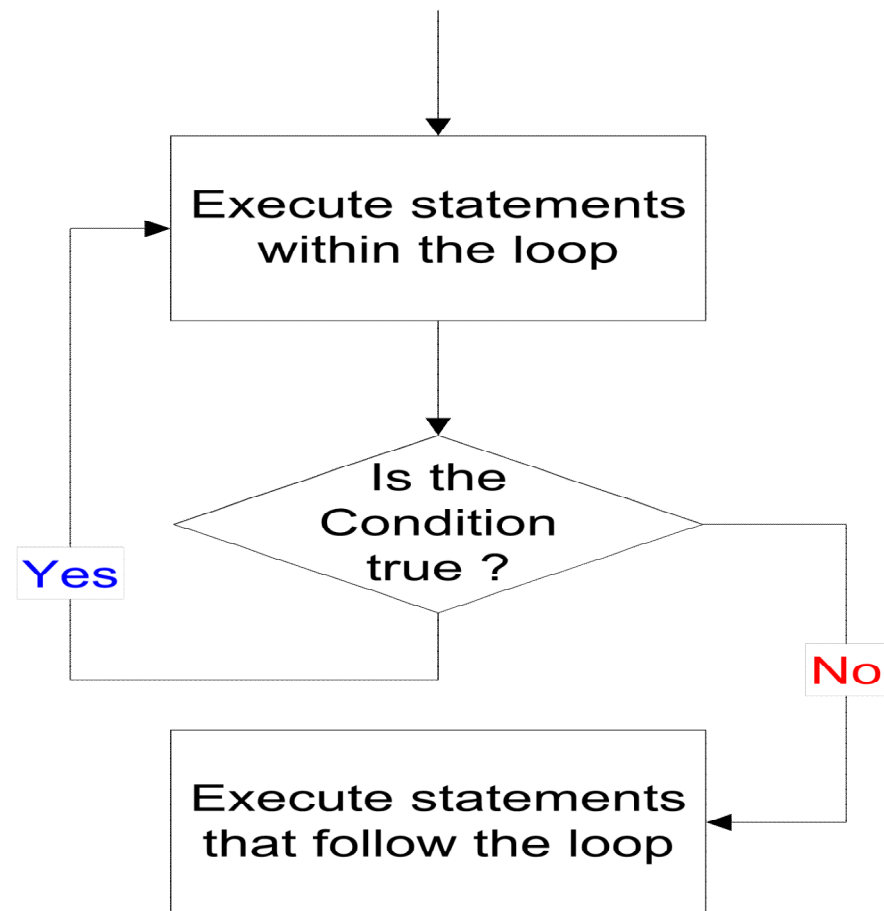
Do Loop While

Do

.....

Loop While XXX

Program will continue to loop if the condition is **true**.





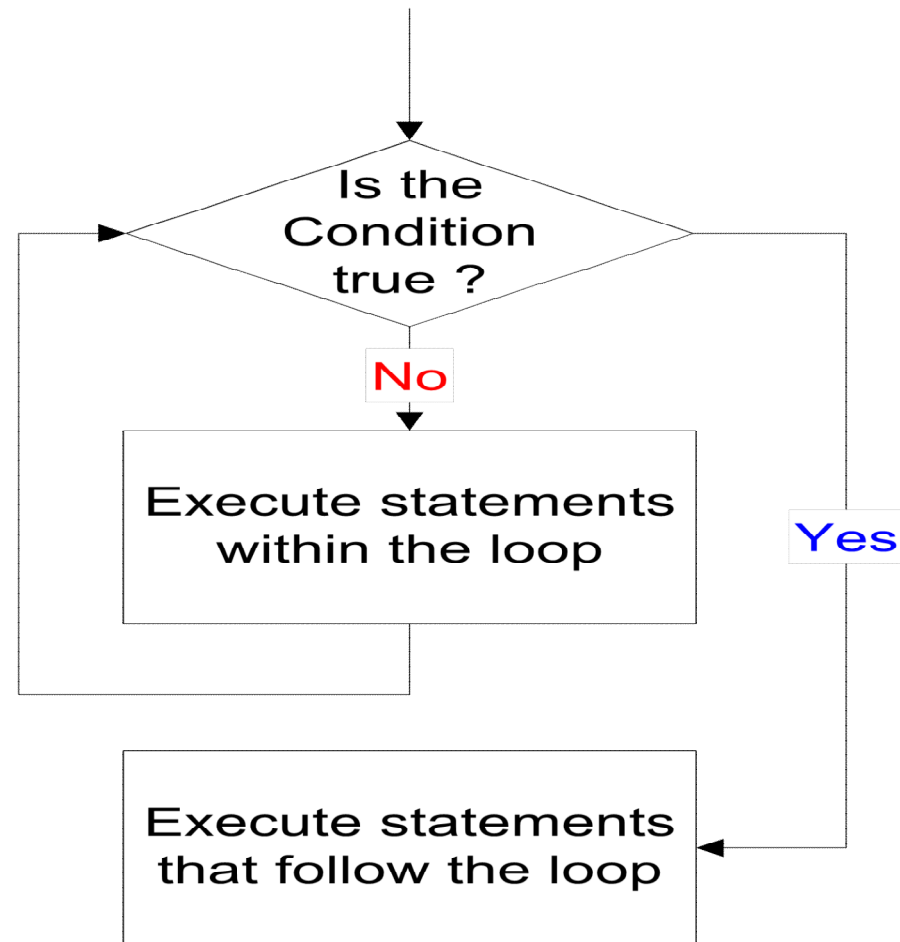
Do Until Loop

Do Until XXX

.....

Loop

Program will continue to loop if the condition is **False**.



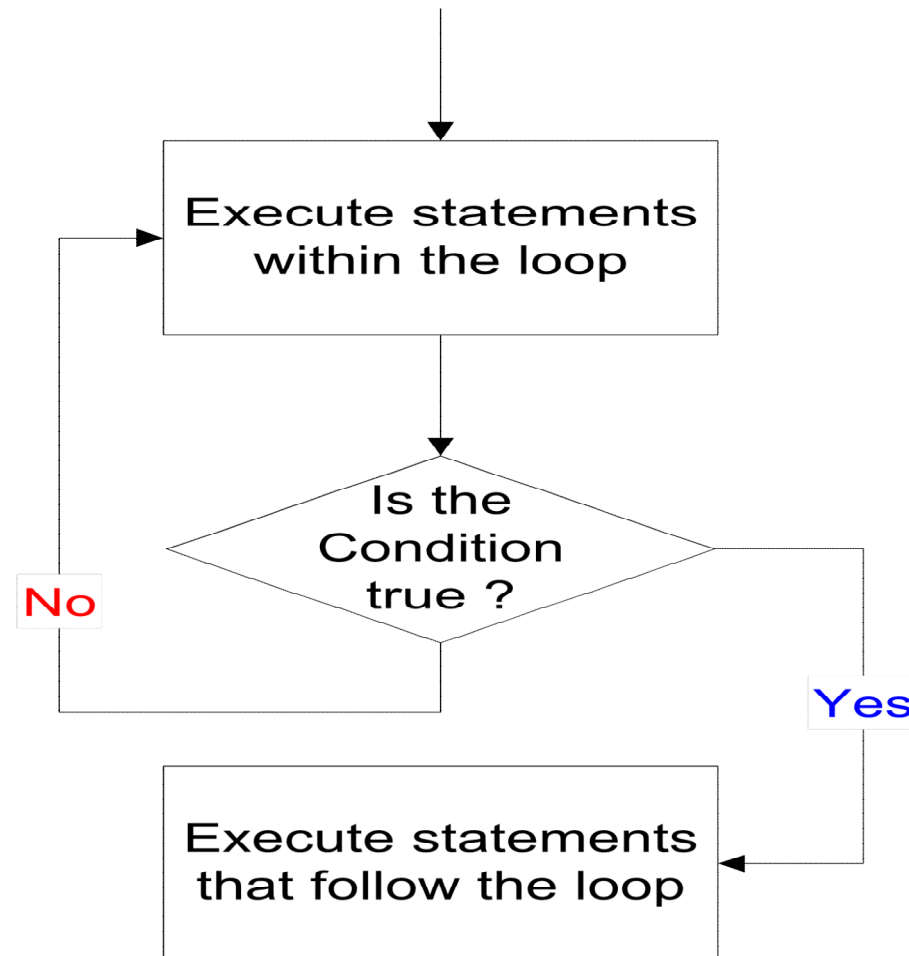


Do Loop Until

Do

.....

Loop Until XXX



Program will continue to loop if the condition is **False**.



Different Behavior in Loop

Be careful for the Condition Statement

Do While <XXX>

.....

Loop

When <XXX> is true,
the loop will loop unit it evaluated
value is changed to False.

Do Until <YYY>

.....

Loop

When <yyy> is true,
the loop will stop and it evaluated
value is changed to False.



Changing of Do While to Do Until (2)

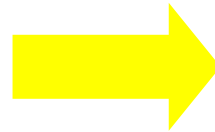
X=10

Do

Sum = Sum + X

X=X-1

Loop While X>0



X=10

Do

Sum = Sum + X

X=X-1

Loop Until X<=0

**Be careful there is a change of logical comparison symbol.
The symbol “>” has to be replaced with “<= ”.**



Changing of Do While to Do Until

X=10

Do While X>0

Sum = Sum + X

X=X-1

Loop



X=10

Do Until X<=0

Sum = Sum + X

X=X-1

Loop

**Be careful there is a change of logical comparison symbol.
The symbol “>” has to be replaced with “<= ”.**



Try This ! – Do While

What will be the value of Sum and MyNum when the following Program finished ?

```
MyNum=20
Sum=0
Do While MyNum>1
    Sum = Sum + MyNum
    MyNum=MyNum-2
Loop
```





Try This ! - Answer

What will be the value of Sum and MyNum when the following Program finished ?

```
MyNum=20
```

```
Sum=0
```

```
Do While NyNum>1
```

```
    Sum = Sum + NyNum
```

```
    MyNum=NyNum-2
```

```
Loop
```

MyNum = 0

Sum=110



Try This ! – Do Loop Until

What will be the value of Boys and Girls when the following Program finished ?

Boys=20

Girls=10

Do

Boys = Boys -1

Girls = Girls +2

Loop Until Girls>Boys





Try This ! – Do Loop Until

What will be the value of Boys and Girls when the following Program finished ?

Boys=20

Girls=10

Do

Boys = Boys -1

Girls = Girls +2

Loop Until Girls>Boys

Boys = 16

Girls = 18