

# LOOPING

Statements in C Programming

# Introduction

**C programming language, there are circumstances where you want to do the same thing many times**

**For example you want to print the same words ten times.**

**You could type ten printf function, but it is easier to use a loop. The only thing you have to do is to setup a loop that execute the same printf function ten times**

# What is a LOOP?

A loop is defined as a block of statements, which are repeatedly executed for a certain number of times

Looping statements are used for running a set of statements for any number of times

Looping statements are also called as iterative statements

# Types of LOOPS?

In C Programming there are mainly two types of loops

Unbounded loop

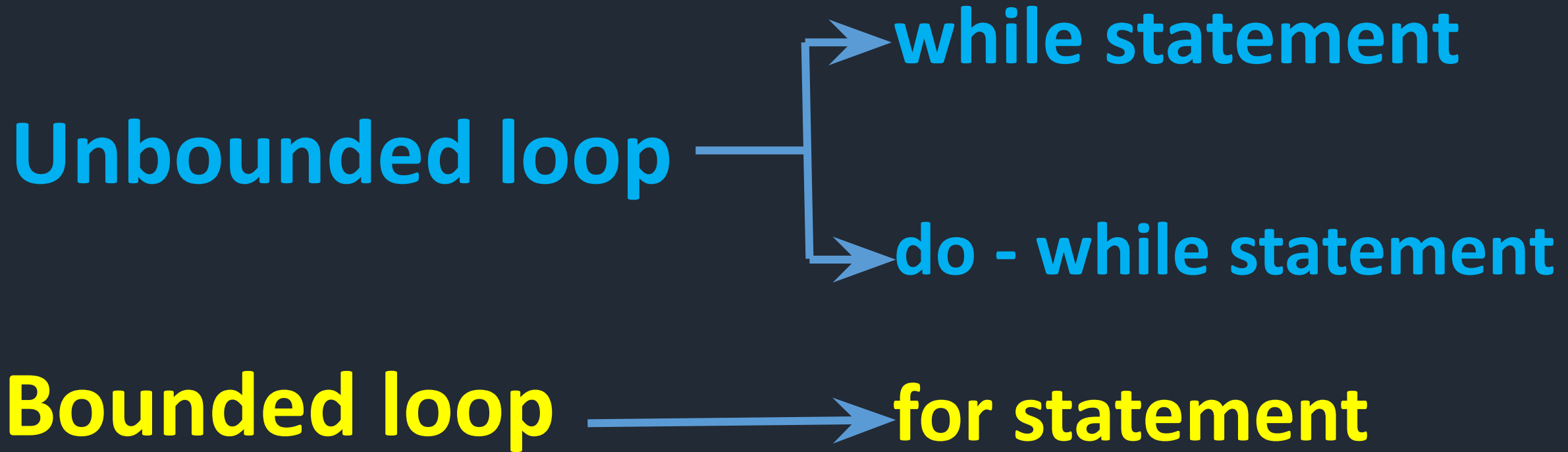
Bounded loop



Note

These are also called *indefinite* and *definite* loops respectively

# Types of LOOPS?



# Unbounded loop

Unbounded looping statements are used when we don't know how many times the set of statements has to be repeated

Unbounded looping statements can either be a Pre – Test Loop or be a Post – Test Loop

In Pre – Test Loop, condition is checked before the beginning of each iteration. If condition is TRUE repetition is performed, if it is FALSE repetition is not performed

**Pre – Test loop is implemented using ‘while’ statement**

**In Post – Test Loop, first the block of statements to be repeat is executed then condition will be tested**

**That means in Post – Test Loop, condition is checked after executing the repeating statements, if the condition is TRUE it repeat the statements again, if it is FALSE repetition is not performed**

**Post – Test loop is implemented using ‘do - while’ statement**

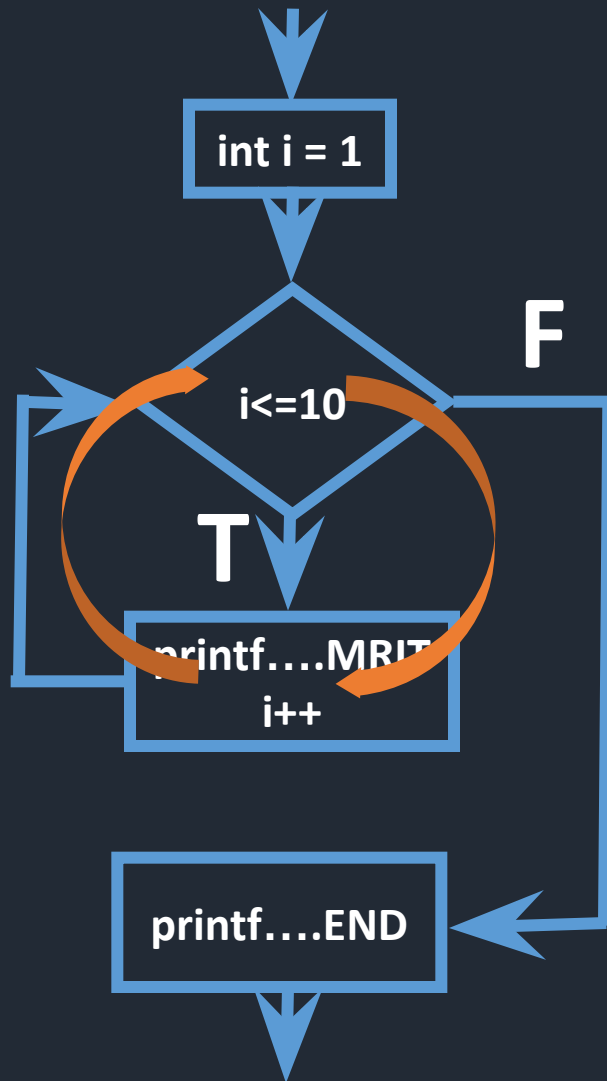
# While statement

## Syntax

```
counter initialization;  
while(condition)  
{  
    block of statements;  
    ....  
    counter modification;  
    ....  
}
```



# Example



```
#include<stdio.h>
```

```
void main()
```

```
{
```

```
int i=1;
```

```
while(i <= 10)
```

```
{
```

```
printf("MRIT\n");
```

```
i++;
```

```
}
```

```
printf("END");
```

```
}
```

