**For Loop**

A for loop is a repetition control structure that allows us to efficiently write a loop that will execute a specific number of times. The for-loop statement is very specialized. We use a for loop when we already know the number of iterations of that particular piece of code we wish to execute. Although, when we do not know about the number of iterations, we use a while loop which is discussed next.

Here is the syntax of a for loop in C++ programming.

for (initialise counter; test counter; increment / decrement counter)

{

//set of statements

}

Here,

* **initialize counter:** It will initialize the loop counter value. It is usually i=0.
* **test counter:** This is the test condition, which if found true, the loop continues, otherwise terminates.
* **Increment/decrement counter:** Incrementing or decrementing the counter.
* **Set of statements:** This is the body or the executable part of the for loop or the set of statements that has to repeat itself.

One such example to demonstrate how a for loop works is

#include <iostream>

using namespace std;

int main()

{

int num = 10;

int i;

for (i = 0; i < num; i++)

{

cout << i << " ";

}

return 0;

}