*While Loops**

A **while loop** in C++ is a type of loop that allows you to repeat a block of code as long as a given condition remains true.

The syntax for a **while loop** in C++ is:

```
while (condition)
{
  // code to be executed
}
```

The code inside the while loop will be executed as long as the **condition** is true. Once the condition becomes false, the code inside the loop will no longer be executed and the program will continue on to the next line of code after the loop.

It is important to note that if the condition is never true, the code inside the while loop will never be executed and the program will get stuck in an infinite loop.

To avoid this, make sure to include a way to make the condition false inside the code block of the while loop.

Here is an example of a while loop in C++ that will print the numbers 0 to 9 to the console:

```
int i = 0;

while (i < 10)
{
  cout << i << endl;
  i++;
}
```

In this example, the code inside the while loop will execute 10 times. This is because the variable i is initialized to 0 and then incremented by 1 each time the code block in the loop is executed. The condition i < 10 is checked each time before the code block is executed. When the value of i becomes 10, the condition is no longer true and the code inside the loop is no longer executed.