Sequential Processing

Computer programs are collections of operations that compute values, modify memory, accept input and produce output. Every operation is executed in a specific sequence as specified by the programmer.

When we declare a variable, we are given (allocated) a space in memory. In this example, we declare a byte and give it the name `myByte`. In the same line, we assign the value 0 to `myByte`, which sets all bits in the 8-bit space in memory to zero.

```
byte myByte = 0;
```

After declaring a variable, the program can modify the value stored in the allocated space. Each line that contains an assignment to `myVariable` changes the value stored in memory.

```
myByte = 5;
```

Subsequent statements that contain assignment operations will modify the same space in memory. The following addition reads the value that was in `myByte` (which is 5) and adds 1. The new value is stored back into `myByte` (result is 6).

```
myByte = myByte + 1;
```

The following addition reads the value that was in `myByte` (which is 6) and adds it to itself. The new value is stored back into `myByte` (result is 12).

```
myByte = myByte + myByte;
```