

Declaring Variables

<code>int i;</code>	Signed integer. 1 bit to determine positive or negative and 31 bits for value.
<code>unsigned int j;</code>	Unsigned integer. All 32-bits for values.
<code>const int k = 10;</code>	Declare and assign a constant int.
<code>char c;</code>	A single byte.

Loop examples

```
for(int i = 0; i < 5; i++) {
    printf ("%i ", i);
} // Output 0 1 2 3 4
int j = 5;
while (j-->0) {
    printf ("%i ", j);
} // Output 4 3 2 1 0
```

Array Declaration

<code>char arr[] = "Hello";</code>	Char array with string literal.
<code>char arr[5];</code>	An array for 5 characters.
<code>char arr = {'A', 'B', '\0'};</code>	With an array literal.
<code>char *arr;</code>	Declaration of a pointer.

Manipulating an Array

```
char s[] = "Hello";
// Read out one element
char FirstChar = s[0];
// Modify one element
s[1] = 'a';
// Read out each element
int len = strlen(s);
for(int i = 0; i < len; i++) {
    printf ("s[%i] = %c\n", i, s[i]);
}
```

