C Enums

An **enum** is a special type that represents a group of constants (unchangeable values).

To create an enum, use the `enum` keyword, followed by the name of the enum, and separate the enum items with a comma:

```
enum Level {
  LOW,
  MEDIUM,
  HIGH
};
```

Note that the last item does not need a comma.

It is not required to use uppercase, but often considered as good practice.

Enum is short for "enumerations", which means "specifically listed".

To access the enum, you must create a variable of it.

Inside the `main()` method, specify the `enum` keyword, followed by the name of the enum (`Level`) and then the name of the enum variable (`myVar` in this example):

```
enum Level myVar;
```

Now that you have created an enum variable (`myVar`), you can assign a value to it.

The assigned value must be one of the items inside the enum (`LOW`, `MEDIUM` or `HIGH`):

```
enum Level myVar = MEDIUM;
```

By default, the first item (`LOW`) has the value `0`, the second (`MEDIUM`) has the value `1`, etc.

If you now try to print myVar, it will output `1`, which represents `MEDIUM`:

```
int main() {
  // Create an enum variable and assign a value to it
  enum Level myVar = MEDIUM;

  // Print the enum variable
  printf("%d", myVar);
```

```c
    return 0;
}
```

Change Values

As you know, the first item of an enum has the value 0. The second has the value 1, and so on.

To make more sense of the values, you can easily change them:

```c
enum Level {
  LOW = 25,
  MEDIUM = 50,
  HIGH = 75
};
printf("%d", myVar); // Now outputs 50
```

Note that if you assign a value to one specific item, the next items will update their numbers accordingly:

```c
enum Level {
  LOW = 5,
  MEDIUM, // Now 6
  HIGH // Now 7
};
```