

Variable, Const and Declaration

Variable

syntax : `datatype variableName = value`

```
int myVariable = 100;
```

Const

syntax : `storage_type datatype variableName = value`

```
const int myVariable = 100;
```

syntax : `#define variableName value`

```
#define myVariable 100;
```

Declaration and Initialization

syntax : `storage_type datatype variableName = value`

```
int myVariable = 110;
```

OR

syntax : `storage_type datatype variableName`

```
int a, b, c
```

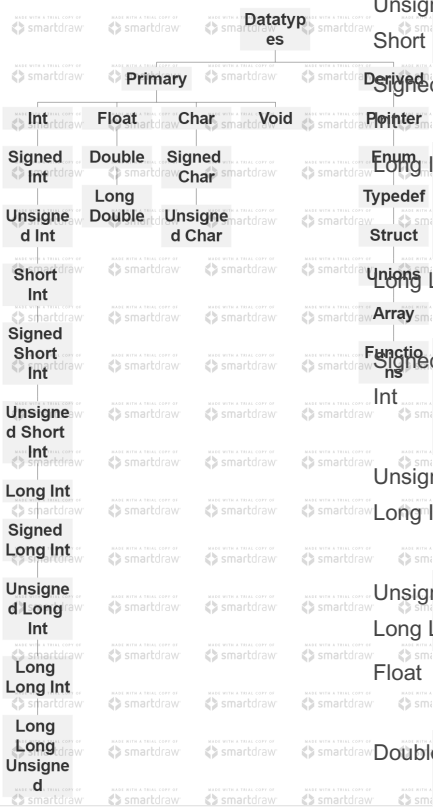
syntax : `variableName = value`

```
a = c = 10;
```

```
b = 20;
```

Declaration and Initialization can be done at the same time or at different time, but you must declare first and is usually done at the top and then initialize later. But it was an old practice, now there is no need to declare at top at first and then initialize

Datatypes tree



Datatypes (cont)

Unsigned Short Int	16	0 to 65,535
Signed Short	16	-32,767 to 32,767
Long Int	32	-2,147,483,647 to 2,147,483,647
Unsigned Long Int	32	0 to 4,294,967,295
Float	32	3.4E-37 to 3.4E+37
Double	64	3.4E-37 to 3.4E+37
Long Double	80	3.4E-37 to 3.4E+37

Datatypes

Types	Bits	Minimal Range
Char	8	-127 to 127
Unsigned Char	8	0 to 255
Signed Char	8	-127 to 127
Int	16 or 32	-32,767 to 32,767
Unsigned Int	16 or 32	0 to 65,535
Signed Int	16 or 32	-32,767 to 32,767
Short Int	16	-32,767 to 32,767