

Master The C Programming Language_2.mp4 - VLC media player

Media Playback Audio Video Subtitle Tools View Help

Variable Declaration


```
int a = 10;  
a = 20; ✓
```

(Integer variable)
a 20

Constant

```
const int b = 10;  
b = 20; ✗
```

constant integer
b 10



02:01 11:31

Master The C Programming Language_2.mp4 - VLC media player

Media Playback Audio Video Subtitle Tools View Help

Data Types

Integral types


10, 12, ...

- ✓ char - 1 byte
- ✓ int - 2 bytes (machine dependent)
- short int - 2 bytes
- ✓ long int - 4 bytes

Floating types

10.2

- float - 4 bytes
- ✓ double - 8 bytes
- long double - 10 bytes



Master The C Programming Language_2.mp4 - VLC media player

Media Playback Audio Video Subtitle Tools View Help

```
int a;
a = 5.4;
```


a 5

```
float b;
b = 5.4;
```

b 5.399...

```
double c;
c = 5.4;
```

c 5.4



Master The C Programming Language_2.mp4 - VLC media player

Media Playback Audio Video Subtitle Tools View Help

```
int a = 7, b = 2, c;
c = a / b;
```

(int) (int) (int)
3

```
int a = 7, b = 2;
float c;
c = a / b;
```

float int int
3
3.0

```
int a = 7;
float b = 2, c;
c = a / b;
```


(int) (float) (float)
7.0 2.0
3.5

12 12
+ 2 => 02
14

12.5 12.5
+ 2 => 02.0
14.5

long long
(op) int => long

float float
(op) int => float



Master The C Programming Language_2.mp4 - VLC media player

Media Playback Audio Video Subtitle Tools View Help

```
int obt = 758, total = 1000;
float per;
```

`per = obt / total * 100;`

float *int* *int* *int*

int
0

int
0

`per = obt * 100.0 / total;`

float *int* *double* *int*

double
75800.0

(double)
75.8

`per = obt * 100 / total;`

int *int* *int*

75800
(int)

(int)
75

`per = (float) obt / total * 100;`

(float) *int* *int*

float
0.758

float
75.8

11:12 11:31

For high accuracy → use double in place of float