

C Variables

Topics : [C](#)

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In C, a variable is a named storage location in memory that holds a value of a particular data type. You can use variables to store data that your program needs to operate on or to keep track of intermediate results.

To declare a variable in C, you need to specify its data type and a name for the variable. Here's an example of declaring an integer variable named `x`:

```
int x;
```

In this example, `int` is the data type of the variable and `x` is the name of the variable. You can also assign an initial value to the variable when you declare it.

```
int x = 42;
```

This declares an integer variable named `x` and initializes its value to `42`. You can change the value of a variable later in your program by assigning a new value to it.

C supports several built-in data types, including:

- `int`: for integers
- `float` and `double`: for floating-point numbers (decimal numbers)
- `char`: for individual characters
- `bool`: for Boolean values (`true` or `false`)

Here's an example program that demonstrates the use of variables in C:

```
#include <stdio.h>
```

```
int main() {  
    int x = 10, y = 20;  
    float z = 3.14;  
    char c = 'A';  
    bool flag = true;  
    printf("x = %d, y = %d\n", x, y);  
    printf("z = %f\n", z);  
    printf("c = %c\n", c);  
    printf("flag = %d\n", flag);  
}
```

```
    return 0;  
}
```

In this program, we're declaring several variables of different data types and assigning them initial values. We're then outputting the values of the variables to the console using the `printf` function and format specifiers.

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