

# C++ User Input

Let's explore how we can take input from the user in C++.

## We'll cover the following ^

- Introduction
  - Syntax
  - cin
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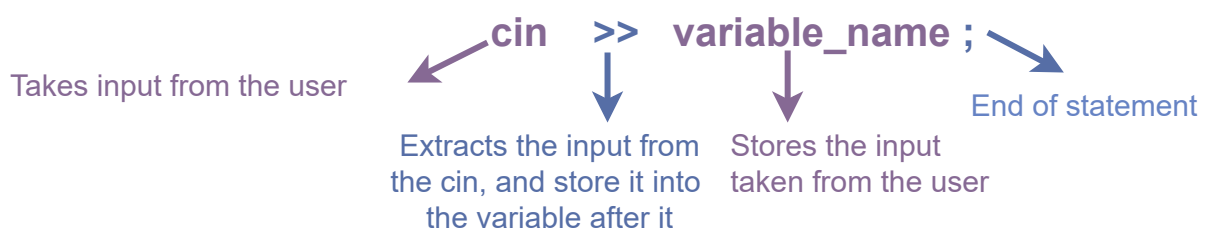
## Introduction #

Until now, we have seen the **output operation** in which we take the data stored in memory and display it on the console. However, a program would be boring without any input operations. Imagine the **Instagram app** without any user interaction!

**Input operation** is the exact opposite of the output operation in which we take data from the user and store it into the memory. In C++, an input device is a keyboard.

## Syntax #

The basic syntax for taking input from the user is given below:



We use a `cin` statement in combination with the extraction operator `>>` to take input from the user.

cin #

`cin` is connected to the keyboard. It knows that it should take anything coming from the keyboard and send it to the extraction operator.

>> #

`>>` is called the extraction or input operator. It takes the content from the `cin` and stores it into the variable to its right.

variable\_name #

In C++, we use `cin` to take user input from the keyboard. To use the input later, we must store it somewhere. Here we use variables to store the input taken from the user.

## Example program #

Try running the code below!

 **Note:** Don't forget to press the **enter** button after feeding your input through the keyboard.

```
#include <iostream>

using namespace std;

int main() {
    // Declares variable
    float number;
    // Displays text
    cout << "Please enter your number:" << endl;
    // Waits for the user input
    cin >> number;
    // Displays entered number
    cout << "You have entered: " << number;
}
```

**Line No. 7:** Declares a variable `number` of type `float` to store the user input

**Line No. 9:** Displays `Please enter your number:` on the console and moves the cursor to the next line

**Line No. 11:** `cin` is connected to the input device (keyboard). It takes user input through the keyword. Then, the extraction operator `>>` is used to extract this input

from `cin` and store it into a variable `number`.

**Line No. 13:** Prints the user input

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So far, We have covered data types and user input from the soup to nuts.

Let's test our understanding by solving a simple challenge in the upcoming lesson.