

# Difference Between getch and getche

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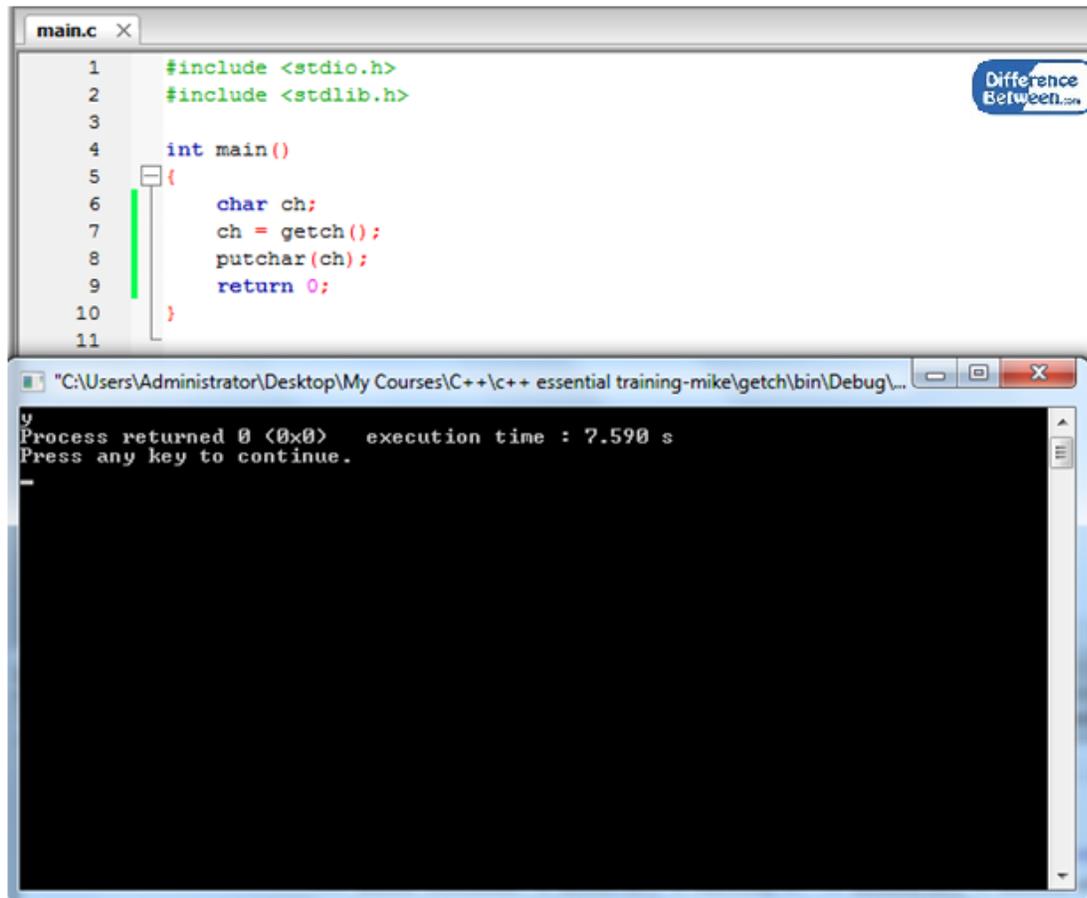
## Key Difference - getch vs getche

A [program](#) gets the input from the user and does some kind of processing on that data and outputs the result. Input and Output functions are the links between the user and the terminal. In [C programming language](#), there are number of input functions and output functions provided by the language. Two such functions are getch and getche. The **key difference** between getch and getche is that, **getch is used to read a single character from the [keyboard](#) which does not display the entered value on screen and does not wait for the enter key whereas getche is used to read a single character from the keyboard which displays immediately on screen without waiting for the enter key.** This article discusses the difference between these two functions.

## What is getch?

getch is used to read a single character from the keyboard. The reading does not display on the screen. The entered character is immediately returned without waiting for the enter key.

getch will read the user entered value but it does not display that on the screen. When the user gives an input character, it does not display on the screen and without waiting for the enter key, the output of printf is displayed to the screen on the next position. It only displays because of the printf function.



The image shows two windows. The top window is a code editor titled 'main.c' with the following code:

```
1  #include <stdio.h>
2  #include <stdlib.h>
3
4  int main()
5  {
6      char ch;
7      ch = getch();
8      putchar(ch);
9      return 0;
10 }
11
```

The bottom window is a command prompt titled '"C:\Users\Administrator\Desktop\My Courses\C++\c++ essential training-mike\getch\bin\Debug\...'. It shows the output of the program:

```
y
Process returned 0 (0x0)   execution time : 7.590 s
Press any key to continue.
-
```

Figure 01: getch

According to the above program, a character is read using getch function. It does not display the received value on the screen and does not wait till the enter key is pressed. Here, the input character 'y' is given. It does not display on the screen and does not wait till the enter key is pressed. The 'y' value is displayed because of the putchar function.

## What is getche?

This function is used to read a single character from the keyboard. The reading is displayed immediately on the screen without waiting for the enter key.

The image shows a code editor window with two tabs labeled 'main.c'. The code is as follows:

```
1  #include <stdio.h>
2  #include <stdlib.h>
3
4  int main()
5  {
6      char ch;
7      ch = getch_e();
8      putchar(ch);
9      return 0;
10 }
11
```

Below the code editor is a terminal window titled '"C:\Users\Administrator\Desktop\My Courses\C++\c++ essential training-mike\getche\bin\Debug...". The terminal output shows:

```
aa
Process returned 0 (0x0)   execution time : 5.080 s
Press any key to continue.
```

**Figure 02:** getch\_e

According to the above program, a character is read using getch\_e function. It displays the received value on the screen. It does not wait till the enter key is pressed. When giving the input 'a', it is displayed on the screen. It does not wait till the enter key is pressed. The second 'a' value is displayed on the screen because of the putchar function.

## What are the Similarities Between getch and getch\_e?

- Both are functions provided by the C language.
- Does not wait till the enter key is pressed.

## What is the Difference Between getch and getch\_e?

getch vs getch_e	
getch is a C function to read a single character from the keyboard which does not display on	getch_e is a C function to read a single character from the keyboard which displays immediately

screen without waiting for the enter key.	on screen without waiting for the enter key.
<b>Input Displaying Method</b>	
getch does not display the character entered by the user.	getche displays the character entered by the user.
<b>Syntax</b>	
getch syntax is similar to int getch(void);	getche syntax is similar to int getche(void);

## Summary - getch vs getche

getch and getche are functions in C. The difference between getch and getche is that, getch is used to read a single character from the keyboard which does not display the entered value on screen and does not wait for the enter key ; getche is used to read a single character from the keyboard which displays immediately on screen without waiting for the enter key. The getch and getche appear to be same but they are different.

### Reference:

1. mahajancomputerskk. YouTube, YouTube, 31 Jan. 2014. [Available here](#)
2. Ashim Lamichhane, Project Manager at Kath Codex Follow. "Unit 3. Input and Output." LinkedIn SlideShare, 29 Feb. 2016. [Available here](#)

### How to Cite this Article?

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