

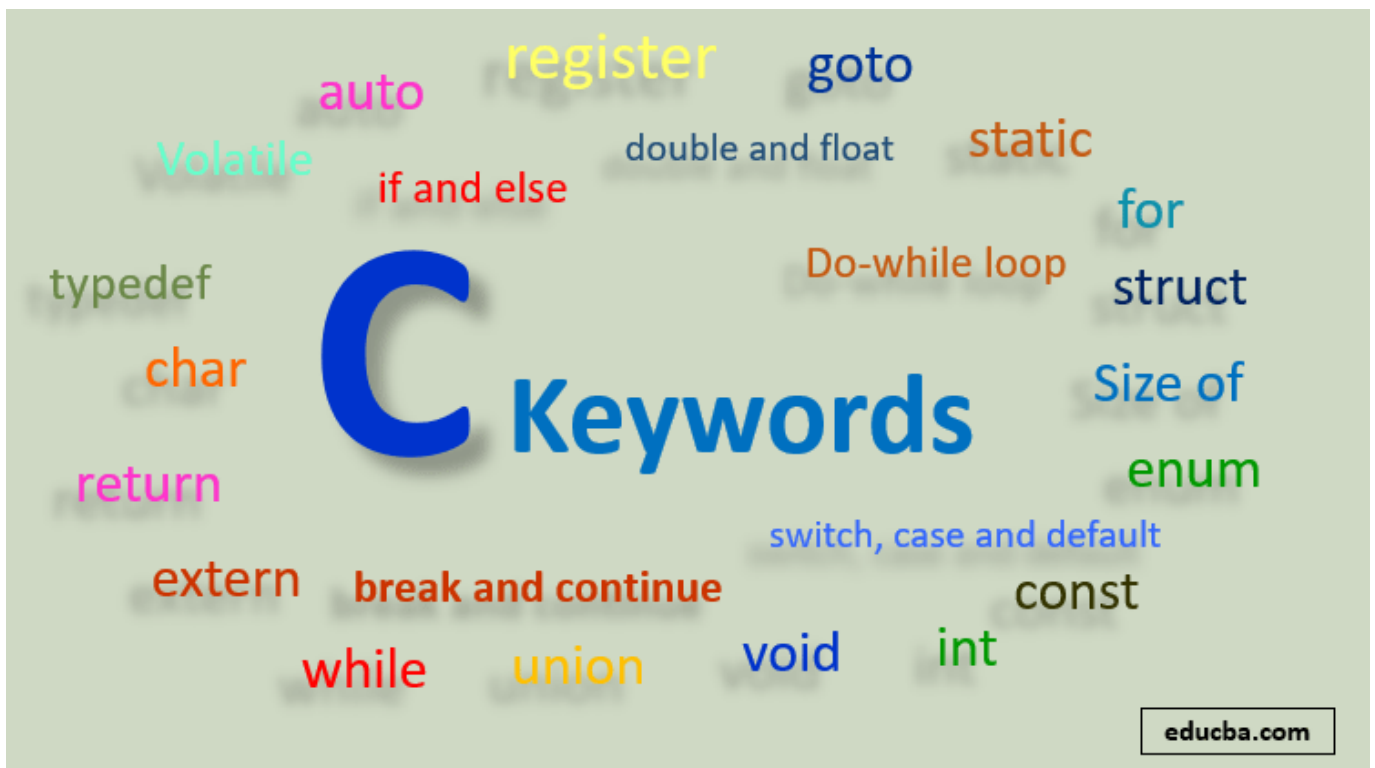


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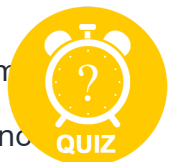
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Introduction to C Keywords

Keywords are known as predefined as well as reserved words that are used in programming holding special meanings to the compiler. They are part of the syntax and also we cannot use them as an identifier. Since C is a case sensitive language, all of the keywords must be written in lowercase format. Below we have a list of all keywords that are allowed in ANSI C.





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char	extern	return	union
continue	for	signed	void
do	if	static	while
default	goto	sizeof	Volatile
const	float	short	Unsigned

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C Keywords with Examples

Below we have discussed all of them along with their examples.

1. Volatile

This keyword is needed so as to create volatile objects. These volatile objects have the ability to get modified in the unknown or unmentioned method through hardware.

Example:

```
const volatile ex;
```

- In this example, ex is considered to be the volatile object.
- The program does not have the ability to change ex since it is a constant variable. But, hardware has the ability to modify it as ex is considered a volatile object.



2. auto

This keyword is used to declare the automatic variables.



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- This particular definition means that v1 is considered to be the variable of class type storage and data type of int.
- Variables that we declare inside the function bodies are by default considered to be automatic. Every time a function is executed they get recreated.
- Automatic variables are also called local variables as they are local to the function.

3. char

char keyword is used to declare the character variable. Variables that are of type char are of 1-byte length. They can get signed (it is by default unless we use the compiler option '-funsigned-char' or 'unsigned'), which implies they have got a range of -128 to 127 and 0 to 255, respectively.

Example:

```
char a;
```

In this example, a is considered to be a character type variable.

4. double and float

Both [keywords \(https://www.educba.com/c-plus-plus-keywords/\)](https://www.educba.com/c-plus-plus-keywords/) double, as well as float, are needed for declaration of floating type variables.

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Example:

```
float a;  
Double b;
```

In this example, a is considered to be the single-precision floating type variable and b is considered to be the double-precision floating type variable.

5. const

We can declare an identifier to be constant through the usage of the const keyword.

Example:





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Example:

```
if(a==1)
printf(" a is 1.");
else
printf(" a is not 1.");
```

In case the value of a is other than 1,

output:

a is not 1.

7. break and continue

The [break statement](https://www.educba.com/break-statement-in-javascript/) would make the program jump out of the most inner and enclosing loop in an explicit manner. The continue is used for statements skipping certain statements that are inside the loop.

Example:

```
for (a=1; a<=10; ++a)
{
if (a==3)
continue;
if (a==7)

break;
```





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1 2 4 5 6

In this example, whenever a is equal to 3, then the continue statement (<https://www.educba.com/continue-statement-in-c-plus-plus/>) would play its role and skip 3. Whereas whenever a is equal to 7, the break statement would play its role and terminate for a loop.

8. enum

In C programming enumeration types get declared through keyword enum (<https://www.educba.com/enum-in-c-sharp/>).

Example:

```
enum deck
{
    kings;
    queens;
    jokers;
};
```

In this example, an enumerated variable deck is created (<https://www.educba.com/python-enumerate/>) by having the tags: kings, queens, and jokers.

9. extern



The extern keyword indicates that the identifier has been defined somewhere else. It also



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Example:

```
extern int f;extern void factorial (int a);
```

10. return

Return is used for exiting the function. It would exit from the current function that is executing immediately and return to the calling routine. It can optionally return value too.

Syntax:

```
return [expression];
```

Example:

```
int ret (int a){ return (a*a);}
```

11. sizeof

sizeof is used for returning the size of expression or type of it. It is used for returning the size in bytes.

Syntax:

```
sizeof expressionsizeof (type)
```



Example:



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goto keyword is needed for the transfer of control from one position to another.

Syntax:

```
goto identifier;
```

Control gets transferred unconditionally to the location of a local label that is specified by the identifier.

Example:

```
a: ... goto a;
```

13. int

int keyword is used for declaration of the integer type variable.

Example:

```
int b;
```

In this example, b is an integer variable.

14. register

This keyword is used for the creation of the register variables that are much faster as compared to the normal variables.



Example:



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This keyword is used for the creation of a static variable. The static variables' values persist until the end of the program. It tells that the function or the element is only known inside the scope of the current compilation. Also, if we use the static keyword along with the variable which is local to the function, it would allow the last value of the variable to get preserved in successive calls to that function.

Example:

```
static int v;
```

16. struct

struct keyword is used for the declaration of the structure. The structure is used for holding the variables of varied data types under one name. Just like the union (<https://www.educba.com/c-union/>), it groups the variables into a single record. Also, the struct-type-name is considered to be the optional tag name which points to structure type. The variables of a structure are data definitions, and they are optional. Although both are optional, one of the two must appear.

Example:

```
struct st {  
    char n [70];  
    float m;  
    int a;  
} st1, st2;
```



17. union



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```
char n[60];  
float m;  
int a;  
}
```

18. void

This keyword denotes that the function won't be returning any value.

Example:

```
void test(int a)  
{  
    .....  
}
```

In this example, the function test() doesn't return a value as the return type is void.

19. typedef

This keyword is required so as to associate a type along with an identifier in an explicit manner.

Example :

```
typedef float k;  
k lion, tiger;
```



20. short, long, signed and unsigned



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```
short int smallI;
long int big;
signed int normal;
unsigned int positive;
```

The valid range of valid data types is listed in the following table :

signed char	-128 to 127
signed int	-32768 to 32767 (signed is default)
signed short int	-32768 to 32767
signed long int	-2147483648 to 2147483647
unsigned char	0 to 255
unsigned int	0 to 65535
unsigned short int	0 to 65535
unsigned long int	0 to 4294967295

21. for

In total, there exist 3 kinds of loops in C. The for loop in C is written using the keyword for



Example:



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```
}
```

Output

0 1 2 3 4 5 6 7 8

22. switch, case and default

We use switch as well as case statements whenever the block of statements needs to be executed among various blocks.

Example:

```
switch(expression)
{
case '1':
// statements to execute when 1
break;
case '8':
// statements to execute when 5
break;
default:
// statements to execute when default;
}
```



23. Do-while loop

do is used along with a while to make a different form of repetition of the statement. This form



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Example :

```
a = 1; b = 1;do {    b *= a;    a++; } while (a <= factorial);
```

24. while

while it is used for repeating the execution when the condition is true.

Syntax:

```
while (expression) statement
```

Example :

```
while (*z == ' ') z++;
```

Conclusion

Thus we can conclude that there is a total of 32 keywords and a constant is a value that doesn't change throughout the program. Also, a keyword is reserved words by language. There exist four commonly used data types which are int, float, char, and void. Each of the data types differs in size as well as range from each other.

Recommended Articles

This is a guide to C Keywords. Here we discuss the introduction and top different Keywords in C with syntax and Examples. You may also look at the following articles to learn more –



1. C# Commands (<https://www.educba.com/c-sharp-commands/>)



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