

Top 30 C Programming Interview Questions With Answers In 2021

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C programming interview questions are a part of most technical rounds conducted by employers. The main goal of questioning a candidate on C programming is to check his/her knowledge about programming and core concepts of the C language. In this article, you will find a mix of C programming interview questions designed especially to give you a foundation and build on it. And



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- basic interview questions on C
- intermediate C interview questions
- advanced C interview questions

Basic C Programming Interview Questions

Let's start with some basic interview questions on c:

1. What do you understand by calloc()?

calloc() is a dynamic memory allocation function that loads all the assigned memory locations with 0 value.

2. What happens when a header file is included with-in double quotes ""?

When a header file is included in double-quotes, the particular header file is first searched in the compiler's current working directory. If not found, then the built-in include path is also searched.

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4. One of the most common c interview questions is to define theWhat is the use of static functions.?

When we want to restrict access to functions, we need to make them static. By making functions static, we can reuse the same function name in other files.

5. Name the four categories in which data types in the C programming language are divided in.

Basic data types - Arithmetic data types, further divided into integer and floating-point types

Derived datatypes -Arithmetic data types that define variables and assign discrete integer values only

Void data types - no value is available

Enumerated data types -Array types, pointer types, function, structure and union types

6. What is the function of s++ and ++s?

s++ is a single machine instruction used to increment the value of s by 1. (Post increment). ++s is used to carry out pre-increment.

7. What is the use of the '==' symbol?

The '==' symbol or "equivalent to" or "equal to" symbol is a relational operator, i.e., it is used to compare two values or variables.

8. What is the output of the following code snippet?

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

```
void local_static()
```



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```
printf("%d ", a);
```

```
a= a + 1;
```

```
}
```

```
int main()
```

```
{
```

```
local_static();
```

```
local_static();
```

```
return 0;
```

```
}
```

```
0 1
```

9. Mention some of the features of the C programming language.

Some of the feature are:

Middle-Level Language - Combined form of both high level language and assembly language

Pointers - Supports pointers

Extensible - Easy to add features to already written program

Recursion - Supports recursion making programs faster

Structured Language - It is a procedural and general purpose language.



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Intermediate C Programming Interview Questions

Here are some frequently asked intermediate interview questions on C programming!

1. Why is int known as a reserved word?

As int is a part of standard C language library, and it is not possible to use it for any other activity except its intended functionality, it is known as a reserved word.

2. This is one of the most commonly asked C programming interview questions. What will this code snippet return?

```
void display(unsigned int n)
```

```
{
```

```
if(n > 0)
```

```
{
```

```
display(n-1);
```

```
printf("%d ", n);
```

```
}
```

```
}
```

Prints number from 1 to n.



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4. What information is given to the compiler while declaring a prototype function?

The following information is given while declaring a prototype function:

- Name of the function
- Parameters list of the function
- Return type of the function.[6]

5. Why are objects declared as volatile are omitted from optimization?

This is because, at any time, the values of the objects can be changed by code outside the scope of the current code.

6. Give the equivalent FOR LOOP format of the following:

```
a=0;
```

```
while (a<=10) {
```

```
printf ("%d\n", a * a);
```

```
a++;
```

```
}
```

```
for (a=0; a<=10; a++)
```

```
printf ("%d\n", a * a);
```

7. What is a modifier in the C programming language? Name the five available modifiers.



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2. long
3. long long
4. signed
5. unsigned

8. A pointer *a points to a variable v. What can 'v' contain?

Pointers is a concept available in C and C++. The variable 'v' might contain the address of another memory or a value.

9. What three parameters fseek() function require to work after the file is opened by the fopen() function?

The number of bytes to search, the point of origin of the file, and a file pointer to the file.

10. Name a type of entry controlled and exit controlled loop in C programming.

Entry controlled loop- For loop (The condition is checked at the beginning)

Exit Controlled loop- do-while loop.[7] (The condition is checked in the end, i.e. loop runs at least once)

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In the next section, we will go through some of the advanced interview questions on C programming:

1. Give the output of the following program:

```
#include <stdio.h>

int main(void)

{

int arr[] = {20,40};

int *a = arr;

*a++;

printf("arr[0] = %d, arr[1] = %d, *a = %d",

arr[0], arr[1], *a);

return 0;

}

arr[0] = 20, arr[1] = 40, *p = 40
```

2. One of the frequently asked c interview questions could be to explain Canif you can we free a block of memory that has been allocated previously? If yes, how?

A block of memory previously allocated can be freed by using free(). The memory can also be released if the pointer holding that memory address is: realloc(ptr,0).



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4. What is the stack area?

The stack area is used to store arguments and local variables of a method. It stays in memory until the particular method is not terminated.

5. What is the function of the following statement?

```
sscanf(str, "%d", &i);
```

To convert a string value to an integer value.

6. Will the value of 'a' and 'b' be identical or different? Why?

```
float num = 1.0;
```

```
int a = (int) num;
```

```
int b = *(int *) &num;
```

The variable stores a value of num that has been first cast to an integer pointer and then dereferenced.

7. What are huge pointers?

Huge pointers are 32-bit pointers that can be accessed outside the segment, and the segment part can be modified, unlike far pointers.

8. What will be the output of the following?

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

```
main()
```



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```
a[2] = 'd';

printf("%c", *a);

}
```

The program will crash as the pointer points to a constant string, and the program is trying to change its values.

9. What is a union?

A union is a data type used to store different types of data at the exact memory location. Only one member of a union is helpful at any given time.

10. How is import in Java different from #include in C?

Import is a keyword, but #include is a statement processed by pre-processor software. #include increases the size of the code.

Here's The Next Step

Go through your self-made notes while preparing for the interview. As a fresher, you aren't expected to answer complex questions but answer what you know with confidence. One of the essential uses of C programming is full-stack development. If that's a position you aim to crack in your following interview, check out this comprehensively curated [course](#) by Simplilearn and kickstart your web development career now!

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