1. **What do you mean by Dangling Pointer Variable in C Programming?**

A **[Pointer](https://www.edureka.co/blog/pointers-in-c/" \t "_blank)** in C Programming is used to point the memory location of an existing variable. In case if that particular variable is deleted and the Pointer is still pointing to the same memory location, then that particular pointer variable is called as a **Dangling Pointer Variable.**

**Ways to achieve dangling pointer**:

* Deallocating of memory
* Function call
* Variable out of scope

1. **what is Double pointer?**

The first pointer is used to store the address of the variable and the second pointer is used to store the address of first pointer.

It stores address of another variable.

**3. Void Pointer**

In [C programming](https://www.guru99.com/c-programming-tutorial.html" \t "_blank), a void pointer is also called as a generic pointer. It does not have any standard data type. A void pointer is created by using the keyword void. It can be used to store an address of any variable.

**4. Null Pointer**

NULL Pointer is a pointer which is pointing to nothing. In case, if we don’t have address to be assigned to a pointer, then we can simply use NULL.

**5. Wild Pointer**

A pointer which has not been initialized to anything (not even NULL) is known as wild pointer. The pointer may be initialized to a non-NULL garbage value that may not be a valid address.

**6.What do you mean by the Scope of the variable? What is the scope of the variables in c?**

**Scope** of the variable can be defined as the part of the code area where the variables declared in the program can be accessed directly. In C, all identifiers are lexically (or statically) scoped.

**7..What are static variables and functions?**

 The variables and functions that are declared using the keyword **[Static](https://www.edureka.co/blog/static-variable-in-c/" \t "_blank)**are considered as Static Variable and Static Functions. The variables declared using Static keyword will have their scope restricted to the function in which they are declared.

**8.Differentiate between calloc() and malloc()**

**calloc()** and **malloc()** are memory dynamic memory allocating functions. The only difference between them is that calloc() will load all the assigned memory locations with value 0 but malloc() will not.

**9. Differentiate between Actual Parameters and Formal Parameters.**

The arguments that are passed in a function call are called **actual arguments**. These arguments are defined in the calling function. These are the variables or expressions referenced in the parameter list of a subprogram call. There is no need to specify datatype in actual parameter.

These are the variables or expressions referenced in the parameter list of a subprogram specification. The datatype of the receiving value must be defined. The scope of formal arguments is local to the function definition in which they are used.

**10. What is an array?**

The array is a simple data structure that stores multiple elements of the same datatype in a reserved and sequential manner. There are three types of arrays, namely,

* One Dimensional Array
* Two Dimensional Array
* Multi-Dimensional Array

**11. structure in C Language**

 Structure is defined as a user-defined data type that is designed to store multiple data members of the different data types as a single unit. A structure will consume the memory equal to the summation of all the data members

**12. Union?**

**Union** is an user defined datatype in **C programming language**. It is a collection of variables of different datatypes in the same memory location.

**13.Difference b/w structure and union:**

The **structure** has a separate memory location for each of its members whereas, the members of a **union** share the same memory location.

A 'structure' stores multiple values, of the different members, of the 'structure'. A 'union' stores a single value at a time for all members.

**14. What is /0 character?**

 The Symbol mentioned is called a **Null Character**. It is considered as the terminating character used in strings to notify the end of the string to the compiler.

**15. What is the main difference between the Compiler and the Interpreter?**

 Compiler is used in C Language and it translates the complete code into the Machine Code in one shot. On the other hand, Interpreter is used in Java Programming Langauge and other high-end programming languages. It is designed to compile code in line by line fashion.

**16. What is Dynamic Memory allocation?**

Dynamic Memory Allocation is the process of allocating memory to the program and its variables in runtime. Dynamic Memory Allocation process involves three functions for allocating memory and one function to free the used memory

**17. What is typecasting?**

Typecasting is a process of converting one data type into another is known as typecasting. If we want to store the floating type value to an int type, then we will convert the data type into another data type explicitly.

**Syntax**:

(type\_name) expression;

**18. Define typedef and syntax**

 The **typedef** is a keyword used in C programming to provide some meaningful names to the already existing variable in the [C program](https://www.javatpoint.com/c-programs" \t "_blank). It behaves similarly as we define the alias for the commands. In short, we can say that this keyword is used to redefine the name of an already existing variable.

Syntax:

**typedef** <existing\_name> <alias\_name>

**19. Command line argument?**

The arguments passed from command line are called command line arguments.These  arguments are handled using main() function arguments where **argc** refers to the number of arguments passed, and **argv[]** is a pointer array which points to each argument passed to the program.

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**20. c, c++ and java?**

* C is a procedural language,c++ is a object oriented language .Java is a pure object oriented language.
* We can create our own package in Java(set of classes) but not in c and c++.
* Java uses compiler and interpreter but in C & C++ uses compiler only.
* We use multiple inheritance in C++ not in Java .In Java we use Interface instead of multiple inheritance. In c there is no inheritance.
* Pointers are used in C and C++ language, but Java will not support for pointers.
* There is no Exception handling in C, but it supported by Java & C++.