

NULL Pointer In C Language: C Tutorial In Hindi #53.mp4 - VLC media player

Media Playback Audio Video Subtitle Tools View Help

## WHAT IS A NULL POINTER?

*Void \* ptr;*  
*int \* ptr = NULL;*

- Null pointer is a pointer which has a value reserved for indicating that the pointer or reference does not refer to a valid object.
- A null pointer is guaranteed to compare unequal to any pointer that points to a valid object.
- Dereferencing a **null** pointer is undefined behavior in **C**, and a conforming implementation is allowed to assume that any pointer that is dereferenced is not **null**.

→ pointers  
→ Void pointer  
→ Null pointer

THE  
C  
PROGRAMMING  
LANGUAGE

03:51

NULL Pointer In C Language: C Tutorial In Hindi #53.mp4 - VLC media player

Media Playback Audio Video Subtitle Tools View Help

## WHAT IS A NULL POINTER?

*Void* *NULL*

- Null pointer is a pointer which has a value reserved for indicating that the pointer or reference does not refer to a valid object.
- A null pointer is guaranteed to compare unequal to any pointer that points to a valid object.
- NULL pointer is a specific pointer which is mentioned in C standard and it has specific purposes.
- NULL pointer gives a functionality to C programmer to check whether a pointer is legitimate or not

THE  
C  
PROGRAMMING  
LANGUAGE

04:50

NULL Pointer In C Language: C Tutorial In Hindi #53.mp4 - VLC media player

Media Playback Audio Video Subtitle Tools View Help

NULL Pointer In C Language: C Tutorial In Hindi #53.mp4 - VLC media player

## NULL POINTER: C PROGRAM

- ✓ A null pointer is a pointer that points to NULL (nothing)
- ✓ A null pointer should not be dereferenced.
- ✓ A check must be run by the C programmer to know whether a pointer is null before dereferencing it

```
int x = 10; ✓
int *p = NULL; // null pointer ✓
p = &x; // null pointer now holds address of int 'x'
```

*Cannot be dereference.*

*Can be dereferenced.*

THE C PROGRAMMING LANGUAGE

06:08 20:42

NULL Pointer In C Language: C Tutorial In Hindi #53.mp4 - VLC media player

## USES OF NULL POINTERS

*p → NULL*

- ✓ To initialize a pointer variable in cases where pointer variable has not been assigned any valid address yet.
- ✓ To check for legitimate address location before accessing any pointer variable.
- ✓ By doing so, we can perform error handling while using pointers with C.
- ✓ Example of such error handling can be: dereference pointer variable only if it's not NULL.
- ✓ To pass a null pointer to a function argument when we don't want to pass any valid memory address.

*func (char str[32], char\* p)*  
*{ p == NULL }*

THE C PROGRAMMING LANGUAGE

10:31 20:42

## MORE ON NULL POINTERS

- ~~NULL~~ macro is defined as ~~((void \*)0)~~ in header files of most of the C compiler implementations.
- ~~NULL pointer~~ vs Uninitialized pointer – An uninitialized pointer contains an undefined value.
- A null pointer stores a defined value, which is the one decided by the environment to not be a valid memory address for any object.
- ~~NULL pointer~~ vs Void Pointer – Null pointer is a value where as void pointer is a type

THE  
C  
PROGRAMMING  
LANGUAGE

Void \*ptr  
\* =

int \*ptr  
char \*ptr

float \*ptr