Hack `postgres` Source Code: Vol I

Chapter 1 : C & Rust

1.37 Void Pointer - C

`void` pointer in C is not associated with any data type like regular pointer.

So, it can be typecasted to any type.

`malloc` and `calloc` functions in C are used to allocate memory in heap. When we call these functions with certain input parameters, they setup a chunk of memory in heap and return a void pointer that points to that chunk of memory. If we type cast that void pointer to `int`, we can use that memory to store integers. If we type cast that void pointer to `struct`, we can use that memory to struct objects.

```c
#include<stdio.h>

int main() {

    int a = 10;

    void *ptr = &a;

    // type cast ptr to int * by (int *)ptr
    // dereference typecasted pointer using *
    printf("%d", *(int *)ptr);

    return 0;

}
```