

Create a program (in C++) that allows you to know how many references an object has (reference counting). The main objective is to create a program that stores the number of references or pointers to an object of any type and then the program uses this reference counts to deallocate objects which are no longer referenced. This way your program will never let you perform a double free like in the following code

```
#include<iostream>
using namespace std;
class Child
{
public:
    int* p;
    Child()
    {
        p = new int;
    }
    ~Child()
    {
        delete p;
        p = NULL;
    }
};
int main()
{
    Child a;
    Child b = a;
    *(a.p) = 5;
    cout << *(b.p);
}
```