Sure, here is a simple C++ program that allocates memory for user-requested values, and ensures that memory is properly deallocated to avoid memory leaks:

cpp

#include <iostream>

int main() {

    int \*ptr = nullptr; // Pointer to hold the allocated memory

    char choice;

    do {

        std::cout << "Do you want to allocate memory for an integer value? (y/n): ";

        std::cin >> choice;

        if (choice == 'y' || choice == 'Y') {

            if (ptr != nullptr) {

                delete ptr; // Deallocate previous memory to avoid leaks

                ptr = nullptr;

            }

            ptr = new int; // Allocate memory for an integer

            std::cout << "Enter an integer value: ";

            std::cin >> \*ptr;

            std::cout << "Value stored: " << \*ptr << std::endl;

        }

    } while (choice == 'y' || choice == 'Y');

    // Deallocate memory before exiting

    if (ptr != nullptr) {

        delete ptr;

        ptr = nullptr;

    }

    std::cout << "Memory deallocated. Program ending." << std::endl;

    return 0;

}

This program repeatedly asks the user if they want to allocate memory for an integer value. If they choose to do so, the program allocates memory, stores the input value, and then ensures any previously allocated memory is properly deallocated before allocating new memory. Finally, before the program ends, it deallocates any remaining allocated memory to prevent leaks.

If you have any more questions or need further assistance, feel free to ask!