

```
#include <iostream>
#include <string>
#include <deque>
#if 1 //CREATE A REAL STL EXAMPLE
    #include <map>
    #include <stack>
    #include <vector>
    namespace ft = std;
#else
    #include <map.hpp>
    #include <stack.hpp>
    #include <vector.hpp>
#endif

#include <stdlib.h>

#define MAX_RAM 4294967296
#define BUFFER_SIZE 4096
struct Buffer
{
    int idx;
    char buff[BUFFER_SIZE];
};

#define COUNT (MAX_RAM / (int)sizeof(Buffer))

template<typename T>
class MutantStack : public ft::stack<T>
{
public:
    MutantStack() {}
    MutantStack(const MutantStack<T>& src) { *this = src; }
    MutantStack<T>& operator=(const MutantStack<T>& rhs)
    {
        this->c = rhs.c;
        return *this;
    }
    ~MutantStack() {}

    typedef typename ft::stack<T>::container_type::iterator iterator;

    iterator begin() { return this->c.begin(); }
    iterator end() { return this->c.end(); }
};

int main(int argc, char** argv) {
    if (argc != 2)
    {
        std::cerr << "Usage: ./test seed" << std::endl;
        std::cerr << "Provide a seed please" << std::endl;
        std::cerr << "Count value:" << COUNT << std::endl;
        return 1;
    }
    const int seed = atoi(argv[1]);
    srand(seed);

    ft::vector<std::string> vector_str;
    ft::vector<int> vector_int;
    ft::stack<int> stack_int;
    ft::vector<Buffer> vector_buffer;
    ft::stack<Buffer, std::deque<Buffer> > stack_deq_buffer;
    ft::map<int, int> map_int;
```

```
for (int i = 0; i < COUNT; i++)
{
    vector_buffer.push_back(Buffer());
}

for (int i = 0; i < COUNT; i++)
{
    const int idx = rand() % COUNT;
    vector_buffer[idx].idx = 5;
}
ft::vector<Buffer>().swap(vector_buffer);

try
{
    for (int i = 0; i < COUNT; i++)
    {
        const int idx = rand() % COUNT;
        vector_buffer.at(idx);
        std::cerr << "Error: THIS VECTOR SHOULD BE EMPTY!!" <<std::endl;
    }
}
catch(const std::exception& e)
{
    //NORMAL ! :P
}

for (int i = 0; i < COUNT; ++i)
{
    map_int.insert(ft::make_pair(rand(), rand()));
}

int sum = 0;
for (int i = 0; i < 10000; i++)
{
    int access = rand();
    sum += map_int[access];
}
std::cout << "should be constant with the same seed: " << sum << std::endl;

{
    ft::map<int, int> copy = map_int;
}
MutantStack<char> iterable_stack;
for (char letter = 'a'; letter <= 'z'; letter++)
    iterable_stack.push(letter);
for (MutantStack<char>::iterator it = iterable_stack.begin(); it !=
iterable_stack.end(); it++)
{
    std::cout << *it;
}
std::cout << std::endl;
return (0);
}
```