

```
1 #include "bintree.h"
2 #include <iostream>
3 #include <list>
4 #include <vector>
5
6 using namespace std;
7
8 template <class T>
9 class hash_table
10 {
11 private:
12     vector<list<T>> fondo;
13
14 public:
15     class iterador
16     {
17     private:
18         typename list<T>::iterator it_list;
19         int pos_vector;
20         list<T> aux;
21
22     public:
23         iterador &operator++();
24         iterador &operator--()
25         {
26             if (it_list == fondo[pos_vector].begin())
27             {
28                 assert(pos_vector == 0);
29                 pos_vector--;
30                 it_list = fondo[pos_vector].end();
31             }
32             it_list--;
33             return *this;
34         }
35         bool operator==(const iterador &otro) const;
36         bool operator!=(const iterador &otro) const;
37         T &operator*();
38         iterador &operator=(const iterador &otro);
39
40         friend class hash_table<T>;
41     };
42     iterador begin()
43     {
44         iterador i;
45         i.pos_vector = 0;
46         i.it = fondo.front().begin();
47
48         return i;
49     };
50     iterador end()
51     {
52         iterador i;
53         i.pos_vector = fondo.size() - 1;
54         i.it = fondo.back().end();
55     };
56 };
57
58 int main()
59 {
60 }
```