

Grupo 13 - Laboratorio 3

Estudiantes:

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Fichero 2020_02_25/C40/4-C03/3566_AC/Prc3.cut.cpp

```
/*@ <answer>
* Comienza poniendo el nonmbre de los/as componentes del grupo:
*
* Estudiante 1: IGNACIO PALLS GOZLVEZ
* Estudiante 2: FERNANDO HERMOSO CARA

/*@ </answer> */
/*@ <answer>
*/

using namespace std;
//O(1)
void ListLinkedDouble::detach(Node* node) {

    node->prev->next = node->next;
    node->next->prev = node->prev;
}
// O(1)
void ListLinkedDouble::attach(Node* node, Node* position) {
    node->prev = position->prev;
    position->prev->next = node;
    node->next = position;
    position->prev = node;
}
// O(num_elems)
void ListLinkedDouble::partition(int pivot) {
    int cont = 0;
    Node* current = head->next;
    Node* aux = current;
    while (cont < num_elems) {
        if (current->value > pivot) {
            detach(current);
            aux = current;
            current = current->next;
            attach(aux, head);
        }
        else {
            current = current->next;
            aux = current;
        }
    }
}
```

```

    }
    cont++;
}
}

void tratar_caso() {
    ListLinkedList l1;
    int lista;
    int pivote;
    cin >> lista;

    while (lista != 0) {
        l1.push_back(lista);
        cin >> lista;
    }
    cin >> pivote;
    l1.partition(pivote);
    l1.display();
    cout << "\n";
    l1.display_reverse();
    cout << "\n";
}

int main() {
    int num_casos;
#ifdef DOMJUDGE
    std::ifstream in("sample.in");
    auto cinbuf = std::cin.rdbuf(in.rdbuf());
#endif

    cin >> num_casos;

    while (num_casos > 0) {
        tratar_caso();
        num_casos--;
    }

#ifdef DOMJUDGE
    std::cin.rdbuf(cinbuf);
    // Comentar si no se trabaja en Visual Studio
    system("PAUSE");
#endif

    return 0;
}

/*@ </answer> */

```