06/14/17 03:20:57 /Users/darkcloud/Desktop/Lab10/[Lab10] Adnar Lozano_partition.cpp

```cpp
/*input
5
4 5 3 7 2
*/
#include <iostream>
#include <vector>
using namespace std;

void partition(int ar_size, int *  ar) {
    int pivot = ar[0];
    vector <int> left;
    vector <int> right;
    for (int i = 1; i < ar_size; i++) {
        if (pivot <= ar[i])
            right.push_back(ar[i]);
        else left.push_back(ar[i]);
    }
    for (int i=0;i<left.size();i++)
        cout << left[i] << " ";
    cout << pivot << " ";
    for (int i=0;i<right.size();i++)
        cout << right[i] << " ";
}
int main(void) {
    int _ar_size;
    scanf("%d", &_ar_size);
    int _ar[_ar_size], _ar_i;
    printf("Partition:\n");
    printf("Sample Input:\n");
    printf("5\n");
    printf("4 5 3 7 2\n");
    printf("Output:\n");
    for(_ar_i = 0; _ar_i < _ar_size; _ar_i++)
        scanf("%d", &_ar[_ar_i]);
    partition(_ar_size, _ar);
    cout << endl;
    return 0;
}
```