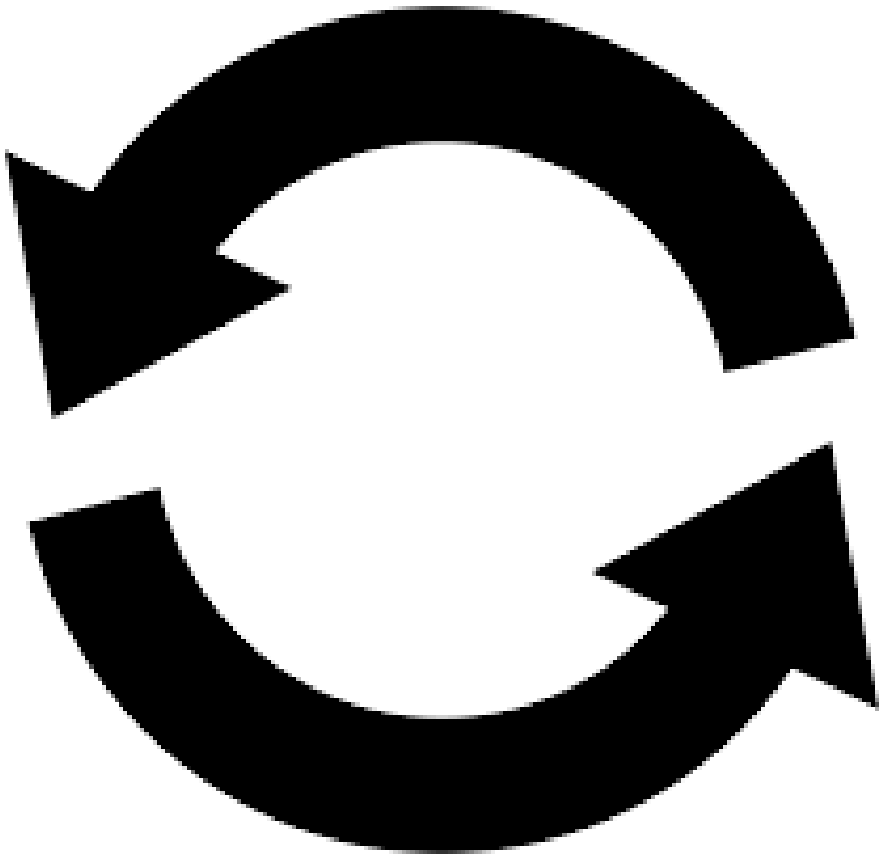
PUSHSWAP



The goal of the project:

The goal of the project is to learning data sorting,

The game is made up of two lists of numbers named l_a and l_b. In the beginning, l_b will be empty and l_a will contain a certain amount of positive or negative numbers. The objective of the game is to sort l_a.

In order to accomplish this, you will only have access to the following operation:

- sa

  swap the first two elements of l_a (nothing will happen if there aren't enough elements).

- sb

  swap the first two elements of l_b (nothing will happen if there aren't enough elements).

- sc

  sa and sb at the same time.

- pa

  take the first element from l_b and move it to the first position on the l_a list (nothing will happen if l_b is empty).

- pb

  take the first element from l_a and move it to the first position on the l_b list (nothing will happen if l_a is empty).

- ra

  rotate l_a toward the beginning, the first element will become the last.

- rb

  rotate l_b toward the beginning, the first element will become the last.

- rr

  ra and rb at the same time.

- rra

  rotate l_a toward the end, the last element will become the first.

- rrb

  rotate l_b toward the end, the last element will become the first.

- rrr

  rra and rrb at the same time.

The goal is to sort the list by using the fewest possible operations.

Creator: Yaowanart HURE. Its project was made during my 1st year at Epitech LILLE.

How does it work?

EXAMPLES

Let *l_a* contain 2 1 3 6 5 8 and *l_b* be empty.
Here are the results of some operations (each step is done after the previous ones):

- **sa**
  l_a 1 2 3 6 5 8
  l_b
- **pb pb pb**
  l_a 6 5 8
  l_b 3 2 1
- **ra rb** (or simply **rr**)
  l_a 5 8 6
  l_b 2 1 3
- **rra rrb** (or simply **rrr**)
  l_a 6 5 8
  l_b 3 2 1
- **sa**
  l_a 5 6 8
  l_b 3 2 1
- **pa pa pa**
  l_a 1 2 3 5 6 8
  l_b

Terminal

```
~/B-CPE-110> ./push_swap 2 1 3 6 5 8 | cat -e
sa pb pb pb sa pa pa pa$
```

Terminal

```
~/B-CPE-110> ./push_swap 73 79 83 89 97 | cat -e
$
```

Terminal

```
~/B-CPE-110> ./push_swap 1789 | cat -e
$
```