Homework

Principles of programming Languages 2015

what you have to do...

You have to implement a double stack using the state monad and a couple of function to operate on it:

- Push
- POP
- Move

Push: put things in the first stack

push 7 [1,2,3] [4,5,6] ----> [7,1,2,3] [4,5,6]

Move: from first stack to second stack

Move function pop the element from the first stack and push it in the second one. If the first stack has no elements, the function produce nothing

move [1,2,3] [4,5,6] ----> [2,3] [1,4,5,6]

move [ ] [4,5,6] ----> Nothing

Pop: get things from the second stack

When the stack contains some elements, the pop function retrieves **Just** the element:

pop [1,2,3] [4,5,6] ----> Just 4
now the stack is [1,2,3] [5,6]

When the stack contains no elements, the pop function gets **Nothing**:

pop [1,2,3] [ ] ----> Nothing

Example

[1,2,3][4,5,6]

push 7

move

move

pop

pop

Just 7

stack is [2,3][4,5,6]

[ ][4,5,6]

push 7

move

move -- Nothing!

pop

pop

Nothing

Deadline

The deadline for the submission is **THURSDAY 04/06/2015 AT 23.59**

send it to luca.florio<at>polimi.it

You have provide an haskell file with the implementation: it should be commented and **it must contain an example main!**

You can gain up to **2pts** on the final evaluation.

The homework is individual!!!!