The Virtual Learning Environment for Computer Programming

Move element pointed by position p to back

Z32206_en

In the public_files section of the problem statement, a class called **PositionalList**, which implements the **Positional List ADT** using a doubly-linked list, is defined. Extend the implementation of this class with a new public method **move_to_back(self, p)**. This method moves the element pointed by p to the back of the list instance calling it.

For example, if **t** is an instance of the class PositionalList that represents the following *list* and **p** is a valid position pointing to the first element of **t** (i.e. **p** points to 1),

```
1, 2, 3, 4, 5, 6
```

after executing the statement t.move_to_back(p), the object t will represent the list

```
2, 3, 4, 5, 6, 1
```

In particular, you should add the following public method to the PositionalList class:

```
def move_to_back(self, p):
    """ Moves element pointed by p to the back of the list.
Pre: p is a valid position for the list calling this method.
    The list is not empty.
Post: The element pointed by p is moved to the back of the
    list. The rest of the list has not been modified.
"""
```

Sample input

```
6
1 2 3 4 5 6
0
```

Sample output

```
list t:
1, 2, 3, 4, 5, 6
6, 5, 4, 3, 2, 1
list after moving 0-th element to back, t:
2, 3, 4, 5, 6, 1
1, 6, 5, 4, 3, 2
```

Problem information

Author:

Generation: 2024-10-20 14:15:11

© *Jutge.org*, 2006–2024. https://jutge.org