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import java.io.*;
import java.util.*;

class IllegalArgumentException extends Exception{
    public IllegalArgumentException(String s){super(s);}
}

public class myIntMutSeq extends intMutSeq{
/* ----- Stato oggetti myIntMutSeq ----- */
/* ----- Operazioni: Costruttore ----- */
/* Deve sapere che IntMutSeq vuoto è rappresentato con null ---- */

    public myIntMutSeq(myIntMutSeq p, int v){
        super(p,v);
    }
/* ----- Metodi per OPERAZIONI ----- */
/* ----- OSSERVATORI PER ACCESSO COMPONENTI ----- */
/* eredita: val ----- */
/* overriding di pred e succ ----- */

    public myIntMutSeq pred(){
        return (myIntMutSeq) super.pred();
    }
    public myIntMutSeq succ(){
        return (myIntMutSeq) super.succ();
    }
}
/* altri metodi osservatori ----- */

    public myIntMutSeq first(){/* leftmost element */
        if (pred()==null) return this;
        return pred().first();
    }
    public myIntMutSeq last(){/* rightmost element */
        if (succ()==null) return this;
        return succ().last();
    }
    public int sizeLeft(){/* how many on the left */
        if (pred()==null) return 0;
        return 1+pred().sizeLeft();
    }
    public int sizeRight(){/* how many on the right */
        if (succ()==null) return 0;
        return 1+succ().sizeRight();
    }
    public int size(){/* how many in the list */
        return 1+sizeLeft()+sizeRight();
    }
    public int at(int n) throws IllegalArgumentException{/* da definire */
        return 0;
    }
}
/* ----- MODIFICATORI COMPONENTI ----- */

    public void swap(myIntMutSeq q)throws IllegalArgumentException{
        /* element swapping di this.val con q.val */
        if (q==null) throw new IllegalArgumentException("swap");
        {
            int temp = val();
            valUpdate(q.val());
            q.valUpdate(temp);
        }
    }
}

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    }  
}
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