
This is the project README file. Here, you should describe your project.
Tell the reader (someone who does not know anything about this project)
all he/she needs to know. The comments should usually include at least:

PROJECT TITLE:intList

PURPOSE OF PROJECT:

VERSION or DATE:24/2/2005

HOW TO START THIS PROJECT:

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USER INSTRUCTIONS:

Class Cell

1/1

```
/**  
 * @author Wizard  
 * @version 24-02-2005  
 */  
public class Cell  
{  
    private int data;  
    private Cell next;  
  
    public Cell()  
    {  
        data=0;  
        next=null;  
    }  
  
    public Cell(int value)  
    {  
        data=value;  
        next=null;  
    }  
  
    public void setData(int newData)  
    {  
        data=newData;  
    }  
  
    public void setNext(Cell newNext)  
    {  
        next=newNext;  
    }  
  
    public int getData()  
    {  
        return data;  
    }  
  
    public Cell getNext()  
    {  
        return next;  
    }  
}
```

Class IntList

1/3

```
/*
 * @author Wizard wizard@edrasemfe.gr
 * @version 24-02-2005
 */
public class IntList
{
    private Cell head;
    private Cell tail;
    private int noOfElems;

    public IntList()
    {
        head=null;
        tail=null;
        noOfElems=0;
    }

    public int size()
    {
        return noOfElems;
    }

    public boolean isEmpty()
    {
        return head==null; //ENALLAKTIKA return noOfElems==0;
    }

    public void insertBack(int y)
    {
        Cell cell=new Cell(y);
        if (noOfElems==0)
        {
            head=cell;
            tail=cell;
        }
        else
        {
            tail.setNext(cell);
            tail=cell;
        }
        noOfElems++;
    }

    public int deleteFront()
    {
        int data=head.getData(); //KPATAME TO DATA TOY KELIOY POY 8A DIAG
RAPSOYME.
        head=head.getNext();      //PROXWRAME TO HEAD STO EPOMENO TOY.
        if (head==null) //DHLADH AN H LISTA MAS EIXE ENA STOIXEIO ENALLAK
TIKA if noOfElems==1
        {
            tail=null; //PREPEI KAI TO tail NA DEIXNEI STO null AFOY H LI
STA ADEIASE.
    }
}
```

```
        }
        noOfElems--;
        return data;
    }

    public void print()
    {
        System.out.print("(");

        Cell item=head; //ENA BOH8HTIKO KELI GIA NA DIATREKSOYME TH LIST
A.
                //TH DOYLEIA AYTH DE MPOROYME NA THN KANOYME P.X. ME TO
head,
                //AFOY AYTO DEIXNEI PANTA STHN ARXH THS LISTAS KAI DEN P
REPEI NA METAKINH8EI
                //GIATI 8A XASOYME TH LISTA.
        while (item!=null)
        {
            System.out.print(item.getData());
            if (item.getNext()!=null)
                System.out.print(", ");
            //O ELEGXOS AYTOS XRHSIMOPOIEITAI GIA NA MH BALOYME KOMMA STO
TELOS THS LISTAS.
            //P.X. (4, 6, 8, 9, )
            item=item.getNext();
        }
        System.out.println(")");
    }

    public int locate(int key)
    {
        Cell item=head;
        int position=0;
        while(item!=null && key!=item.getData())
//PROSOXH EDW ELEGXOYME PRWTA AN TO item EXEI GINEI null KAI META TO data
TOY!!!
//SE PERIPTWSH POY KANAME TO ANTISTROFO YPARXEI PERIPTWSH NA PROSPA8HSEI
NA XRHSIMOPOIHSEI
//TH ME8ODO getData() APO TO null, POY 8A PAROYSIAZE SFALMA!
        {
            item=item.getNext();
            position++;
        }
        if (item==null) //DHLADH AN DIATREKSAME OLH TH LISTA KAI DE BRHKA
ME TO key
            position=-1;
        return position;
    }

    public int dataAt(int location)
    {
        Cell item=head;
        for (int i=0; i<location;i++)
    }
```

```
        item=item.getNext();
        return item.getData();
    }

public int deleteFrom(int location)
{
    int data;
    Cell item=head;
    Cell toBeDeleted=head;
    for(int i=0; i<location-1; i++)
        item=item.getNext();
    if(location!=0)
        toBeDeleted=item.getNext();
    data = toBeDeleted.getData();
    item.setNext(toBeDeleted.getNext());
    if(tail==toBeDeleted)
        tail=item;
    if(head==toBeDeleted)
        head=head.getNext();
    noOfElems--;
    return data;
}

public void insertAt(int pos, int y)
{
    Cell cell=new Cell(y);
    Cell item=head;
    if (pos==0)
    {
        cell.setNext(head);
        head=cell;
    }
    else
    {
        for(int i=0; i<pos-1; i++)
            item=item.getNext();
        cell.setNext(item.getNext());
        item.setNext(cell);
        if (tail==item)
            tail=cell;
    }
    noOfElems++;
}

public void update(int pos, int newValue)
{
    Cell item=head;
    for(int i=0; i<pos; i++)
        item=item.getNext();
    item.setData(newValue);
}
```