Homework #3

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Parameters: int userLimit, Object o, int id, int id

State variables: int size, int older, int newest, int limit, int [] items_id, object [] items

Base blocks are notated by ** in the corresponding block

LimitedList (int userLimit)

Characteristic	**b1**	**b2**	**b3**	**b4**
userLimit value	< 0	0 =< **		

Test Suite: 1.) LimitedList(3) [base case]
2.) LimitedList(-2)

void addToList (Object o, int id)

Characteristic	**b1**	**b2**	**b3**	**b4**
Object o = null	True	False **		
Object o = not null	String value	Int value **	Double value	Char value
isFull()	True	False **		
Int id already exists	True	False **		

Test Suite: 1.) addToList(88,3) , isFull = false, newest = 2,id exists = false. [base case]
2.) addToList(88,3), isFull = true, newest = 2, id exists = false
3.) addToList(88,3), isFull = false, newest = 2, id exists = true
4.) addToList(NULL,3) , isFull = false, newest = 2, id exists = false

boolean isEmpty()

Characteristic	**b1**	**b2**	**b3**	**b4**
Value of size	< 0	0	0 < **	

Test Suite: 1.) isEmpty() , size = 2 [base block]
2.) isEmpty(), size = 0
3.) isEmpty(), size = -2 (Not testable, no valid input would alter to this value)

Object peekAtList(int id)

Characteristic	**b1**	**b2**	**b3**	**b4**
isEmpty()	True	False**		
Value of int id	0	0 < **		
Id is found	True **	False		

Test Suite: 1.) peekAtList(4), isEmpty = false, id = found. [base case]
2.) peekAtList(4), isEmpty = true, id = not found
3.) peekAtList(4), isEmpty = false, id = not found
4.) peekAtList(0), isEmpty = false, id = not found

Object removeFromList ()

Characteristic	**b1**	**b2**	**b3**	**b4**
isEmpty()	True	False **		
Object type of items[]	String	int **	Double	Char
Object returned is oldest value	True**	False		

Test Suite:
1.) removeFromList() , isEmpty = false, items[] = int, object is oldest value [base case]
2.) removeFromList(), isEmpty = false, items[] = String, object is oldest value
3.) removeFromList(), isEmpty = false, items[] = char, object is oldest value
4.) removeFromList(), isEmpty = false, items[] = double, object is oldest value
5.) removeFromList(), isEmpty = true, no oldest value

boolean isFull()

Characteristic	**b1**	**b2**	**b3**	**b4**
Value of size	< 0	0	0 < **	
Value of limit	< 0	0	0 < **	
Size == Limit	True	False **		

Test Suite: 1.) isFull(), size is 2, limit is 8, size != limit [base case]
2.) isFull(), size is 0, limit is 2, size != limit
3.) isFull(), size is 2, limit is 2, size == limit
4.) isFull(), size is 2, limit is 0, size != limit (Not testable, no valid input would alter to this value)