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\* For Lab6, Part 1

\* Name: Rose, Daniel // Format: Lastname, Firstname

\* Section: M001 // Enter either M001/M004

\*/

public static void main(String[] args) {

// Task 0: Prepare data

// 0.1. Prepare 5 generic items g1, g2, g3, g4 and g5

// 0.2. Prepare 5 produce items p1, p2, p3, p4 and p5

GenericItem g1 = new GenericItem();

g1.setName("Item 1");

g1.setQuantity(1);

GenericItem g2 = new GenericItem();

g2.setName("Item 2");

g2.setQuantity(2);

GenericItem g3 = new GenericItem();

g3.setName("Item 3");

g3.setQuantity(3);

GenericItem g4 = new GenericItem();

g4.setName("Item 4");

g4.setQuantity(4);

GenericItem g5 = new GenericItem();

g5.setName("Item 5");

g5.setQuantity(5);

ProduceItem p1 = new ProduceItem();

p1.setName("Item 6");

p1.setQuantity(6);

p1.setExpiration("Oct 24, 2019");

ProduceItem p2 = new ProduceItem();

p2.setName("Item 7");

p2.setQuantity(7);

p2.setExpiration("Oct 25, 2019");

ProduceItem p3 = new ProduceItem();

p3.setName("Item 8");

p3.setQuantity(8);

p3.setExpiration("Oct 26, 2019");

ProduceItem p4 = new ProduceItem();

p4.setName("Item 9");

p4.setQuantity(9);

p4.setExpiration("Oct 27, 2019");

ProduceItem p5 = new ProduceItem();

p5.setName("Item 10");

p5.setQuantity(10);

p5.setExpiration("Oct 28, 2019");

// Task 1: Create a SLList slist1, slist2

System.out.println("\*\*\*\*\* Task 1 \*\*\*\*\*");

// t1.1 Create a SLList slist1 of 5 generic items,

// using g1, .., g5 as data

// \*\*\*\*\*\* ADD YOUR CODE HERE \*\*\*\*\*\*

SLList<GenericItem> slist1 = new SLList<GenericItem>();

slist1.add(g1);

slist1.add(g2);

slist1.add(g3);

slist1.add(g4);

slist1.add(g5);

// t1.2 Create a SLList slist2 of produce items

SLList<ProduceItem> slist2 = new SLList<ProduceItem>();

slist2.add(p1);

slist2.add(p2);

slist2.add(p3);

slist2.add(p4);

slist2.add(p5);

// \*\*\*\*\*\* ADD YOUR CODE HERE \*\*\*\*\*\*

// t1.2 Display slist1, slist2 to the sreen

System.out.println("\*\*\* Task 1, part 2: printing the results \*\*\*");

System.out.println(slist1);

System.out.println(slist2);

// \*\*\*\*\*\* ADD YOUR CODE HERE \*\*\*\*\*\*

// Task 2: Use the functions add and remove

// to manipulate slist1

System.out.println("\*\*\*\*\* Task 2 \*\*\*\*\*");

// t2.1 Remove two items from slist1 by applying

// the remove method two times

GenericItem r1 = slist1.remove();

GenericItem r2 = slist1.remove();

// Name (and store) the items removed as r1, r2

// \*\*\*\*\*\* ADD YOUR CODE HERE \*\*\*\*\*\*

System.out.println(slist1);

// t2.2 Display the resulting list: slist1

// \*\*\*\*\*\* ADD YOUR CODE HERE \*\*\*\*\*\*

// t2.3 Add the two items r1, r2 to slist1 now

slist1.add(r1);

slist1.add(r2);

// \*\*\*\*\*\* ADD YOUR CODE HERE \*\*\*\*\*\*

// t2.4 Display the resulting list: slist1

System.out.println(slist1);

// \*\*\*\*\*\* ADD YOUR CODE HERE \*\*\*\*\*\*

// Task 3: Use the functions push and pop to

// manipluate slist2

System.out.println("\*\*\*\*\* Task 3 \*\*\*\*\*");

// t3.1 Remove two items from slist2 by applying

// the pop method two times

ProduceItem r3 = slist2.pop();

ProduceItem r4 = slist2.pop();

// Name (and store) the items popped as r3, r4

// \*\*\*\*\*\* ADD YOUR CODE HERE \*\*\*\*\*\*

// t3.2 Display the resulting list: slist2

System.out.println(slist2);

// \*\*\*\*\*\* ADD YOUR CODE HERE \*\*\*\*\*\*

// t3.3 Push the two items r3, r4 to slist2 now

slist2.push(r4);

slist2.push(r3);

// \*\*\*\*\*\* ADD YOUR CODE HERE \*\*\*\*\*\*

// t3.4 Display the resulting list: slist2

System.out.println(slist2);

// \*\*\*\*\*\* ADD YOUR CODE HERE \*\*\*\*\*\*

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Queue<Integer> q = new SLList<Integer>();

for (int i = 0; i < 100; i++) {

q.add(i);

}

System.out.println(q);

for (int i = 0; i < 50; i++) {

q.remove();

}

System.out.println(q);

for (int i = 100; i < 200; i++) {

q.add(i);

}

System.out.println(q);

for (int i = 0; i < 50; i++) {

q.remove();

}

System.out.println(q);

while (!q.isEmpty()) {

q.remove();

}

System.out.println(q);

\*/

}

}

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\* Java Class from zybooks Ch.10, Section 1

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public class GenericItem {

public void setName(String newName) {

itemName = newName;

}

public void setQuantity(int newQty) {

itemQuantity = newQty;

}

public void printItem() {

System.out.println(itemName + " " + itemQuantity);

}

// added for Lab 6

public String toString() {

// comment out the line below fill in your own code

return (itemName + " " + itemQuantity);

}

protected String itemName;

protected int itemQuantity;

}

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\* Java Class from zybooks Chapter 10, section 1.

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public class ProduceItem extends GenericItem { // ProduceItem derived from GenericItem

public void setExpiration(String newDate) {

expirationDate = newDate;

}

public String getExpiration() {

return expirationDate;

}

// added for Lab 6

public String toString() {

// comment out the line below fill in your own code

return (itemName + " " + itemQuantity + " " +expirationDate + " ");

}

private String expirationDate;

}