Trước khi nộp:

- Clean and build project để tạo ra thư mục dist

- Đổi tên thư mục **dist** thành **run**

Nộp bài

- Nén thư mục **SU25_A1** thành **SU25_A1.zip**

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Question – Doubly linked list:

In this question you should complete some methods in MyList.java file.

The class **Phone** with 3 data members: **id**, **name** and **price** is given and you do not need to edit it.

The MyList class is a linked list of Phone objects. The following methods should be completed:

• void addLast(int id, String name, int price).

(**Note: price must be greater than 0**).

• void f1() – Do not edit this method. Your task is to complete the addLast(...) method above only. Output in the file f1.txt must be the following:

1-S-8 2-S-3 3-S-5 4-I-9 10-I-9 20-B-2 30-B-1 100-I-50

100-I-50 30-B-1 20-B-2 10-I-9 4-I-9 3-S-5 2-S-3 1-S-8

• void f2() –There are 2 given Phone objects v, w in this function. Suppose the list contains at least 3 elements. Write statements to insert v and w to the list so that v will be the 2nd, w will be the 3rd node. Output in the file f2.txt must be the following:

1-S-8 2-S-3 3-S-5 4-I-9 10-I-9 20-B-2 30-B-1 100-I-50

100-I-50 30-B-1 20-B-2 10-I-9 4-I-9 3-S-5 2-S-3 1-S-8

1-S-8 **7-V-8** **9-W-10** 2-S-3 3-S-5 4-I-9 10-I-9 20-B-2 30-B-1 100-I-50

100-I-50 30-B-1 20-B-2 10-I-9 4-I-9 3-S-5 2-S-3 **9-W-10** **7-V-8** 1-S-8

• void f3() – Delete the node holding the most expensive Phone (maximum price). If there are more than one node satisfying the requirement, delete the last of them. Output in the file f3.txt must be the following:

1-S-8 2-S-3 3-S-5 4-I-9 10-I-9 20-B-2 30-B-1 ~~**100-I-50**~~

~~**100-I-50**~~ 30-B-1 20-B-2 10-I-9 4-I-9 3-S-5 2-S-3 1-S-8

1-S-8 2-S-3 3-S-5 4-I-9 10-I-9 20-B-2 30-B-1

30-B-1 20-B-2 10-I-9 4-I-9 3-S-5 2-S-3 1-S-8

• void f4() – How many Phone 'S' are there in the list? (you should use f.writeBytes(…) to write your result to the output file.

The output in the f4.txt file should be as follows:

1-S-8 2-S-3 3-S-5 4-I-9 10-I-9 20-B-2 30-B-1 100-I-50

100-I-50 30-B-1 20-B-2 10-I-9 4-I-9 3-S-5 2-S-3 1-S-8

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• void f5() – Delete the first node, then swap the first and the last node. The content of the output file f5.txt must be the following:

~~**1-S-8**~~ 2-S-3 3-S-5 4-I-9 10-I-9 20-B-2 30-B-1 100-I-50

100-I-50 30-B-1 20-B-2 10-I-9 4-I-9 3-S-5 2-S-3 ~~**1-S-8**~~

100-I-50 3-S-5 4-I-9 10-I-9 20-B-2 30-B-1 **2-S-3**

2-S-3 30-B-1 20-B-2 10-I-9 4-I-9 3-S-5 **100-I-50**