- **Each command should output the result (as shown in sample IO below) after each operation is performed.**
- **All menu operations must be accompanied by a message indicating what operation was performed and whether or not it was successful.**
- **All lists must be printed in a nice and tabular form as shown in the sample output. You may use C style formatting as shown in the following example. The example below shows two different ways of displaying the name and address at pre-specified positions 21, 26, 19, and 6 spaces wide. If the '-' flag is given, then it will be left-justified (padding will be on the right), else the region is right-justified. The 's' identifier is for strings, the 'd' identifier is for integers. Giving the additional '0' flag pads an integer with additional zeroes in front.**

```
String name = "Doe Jane";
String address = "32 Bayview Dr.";
String city = "Fishers Island, NY";
int zip = 6390;

System.out.println(String.format("%-21s%-26s%19s%06d", name, address, city, zip));
System.out.printf("%-21s%-26s%19s%06d", name, address, city, zip);

Doe Jane              32 Bayview Dr.             Fishers Island, NY 06390
Doe Jane              32 Bayview Dr.             Fishers Island, NY 06390
```

HINTS:

- **Remember that the position parameter to all of the methods in the `TrainLinkedList` class refers to the position of a `TrainCar` within the list (starting at position 1).**

SAMPLE INPUT/OUTPUT:

```
// Comment in green, input in red, output in black

(F) Cursor Forward
(B) Cursor Backward
(I) Insert Car After Cursor
(R) Remove Car At Cursor
(L) Set Product Load
(S) Search For Product
(T) Display Train
(M) Display Manifest
(D) Remove Dangerous Cars
(Q) Quit

Enter a selection: I

Enter car length in meters: 15.0
Enter car weight in tons: 10.0

New train car 15.0 meters 10.0 tons inserted into train.

// Menu not shown in sample i/o

Enter a selection: M

    CAR:                              LOAD:
      Num    Length (m)    Weight (t)  |     Name      Weight (t)     Value ($)   Dangerous
    ================================+=================================================
 ->    1          15.0          10.0  |      Empty           0.0          0.00          NO

// Menu not shown in sample i/o

Enter a selection: L

Enter produce name: Corn
Enter product weight in tons: 100.0
Enter prduct value in dollars: 15440
Enter is product dangerous? (y/n): n

100.0 tons of Corn added to the current car.

// Menu not shown in sample i/o

Enter a selection: M

    CAR:                              LOAD:
      Num    Length (m)    Weight (t)  |     Name      Weight (t)     Value ($)   Dangerous
    ================================+=================================================
 ->    1          15.0          10.0  |      Corn          100.0     15,440.00          NO

// Menu not shown in sample i/o

Enter a selection: I

Enter car length in meters: 18.5
Enter car weight in tons: 8.3
```

```
New train car 18.5 meters 8.3 tons inserted into train.

// Menu not shown in sample i/o

Enter a selection: M

    CAR:                              LOAD:
      Num   Length (m)    Weight (t)  |    Name      Weight (t)     Value ($)   Dangerous
    ================================+=============================================================
        1          15.0          10.0  |      Corn          100.0     15,440.00          NO
 ->     2          18.5           8.3  |     Empty            0.0          0.00          NO

// Menu not shown in sample i/o

Enter a selection: L

Enter product name: Corn
Enter product weight in tons: 85.0
Enter prduct value in dollars: 13120
Enter is product dangerous? (y/n): n

85.0 tons of Corn added to the current car.

// Menu not shown in sample i/o

Enter a selection: M

    CAR:                              LOAD:
      Num   Length (m)    Weight (t)  |    Name      Weight (t)     Value ($)   Dangerous
    ================================+=============================================================
        1          15.0          10.0  |      Corn          100.0     15,440.00          NO
 ->     2          18.5           8.3  |      Corn           85.0     13,120.00          NO

// Menu not shown in sample i/o

Enter a selection: T

Train: 2 cars, 33.5 meters, 203.3 tons, $28,560.00 value, not dangerous.

// Menu not shown in sample i/o

Enter a selection: F

No next car, cannot move cursor forward.

// Menu not shown in sample i/o

Enter a selection: B

Cursor moved backward

// Menu not shown in sample i/o

Enter a selection: M

    CAR:                              LOAD:
      Num   Length (m)    Weight (t)  |    Name      Weight (t)     Value ($)   Dangerous
    ================================+=============================================================
 ->     1          15.0          10.0  |      Corn          100.0     15,440.00          NO
        2          18.5           8.3  |      Corn           85.0     13,120.00          NO

// Menu not shown in sample i/o

Enter a selection: I

Enter car length in meters: 32.1
Enter car weight in tons: 17.4

New train car 32.1 meters 17.4 tons inserted into train.

// Menu not shown in sample i/o

Enter a selection: M

    CAR:                              LOAD:
      Num   Length (m)    Weight (t)  |    Name      Weight (t)     Value ($)   Dangerous
    ================================+=============================================================
        1          15.0          10.0  |      Corn          100.0     15,440.00          NO
 ->     2          32.1          17.4  |     Empty            0.0          0.00          NO
        3          18.5           8.3  |      Corn           85.0     13,120.00          NO

// Menu not shown in sample i/o

Enter a selection: L
```

```
Enter produce name: TNT
Enter product weight in tons: 25.0
Enter prduct value in dollars: 151500
Enter is product dangerous? (y/n): y

25.3 tons of TNT added to the current car.

// Menu not shown in sample i/o

Enter a selection: M

    CAR:                              LOAD:
      Num   Length (m)    Weight (t)  |    Name      Weight (t)     Value ($)   Dangerous
    ================================+=============================================================
        1          15.0          10.0  |      Corn          100.0     15,440.00          NO
 ->     2          32.1          17.4  |       TNT           25.3    151,500.00         YES
        3          18.5           8.3  |      Corn           85.0     13,120.00          NO

// Menu not shown in sample i/o

Enter a selection: T

Train: 3 cars, 65.6 meters, 246.0 tons, $180,060.00 value, DANGEROUS.

// Menu not shown in sample i/o

Enter a selection: F

Enter product name: Corn

The following products were found on 2 cars:

        Name      Weight (t)     Value ($)   Dangerous
    ================================================
         Corn         185.0     28,560.00          NO

// Menu not shown in sample i/o

Enter a selection: F

Enter product name: Milk

No record of Milk on board train.

// Menu not shown in sample i/o

Enter a selection: D

Dangerous cars successfully removed from the train.

// Menu not shown in sample i/o

Enter a selection: M

    CAR:                              LOAD:
      Num   Length (m)    Weight (t)  |    Name      Weight (t)     Value ($)   Dangerous
    ================================+=============================================================
        1          15.0          10.0  |      Corn          100.0     15,440.00          NO
 ->     2          18.5           8.3  |      Corn           85.0     13,120.00          NO

// Menu not shown in sample i/o

Enter a selection: R

Car successully unlinked. The following load has been removed from the train:

        Name      Weight (t)     Value ($)   Dangerous
    ================================================
         Corn          85.0     13,120.00          NO

Enter a selection: M

    CAR:                              LOAD:
      Num   Length (m)    Weight (t)  |    Name      Weight (t)     Value ($)   Dangerous
    ================================+=============================================================
 ->     1          15.0          10.0  |      Corn          100.0     15,440.00          NO

// Menu not shown in sample i/o

Enter a selection: Q

Program terminating successfully...
```
