LinkedList Challenge

It's now time for a LinkedList challenge.

I'm going to ask you to use LinkedList functionality, to create a list of places, ordered by distance from the starting point.

And we want to use a ListIterator, to move, both backwards and forwards, through this ordered itinerary of places.

LinkedList Challenge

First, create a type that has a town or place name, and a field for storing the distance from the start.

Next, create an itinerary of places or towns to visit, much like we've been doing in the last few videos.

Town	Distance from Sydney (in km)
Adelaide	1374
Alice Springs	2771
Brisbane	917
Darwin	3972
Melbourne	877
Perth	3923

LinkedList Challenge

But this time, instead of Strings, you'll want to create a LinkedList of your place or town type.

Here we show a list of a few places in Australia, and their distances from Sydney.

Town	Distance from Sydney (in km)
Adelaide	1374
Alice Springs	2771
Brisbane	917
Darwin	3972
Melbourne	877
Perth	3923

LinkedList Challenge

You'll create a LinkedList, ordered by the distance from the starting point, in this case Sydney.

Sydney should be the first element in your list.

You don't want to allow duplicate places to be in your list, for this data set.

Town	Distance from Sydney (in km)
Adelaide	1374
Alice Springs	2771
Brisbane	917
Darwin	3972
Melbourne	877
Perth	3923

LinkedList Challenge

In addition, you'll create an interactive program with the following menu item options.

```
Available actions (select word or letter):
(F)orward
(B)ackward
(L)ist Places
(M)enu
(Q)uit
```

You'll want to use a Scanner, and the nextLine method, to get input from the console.

You'll use a ListIterator, to move forwards and backwards, through the list of places on your itinerary.