

LinkedList Exercise

The following Java class definitions will be used for the exercises below.

```
public class MyLinkedList {  
    private class Node {  
        private Object data;  
        private Node next;  
  
        public Node(Object data) {  
            this.data = data;  
            next = null;  
        }  
    }  
}
```

IMPORTANT: You may not use the Java API LinkedList class.

1. Implement a MyLinkedList constructor that defines an empty linked list.
2. Implement a method named **isEmpty** that determines whether a list is empty.
3. Implement a method named **size** that returns the number of elements in the list.
4. Implement a MyLinkedList constructor that has the following signature:

MyLinkedList(ArrayList<Object> dataArray)

The constructor will initialize the linked list using the data elements from the array.

5. Implement a method named **duplicate** that creates a duplicate (shallow copy) of the list.
6. Would it be possible to implement a method that determines whether a list is full?