

Linked list - intro

Saturday, September 10, 2022 3:53 PM

A linked list is a recursive data structure that is either empty (null) or a reference to a node having a generic item and a reference to a linked list. **A linked list represents a sequence of items.**

Simple linked list example

```
private class Node
{
    Item item;
    Node next;
}
```

Both instance variables
is null by default

```
Node first = new Node();
Node second = new Node();
Node third = new Node();
```

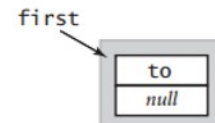
```
first.next = second;
second.next = third;
```

Each node is a linked list, a reference to another node.

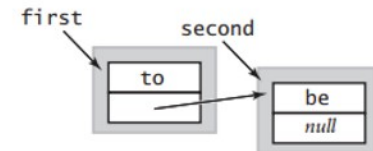
first represents the sequence **to be or**
String[] s = { "to", "be", "or" } gives the same result.

The difference is that it is easier to insert items into the sequence and to remove items from the sequence with linked lists.

```
Node first = new Node();
first.item = "to";
```



```
Node second = new Node();
second.item = "be";
first.next = second;
```



```
Node third = new Node();
third.item = "or";
second.next = third;
```

