

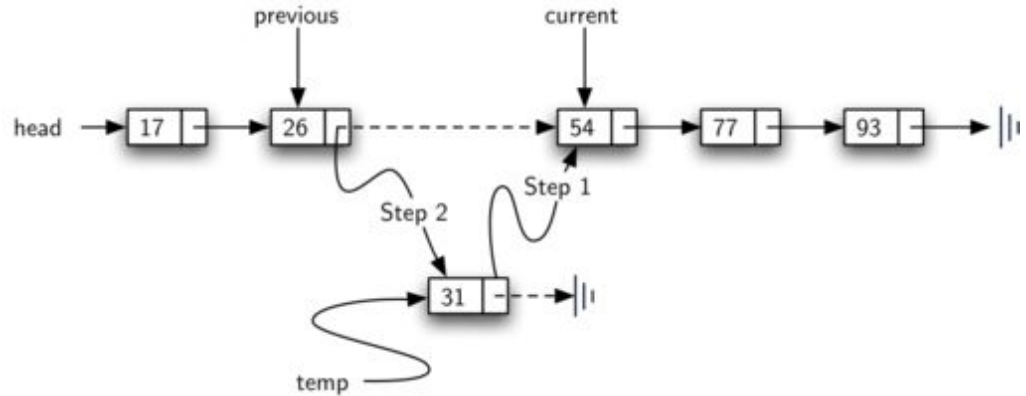
ORDER LIST

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Theory

A Common **List**, but it should **always** be ordered at all instances, so there is no need for the method insert or append, just an add() method



Best implementation

The implementation in this case would be better for an ArrayList, since we could apply a binary search, which can't be done in a Linked List, and also the access is faster due the index allocation

Operation	ArrayList	LinkedList
Find position	$O(n)$ (or $O(\log n)$ with binary search)	$O(n)$
Insert element	$O(n)$	$O(1)$ after finding position
Access by index	$O(1)$	$O(n)$



Add (M)

Controller

M



Add (E)

Controller

E

M



Add (Z)

Controller

E	M	Z
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Add (S)

Controller

E	M	S	Z
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Add (C)

Controller

C

E

M

S

Z

