# Linked List

课程尚未开始, 请大家耐心等待



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#### **Outline**

- 1. Introduce Dummy Node in Linked List
- 2. Basic skills in Linked List you shoud know
- 3. Fast Slow Pointers



### Remove Duplicates from Sorted List II



# Reverse Linked List II

```
http://www.lintcode.com/problem/reverse-linked-
list-ii/
```

http://www.jiuzhang.com/solutions/reverse-linkedlist-ii/



## **Dummy Node**

Scenario: When the head is not determinated

- 1. Remove Duplicates from Sorted List II
- 2. Reverse Linked List II
- 3. Merge Two Sorted Lists
- 4. Partition List





## Partition List

http://www.lintcode.com/zh-cn/problem/partitionlist/

http://www.ninechapter.com/solutions/partition-list/



#### **Basic Skills**

- 1. Insert a Node in Sorted List
- 2. Remove a Node from Linked List
- 3. Reverse a Linked List
- 4. Merge Two Linked Lists
- 5. Find the Middle of a Linked List



## Sort List

http://www.lintcode.com/problem/sort-list/
http://www.jiuzhang.com/solutions/sort-list/



# Reorder List

http://www.lintcode.com/problem/reorder-list/
http://www.jiuzhang.com/solutions/reorder-list/



# **Break 10 minutes**



#### **Fast Slow Pointers**

- 1. Find the Middle of Linked List
- 2. Remove Nth Node From End of List
- 3. Linked List Cycle I, II

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# Merge k Sorted Lists

```
http://www.lintcode.com/problem/merge-k-sorted-
lists/
```

http://www.jiuzhang.com/solutions/merge-k-sortedlists/



# Heap vs Divide Conger

A: Heap Win

B: Divide Conquer Win

C: Even



# Copy List with Random Pointer

http://www.lintcode.com/problem/copy-list-withrandom-pointer/

http://www.jiuzhang.com/solutions/copy-list-withrandom-pointer/



# Convert Sorted List to Balanced Binary Search Tree



# Linked List Cycle

http://www.lintcode.com/problem/linked-list-cycle/ http://www.jiuzhang.com/solutions/linked-listcycle/



## Related Questions

Convert Binary Tree to Doubly Linked List Reverse List Nodes in *k*-Groups

