Day 7:

1. Find peak Element **[Medium] [Facebook, Amazon, Google, Microsoft, Apple, Adobe]**

   https://interviewprep.appliedroots.com/lecture/2/interview-preparation-course/1582/find-peak-element-problem-statement-leetcode/18/module-5-problem-solving

2. Find Kth Node from end of linked list **[Easy]**

   https://interviewprep.appliedroots.com/lecture/2/interview-preparation-course/387/find-kth-node-from-end-of-linked-list/18/module-5-problem-solving

3. Linked List Cycle **[Easy] [Microsoft, Amazon, Bloomberg, Apple, Salesforce]**

   https://interviewprep.appliedroots.com/lecture/2/interview-preparation-course/391/linked-list-cycle/18/module-5-problem-solving

4. Palindrome Linked List **[Easy] [Facebook, Amazon, Microsoft, Google, Oracle, Apple, Paypal, Adobe]**

   https://interviewprep.appliedroots.com/lecture/2/interview-preparation-course/396/palindrome-linked-list/18/module-5-problem-solving

5. Intersection point of Two Linked Lists **[Easy] [Microsoft, Amazon, LinkedIn, Facebook, Apple]**

   https://interviewprep.appliedroots.com/lecture/2/interview-preparation-course/399/intersection-point-of-two-linked-lists/18/module-5-problem-solving

Practice Questions:

6. Given the head of a linked list, remove the nth node from the end of the list and return its head. **[Medium] [Facebook, Amazon, Apple, Bloomberg]**

   Practice link: https://leetcode.com/problems/remove-nth-node-from-end-of-list/

7. You are given the head of a linked list, and an integer k. **[Medium] [Amazon]**

   Practice link: https://leetcode.com/problems/swapping-nodes-in-a-linked-list/

8. Given a linked list, return the node where the cycle begins. If there is no cycle, return null.

   There is a cycle in a linked list if there is some node in the list that can be reached again by continuously following the next pointer. Internally, pos is used to denote the index of the node that tail's next pointer is connected to. Note that pos is not passed as a parameter.

   Notice that you should not modify the linked list. **[Medium] [Microsoft, Amazon, Adobe, Apple]**

   Practice link: https://leetcode.com/problems/linked-list-cycle-ii/

9. A peak element in a 2D grid is an element that is strictly greater than all of its adjacent neighbors to the left, right, top, and bottom.

   Given a 0-indexed m x n matrix mat where no two adjacent cells are equal, find any peak element mat[i][j] and return the length 2 array [i,j].

You may assume that the entire matrix is surrounded by an outer perimeter with the value -1 in each cell.

You must write an algorithm that runs in O(m log(n)) or O(n log(m)) time. **[Medium]**

Practice link: https://leetcode.com/problems/find-a-peak-element-ii/