**Assignments, W1D3**

Algorithmic Coding:

Problem 1: <https://leetcode.com/problems/maximum-depth-of-binary-tree/> - Recursion, BST

Problem 2: <https://leetcode.com/problems/merge-two-sorted-lists/> - Recursion, Arrays

Problem 3: <https://leetcode.com/problems/k-th-symbol-in-grammar/> - Recursion

Object Oriented Programming:

Problem 1: Ice Cream Stand

An ice cream stand is a specific kind of restaurant. Write a class called IceCreamStand that inherits from the Restaurant class you wrote previously. Add an attribute called flavors that stores a list of ice cream flavors. Write a method that displays these flavors. Create an instance of IceCreamStand, and call this method.

Problem 2: Admin

An administrator is a special kind of user. Write a class called Admin that inherits from the User class you wrote previously. Add an attribute, privileges, that stores a list of strings like "can add post", "can delete post", "can ban user", and so on. Write a method called show\_privileges() that lists the administrator’s set of privileges. Create an instance of Admin, and call your method.

Problem 3: Privileges

Write a separate Privileges class. The class should have one attribute, privileges, that stores a list of strings as described in the previous exercise. Move the show\_privileges() method to this class. Make a Privileges instance as an attribute in the Admin class. Create a new instance of Admin and use your method to show its privileges.